



# GREENHOUSE GAS EMISSIONS INVENTORY AND MANAGEMENT REPORT

Carbon Reduce programme

Prepared in accordance with ISO 14064-1:2018 and the Technical Requirements of the Programme



William Hare Group (UK) Limited

Prepared by (lead author): Dawn Simmonite

Dated: 04 July 2023

Verification status: Limited

Measurement period: 01 January 2022 to 31 December 2022

Base year period: 01 January 2010 to 31 December 2010

Approved for release by:

*BA Hughes*

Brian Hughes

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The consolidation approach chosen for the greenhouse gas inventory should not be used to make decisions related to the application of employment or taxation law.

This report shall not be used to make public greenhouse gas assertions without independent verification and issue of an assurance statement by Toitū Envirocare.

## AVAILABILITY

This report is the property of William Hare. The report is publicly available on William Hare Website.

## REPORT STRUCTURE

The Inventory Summary contains a high-level summary of this year's results and from year 2 onwards a brief comparison to historical inventories.

Chapter 1, the Emissions Inventory Report, includes the inventory details and forms the measure step of the organisation's application for Programme certification. The inventory is a complete and accurate quantification of the amount of GHG emissions and removals that can be directly attributed to the organisation's operations within the declared boundary and scope for the specified reporting period. The inventory has been prepared in accordance with the requirements of the Programme<sup>1</sup>, which is based on the Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (2004) and ISO 14064-1:2018 Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals<sup>2</sup>. Where relevant, the inventory is aligned with industry or sector best practice for emissions measurement and reporting.

Chapter 2, the reduction plan and progress report, forms the manage step part of the organisation's application for Programme certification.

See Appendix 1 and the related Spreadsheet for detailed emissions inventory results, including a breakdown of emissions by source and sink, emissions by greenhouse gas type, and non-biogenic and bio-genic emissions. Appendix 1 also contains detailed context on the inventory boundaries, inclusions and exclusions, calculation methodology, liabilities, and supplementary results.

This overall report provides emissions information that is of interest to most users but must be read in conjunction with the inventory workbook for covering all of the requirements of ISO 14064-1:2018.

<sup>1</sup> Programme refers to the Toitū carbonreduce and the Toitū net carbonzero programmes.

<sup>2</sup> Throughout this document 'GHG Protocol' means the *GHG Protocol Corporate Accounting and Reporting Standard* and 'ISO 14064-1:2018' means the international standard *Specification with Guidance at the Organizational Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals*.

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## EXECUTIVE SUMMARY

This is the annual greenhouse gas (GHG) emissions inventory and management report for William Hare Group (UK) Limited covering the measurement period 01 January 2022 to 31 December 2022.<sup>3</sup>

Table 1: Inventory summary

| Category (ISO 14064-1:2018)  | Scopes (ISO 14064-1:2006) | 2010            | 2021            | 2022             |
|--|---------------------------|-----------------|-----------------|------------------|
| Category 1: Direct emissions   | Scope 1                   | 2,132.23        | 1,762.45        | 2,380.62         |
| Category 2: Indirect emissions from imported energy (location-based method*)             | Scope 2                   | 2,373.69        | 1,078.54        | 917.05           |
| Category 3: Indirect emissions from transportation                                       | Scope 3                   | 3,904.38        | 2,832.23        | 3,126.42         |
| Category 4: Indirect emissions from products used by organisation                        |                           | 168.16          | 96.38           | 50,142.31        |
| Category 5: Indirect emissions associated with the use of products from the organisation |                           | 0.00            | 0.00            | 0.00             |
| Category 6: Indirect emissions from other sources  |                           | 0.00            | 0.00            | 0.00             |
| <b>Total direct emissions</b>  |                           | <b>2,132.23</b> | <b>1,762.45</b> | <b>2,380.62</b>  |
| <b>Total indirect emissions*</b>   |                           | <b>6,446.22</b> | <b>4,007.15</b> | <b>54,185.78</b> |
| <b>Total gross emissions*</b>  |                           | <b>8,578.45</b> | <b>5,769.60</b> | <b>56,566.40</b> |
| Category 1 direct removals   |                           | 0.00            | 0.00            | 0.00             |
| Purchased emission reductions  |                           | 0.00            | 0.00            | 0.00             |
| <b>Total net emissions</b>   |                           | <b>8,578.45</b> | <b>5,769.60</b> | <b>56,566.40</b> |

\*Emissions are reported using a location-based methodology. See section 1.2.1 for details.1.2.1

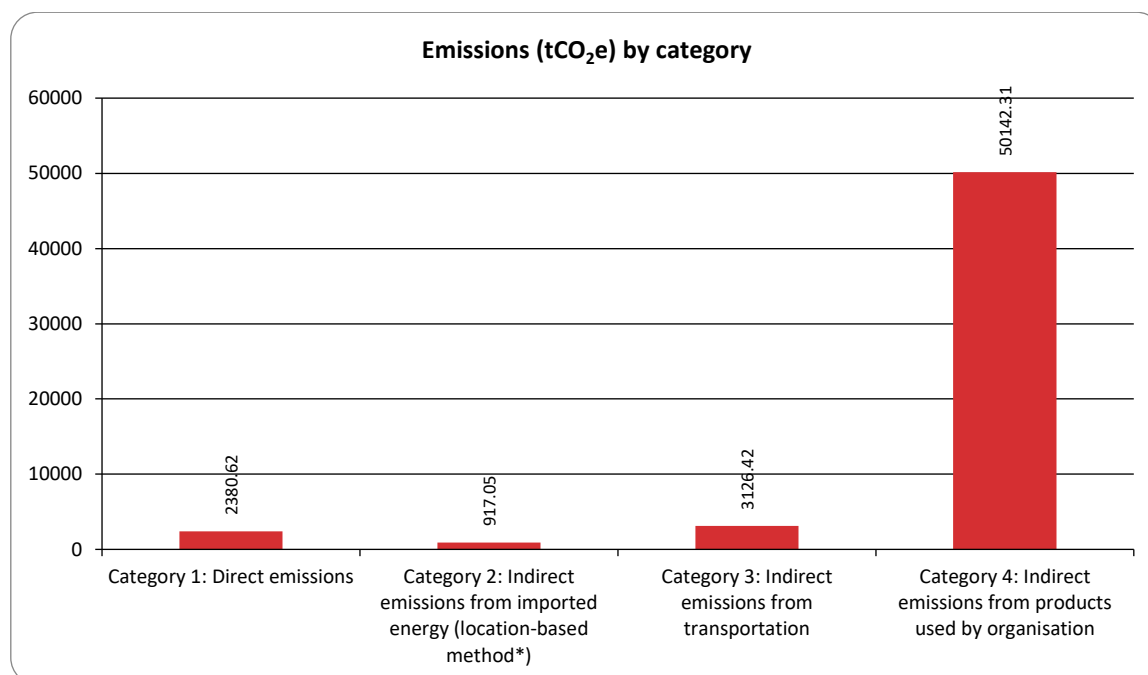


Figure 1: Emissions (tCO<sub>2</sub>e) by Category for this measurement period

<sup>3</sup> Throughout this document “emissions” means “GHG emissions”.

# CHAPTER 1: EMISSIONS INVENTORY REPORT

## 1.1. INTRODUCTION

This report is the annual greenhouse gas (GHG) emissions inventory and management report for William Hare Group (UK) Limited.

This report is produced as a requirement of the Reduce Carbon Certification. It is also used to comply with SECR legislation. William Hare Limited will use the verified data to support our Science Based Target.

The inventory report and any GHG assertions are expected to be verified by a Programme-approved, third-party verifier. The level of assurance is reported in a separate Assurance Statement provided to the directors of the certification entity.

## 1.2. EMISSIONS INVENTORY RESULTS

**Table 2: GHG emissions inventory summary for this measurement period**

Measurement period: 01 January 2022 to 31 December 2022.

| Category   | Toitū carbon mandatory boundary (tCO <sub>2</sub> e)   | Additional emissions (tCO <sub>2</sub> e)  | Total emissions (tCO <sub>2</sub> e) |
|--|--|--|--------------------------------------|
| Category 1: Direct emissions   | 2,380.62<br>Burning Oil/Kerosene/Parafin, Diesel retail station biofuel blend, Gas Oil, LPG stationary commercial, Natural Gas, Petrol retail station biofuel blend  | 0.00   | 2,380.62                             |
| Category 2: Indirect emissions from imported energy (location-based method*)             | 917.05<br>Electricity UK (Generation) (2013 Methodology)   | 0.00   | 917.05                               |
| Category 3: Indirect emissions from transportation                                       | 2,816.28<br>Air travel domestic (average), Air travel long haul (average), Air travel short haul (average), Car Average (unknown fuel type), Freight Road articulated truck (>33t), Freight Shipping general cargo international (average), Rail travel (national) | 310.13<br>Car Average (unknown fuel type)  | 3,126.42                             |
| Category 4: Indirect emissions from products used by organisation                        | 88.11<br>Electricity UK (T&D losses) (2013 Methodology), Waste disposal Metal: scrap metal Landfill  | 50,054.20<br>Computer, electronic and optical products, Machinery (spend), Paints, varnishes and similar coatings, printing ink and mastics, Pre-calculated (tCO <sub>2</sub> -e) - Purchased goods and services, Specialised construction works, Steel, Engineering steel, Water supply | 50,142.31                            |
| Category 5: Indirect emissions associated with the use of products from the organisation | 0.00   | 0.00   | 0.00                                 |
| Category 6: Indirect emissions from other sources  | 0.00   | 0.00   | 0.00                                 |
| <b>Total direct emissions</b>  | <b>2,380.62</b>  | <b>0.00</b>  | <b>2,380.62</b>                      |

| Category   | Toitū carbon mandatory boundary (tCO <sub>2</sub> e) | Additional emissions (tCO <sub>2</sub> e) | Total emissions (tCO <sub>2</sub> e) |
|--|--|---|--------------------------------------|
| Total indirect emissions*                                | 3,821.45   | 50,364.33                                 | 54,185.78                            |
| Total gross emissions*                                   | 6,202.07   | 50,364.33                                 | 56,566.40                            |
| Category 1 direct removals                               | 0.00   | 0.00                                      | 0.00                                 |
| Purchased emission reductions                            | 0.00   | 0.00                                      | 0.00                                 |
| <b>Total net emissions</b>                               | <b>6,202.07</b>                                      | <b>50,364.33</b>                          | <b>56,566.40</b>                     |
| <b>Emissions intensity</b>                               |  | <b>Mandatory emissions</b>                | <b>Total emissions</b>               |
| Operating revenue (gross tCO <sub>2</sub> e / £Millions) |  | 37.54                                     | 342.41                               |

\*Emissions are reported using a location-based methodology. See section 1.2.1 for details.1.2.1

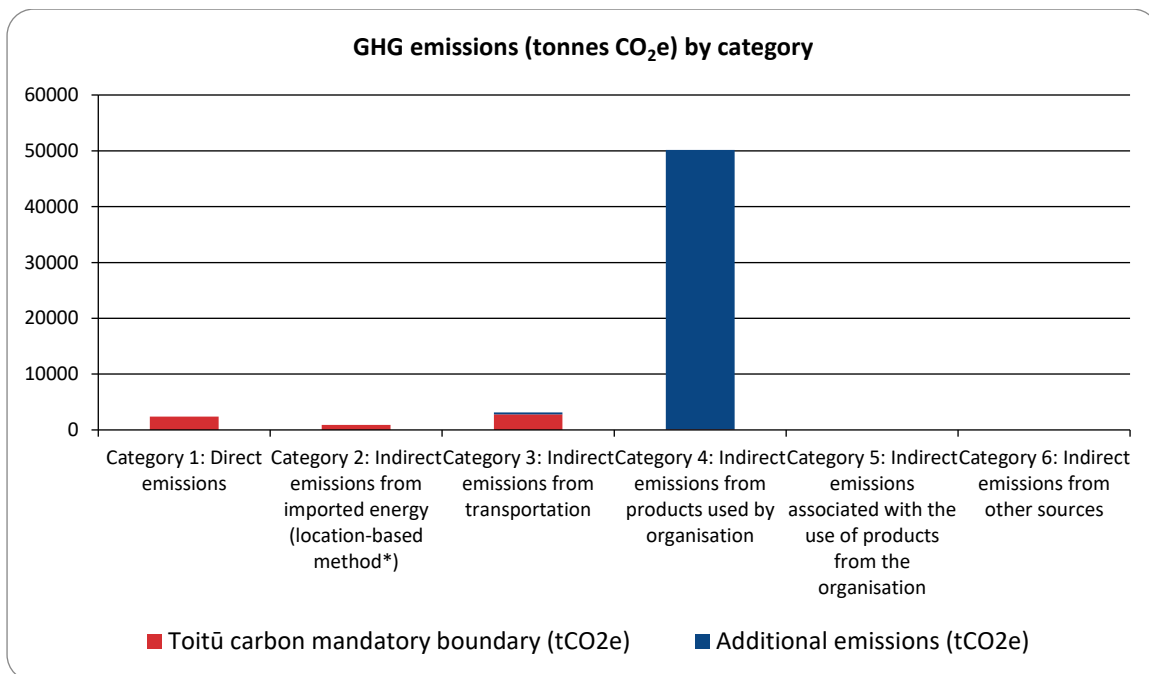


Figure 2: GHG emissions (tonnes CO<sub>2</sub>e) by category



Figure 3: GHG emissions (tonnes CO<sub>2</sub>e) by business unit

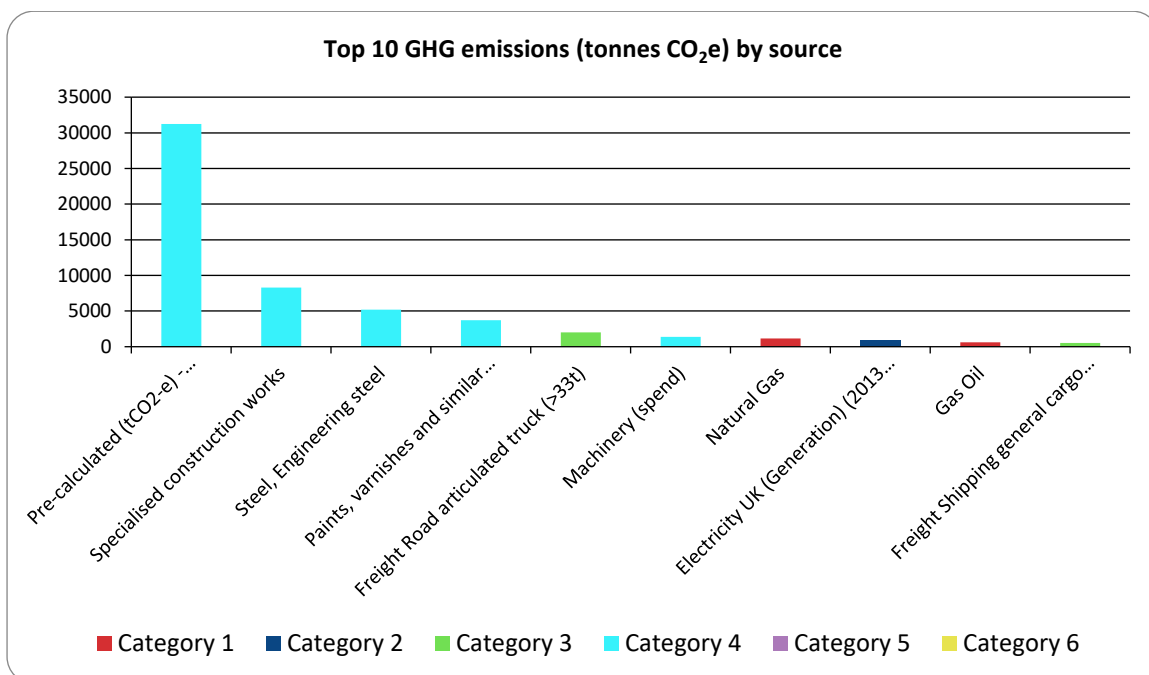


Figure 4: Top 10 GHG emissions (tonnes CO<sub>2</sub>e) by source

### 1.2.1. Dual reporting of indirect emissions from purchased and generated energy

All purchased and generated energy emissions are dual reported using both the location-based method and market-based method. Dual reporting illustrates the role of supplier choice, onsite renewable energy generation and contractual instruments in managing indirect emissions from energy alongside any ongoing energy efficiency and reduction efforts.



William Hare Group aligns to location-based reporting for tracking energy related emissions and reductions over time.

William Hare Limited sources low carbon energy where possible, energy suppliers will provide energy from renewable sources.

**Table 3. Dual reporting of indirect emissions from imported energy**

| Category   | Location-based methodology (tCO <sub>2</sub> e) | Market-based methodology (tCO <sub>2</sub> e) |
|--|---|---|
| Category 1: Direct emissions   | 2,380.62  | 2,380.62                                      |
| Category 2: Indirect emissions from imported energy                                      | 917.05  | 1,665.32                                      |
| Category 3: Indirect emissions from transportation                                       | 3,126.42  | 3,126.42                                      |
| Category 4: Indirect emissions from products used by organisation                        | 50,142.31                                       | 50,142.31                                     |
| Category 5: Indirect emissions associated with the use of products from the organisation | 0.00  | 0.00  |
| Category 6: Indirect emissions from other sources  | 0.00  | 0.00  |
| <b>Total direct emissions</b>  | <b>2,380.62</b>                                 | <b>2,380.62</b>                               |
| <b>Total indirect emissions</b>  | <b>54,185.78</b>                                | <b>54,934.05</b>                              |
| <b>Total gross emissions</b>   | <b>56,566.40</b>                                | <b>57,314.67</b>                              |
| Category 1 direct removals   | 0.00  | 0.00  |
| <b>Total net emissions</b>   | <b>56,566.40</b>                                | <b>57,314.67</b>                              |

## 1.3. ORGANISATIONAL CONTEXT

### 1.3.1. Organisation description

William Hare Group (UK) Limited (incorporating Cellbeam and Cellshield) is a private limited company, with an annual turnover of £165.2 million, employing around 796 people across four manufacturing sites, including head office (Bury, Lancashire). In addition to this the company has a fluctuating number of personnel both direct and sub-contract basis employed on various construction projects throughout the UK.

The company's core business is the design, fabrication and erection of structural steel in sectors such as Petrochemical, Oil and gas, Nuclear, Pharmaceutical, Airport and rail infrastructure, commercial, Leisure, Retail, etc. In addition to this WHL also export steel all around the world.

WHL recognises that its operations may have a direct impact on the environment and has made environmental management an integral part of the management system of the Company (SHEMPS). WHL manages monitors and improves its environmental performance through actively offering leadership and implementation of a formal environmental management system certified to the internationally recognised ISO 14001 standards.

WHL is committed to operating in an energy-efficient environment and considers the management of its CO<sub>2</sub> emissions to be a principal component of its environmental and sustainability objectives. It is our aim to exploit all opportunities for energy savings throughout the business, in order to establish ourselves as an environmentally responsible organisation as well as a contributor to national carbon reduction targets.

By enabling an energy-aware culture amongst the company, we aim to balance our environmental and financial priorities throughout our operations and be able to demonstrate regulatory compliance to existing and future legislation.

#### Commitment to certification

We are a sustainable and responsible business that recognises that sustainability is a multi-faceted concept that has far-reaching implications for our operations in terms of our environmental, social and economic impacts. As detailed within our formal environmental, sustainability and sustainable procurement policies, we enforce high standards throughout our workforce and external partners to ensure we are a progressive,

environmentally responsible organisation. As indicated in our a fore mentioned polies we recognise that the impacts of climate change through greenhouse gas emissions is a significant issue, in acknowledgment of this we consider carbon management as a priority. Monitoring our emissions is a vital component of achieving carbon efficiency and sustainable development, which in turn will enable an effective implementation of reduction projects. For the lifecycle of our activities, strategic choices throughout the company are made in order to meet our sustainability objectives. These priorities are not only documented within the sustainability policy statement, but are effectively disseminated through various channels of communication from simple reminders generated from newsletters, on-site posters, to more detailed tool-box talks, environmental bulletins and forums. By informing the relevant members of our team we endorse a best practice ethos throughout our operations in-house and with our clients and subcontract partners.

All WHL Group Ltd environment-related policies can be found on our internal Integrated Management System. SHEMPs, available on the company intranet.

#### **GHG Reporting**

This report is used to comply with SECR legislation, it is also used to support tender applications to potential and existing clients.

#### **Climate Change Impacts**

The UK path to net zero will see an increased focus on environmental impact and developing green technologies.

William Hare Ltd has adopted a hybrid working approach, with increased technology-based communication systems to conduct meetings, rather than face to face meetings, which has seen a reduction in business travel and commuting. William Hare is working closely with the supply chain and hauliers to explore and encourage reduction in carbon, including trials for more environmentally efficient alternative options.

#### **Parent Company Targets**

Not applicable.

### **1.3.2. Statement of intent**

This inventory forms part of the organisation's commitment to gain Toitū Carbon Reduce certification. The intended uses of this inventory are:

#### **Intended use and users**

This inventory forms part of the organisation's commitment to gain Programme certification. The intended use is to inform stakeholders of the GHG emissions reduction performance of the company.

#### **Other schemes and requirements**

This report is used to comply with SECR legislation.

### **1.3.3. Person responsible**

Brian Hughes, SHE Director is responsible for overall emission inventory measurement and reduction performance, as well as reporting results to top management. Brian Hughes, SHE Director has the authority to represent top management and has financial authority to authorise budget for the Programme, including Management projects and any Mitigation objectives.

#### **State any other people/entities Programme**

SHE Manager and E&S Manager assisted to compile the data

The personnel involved in the collection and processing of data / information, have undertaken the on boarding training provided by emange software.

#### **Top management commitment**

Carbon management progress will be reported and reviewed annually by WHL Group SHE Director/CEO during SH&E meetings. Minutes of those meetings will document the process and those will be available for interested parties as appropriate

### Management involvement

Data capturing processes for all significant emissions sources were established in 2010. These processes have been used to consistently provide the required data.

### 1.3.4. Reporting period

Base year measurement period: 01 January 2010 to 31 December 2010

The first year of reporting into the Carbon Reduce programme has been selected as the base year.

Measurement period of this report: 01 January 2022 to 31 December 2022

Annually

This 12 month period aligns with the company's calendar reporting year. No changes have been made to the base year.

### 1.3.5. Organisational boundary and consolidation approach

An operational control consolidation approach was used to account for emissions.<sup>4</sup>

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards.

#### Justification of consolidation approach

Organisational boundaries were set with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards.

#### Organisational structure

Figure 5 shows what has been included in the context of the overall structure.

The parts of the structure (business units) in blue have been identified as being within this emissions inventory. No parts of the structure (business units) have been excluded from the inventory.



Figure 1: Organisational structure.

Figure 5: Organisational structure

<sup>4</sup>control: the organisation accounts for all GHG emissions and/or removals from facilities over which it has financial or operational control. equity share: the organisation accounts for its portion of GHG emissions and/or removals from respective facilities.

Table 4. Brief description of business units, sites and locations included in this emissions inventory

| Company/Business unit/Facility | Physical location  | Description  |
|--------------------------------|--|--|
| William Hare Limited           | Brandlesholme House,<br>Brandlesholme Road,<br>BL8 1JJ, Bury, UK | WHL carry out design, fabrication and erection of structural steel in sectors such as Petrochemical, Oil and gas, Nuclear, Pharmaceutical, Airport and rail infrastructure, commercial, Leisure, Retail, etc.<br>Head office function is design and drawing office along with HR, SH&E.<br>Information below of the group of companies.<br>796 full time equivalent employees (FTEs).<br>Site address: Head office Brandlesholme Rd, Bury.<br>Scarborough, California Works (Bury), Risca and Rotherham: Fabrication of structural steel.<br>Site contact: Brian Hughes 0161 609 0000. |
| Cellbeam Limited               | Brandlesholme House,<br>Brandlesholme Road,<br>BL8 1JJ, Bury, UK | Specialist fabrication of Cellular type beams  |
| Cellshield Limited             | Brandlesholme House,<br>Brandlesholme Road,<br>BL8 1JJ, Bury, UK | Fabrication of hand rail systems, for Cellbeam/WHL fabrication   |

### 1.3.6. Excluded business units

All non UK companies and William Hare Painting

## CHAPTER 2: EMISSIONS MANAGEMENT AND REDUCTION REPORT

### 2.1. EMISSIONS REDUCTION RESULTS

There has been a reduction of 49.67tCO<sub>2</sub>e compared to the base year.

Table 5: Comparison of historical GHG inventories

| Category   | 2010            | 2011            | 2012            | 2013            | 2014            | 2015            | 2016            | 2017            | 2018            | 2019            | 2020            | 2021            | 2022             |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|
| Category 1: Direct emissions   | 2,132.23        | 1,714.37        | 1,601.24        | 1,784.84        | 1,381.46        | 1,607.65        | 1,390.77        | 1,126.02        | 917.43          | 1,141.60        | 1,188.10        | 1,762.45        | 2,380.62         |
| Category 2: Indirect emissions from imported energy (location-based method*)             | 2,373.69        | 2,284.11        | 2,315.00        | 1,946.56        | 2,025.97        | 1,829.91        | 1,840.68        | 1,612.06        | 1,278.35        | 1,116.23        | 1,081.94        | 1,078.54        | 917.05           |
| Category 3: Indirect emissions from transportation                                       | 3,904.38        | 1,681.20        | 2,047.21        | 1,558.16        | 1,621.03        | 2,030.06        | 1,646.23        | 2,491.49        | 2,241.52        | 1,835.63        | 1,305.63        | 2,832.23        | 3,126.42         |
| Category 4: Indirect emissions from products used by organisation                        | 168.16          | 195.14          | 182.88          | 166.44          | 179.57          | 153.21          | 169.05          | 152.87          | 112.09          | 97.17           | 95.41           | 96.38           | 50,142.31        |
| Category 5: Indirect emissions associated with the use of products from the organisation | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00             |
| Category 6: Indirect emissions from other sources  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00             |
| <b>Total direct emissions</b>  | <b>2,132.23</b> | <b>1,714.37</b> | <b>1,601.24</b> | <b>1,784.84</b> | <b>1,381.46</b> | <b>1,607.65</b> | <b>1,390.77</b> | <b>1,126.02</b> | <b>917.43</b>   | <b>1,141.60</b> | <b>1,188.10</b> | <b>1,762.45</b> | <b>2,380.62</b>  |
| <b>Total indirect emissions*</b>   | <b>6,446.22</b> | <b>4,160.46</b> | <b>4,545.09</b> | <b>3,671.16</b> | <b>3,826.57</b> | <b>4,013.18</b> | <b>3,655.96</b> | <b>4,256.42</b> | <b>3,631.96</b> | <b>3,049.03</b> | <b>2,482.98</b> | <b>4,007.15</b> | <b>54,185.78</b> |
| <b>Total gross emissions*</b>  | <b>8,578.45</b> | <b>5,874.83</b> | <b>6,146.33</b> | <b>5,456.00</b> | <b>5,208.03</b> | <b>5,620.83</b> | <b>5,046.73</b> | <b>5,382.44</b> | <b>4,549.39</b> | <b>4,190.63</b> | <b>3,671.08</b> | <b>5,769.60</b> | <b>56,566.40</b> |
| Category 1 direct removals   | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00             |
| Purchased emission reductions  | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00             |
| <b>Total net emissions</b>   | <b>8,578.45</b> | <b>5,874.83</b> | <b>6,146.33</b> | <b>5,456.00</b> | <b>5,208.03</b> | <b>5,620.83</b> | <b>5,046.73</b> | <b>5,382.44</b> | <b>4,549.39</b> | <b>4,190.63</b> | <b>3,671.08</b> | <b>5,769.60</b> | <b>56,566.40</b> |
| <b>Emissions intensity</b>   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                  |
| Operating revenue (gross tCO <sub>2</sub> e / £Millions)                                 | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 30.85           | 31.20           | 24.95           | 26.81           | 23.49           | 26.32           | 342.41           |
| Operating revenue (gross mandatory tCO <sub>2</sub> e / £Millions)                       | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 30.83           | 31.19           | 24.94           | 26.80           | 23.47           | 26.31           | 37.54            |

\*Emissions are reported using a location-based methodology. See section 1.2.1 for details.1.2.1

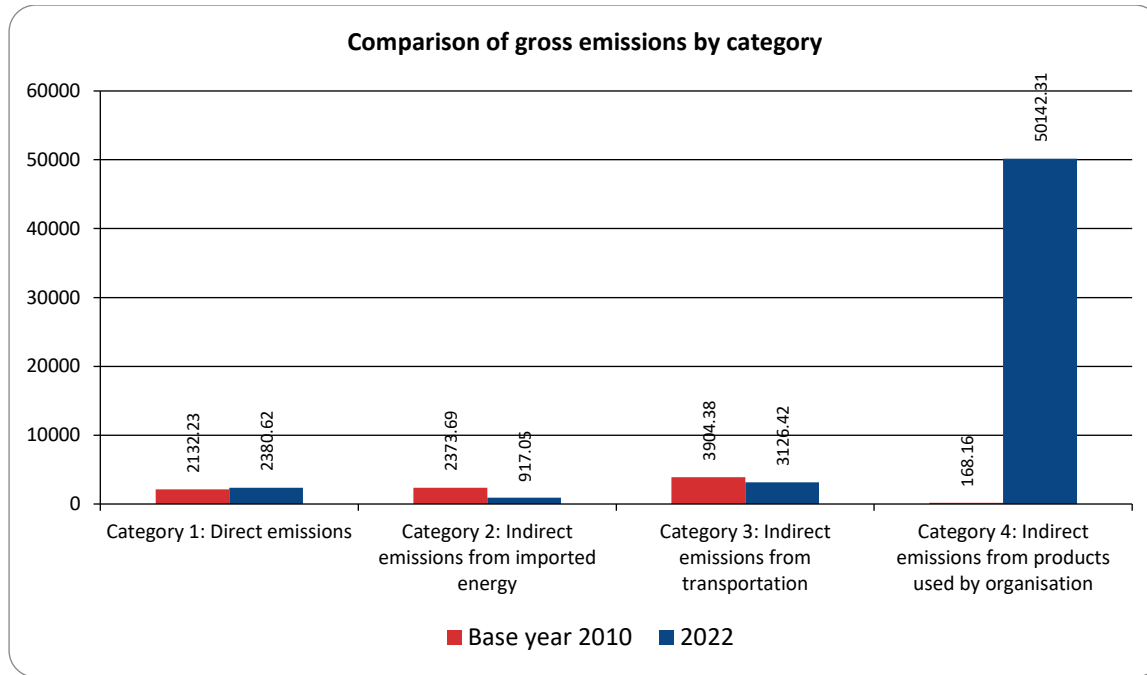


Figure 6: Comparison of gross emissions by category between the reporting periods

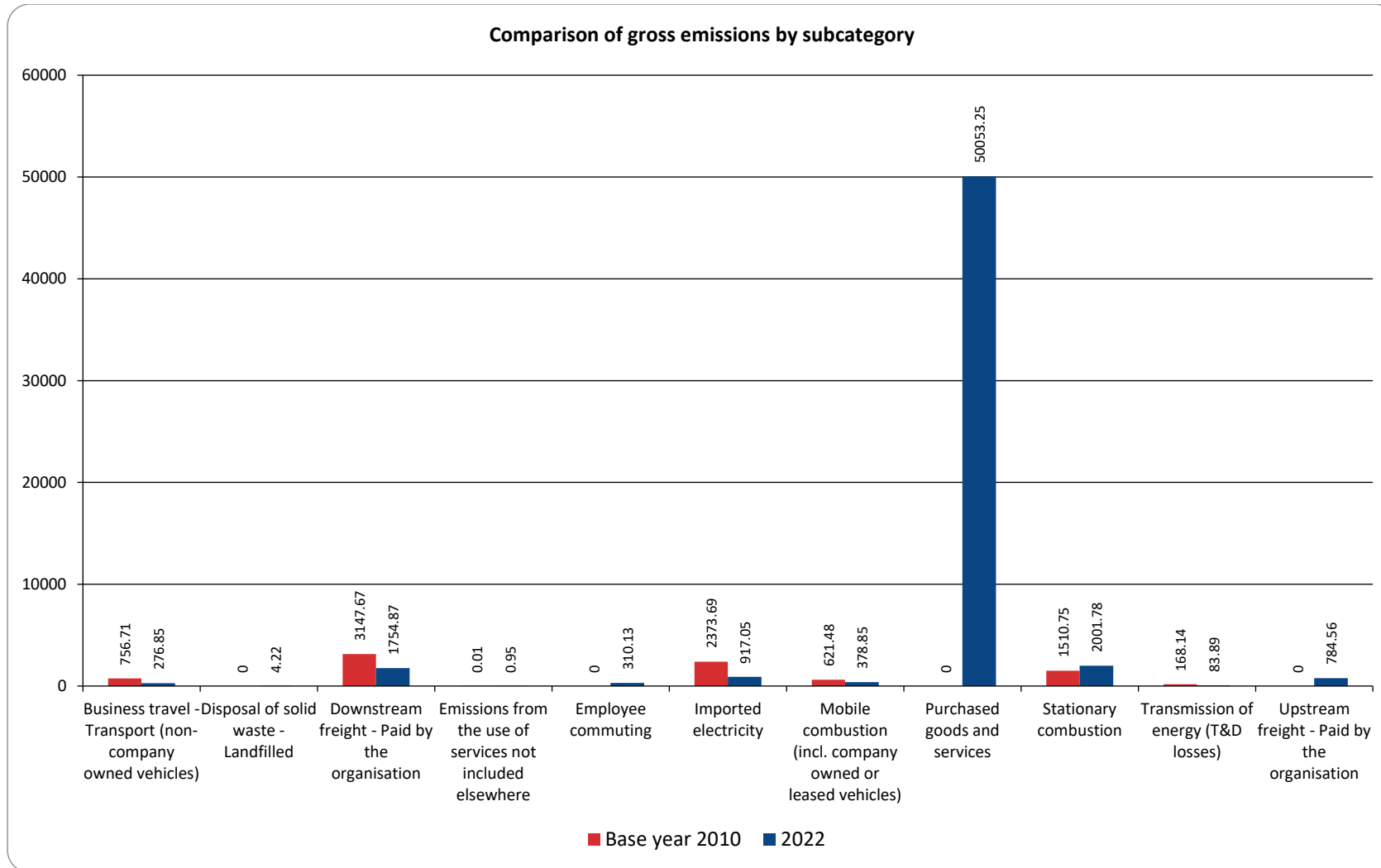


Figure 7: Comparison of gross emissions by subcategory between the reporting periods

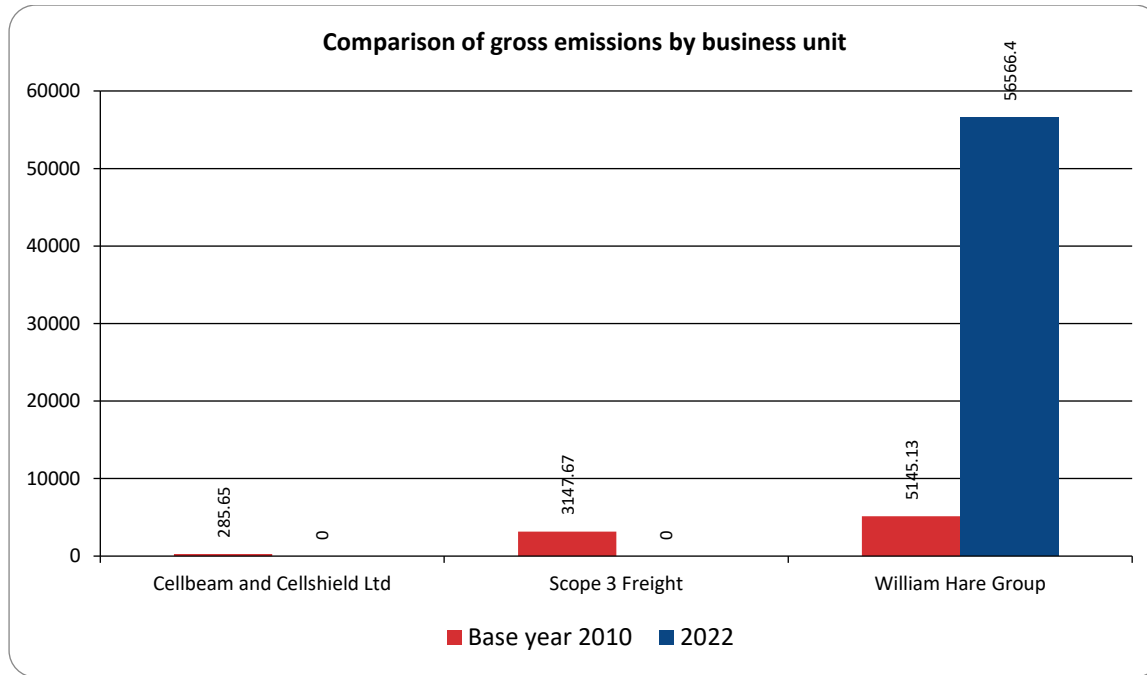


Figure 8: Comparison of gross emissions by business unit between the reporting periods



## 2.2. SIGNIFICANT EMISSIONS SOURCES

### Significant sources

The Emissions Inventory Report identifies the most significant contributing sources as steel, subcontractors, paints and freight.

Those account for over 80% of the total emissions and therefore most emissions reduction efforts will concentrate on those sources.

Electricity is used as a fundamental part of the fabrication process with high usage from mechanised processes, CNC controls and lighting.

Natural gas is used for heating at all facilities apart from Cellbeam/Cellshield.

Green teams are being set up at all sites. There is also a company suggestion scheme with generous rewards for all innovation.

Information gathering is generally quite good; however there is always room for improvement.

Team work and innovative thinking will be fundamental to delivery of reductions and driving the company into a 'greener' future.

Reduction target of 1.0% per annum overall will be set against the baseline year 2010 and will be relative to business activities via means of turnover.

### Activities responsible for generating significant emissions

The following represents the top 4 emission sources: Steel, subcontractors, paints and freight.

### Influences over the activities

As the business expands the potential to use more steel, freight and utilities will increase.

### Significant sources that cannot be influenced

Not applicable

## 2.3. EMISSIONS REDUCTION TARGETS

The organisation is committed to managing and reducing its emissions in accordance with the Programme requirements. Table 6 provides details of the emission reduction targets to be implemented. These are 'SMART' targets (specific, measurable, achievable, realistic, and time-constrained).

The organisation is committed to managing and reducing its emissions in accordance with the Programme requirements. Table 6 provides details of the emission reduction targets to be implemented. These are 'SMART' targets (specific, measurable, achievable, realistic, and time-constrained).

The targets are aligned to science based targets.

Purchased electricity and gas are specifically targeted as they have been identified as two of the three major emissions and as emissions over which WHL has a degree of influence and control.

A reduction of 49.67% in absolute and 45.06% in intensity emissions

Table 6. Emission reduction targets

| Target name                             | Baseline period              | Target date   | Type of target (intensity or absolute) | Categories covered | Target |                           | KPI                                  | Responsibility      | Rationale   |
|---|------------------------------|---------------|--|--------------------|--------|---------------------------|--------------------------------------|---------------------|---|
| Reduced purchased electricity emissions | 1st Jan 2023 - 31st Dec 2023 | 31st Dec 2023 | Absolute                               | Category 2         | 1%     | 1078.54tCO <sub>2</sub> e | Total purchased electricity per year | Maintenance Manager | Achievable through implementation of ESOS recommendations |
| Reduced purchased gas emissions         | 2nd Jan 2023 - 31st Dec 2023 | 31st Dec 2023 | Absolute                               | Category 1         | 1%     | 1348.78tCO <sub>2</sub> e | Total purchased electricity per year | Maintenance Manager | Achievable through implementation of ESOS recommendations |

## 2.4. EMISSIONS REDUCTION PROJECTS

In order to achieve the reduction targets identified in Table 6, specific projects have been identified to achieve these targets, and are detailed in Table 7 below.

Table 7. Projects to reduce emissions

| Objective  | Project   | Responsibility       | Completion date | Potential co-benefits                | Potential unintended consequences                                 | Actions to minimise unintended consequence |
|--|---|----------------------|-----------------|--------------------------------------|---|--|
| Reduced purchased electricity emissions                                | Metering and submetering on assets at facilities. | Maintenance managers | Ongoing         | Reduce operating cost.               | Identification of old assets which need replacing - cost.         | Robust maintenance schedules.              |
| Reduced purchased gas emissions  | Metering and submetering at facilities.           | Maintenance managers | Ongoing         | Reduce operating cost of facilities. | Identification of old assets which need replacing - cost.         | Robust maintenance schedules.              |
| Science based target verified and working towards the first milestone. | Science based target.                             | Company              | Ongoing         | Reduce operating cost of facilities. | Cost to the business for innovation and energy reduction schemes. |  |

Table 8 highlights emission sources that have been identified for improving source the data quality in future inventories.

**Table 8. Projects to improve data quality**

| <b>Emissions source</b> | <b>Actions to improve data quality</b>   | <b>Responsibility</b> | <b>Completion date</b> |
|-------------------------|--|-----------------------|------------------------|
| Freight emissions       | Data gathered from internal procurement sources rather than relying on third party data. | Procurement           | 31/12/2023             |
| All Data                | Data sources fully understood by all using it.   | All                   | 31/12/2023             |
| Spend data              | Spend data available for all items.  | All                   | 31/12/2023             |
| Data available          | System to make data readily available for audits.  | All                   | 31/12/2023             |

## 2.5. STAFF ENGAGEMENT

Staff are made aware of the GHG emissions reduction commitments as part of induction and through company newsletters.

Key staff involved in preparing the Emissions Inventory Report and Emissions Management and Reduction Plan have attended relevant training.

## 2.6. KEY PERFORMANCE INDICATORS

tCO<sub>2e</sub> per £M gross turnover

## 2.7. MONITORING AND REPORTING

The monitoring and reporting on a monthly basis will be undertaken by each factory manager and the SHE director. Company progress on reducing GHG emissions will be reported annually to senior management by the SH&E.

## APPENDIX 1: DETAILED GREENHOUSE GAS INVENTORY

Additional inventory details are disclosed in the tables below, and further GHG emissions data is available on the accompanying spreadsheet to this report (Appendix1-Data Summary William Hare Group (UK) Limited.xls).

Table 9. Direct GHG emissions and removals, quantified separately for each applicable gas

| Category   | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | NF <sub>3</sub> | SF <sub>6</sub> | HFC         | PFC         | Desflurane  | Sevoflurane | Isoflurane  | Emissions total (tCO <sub>2</sub> e) |
|--|-----------------|-----------------|------------------|-----------------|-----------------|-------------|-------------|-------------|-------------|-------------|--------------------------------------|
| Stationary combustion                                      | 1,990.91        | 2.69            | 8.18             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 2,001.78                             |
| Mobile combustion (incl. company owned or leased vehicles) | 373.71          | 0.19            | 4.95             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 378.85                               |
| Emissions - Industrial processes                           | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Removals - Industrial processes                            | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Leakage of refrigerants                                    | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Treatment of waste   | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Treatment of wastewater                                    | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Emissions - Land use, land-use change and forestry         | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Removals - Land use, land-use change and forestry          | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Fertiliser use   | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Addition of livestock waste to soils                       | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Addition of crop residue to soils                          | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Addition of lime to soils                                  | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Enteric fermentation                                       | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Open burning of organic matter                             | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Electricity generated and consumed onsite                  | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Medical gases  | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| Exported electricity                                       | 0.00            | 0.00            | 0.00             | 0.00            | 0.00            | 0.00        | 0.00        | 0.00        | 0.00        | 0.00        | 0.00                                 |
| <b>Total net emissions</b>                                 | <b>2,364.62</b> | <b>2.88</b>     | <b>13.13</b>     | <b>0.00</b>     | <b>0.00</b>     | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>2,380.62</b>                      |

**Table 10. Non-biogenic, biogenic anthropogenic and biogenic non-anthropogenic CO<sub>2</sub> emissions and removals by category**

| Category   | Anthropogenic biogenic CO <sub>2</sub> emissions | Anthropogenic biogenic (CH <sub>4</sub> and N <sub>2</sub> O) emissions (tCO <sub>2</sub> e) | Non-anthropogenic biogenic (tCO <sub>2</sub> e) |
|--|--|--|---|
| Category 1: Direct emissions   | 0.00   | 5.14   | 0.00  |
| Category 2: Indirect emissions from imported energy                                      | 0.00   | 0.00   | 0.00  |
| Category 3: Indirect emissions from transportation                                       | 0.00   | 0.00   | 0.00  |
| Category 4: Indirect emissions from products used by organisation                        | 0.00   | 0.00   | 0.00  |
| Category 5: Indirect emissions associated with the use of products from the organisation | 0.00   | 0.00   | 0.00  |
| Category 6: Indirect emissions from other sources  | 0.00   | 0.00   | 0.00  |
| <b>Total gross emissions</b>   | <b>0.00</b>                                      | <b>5.14</b>  | <b>0.00</b>                                     |

## A1.1 REPORTING BOUNDARIES

### A1.1.1 Emission source identification method and significance criteria

The GHG emissions sources included in this inventory are those required for Programme certification and were identified with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards as well as the Programme Technical Requirements.

The GHG emissions sources included in this inventory are those required for Programme certification and were identified with reference to the methodology described in the GHG Protocol and ISO 14064-1:2018 standards as well as the Programme Technical Requirements. Identification of emissions sources was achieved via personal communications with William Hare Group (UK) Limited staff and cross-checked against operational expenditure records for the reporting period. These records were viewed in order to see what activities may be associated with emissions from all of the operations

Consultation with industry sector guidance and review of asset register.

Significance of emissions sources within the organisational boundaries has been considered in the design of this inventory. The significance criteria used comprise:

- All direct emissions sources that contribute more than 1% of total Category 1 and 2 emissions
- All indirect emissions sources that are required by the Programme

Significance of emissions sources within the organisational boundaries has been considered in the design of this inventory. The significance criteria used comprise:

- All direct emissions sources that contribute more than 1% of total Category 1 and 2 emissions
- All indirect emissions sources that are required by the Programme

No changes to the significance criteria have been made since this inventory was initially developed in the base year.

### A1.1.2 Included sources sinks and activity data management

As adapted from ISO 14064-1, the emissions sources deemed significant for inclusion in this inventory were classified into the following categories:

- **Direct GHG emissions (Category 1):** GHG emissions from sources that are owned or controlled by the company.
- **Indirect GHG emissions (Category 2):** GHG emissions from the generation of purchased electricity, heat and steam consumed by the company.
- **Indirect GHG emissions (Categories 3-6):** GHG emissions that occur as a consequence of the activities of the company but occur from sources not owned or controlled by the company.

Table 11 provides detail on the categories of emissions included in the GHG emissions inventory, an overview of how activity data were collected for each emissions source, and an explanation of any uncertainties or assumptions made based on the source of activity data. Detail on estimated numerical uncertainties are reported in Appendix 1.

As adapted from ISO 14064-1, the emissions sources deemed significant for inclusion in this inventory were classified into the following categories:

- Direct GHG emissions (Category 1): GHG emissions from sources that are owned or controlled by the company.
- Indirect GHG emissions (Category 2): GHG emissions from the generation of purchased electricity, heat and steam consumed by the company.
- Indirect GHG emissions (Categories 3-6): GHG emissions that occur as a consequence of the activities of the company but occur from sources not owned or controlled by the company.

Table 11. GHG emissions activity data collection methods and inherent uncertainties and assumptions

| GHG emissions category  | GHG emissions source or sink subcategory       | Overview of activity data and evidence       | Explanation of uncertainties or assumptions around your data and evidence                                      | Use of default and average emissions factors   | Pre-verified data |
|---|--|--|--|--|-------------------|
| Category 3: Indirect emissions from transportation                | Air travel domestic (average)                  | Travel all procured through purchasing dept. | Travel all procured through purchasing dept.   |  | No                |
| Category 3: Indirect emissions from transportation                | Air travel long haul (average)                 | Travel all procured through purchasing dept. | Travel all procured through purchasing dept.   |  | No                |
| Category 3: Indirect emissions from transportation                | Air travel short haul (average)                | Travel all procured through purchasing dept. | Travel all procured through purchasing dept.   |  | No                |
| Category 3: Indirect emissions from transportation                | Car Average (unknown fuel type)                | Fuel cards and mileage claims                | Records for Fuel card use for HGV and cars owned by the company and mileage claims for private owned vehicles. | The internal claim for fuel process does not yet allow us to export litres of fuel used. | No                |
| Category 1: Direct emissions and removals                         | Diesel retail station biofuel blend            | Fuel cards and mileage claims                | Records for Fuel card use for HGV and cars owned by the company and mileage claims for private owned vehicles. | The internal claim for fuel process does not yet allow us to export litres of fuel used. | No                |
| Category 2: Indirect emissions from imported energy               | Electricity UK (Generation) (2013 Methodology) | Invoices, Trident managed website            |  | Accurate half hour meter readings and weekly usage reports sent.                         | No                |
| Category 4: Indirect emissions from products used by organisation | Electricity UK (T&D losses) (2013 Methodology) | Invoices, Trident managed website            |  | Accurate half hour meter readings and weekly usage reports sent.                         | No                |
| Category 3: Indirect emissions from transportation                | Freight Road articulated truck (>33t)          | Transport & supplier data                    | Estimation on total loads carried by sub contract hauliers & some distances to ports                           | Sub-contract haulier data  | No                |
| Category 1: Direct emissions and removals                         | Natural Gas                                    | Trident managed website                      |  | Accurate meter readings available online.  | No                |
| Category 1: Direct emissions and removals                         | Petrol retail station biofuel blend            | Fuel cards and mileage claims                | Records for Fuel card use for HGV and cars owned by the company and mileage claims for private owned vehicles. | The internal claim for fuel process does not yet allow us to export litres of fuel used. | No                |
| Category 3: Indirect emissions from transportation                | Rail travel (national)                         | Purchasing dept.                             | Travel all procured through purchasing dept.   |  | No                |
| Category 4: Indirect emissions from products used by organisation | Water supply                                   | Metered water supply                         |  | Accurate meter readings available online.  | No                |

| GHG emissions category | GHG emissions source or sink subcategory | Overview of activity data and evidence                               | Explanation of uncertainties or assumptions around your data and evidence                | Use of default and average emissions factors | Pre-verified data |
|------------------------|--|--|--|--|-------------------|
|                        | Purchased goods and services             | Steel and non-steel data sheet run and provided by procurement.      | Dependant on where employees put items in which categories, making some items uncertain. |  | No                |
|                        | Capital Goods                            | Steel and non-steel data sheet run and provided by procurement.      | Dependant on where employees put items in which categories, making some items uncertain. |  | No                |
|                        | Upstream transport and distribution      | Figures from procurement on deliveries to facilities from suppliers. | Data robust.   | Accurate data as it is delivered steel.      | No                |
|                        | Downstream transport and distribution    | Figures from procurement on deliveries to sites.                     | Data robust.   | Accurate data as it is delivered steel.      | No                |
|                        | End of life treatment sold products      | Production figure.   | Data robust.   | Accurate data as it is delivered steel.      | No                |



### A1.1.3 Excluded emissions sources and sinks

Emissions sources in Table 13 have been identified and excluded from this inventory.

Table 12. GHG emissions sources excluded from the inventory

| Business unit | GHG emissions source or sink       | GHG emissions category | Reason for exclusion |
|---------------|------------------------------------|------------------------|----------------------|
| WHL           | Waste                              | 4                      | <i>De minimis</i>    |
| WHL           | Refrigerants                       | 1                      | <i>De minimis</i>    |
| WHL           | Taxis/Private hire                 | 3                      | <i>De minimis</i>    |
| WHL           | HGV Exps                           | 3                      | <i>De minimis</i>    |
| WHL           | Factory Expenses                   | 3                      | <i>De minimis</i>    |
| WHL           | Other Sublet Drawing               | 3                      | <i>De minimis</i>    |
| WHL           | Derv                               | 3                      | <i>De minimis</i>    |
| WHL           | Other plant hire                   | 3                      | <i>De minimis</i>    |
| WHL           | Site operation costs               | 3                      | <i>De minimis</i>    |
| WHL           | Subsistence - indirect             | 3                      | <i>De minimis</i>    |
| WHL           | Other                              | 3                      | <i>De minimis</i>    |
| WHL           | Subsistence                        | 3                      | <i>De minimis</i>    |
| WHL           | Insurance                          | 3                      | <i>De minimis</i>    |
| WHL           | Insurance                          | 3                      | <i>De minimis</i>    |
| WHL           | Rent                               | 3                      | <i>De minimis</i>    |
| WHL           | Entertaining - indirect            | 3                      | <i>De minimis</i>    |
| WHL           | Grit                               | 3                      | <i>De minimis</i>    |
| WHL           | Legal / professional fees indirect | 3                      | <i>De minimis</i>    |
| WHL           | Building repairs                   | 3                      | <i>De minimis</i>    |
| WHL           | Computer Misc software             | 3                      | <i>De minimis</i>    |
| WHL           | Trade subs and levis               | 3                      | <i>De minimis</i>    |
| WHL           | Security                           | 3                      | <i>De minimis</i>    |
| WHL           | Training                           | 3                      | <i>De minimis</i>    |
| WHL           | Rates                              | 3                      | <i>De minimis</i>    |
| WHL           | Stationary                         | 3                      | <i>De minimis</i>    |
| WHL           | Telephone /fax                     | 3                      | <i>De minimis</i>    |
| WHL           | Car hire - indirect                | 3                      | <i>De minimis</i>    |
| WHL           | Rent Paid - indirect               | 3                      | <i>De minimis</i>    |
| WHL           | Credit Insurance                   | 3                      | <i>De minimis</i>    |
| WHL           | Scaffolding                        | 3                      | <i>De minimis</i>    |
| WHL           | Audit fees                         | 3                      | <i>De minimis</i>    |
| WHL           | Bank charges                       | 3                      | <i>De minimis</i>    |
| WHL           | Security - indirect                | 3                      | <i>De minimis</i>    |
| WHL           | car Hire                           | 3                      | <i>De minimis</i>    |
| WHL           | Telephone                          | 3                      | <i>De minimis</i>    |
| WHL           | Training                           | 3                      | <i>De minimis</i>    |
| WHL           | Computer Misc                      | 3                      | <i>De minimis</i>    |
| WHL           | Computer maintenance               | 3                      | <i>De minimis</i>    |
| WHL           | Charitable donations               | 3                      | <i>De minimis</i>    |
| WHL           | Publications and periodicals       | 3                      | <i>De minimis</i>    |
| WHL           | Stationary                         | 3                      | <i>De minimis</i>    |
| WHL           | Legal and professional             | 3                      | <i>De minimis</i>    |

| Business unit | GHG emissions source or sink    | GHG emissions category | Reason for exclusion |
|---------------|---------------------------------|------------------------|----------------------|
| WHL           | Loans and H.P Interest          | 3                      | <i>De minimis</i>    |
| WHL           | Trade subs                      | 3                      | <i>De minimis</i>    |
| WHL           | Rates - indirect                | 3                      | <i>De minimis</i>    |
| WHL           | Computer expenses               | 3                      | <i>De minimis</i>    |
| WHL           | Advertising                     | 3                      | <i>De minimis</i>    |
| WHL           | Car Exps - Ex Petrol            | 3                      | <i>De minimis</i>    |
| WHL           | Postage                         | 3                      | <i>De minimis</i>    |
| WHL           | Car Exps - Ex Petrol - indirect | 3                      | <i>De minimis</i>    |
| WHL           | Employee subs                   | 3                      | <i>De minimis</i>    |
| WHL           | Publication and periodicals     | 3                      | <i>De minimis</i>    |
| WHL           | Bond charges bank               | 3                      | <i>De minimis</i>    |
| WHL           | Marketing expenditure           | 3                      | <i>De minimis</i>    |
| WHL           | Entertaining                    | 3                      | <i>De minimis</i>    |
| WHL           | Bank interest payable           | 3                      | <i>De minimis</i>    |

## A1.2 QUANTIFIED INVENTORY OF EMISSIONS AND REMOVALS

### A1.2.1 Calculation methodology

A calculation methodology has been used for quantifying the emissions inventory based on the following calculation approach, unless otherwise stated below:

$$\text{Emissions} = \text{activity data} \times \text{emissions factor}$$

The quantification approach(es) has not changed since the previous measurement period

All emissions were calculated using Toitū emanage with emissions factors and Global Warming Potentials provided by the Programme (see Appendix 1 - data summary.xls). Global Warming Potentials (GWP) from the IPCC fifth assessment report (AR5) are the preferred GWP conversion<sup>5</sup>.

There are systems and procedures in place that will ensure applied quantification methodologies will continue in future GHG emissions inventories.

### A1.2.2 Supplementary results

Holdings and transactions in GHG-related financial or contractual instruments such as permits, allowances, verified offsets or other purchased emissions reductions from eligible schemes recognised by the Programme are reported separately here.

#### A1.2.2.1 CARBON CREDITS AND OFFSETS

Offsets will be purchased for this reporting period at time of net carbonzero certification and detailed on the Toitū net carbonzero programme members directory public disclosure statement.

##### Reason for purchase

Using the highest quality standards and certification in the carbon market - Gold Standard and VCS (VERRA) - we have selected international projects that align with both UN Sustainable Development Goals (SDGs) and our own core values, in order to offset our carbon footprint.

<sup>5</sup> If emission factors have been derived from recognised publications approved by the programme, which still use earlier GWPs, the emission factors have not been altered from as published.

<CONDITIONAL END Carbon credits and offsets>

#### A1.2.2.2 DOUBLE COUNTING AND DOUBLE OFFSETTING

There are various definitions of double counting or double offsetting. For this report, it refers to:

- Parts of the organisation have been prior offset.
- The same emissions sources have been reported (and offset) in both an organisational inventory and product footprint.
- Emissions have been included and potentially offset in the GHG emissions inventories of two different organisations, e.g. a company and one of its suppliers/contractors. This is particularly relevant to indirect (Categories 2 and 3) emissions sources.
- Programme approved 'pre-offset' products or services that contribute to the organisation inventory
- The organisation generates renewable electricity, uses or exports the electricity and claims the carbon benefits.
- Emissions reductions are counted as removals in an organisation's GHG emissions inventory and are counted or used as offsets/carbon credits by another organisation.

Double counting / double offsetting has not been included in this inventory.

#### Details

Not Applicable.

## APPENDIX 2: SIGNIFICANCE CRITERIA USED

Table 13. Significance criteria used for identifying inclusion of indirect emissions

| Emission source                                | Magnitude                        | Level of influence | Risk or opportunity           | Sector specific guidance | Outsourced | Employee engagement | Intended Use and Users | Include in inventory? |
|--|----------------------------------|--------------------|-------------------------------|--------------------------|------------|---------------------|------------------------|-----------------------|
| Electricity UK (T&D losses) (2013 Methodology) | Carbon Reduce mandatory emission | Medium             | Carbon Reduce compliance only | N/A                      | N/A        | N/A                 | Yes                    | Yes                   |
| Freight Road articulated truck (>33t)          | Carbon Reduce mandatory emission | Medium             | Carbon Reduce compliance only | N/A                      | N/A        | N/A                 | Yes                    | Yes                   |
| Car Average Diesel and Petrol                  | Carbon Reduce mandatory emission | Medium             | Carbon Reduce compliance only | N/A                      | N/A        | N/A                 | Yes                    | Yes                   |
| Air and rail travel                            | Carbon Reduce mandatory emission | Low                | Carbon Reduce compliance only | N/A                      | N/A        | N/A                 | Yes                    | Yes                   |

## APPENDIX 3: CERTIFICATION MARK USE

The certification mark will be displayed on WHL website and provided to potential new clients during the pre-qualification process.

## APPENDIX 4: REFERENCES

International Organization for Standardization, 2018. ISO 14064-1:2018. Greenhouse gases – Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals. ISO: Geneva, Switzerland.

World Resources Institute and World Business Council for Sustainable Development, 2004 (revised). The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard. WBCSD: Geneva, Switzerland.

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## APPENDIX 5: REPORTING INDEX

This report template aligns with ISO 14064-1:2018 and meet Toitū Carbon Reduce programme Organisation Technical Requirements. The following table cross references the requirements against the relevant section(s) of this report.

| Section of this report   | ISO 14064-1:2018 clause        | Organisational Technical Requirement rule           |
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| <a href="#">Cover page</a>   | 9.3.1 b, c, r<br>9.3.2 d,      | TR8.2, TR8.3  |
| <a href="#">Availability</a>   | 9.2 g                          |   |
| <a href="#">Chapter 1: Emissions Inventory Report</a>                                  |                                |   |
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| <a href="#">1.2. Emissions inventory results</a>                                       | 9.3.1 f, h, j<br>9.3.3         | TR4.14, TR4.16,<br>TR4.17                           |
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| <a href="#">1.3.2. Statement of intent</a>   |                                | TR4.2   |
| <a href="#">1.3.3. Person responsible</a>  | 9.3.1 b                        |   |
| <a href="#">1.3.4. Reporting period</a>  | 9.3.1 l                        | TR5.1, TR5.8  |
| <a href="#">1.3.5. Organisational boundary and consolidation approach</a>              | 9.3.1.d                        | TR4.3, TR4.5, TR4.7,<br>TR4.11                      |
| <a href="#">1.3.6. Excluded business units</a>   |                                |   |
| <a href="#">Chapter 2: Emissions Management and Reduction Report</a>                   |                                |   |
| <a href="#">2.1. Emissions reduction results</a>                                       | 9.3.1 f, h, j, k<br>9.3.2 j, k | TR4.14, TR6.18                                      |
| <a href="#">2.2. Significant emissions sources</a>                                     |                                |   |
| <a href="#">2.3. Emissions reduction targets</a>                                       |                                | TR6.1, TR6.2, TR6.4,<br>TR6.6, TR6.8,               |
| <a href="#">2.4. Emissions reduction projects</a>                                      | 9.3.2 b                        | TR6.8, TR6.11,<br>TR6.12, TR6.13,<br>TR6.14, TR6.15 |
| <a href="#">2.5. Staff engagement</a>  |                                | TR6.1, TR6.9  |
| <a href="#">2.6. Key performance indicators</a>  |                                | TR6.19  |
| <a href="#">2.7. Monitoring and reporting</a>  | 9.3.2 h                        | TR6.2   |
| <a href="#">Appendix 1: Detailed greenhouse gas inventory</a>                          | 9.3.1 f, g                     | TR4.9, TR4.15                                       |
| <a href="#">A1.1 Reporting boundaries</a>  |                                |   |
| <a href="#">A1.1.1 Emission source identification method and significance criteria</a> | 9.3.1 e                        | TR4.12, TR4.13                                      |
| <a href="#">A1.1.2 Included emissions sources and activity data collection</a>         | 9.3.1 p, q<br>9.3.2 i          | TR5.4, TR5.6, TR5.17,<br>TR5.18,                    |
| <a href="#">A1.1.3 Excluded emissions sources and sinks</a>                            | 9.3.1 i                        | TR5.21, TR5.22,<br>TR5.23                           |
| <a href="#">A1.2 Quantified inventory of emissions and removals</a>                    |                                |   |
| <a href="#">A1.2.1 Calculation methodology</a>   | 9.3.1 m, n, o, t               |   |
| <a href="#">A1.2.2 Historical recalculations</a>                                       |                                |   |
| <a href="#">A1.2.3 GHG Storage and Liabilities</a>                                     |                                |   |
| <a href="#">A1.2.3.1 GHG stocks held on site</a>                                       |                                | TR4.18  |
| <a href="#">A1.2.3.2 Land-use liabilities</a>  | 9.3.3.                         | TR4.19  |
| <a href="#">A1.2.4 Supplementary results</a>   |                                |   |
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| Section of this report  | ISO 14064-1:2018 clause | Organisational Technical Requirement rule |
|---|-------------------------|---|
| <a href="#">A1.2.4.2 Purchased or developed reduction or removal enhancement projects</a> | 9.3.2 c                 |   |
| <a href="#">A1.2.4.3 Double counting and double offsetting</a>                            |                         |   |
| <a href="#">Appendix 2: Significance criteria used</a>                                    | 9.3.1.e                 | TR4.12                                    |
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