

Carbon Reduction Plan



1.0 Introduction

This Carbon Reduction Plan (CRP) outlines Breheny Civil Engineering Ltd.'s (BCE) approach to carbon reduction for the period 2024 to 2025, whilst also setting the strategic direction to meet longer-term targets for 2030 and 2050.

Carbon Dioxide (CO₂) is produced when fossil fuels such as gas, oil, or diesel are combusted to produce energy for heating, electricity generation, material production, and transport.

Carbon emissions are categorised as:	<ul style="list-style-type: none">Scope 1 emissions: those produced directly by burning fuel on site such as gas for heating and diesel in vehicles;
	<ul style="list-style-type: none">Scope 2 emissions: those generated through the off-site generation of electricity;
	<ul style="list-style-type: none">Scope 3 emissions: those arising indirectly due to core operations, including the procurement of goods, business travel, and staff commuting.

This Carbon Reduction Plan outlines Breheny's baseline for Scope 1 and Scope 2 greenhouse gas (GHG) emissions and sets out our targets for reducing carbon intensity across our operations. In addition to these direct and energy-related emissions, the plan now includes a baseline year for Scope 3 emissions associated with our supply chain. Previously, only Scope 3 emissions from business travel (Category 6) were recorded.

For GHG reporting, Breheny defines its organisational boundary based on operational control. Accordingly, we report 100% of Scope 1 and 2 emissions from all operations under our direct control.

This plan is aligned with our wider environmental objectives, which are embedded within our ISO 14001 and ISO 50001 certified Integrated Management System. Furthermore, our Carbon Management System is externally verified to PAS 2080, reinforcing our commitment to credible and transparent carbon reduction.

2.0 Scope

This Carbon Reduction Plan addresses BCE's direct Scope 1 emissions, indirect scope 2 emissions, and upstream scope 3 emissions. It does not encompass downstream scope 3 emissions. It applies to all Breheny Company activities, including projects, offices, and sub-contractor operations.

3.0 Commitment to Achieving Net Zero

Breheny Civil Engineering Ltd recognises that the impacts of climate change will disrupt the natural, economic, and social systems we depend on. This disruption will impact global food security, damage infrastructure, and jobs, and harm human health. Consequently, we are fully committed to supporting the UK Government's ambition of achieving net-zero carbon emissions by 2050 and are actively collaborating with our Supply Chain Partners and Clients to do the same.

As part of our continued commitment to achieving Net Zero, BCE successfully obtained verification to PAS 2080:2023 Carbon management in buildings and infrastructure. BCE utilises NQA, an independent certification body to assess and verify conformance with PAS 2080.



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4.0 Baseline Year

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which future emissions reduction can be measured. Breheny has determined that that our Carbon reduction baseline for our Scope 3 emissions is our financial year 2023-24

Baseline Year: 2018	
The baseline was determined using information gathered through Breheny's third-party accredited ISO 50001 Energy Management System. The data recorded was reviewed and 2018 was established as the base year for scope 1 and 2 emissions. Historically, only Scope 3 emissions associated with business travel have been recorded.	
Baseline year emissions:	
Emissions	Tonnes CO ₂ e
Scope 1 emissions - those produced directly by burning fuel on site such as gas for heating and diesel in vehicles	8,832
Scope 2 emissions - emissions: those generated through the off-site generation of electricity;	297
Scope 3 (Cat 6 Business travel)	251
Total Emissions (Tonnes CO ₂ e)	9,380

The carbon baseline for BCE's scope 3 emissions is detailed in the following table:

Base Line Year Scope 3 emissions 2023-2024	
Breheny has established the 2023–24 financial year as the baseline for measuring Scope 3 carbon emissions. This 12-month period serves as the "base year" for our net zero greenhouse gas (GHG) emissions objective and our associated science-based reduction targets. The primary data source for this baseline is the Company's accounting system, COINS, specifically drawing on Breheny's commodities and subcontractor accruals.	
Baseline year emissions	
Emissions	Tonnes CO ₂ e
Cat 1 - All upstream (cradle to gate) emissions of Purchased goods and services;	17,436.04
Cat 2 - All upstream (cradle to gate) Capital goods	639.39
Cat 3 –Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, including: <ul style="list-style-type: none"> Upstream emissions of purchased fuels (extraction, production, and transportation of fuels consumed by the reporting company). WTT. Upstream emissions of purchased electricity (extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling consumed by the reporting company) – WTT generation & WTT T&D. Transmission and distribution (T&D) losses (generation of electricity, steam, heating, and cooling that is consumed (i.e., lost) in a T&D system) – reported by end user. 	1,349.24
Cat 4 - Upstream transport and distribution - The scope 1 and scope 2 emissions of transportation and distribution providers that occur during use of vehicles and facilities (e.g., from energy use)	5,406.17
Cat 5 - Waste generated in company operations - The scope 1 and scope 2 emissions of waste management suppliers that occur during disposal or treatment:	18.17
Cat 6 - Business travel - The scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use)	280.76
Cat 7 - Employee commuting - The scope 1 and scope 2 emissions of employees and transportation providers that occur during use of vehicles (e.g., from energy use)	195.84
Total Emissions Tonnes CO ₂ e)	25,325.61



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5.0 Current Emissions Reporting

Scope 1	24/25 Tonnes CO ₂ e	23/24 Tonnes CO ₂ e
Fuel combustion Non-Road Mobile Machinery, & generators	5,106.88	5,155.54
Fuel Combustion in Company Vehicles	350.43	394.66
Gas combustion to heat company premises	8.32	2.39
Fugitive emissions (incl. Refrigerant gases and AC) - No top ups reported	0	0
Scope 2		
Generation of purchased electricity for company premises and projects	81.89	72.02
Scope 3		
Cat.1 - All upstream (cradle to gate) emissions of Purchased goods and services;	14,679.24	17,436.04
Cat 2 - All upstream (cradle to gate) Capital goods	805.91	639.39
Cat 3 –Extraction, production, and transportation of fuels and energy purchased or acquired by the reporting company in the reporting year, not already accounted for in scope 1 or scope 2, including: <ul style="list-style-type: none"> Upstream emissions of purchased fuels (extraction, production, and transportation of fuels consumed by the reporting company). WTT. Upstream emissions of purchased electricity (extraction, production, and transportation of fuels consumed in the generation of electricity, steam, heating, and cooling consumed by the reporting company) – WTT generation & WTT T&D. Transmission and distribution (T&D) losses (generation of electricity, steam, heating, and cooling that is consumed (i.e., lost) in a T&D system) – reported by end user. 	1337.14	1349.24
Cat 4 - Upstream transport and distribution - The scope 1 and scope 2 emissions of transportation and distribution providers that occur during use of vehicles and facilities (e.g., from energy use)	3,917.32	5,406.17
Cat 5 - Waste generated in company operations - The scope 1 and scope 2 emissions of waste management suppliers that occur during disposal or treatment:	52.39	18.17
Cat 6 - Business travel - The scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use)	210.94	280.76
Cat 7 - Employee commuting - The scope 1 and scope 2 emissions of employees and transportation providers that occur during use of vehicles (e.g., from energy use)	205.81	194.84
Total emissions (tCO ₂ e)	26,756.27	30,950.22

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6.0 Our Emission Reduction Targets

To continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.

Target	Progress for FY24/25
<p>To reduce our Scope 1 & 2 carbon emissions by 50% by 2030 to align with SBTi 1.5°C pathway and to measure and reduce our Scope 3 emissions.</p> <p>To become a net-zero carbon emissions business by 2050 – Direct Operations (Scope 1 & 2)</p>	<p>As of 2025, there has been a 40.4% reduction in Scope 1 & 2 carbon emissions compared to the 2018 baseline.</p> <p>We aim to reduce our Scope 3 emissions by 20% and are committed to achieving net-zero supply chain emissions by 2050.</p> <p>Compared to the Scope 3 2023 baseline, we have achieved at reduction of 15.6%</p>
Implement a process to capture scope 3 emissions and establish a baseline	<p>We have now established a baseline for relevant Scope 3 emissions, which will serve as the foundation for tracking and reducing our indirect emissions. Building on this, we are working to identify and quantify all material Scope 3 sources and are actively engaging with our supply chain partners to identify carbon reduction opportunities.</p> <p>Based on this baseline, we aim to reduce our Scope 3 emissions by 20% and are committed to achieving net-zero supply chain emissions by 2050. Specific reduction targets will be set to guide progress toward this goal.</p>
It is our intention to procure 100% renewable electricity across the business by 2026	Currently working with our Energy Broker to identify green energy tariffs.
To transition our fleet to electric or zero-emissions models by 2030, where it is the best technical and economic solution and will pursue other ultra-low emission solutions where EVs are not viable.	<p>35.0% of BCE's vehicle fleet are EVs (EV's account for 96.5% of BCE's car fleet). This percentage has continued to increase since only EVs offered in Company car scheme in 2022. 3 ICE cars remain in the fleet, these are scheduled to be replaced with EV's when their leases expire, meaning BCE's car fleet will be 100% EV.</p>
<p>Undertake a phased replacement of our fleet of Non-Road Mobile Machinery (NRMM) to zero or ultralow emission models by 2035.</p> <p>To ensure that by 2035 all hired in non-road mobile machinery are zero or ultralow emission, models</p>	<p>We are investing in new excavators, which have EU Stage V engines, which have increased fuel efficiency and reduced emissions.</p> <p>We are also reviewing the hybrid and electric Non-Road Mobile Machinery (NRMM) that are currently available with a view to evaluating on our projects.</p> <p>Actively working with plant hire companies in our supply chain to ensure all hired in NRMM are zero or ultralow emission, models by 2035.</p>
To transition from generators reliant on fossil fuels providing temporary power supplies to BCE projects to hybrid power systems providing sustainable power solutions or direct connection to the grid utilising renewable power supplies where practicable.	We are currently evaluating hybrid, hydrogen, and solar power generation systems available, on our projects. We are also working with our energy broker to ensure projects where practicable are connected to the grid utilising renewable power supplies wherever possible.
To transition running our fleet of Non-Road Mobile machinery and generators on fossil fuels to sustainable alternative fuels such as Hydrotreated Vegetable Oil (HVO) or Gas to Liquid (GTL) by 2025.	We are in discussions with suppliers of HVO and are currently working with our clients trialling HVO on some of our construction projects.
Reduce waste within the business	<p>We have processes in place to ensure that, in accordance with legislation, waste is managed sustainably following the waste hierarchy of prevention, to ensure a reduction in waste sent to landfill and in the carbon emissions of landfilling.</p> <p>We will promote a reduction in waste through training and awareness.</p>
Development of sustainable procurement practices (efficiencies /low carbon through supply chains) i.e., low carbon concrete and warm mix asphalt.	<p>We are actively working to procure sustainable products and services by engaging closely with our supply chain. To support this, we are raising awareness of sustainable procurement practices through targeted training and development.</p> <p>In line with our independently verified PAS 2080 Carbon Management System, we will consistently offer low-carbon options to our clients wherever possible.</p>



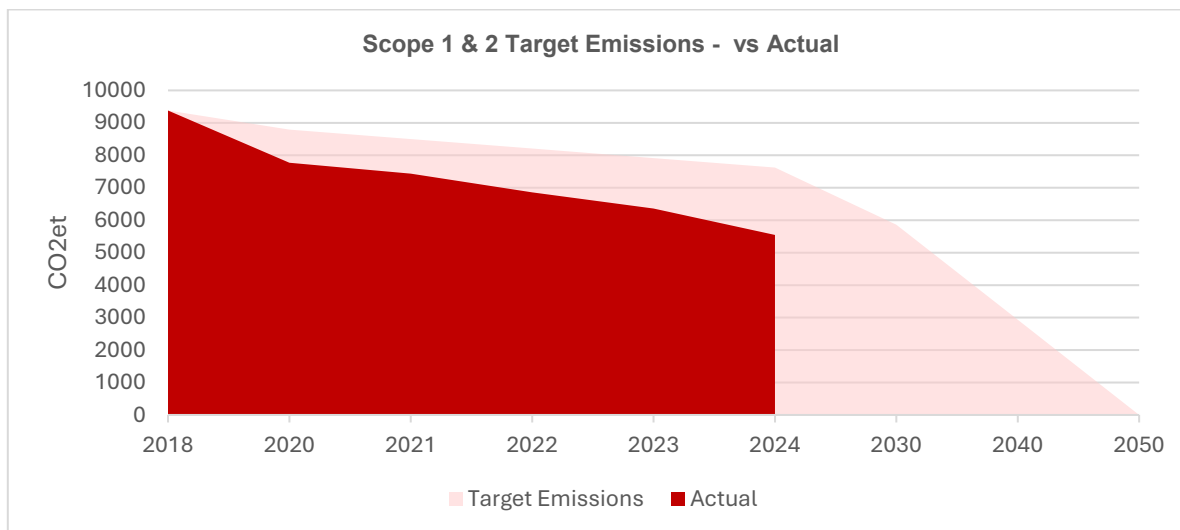
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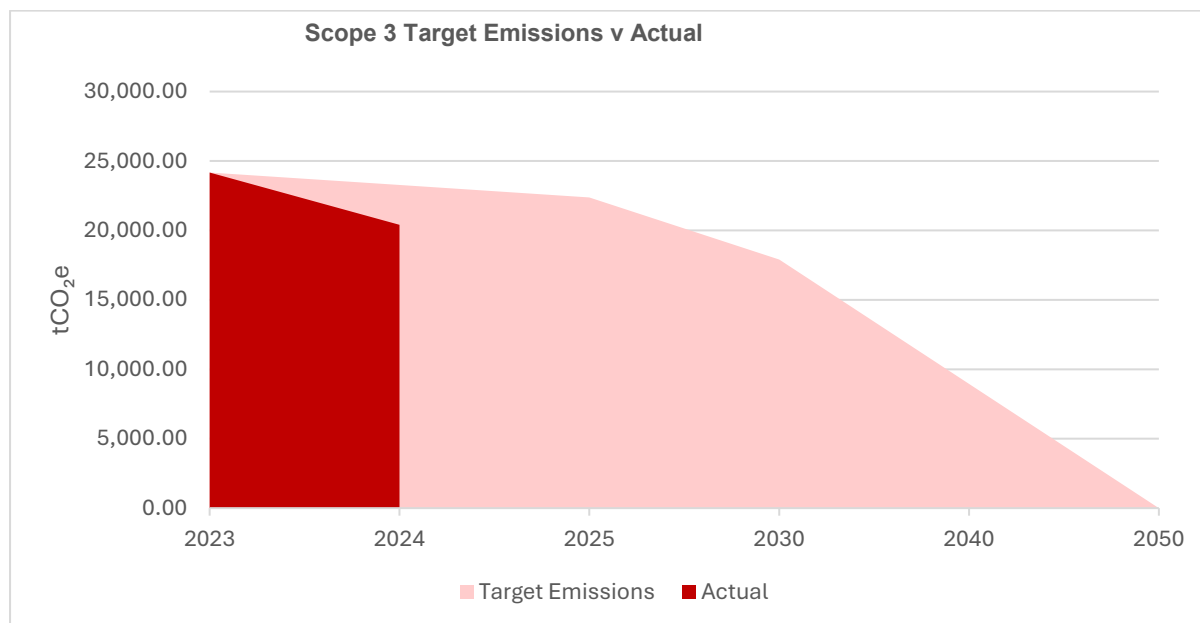
As of the 2024/25 financial year, we have achieved a 40.4% reduction in Scope 1 and 2 greenhouse gas emissions compared to our 2018 baseline. Scope 1 emissions refer to direct emissions from owned or controlled sources, while Scope 2 covers indirect emissions from the generation of purchased energy.

This progress reflects our ongoing efforts to decarbonise operations through energy efficiency improvements and the procurement of renewable electricity. We remain on track to meet our goal of a 50% reduction in Scope 1 and 2 emissions by 2030.

Progress toward this target is illustrated in the graph below, which shows year-on-year emission reductions since 2018:



Progress towards achieving our Scope 3 targets is illustrated below:



2024/2025 shows a 16.1% reduction in Scope 3 emissions compared to the Scope 3 emissions baseline. Reduction is primarily due to a reduction in Cat 1 emissions and associated Cat 4 emissions.

7.0 Operational Emissions (Scopes 1 & 2):

7.1 Renewable Electricity

We are working with our energy brokers to ensure that all Breheny premises and projects, where connection to the grid is practicable are supplied with 100% renewable energy.

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Solar panels have been fitted at our Huntingdon office, with electricity generated being used on site and/or exported to the grid.

7.2 Fleet

Breheny operates 151 vans, 31 of which are hybrids, and 1 fully electric, 3 HGVs, and 86 cars, 83 of which are EVs. Over 8% of our direct emissions (GHG scope 1) come from our fleet. We aim to transition our fleet to electric or zero-emissions models by 2030, where it is the best technical and economic solution and will pursue other ultra-low emission solutions where EVs are not viable.

At present 35.0% of BCE's vehicle fleet are EVs. EV's account for 96.5% of BCE's car fleet.

Charge points are available at all our regional offices and charging options on Breheny construction projects are now available.

7.3 Non-Road Mobile Machinery (NRMM) & Generators

The operation of non-road mobile machinery and generators accounted for over 93% of Breheny's carbon Scope 1 emissions in 2024/2025. We aim to undertake a phased replacement of our fleet of non-road mobile machinery to zero or ultralow emission models by 2030. Breheny also seeks to switch from running our fleet of non-road mobile machinery and generators on fossil fuels to sustainable alternative fuels such as Hydrotreated Vegetable Oil (HVO) or Gas to Liquid (GTL) by 2026. This will see a 90% reduction in carbon emissions in comparison to mineral diesel. The reduction in carbon emissions through utilising zero or ultralow emission models is currently being determined. Carbon offsetting for NNRM fuel is also being considered.

8.0 Indirect Emissions (Scope 3)

We recognise that Scope 3 emissions can account for up to 80% of an organisation's total carbon footprint. As such, we are aware that the total carbon emissions reported in this plan HAS increased since the Scope 3 emissions detailed in section 8.3 are now fully recorded and reported.

We have calculated our Scope 3 emissions for the 2023 - 24 financial year, which will serve as the base year for setting our net zero GHG emissions objectives and related reduction targets.

8.1 Business Travel

Historically Breheny has only captured scope 3 emissions directly associated with business travel. This has typically been rail travel and grey fleet fuel usage.

8.2 Supply Chain

It is recognised that emissions associated with our supply chain are likely to be significant and it is acknowledged that these are not recorded. We are currently working with our key supply chain partners to collate data to quantify emissions and establish a baseline. 2023 will likely be determined as the baseline, with scope 3 emissions being fully recorded and reported from 2024.

8.3 The boundary for scope 3 emissions is set as follows:

- Cat.1 - All upstream (cradle to gate) emissions of Purchased goods and services;
- Cat 2 - All upstream (cradle to gate) Capital goods;
- Cat 3 – Fuel and energy related activities (not included in Scope 1 or Scope 2) – All upstream emissions of purchased fuels (well-to-tank), upstream emissions of purchased electricity (well-to-tank) & Transmission and Distribution losses associated with purchased electricity.
- **Cat 4** - Upstream transport and distribution - The scope 1 and scope 2 emissions of transportation and distribution providers that occur during use of vehicles and facilities (e.g., from energy use);
- Cat 5 - Waste generated in company operations - The scope 1 and scope 2 emissions of waste management suppliers that occur during disposal or treatment;
- **Cat 6** - Business travel - The scope 1 and scope 2 emissions of transportation carriers that occur during use of vehicles (e.g., from energy use);

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- **Cat 7** - Employee commuting - The scope 1 and scope 2 emissions of employees and transportation providers that occur during use of vehicles (e.g., from energy use);
- **Cat 9** - Downstream transport and distribution - The scope 1 and scope 2 emissions of transportation providers, distributors, and retailers that occur during use of vehicles and facilities (e.g., from energy use).

The scope 3 emissions categories highlighted in bold are the 5 required to be reported under PPN06/021.

There are no CAT 9 Downstream transport and distribution emissions associated with Breheny's products and services.

9.0 Completed/Implemented Carbon Reduction Initiatives

The following environmental management measures and projects have been completed or implemented since the 2018 baseline.

- All BCE owned premises have had their fluorescent lighting replaced with LEDs;
- PIR sensors to be fitted in all regional offices;
- EVs only in company car scheme, as of 2022;
- Charge Points for EVs have been installed at Breheny regional offices;
- Microsoft Teams has been utilised within the business to enable internal and external meetings to be held online;
- Solar hybrid generators have been trialled on our projects;
- Hydrogen and Solar powered welfare facilities have been trialled on our projects;
- Solar panels installed at Huntingdon Office and workshop;
- Trialled electric forward tipping dumpers and telescopic materials handlers;
- Third Party PAS 2080 verification obtained and supporting Carbon Management System developed and implemented.

10.0 Declaration and Sign Off

This Carbon Reduction Plan has been developed in accordance with PPN 06/21, its associated guidance, and the technical standard for completing Carbon Reduction Plans.

Emissions have been measured and reported following the GHG Protocol Corporate Accounting and Reporting Standard, as required under the Carbon Reduction Plan reporting framework. Emission factors have been sourced from recognised industry databases, including (but not limited to) the UK Government Greenhouse Gas Reporting Conversion Factors, Bath ICE, and relevant Environmental Product Declarations (EPDs). All emissions are reported in tonnes carbon dioxide equivalent (tCO₂e).

Scope 1 and Scope 2 emissions are reported in compliance with Streamlined Energy and Carbon Reporting (SECR) requirements. The relevant subset of Scope 3 emissions has been reported in line with both the Carbon Reduction Plan guidance and the Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

This Carbon Reduction Plan has been reviewed and formally approved by the Board of Directors.

John Breheny – Chairman

July 2025

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