



# Carbon Reduction Plan 2024

## Net Zero Commitment

Arrow Group Global Ltd recognises the importance of making a full and lasting commitment to reducing the greenhouse gas emissions from our activities, in support of the wider commitment of the world to limit global temperature increases and the impact on the planet.

We commit to the following:

- 1** For our company to achieve Net Zero in line with the Science Based targets set out by the UNFCCC i.e., to achieve Net Zero no later than 2050 and target a 50% reduction in emissions by 2030.
- 2** To set realistic short and long-term targets that are designed to achieve our Net Zero commitments.
- 3** To report the total Greenhouse Gas emissions of our business, at a minimum, on an annual basis.

COMMITMENT TO BE NET ZERO: **2050**

50% EMISSIONS REDUCTION: **2030**

## Overview

## January 2023 – December 2023

YEAR	Jan – Dec 2022	Jan – Dec 2023
Industry	Manufacturing	Manufacturing
No. of Staff	38	34
No. of Offices – Owned	0	0
No. of Offices – Leased	3	3
No. of Company Vehicles - Owned	2	2
No. of Company Vehicles - Leased	15	15

Emissions from Scope 1 & 2 have been measured along with certain Scope 3 emissions. The Scope 3 emissions that have been included are those that have been practical to measure with available data, which are as follows:

- Business Travel
- Employee Commuting
- Transmission and Distribution of Electricity
- Waste Disposal
- Material Used
- Water Treatment

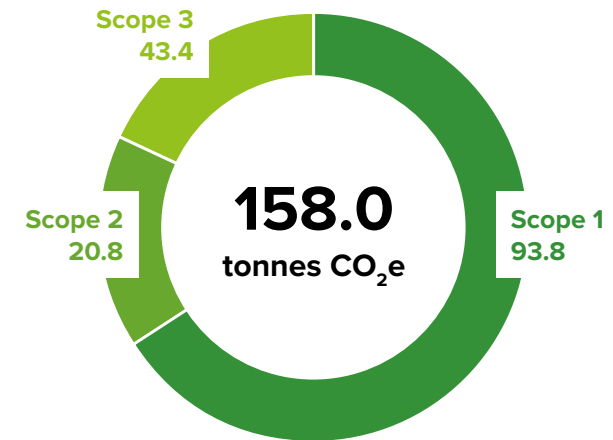
The Company is committed to measure an increasing amount of Scope 3 emissions and will aim to reduce emissions across all activities.

There are 3 different approaches to measuring emissions, as defined by the GHG Protocol. This report has been constructed using the Operational Control Approach, considering the requirements of each potential approach.

Approach	Description	Taken
Operational Control	The organisation has operational control over an operation if it or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.	✓
Financial Control	The organisation has financial control over the operation if it has the ability to direct the financial and operating policies of the organisation with a view to gaining economic benefits from its activities.	
Equity Share	The organisation accounts for GHG emissions from operations according to its share of equity in the operation.	

## Analysis by Scope

2023



Scope 1 emissions amount to 93.8 tCO<sub>2</sub>e, representing 59.4% of the company's emissions. Scope 1 emissions includes fuel from company vehicles and gas used in the office.

Scope 2 emissions accounts for 13.1% of calculated emissions. This is the electricity used at the company's office. Scope 2 emissions were 20.8 tCO<sub>2</sub>e in this period. The office is not on a renewable tariff.

Scope 3 emissions accounts for 27.5% of calculated emissions and includes:

- Business Travel
- Employee Commuting
- Transmission and Distribution of electricity
- Waste Disposal
- Material Used
- Water Treatment

Scope 3 emissions were 43.4 tCO<sub>2</sub>e in this period.

**TOTAL EMISSIONS 2022**

**164.4**  
tonnes CO<sub>2</sub>e

**-3.9%**

**TOTAL EMISSIONS 2023**

**158.0**  
tonnes CO<sub>2</sub>e

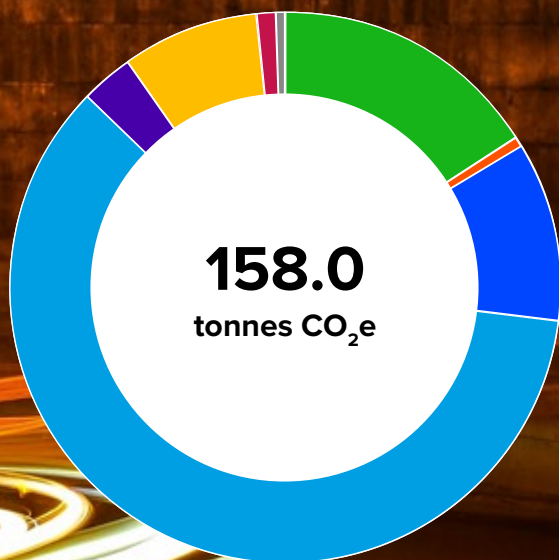
## Carbon Emissions Overview

The total calculated emissions for the group for the 2022 period amounted to 164.4 tCO<sub>2</sub>e, whereas this decreased to 158.0 tCO<sub>2</sub>e in the 2023 period, representing a decrease of 6.4 tCO<sub>2</sub>e (3.9%).

The Company will aim to measure an increasing amount of Scope 3 emissions and is committed to reducing their emissions across all scopes.

# Emissions by Activity

## 2023



**ELECTRICITY**

**GAS**

**BUSINESS TRAVEL - CARS**

**BUSINESS TRAVEL - VANS & HGVS**

**BUSINESS TRAVEL - OTHER**

**EMPLOYEE COMMUTING - CARS**

**TRANSMISSION AND DISTRIBUTION**

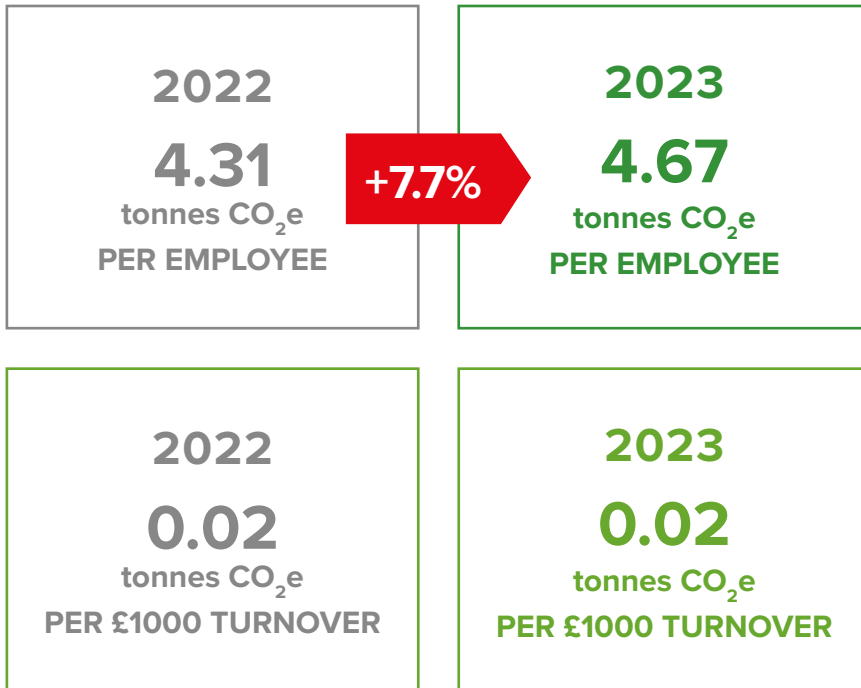
**OTHER**

## CARBON REDUCTION PLAN

EMISSION TYPE	SCOPE	2022 tCO <sub>2</sub> e	2023 tCO <sub>2</sub> e	DATA SOURCE	DATA CONFIDENCE
<b>Energy</b>					
Gas	1	0.9	0.6	Gas Bill	High
Electricity	2	25.7	20.8	Electricity Bills	High
<b>Business Travel (Scope 1)</b>					
Electric Car	1	6.9	10.2	Travel Records	High
Hybrid Car	1	1.4	3.7	Travel Records	High
Van	1	47.4	45.5	Travel Records	High
HGV	1	51.6	47.6	Travel Records	High
<b>Business Travel (Scope 3)</b>					
Diesel Car	3	9.0	5.8	Travel Records	High
Petrol Car	3	0.2	0.1	Travel Records	High
Plane	3	4.4	7.8	Travel Records	High
Rail	3	0.1	0.3	Travel Records	High
Taxis	3	0.1	0.1	Travel Records	High
<b>Employee Commuting</b>					
Diesel Car	3	6.6	6.3	Employee Survey	Medium
Hybrid Car	3	0.3	0.3	Employee Survey	Medium
Petrol Car	3	6.3	5.9	Employee Survey	Medium
<b>Other</b>					
Transmission and Distribution of Electricity	3	2.4	1.8	Electricity Bills	High
Waste Disposal	3	0.8	1.1	Waste Collection	Medium
Material Used	3	0.2	-	Office Supplies	Medium
Water Treatment	3	0.1	0.1	Water Bills	High
<b>TOTAL</b>		<b>164.4</b>	<b>158.0</b>		

# Intensity Metric Analysis

Scopes 1, 2 & 3

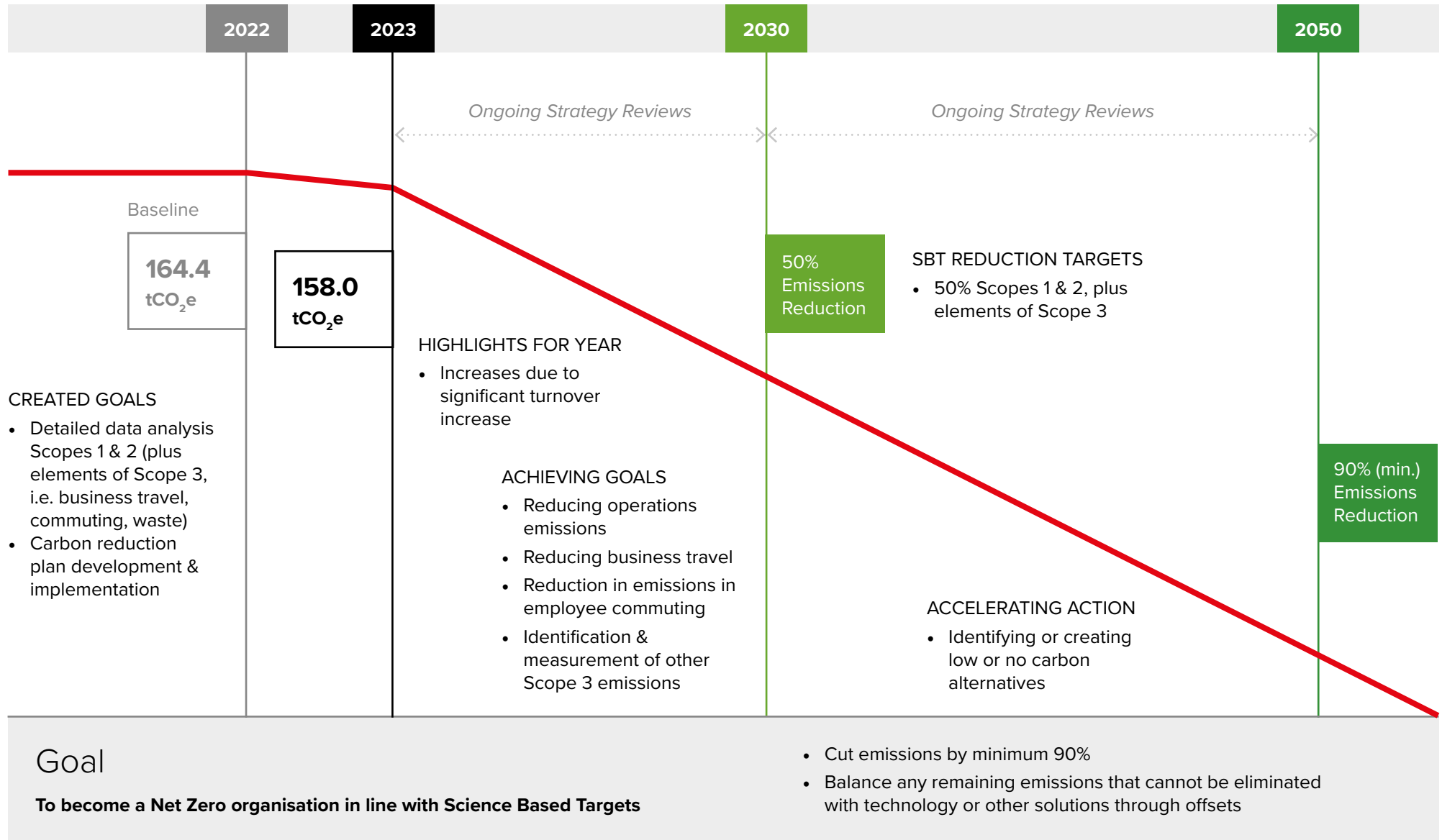


The chosen intensity metrics shows a carbon emissions value of 4.67 tCO<sub>2</sub>e per employee and 0.02 CO<sub>2</sub>e per £1,000 turnover. The business headcount averaged 34 people during the benchmark period.



# Emissions Reductions Targets

Baseline year - 2022



## Carbon Reduction Actions

Arrow Group Global Ltd will develop the following initiatives that will support the company's strategies to meet Science Based Targets:

### Engagement of Team

To engage the entire team throughout the organisation in the Net Zero transition plan and to encourage staff to support lower carbon ideas, opportunities, and activities.

### Business Travel Emissions

To introduce a sustainable travel policy encouraging use of public transport and lower carbon options when practical to do so. This will be implemented during 2023.

### Carbon Emissions Dashboard

Arrow Group Global has made the commitment to complete its carbon emissions dashboard on a regular basis. This is overseen by a member of the Senior Management Team and shared with the wider team on a quarterly basis. By partnering with Net Zero International, we gain access to their expertise and support in reporting our emissions and how to reduce them, including best practice and insights. We will also promote our activities on social media to encourage others to make lower carbon decisions.

### Supply Chain Review

To carry out a full review of the supply chain, developing a full plan in 2023 – 2024, followed by the introduction of a sustainable supply chain policy in 2024.



Signed on behalf of Arrow Group  
Delwin Pallister, Managing Director





# Emissions Data

2023

## CARBON REDUCTION PLAN

	2022	2023
Energy consumption used to calculate emissions Electricity Scope 2 - UK & Offshore (kWh)	132,783	100,400
Energy consumption used to calculate emissions – Global, excluding UK & Offshore (kWh)	N/A	N/A
Basis of Energy reporting (Location or Market)	Location	Location
% of total energy sourced from certified renewable sources	0%	0%
Emissions associated with energy consumption - UK, Offshore & Global (tCO <sub>2</sub> e)	25.7	20.8
Emissions from activities for which the company is responsible including combustion of fuel & operation of facilities - Scope 1 (tCO <sub>2</sub> e)	108.2	93.8
Emissions from purchase of electricity, heat, steam and cooling for own use - Scope 2 (tCO <sub>2</sub> e)	25.7	20.8
<b>Total Scope 1 &amp; 2 Emissions (tCO<sub>2</sub>e)</b>	<b>133.9</b>	<b>114.6</b>
Emissions from upstream activities out of operational control - Scope 3 (tCO <sub>2</sub> e)	30.5	43.4
Emissions from use of sold products and services out of operational control - Scope 3 (tCO <sub>2</sub> e)	<i>None included</i>	<i>None included</i>
<b>Total Gross Scope 3 Emissions (tCO<sub>2</sub>e)</b>	<b>30.5</b>	<b>43.4</b>
<b>Total Scope 1, 2 &amp; 3 Emissions (tCO<sub>2</sub>e)</b>	<b>164.4</b>	<b>158.0</b>
Intensity ratio tCO <sub>2</sub> e (gross Scope 1, 2 & 3) p/e	4.31	4.67
Carbon offsets (tCO <sub>2</sub> e)	0.0	0.0
<b>Total Annual Net Emissions (tCO<sub>2</sub>e)</b>	<b>164.4</b>	<b>158.0</b>

The data contained in the table opposite represents total emissions calculated and is consistent with SECR requirements. All sources of emissions that have been measured are included in the totals opposite. Emissions from key activities are summarised in the previous sections.

### Standard and Methodology Used

Arrow Group Global Ltd categorises its Greenhouse Gas (GHG) Emissions as Scope 1, 2 or 3 as referred to in the WBCSD – WRI Greenhouse Gas Protocol (revised edition, dated March 2014). Emissions in Carbon Dioxide equivalent (CO<sub>2</sub>e) for all scopes are calculated using the conversion factors listed in DESNZ Greenhouse Gas Conversion Factors for the relevant 12 month period over which the Carbon Footprint is calculated. Procured renewable electricity and gas is calculated in accordance with the WBCSD – WSI Scope 2 Guidance on procured renewable energy (2015).

### Data Quality / Confidence

The data used to generate this report has been collected from various sources from both within the company and using assumptions gathered by Net Zero International. These emissions have been converted to CO<sub>2</sub>e using GHG Protocol and DESNZ frameworks and conversion factors for the relevant period.

### Declaration & Sign Off

This Carbon Reduction Plan has been completed in accordance with SECR and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and agreed by the board of directors (or equivalent management body).



Signed on behalf of Net Zero International  
David Hawes, Co-Founder



# Glossary

## Benchmark Data

The chosen 12-month period that sets the calculated emissions that need to be mitigated and/or offset.

## Carbon Reduction

Reduction in measured CO<sub>2</sub>e emissions.

## Carbon Reduction Plan

Plan to reduce CO<sub>2</sub>e emissions over a period of time, updated annually.

## Carbon Emissions (Gross)

CO<sub>2</sub>e emissions from Company activities.

## Carbon Emissions (Net)

CO<sub>2</sub>e emissions from Company activities minus verified carbon offsets the Company purchases.

## Carbon Neutral

When emissions are fully offset including those emissions that could be mitigated.

## Carbon Offsets

A removal or reduction of carbon emissions through a verified scheme.

## CO<sub>2</sub>e

All greenhouse gases expressed in terms of Carbon Dioxide equivalent (CO<sub>2</sub>e) for consistency of reporting.

## DESNZ

Department of Energy Security and Net Zero  
[gov.uk/government/collections/government-conversion-factors-for-company-reporting](https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting)

## EEIO

Environmentally Extended Input Output  
– Emissions estimated on spend  
[ghgprotocol.org](https://ghgprotocol.org)

## GHG Protocol

Greenhouse Gas Protocol  
[ghgprotocol.org](https://ghgprotocol.org)

## Greenhouse Gases

Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous Oxide (N<sub>2</sub>O), Chlorofluorocarbons (CFCs and HCFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF<sub>6</sub>).

## Greenhouse Gas Conversion Factors

Annually published conversion factors normally published by relevant government departments. Converts activity into CO<sub>2</sub>e emissions.

## Greenhouse Gas Emissions (GHG)

Gases in the atmosphere that absorb and radiate heat.

## Intensity Metric/Ratio

A metric that measures carbon emissions per relevant unit of activity in a business.

## Market Reporting v Location Reporting

Market is based on actual tariffs. Location is based on UK government emissions factors.

## Net Zero

GHG emissions are mitigated and those that cannot are offset.

## Renewable Tariff

An energy tariff that is 100% powered by renewable energy and is certified.

## SBT

Science Based Targets – reducing emissions by 50% by 2030 and by 90% by 2050 and offsetting the remaining amount.

## Scope 1

The fuels that are burnt (gas, transport the company owns, refrigerant gases).

## Scope 2

The energy that is bought (electricity from the grid, purchased heat).

## Scope 3

Emissions embedded in everything a company buys and emitted as a consequence of everything a company sells.

## SECR

Streamlined Energy & Carbon Reporting

## tCO<sub>2</sub>e

Metric tonnes of CO<sub>2</sub> equivalent emitted.

## WBCSD

World Business Council for Sustainable Development  
[www.wbcsd.org](https://www.wbcsd.org)

## WRI

World Resource Institute  
[www.wri.org](https://www.wri.org)

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