Carbon Reduction Plan

Supplier name: **Bamford Bus Company Limited, trading as Wrightbus**

Publication date: **December 2022**

1. Commitment to achieving Net Zero

Bamford Bus Company Limited, trading as Wrightbus is committed to achieving net zero emissions by 2050, but preferably earlier.

2. Baseline Emissions Footprint

Baseline Year: 2021 **(01/01/21 – 31/12/21 inclusive)**	
Additional Details relating to the Baseline Emissions calculations.	
► Baseline year selected as first full year in operation as Bamford Bus Company Ltd with sufficient data for emissions calculations. ► In accordance with the GHG Protocol's Corporate Standard[1], carbon emissions within our operational boundary have been calculated on the basis of activities in which Bamford Bus Company Ltd has operational control over within the UK. ► Scope 1 GHG emissions (direct) are from activities owned or controlled by Bamford Bus Company Ltd including emissions from combustion in owned or controlled boilers, furnaces and vehicles, i.e., natural gas, diesel, heating oil, etc. ► Scope 2 GHG emissions (energy indirect) are released into the atmosphere from the generation of electricity consumed by Bamford Bus Company Ltd. ► Scope 3 GHG emissions (other indirect) are a consequence of Bamford Bus Company Ltd actions the occur at sources outside of our control.	
Baseline year emissions:	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	2,018.9
Scope 2	1,396.4
Scope 3 **(Included Sources)**	2,778.8 Scope 3 emissions breakdown as follows (Appendix A details the calculation methodology):

	<table><tr><td>4</td><td>Upstream transportation & distribution</td><td>1,806.7</td></tr><tr><td>5</td><td>Waste generated in operations</td><td>94.4</td></tr><tr><td>6</td><td>Business travel</td><td>104.3</td></tr><tr><td>7</td><td>Employee commuting</td><td>271.2</td></tr><tr><td>9</td><td>Downstream transportation & distribution</td><td>502.1</td></tr></table>
Total Emissions	**6,194.1**

3. Current Emissions Reporting

Reporting Year: 2021 (Same as Baseline year)	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	2,018.9
Scope 2	1,396.4
Scope 3 **(Included Sources)**	2,778.8 Scope 3 emissions breakdown as follows (Appendix A details the calculation methodology): <table><tr><td>4</td><td>Upstream transportation & distribution</td><td>1,806.7</td></tr><tr><td>5</td><td>Waste generated in operations</td><td>94.4</td></tr><tr><td>6</td><td>Business travel</td><td>104.3</td></tr><tr><td>7</td><td>Employee commuting</td><td>271.2</td></tr><tr><td>9</td><td>Downstream transportation & distribution</td><td>502.1</td></tr></table>
Total Emissions	**6,194.1**

4. Emissions reduction targets

4.1 Targets

Bamford Bus Company Ltd's Carbon Reduction Plan has three core targets:

Target 1	**Reduce scope 1 & 2 carbon emissions for every bus we produce by at least 50% by 2030 compared to base year of 2021.**
Target 2	**Implement processes to measure and reduce our scope 3 carbon emissions.**
Target 3	**Achieve net-zero carbon emissions by 2050, but preferably earlier.**

- Our Carbon Reduction Plan has been devised by our Carbon Reduction Committee, which represents diverse areas of the business including Senior Management, Health, Safety & Environment, Engineering, Manufacturing, and Strategic Purchasing.
- It is the responsibility of the committee to:
  - ✓ Meet our legal and moral obligations,
  - ✓ Understand our current carbon footprint in all areas of the business,
  - ✓ Set out a plan to reduce our carbon footprint & offset where we cannot reduce,
  - ✓ Engage the whole workforce to play a part in the journey,
  - ✓ Define changes we need to make to deliver reduction and offset,
  - ✓ Clearly communicate our intentions and what we have delivered.

4.2 Progress Against Targets

Target 1	**Reduce scope 1 & 2 carbon emissions for every bus we produce by at least 50% by 2030 compared to base year of 2021.**

- Appendix B details emissions per bus produced.
- Projected emissions reduction against targets are shown in Figure 1.
- Please note that as this is our first reporting year, there are no "Actual" data to report.
- To achieve 2030 target, we are aiming for a minimum of 5.6% decrease in scope 1 & 2 emissions/CBU year-on-year from the 2021 baseline value.

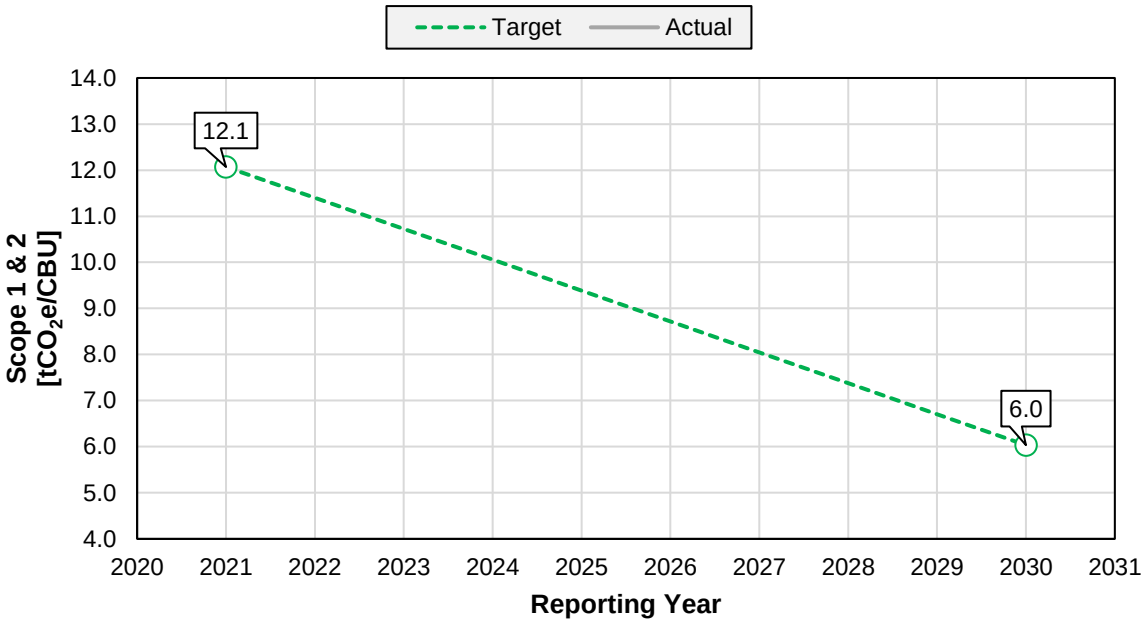


Figure 1 – Progress against Target 1.

Target 2	**Implement processes to measure and reduce our scope 3 carbon emissions.**

- We intend to expand our in-house Carbon Calculation Tool to include further scope 3 impacts. Although we cannot currently measure our Scope 3 impacts in great detail, we do consider the materials used to build our vehicles and the impact they have on the environment, including but not limited to:
    - Aluminium body structure - arguably the most sustainable building material in the world and is also highly recyclable.
    - Steel chassis frame - steel is a uniquely sustainable material because once it is made it can be used, as steel, for ever. Steel is infinitely recycled.
    - Timber flooring - Sustainable timber has the lowest embodied energy (energy used in its processing, production and transport, from tree to consumer use).
    - Windows - Glass is a sustainable, fully recyclable material which provides great environmental benefits such as contributing to mitigating climate change and saving precious natural resources.
    - Front & rear body domes and interior fibreglass - Fiberglass is a lightweight choice for energy-efficient transport solutions. Recycled fibreglass has also been identified as a material in second-life applications to improve concrete strength whilst reducing carbon footprint. We are investigating the feasibility of using locally

sourced natural fibres to replace a significant proportion of the glass fibres in GFRP components to increase the product sustainability and reduce our carbon footprint.

- Wrightbus also consider the following when sourcing materials:
  - Source materials more locally to decrease transportation emissions and costs.
  - Use reclaimed, post-industrial grades of plastic instead of virgin materials when possible.
  - Reduce the amount of material needed through part design. This light-weighting further improves energy efficiency of our vehicles.
  - When possible, select a compostable plastic.
  - Select minimalistic packaging made from material that can be or have already been recycled or reclaimed.
- Waste management improvement scheme (Reduce, Reuse, Recycle) - all onsite waste is collected by a trusted outside contractors and taken to their materials recovery facility for responsible sorting and reprocessing at specialist factories.

Target 3	**Achieve net-zero carbon emissions by 2050, but preferably earlier.**

- Appendix B details emissions per bus produced.
- Projected emissions reduction against targets are shown in Figure 2.
- Please note that as this is our first reporting year, there are no “Actual” data to report.
- To achieve 2050 target, we are aiming for a minimum of 3.4% decrease in scope 1, 2 & 3 emissions/CBU year-on-year from the 2021 baseline value.

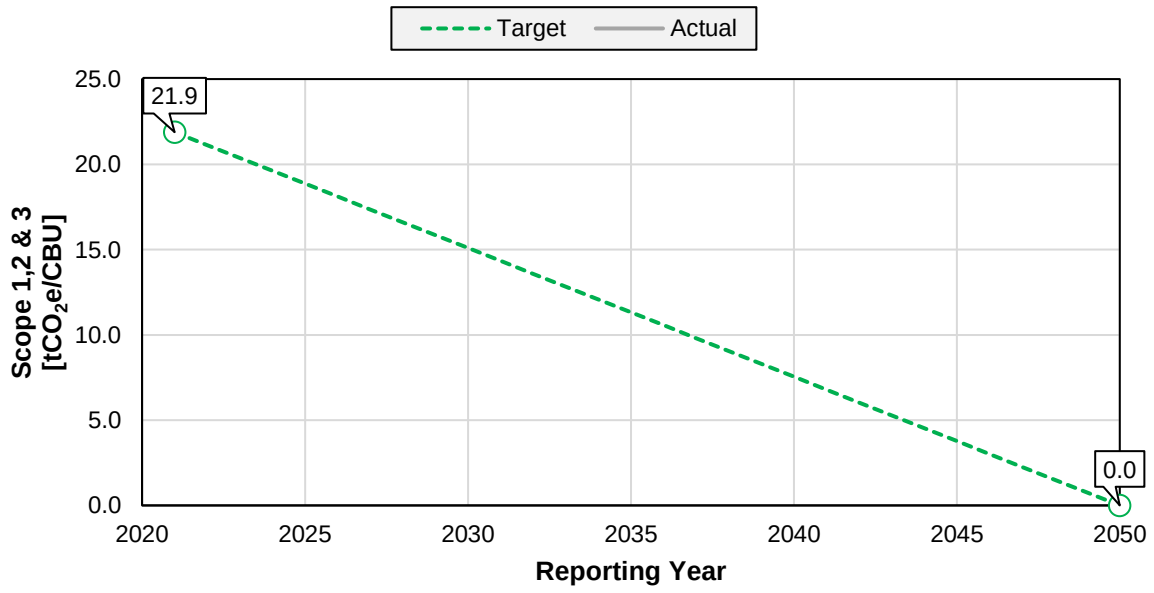


Figure 2 – Progress against Target 2.

5. Carbon Reduction Projects

5.1 Completed Carbon Reduction Initiatives

- ✓ Wrightbus have had a robust internally tailored Environmental Management System for many years, but in 2022 we decided to get our EMS certified to internationally recognised standard BS EN ISO14001:2015. The company felt that gaining this formal certification would assist us on our journey to reduce carbon emissions by raising awareness of environmental aspects of our business including our commitment to reach Net Zero by 2050. Having a recognised EMS helps our business to monitor, control and improve our overall environmental performance and responsibilities.
- ✓ Members of the Carbon Reduction Committee, along with several SMEs in our supply chain have recently undertaken Carbon Literacy training with Business in the Community NI (BitCNI), helping to ensure we are all knowledgeable in the steps we can collectively take to reduce our impact on the environment. This knowledge will then be imparted within our own departments and to our customers.
- ✓ From January 2022, we have switched to a green energy tariff and pursuing credentials to ensure all electricity supplied to site is from local, renewable sources with zero CO_2e emissions at the source.
- ✓ Replacing old inefficient twin fluorescent tube lighting with LED lights that have integrated wireless PIR and photocell controls. We have completed this in two of our factories and intend to progress to more areas in the coming years.

5.2 Future Carbon Reduction Initiatives

In the future we hope to implement further measures such as:

- ► Replacing lights in more of our factories with smart LEDs to reduce energy demand.
- ► Introducing on-site sustainable electricity generation (i.e. solar panels). A proposal is in the final stages and set to proceed in early 2023.
- ► Install high efficiency compressors to reduce electricity demand for our air tools.
- ► Investigate feasibility of heat pump solutions to replace oil heating and reverting to natural gas where heat pump solution is not possible.
- ► Implementing engineering controls on air handing units for factory heating.
- ► Switching all diesel-powered company vehicles to electric by 2030.
- ► On-site generation of H_2 fuel via an electrolyser, powered by low/zero-emission electricity.

6. Declaration and Sign Off

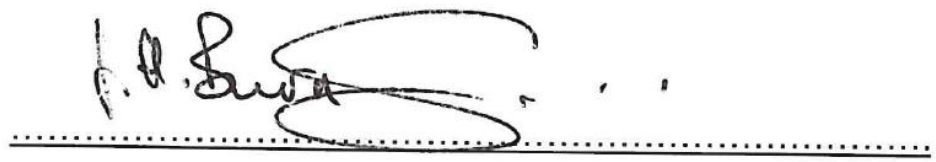
This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].

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[3].

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

Signed on behalf of the Supplier:



Name: **Jamie Burns**

Title: **Chief Financial Officer**

Date: **19/12/2022**

[1] https://ghgprotocol.org/corporate-standard
[2] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[3] https://ghgprotocol.org/standards/scope-3-standard

Appendix A

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[3].

Scope 3 Category	Name	Methodology
4	Upstream transportation & distribution	Spend based method
5	Waste generated in operations	Waste type specific method
6	Business travel	Mix of distance & spend based methods
7	Employee commuting	Average data method
9	Downstream transportation & distribution	Spend based method

Appendix B

Baseline Year: 2021 (01/01/21 – 31/12/21 inclusive)

Additional details relating to the baseline emissions calculations.

- Baseline year selected as first full year in operation as Bamford Bus Company Ltd with sufficient data for emissions calculations.
- In accordance with the GHG Protocol's Corporate Standard[1], carbon emissions within our operational boundary have been calculated on the basis of activities in which Bamford Bus Company Ltd has operational control over within the UK.
- Scope 1 GHG emissions (direct) are from activities owned or controlled by Bamford Bus Company Ltd including emissions from combustion in owned or controlled boilers, furnaces and vehicles, i.e., natural gas, diesel, heating oil, etc.
- Scope 2 GHG emissions (energy indirect) are released into the atmosphere from the generation of electricity consumed by Bamford Bus Company Ltd.
- Scope 3 GHG emissions (other indirect) are a consequence of Bamford Bus Company Ltd actions the occur at sources outside of our control.
- CBU = "complete built unit", i.e. a finished vehicle signed off for delivery to customer.

Baseline year emissions:	***Total*** ***[tCO_2e]***	***Per unit output*** ***[tCO_2e/CBU]***	***% total emissions*** ***[-]***
Scope 1	**2,018.9**	**7.1**	**32.6%**
Scope 2	**1,396.4**	**4.9**	**22.5%**
Scope 3	**2,778.8**	**9.8**	**44.9%**
Scope 3 emissions breakdown as follows:			
Upstream transportation & distribution	*1,806.7*	*6.4*	*29.2%*
Waste generated in operations	*94.4*	*0.3*	*1.5%*
Business travel	*104.3*	*0.4*	*1.7%*
Employee commuting	*271.2*	*1.0*	*4.4%*
Downstream transportation & distribution	*502.1*	*1.8*	*8.1%*
Total Emissions	**6,194.1**	**21.9**	**100%**