

Carbon Reduction Plan



1.0 Introduction

This Carbon Reduction Plan (CRP) outlines Breheny Civil Engineering Ltd.'s approach to carbon reduction for the period 2023 to 2024, 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 plan identifies the baseline established for scope 1 and 2 emissions and the implementation of targets to reduce carbon intensity. It also sets out the requirement to establish a baseline year for scope 3 emissions associated with supply chain partners. Historically, only scope 3 emissions associated with business travel (Cat 6 Business travel) have been recorded.

For Green House Gas (GHG) reporting purposes, Breheny defines its organisational boundary on an operational control basis, and our scope 1 and 2 emissions are reported on this premise (i.e., we account for 100 percent of such emissions from operations over which Breheny has operational control).

This plan is supported by objectives set in our third-party accredited ISO 14001 & ISO 50001 Integrated Management System.

2.0 Scope

This Carbon Reduction Plan addresses Breheny'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.

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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.

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	TOTAL (tCO2e)
Scope 1	8,832
Scope 2	297
Scope 3 (Cat 6 Business travel)	251
Total Emissions	9,380

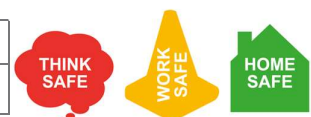
Current Year: 2023	
Baseline year emissions:	
EMISSIONS	TOTAL (tCO2e)
Scope 1	6229
Scope 2	96
Scope 3 (Cat 6 Business travel)	233
Total Emissions	6628

5.0 Our Emission Reduction Targets

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

Target	Progress for FY23/24
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. To become a net-zero carbon emissions business by 2050 – Direct Operations (Scope 1 & 2)	As of 2023, there has been a 32.2% reduction in carbon emissions compared to the 2018 baseline
Implement a process to capture scope 3 emissions and establish a baseline	We are currently looking at processes whereby we can identify and quantify all relevant Scope 3 emissions and are actively engaging with our supply chain partners to identify carbon reduction opportunities. A base year will be established against which emissions can be tracked; once this has been set targets for emissions, the reduction will be determined, with the intention of being a net-zero carbon emissions business – Supply Chain Scope 3 by 2050.
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.

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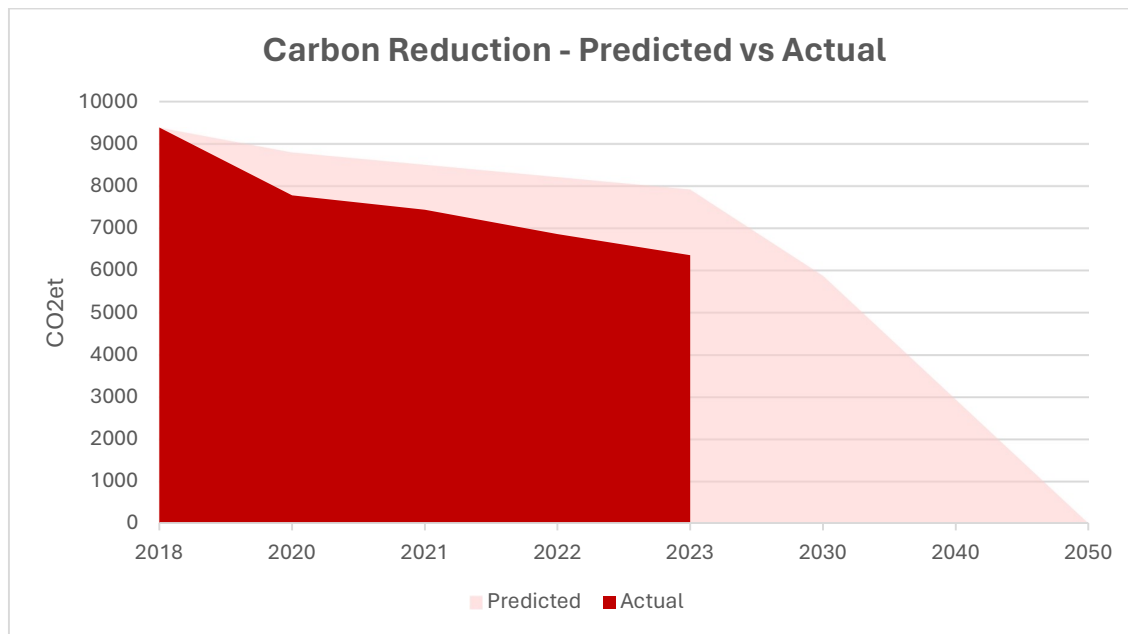
<p>To transition our fleet to electric or zero-emissions models by 2030, where it is the best technical and economic solution and will pursue other ultra-low emission solutions where EVs are not viable.</p>	<p>30.0% of BCE's vehicle fleet are EVs (EV's account for 96.2% of BCE's car fleet). This percentage has continued to increase since only EVs offered in Company car scheme in 2022 and represents a 46.6% increase in EVs within BCE's car fleet.</p> <p>We are introducing Allstar Home Charge to our EV drivers which permits employees to charge at home and encourage them to do so off peak to reduce demand on the grid at peak times.</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>
<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.</p>	<p>We are currently evaluating hybrid, hydrogen, wind, 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.</p>
<p>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.</p>	<p>We are in discussions with suppliers of HVO and synthetic diesel and are currently trialling HVO on some of our construction projects.</p> <p>We will always seek to offer alternative fuels as a low carbon options to our clients.</p>
<p>Reduce waste within the business</p>	<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>
<p>Development of sustainable procurement practices (efficiencies /low carbon through supply chains) i.e., low carbon concrete and warm mix asphalt.</p>	<p>We are actively seeking to purchase sustainable products and services and are liaising with our supply chain in order to do so. We will raise awareness of sustainable procurement practices through training and development.</p> <p>We will always seek to offer low carbon options to our clients.</p>

We predict that carbon emissions will decrease over the next six years to 5863 tCO₂e by 2030. This is a reduction of 37.5% (*against the 2018 baseline*). Progress against these targets can be seen in the graph below:

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6.0 Operational Emissions (Scopes 1 & 2):

6.1 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.

6.2 Fleet

Breheny operates 154 vans, 3 HGVs, and 79 cars, 77 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 32.6% of BCE's vehicle fleet are EVs. EV's account for 96.2% of BCE's car fleet.

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

6.3 Non-Road Mobile Machinery (NRMM)

The operation of non-road mobile machinery accounts for over 92% of Breheny's carbon emissions in 2022. 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 gas oil. The reduction in carbon emissions through utilising zero or ultralow emission models is currently being determined. Carbon offsetting for NRMM fuel is also being considered.

7.0 Indirect Emissions (Scope 3)

We note that Scope 3 emissions can represent up to 80% of an organisation's carbon emissions and are cognisant that Total Carbon Emissions reported currently within this plan will increase when Scope 3 emissions detailed in 7.3 are recorded and reported.

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7.1 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.

7.2 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.

7.3 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);
- **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).

It is to be noted that only Cat 6 Scope 3 emissions are currently recorded. 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.

8.0 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.

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9.0 Declaration and Sign Off

This Carbon Reduction Plan has been produced in accordance with the requirements of PPN 06/21, associated guidance, and the technical standard for completion of Carbon Reduction Plans.

Emissions have been recorded and reported following the requirements of the reporting standard for Carbon Reduction Plans, the GHG Protocol Corporate Accounting, and Reporting Standard and use the appropriate Government emission conversion factors for greenhouse gas reporting.

Scope 1 and Scope 2 emissions have been reported following 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 signed off by the board of directors.

John Breheny – Chairman

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