

# Carbon Reduction Plan For SBT Engineering

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# Our Commitment

SBT Engineering is committed to achieving Net Zero emissions by 2045.

## What does Net Zero mean in practice?

To achieve Net Zero, we will be aiming to reduce emissions in line with the latest science-based targets (SBTs). SBTs are greenhouse gas reduction goals set by organisations, they are defined as “science-based” when they align with the scale of reductions required to limit global temperature increases to 1.5°C compared to pre-industrial temperatures. To achieve Net Zero under this scenario, we will need to reduce our absolute emissions by 90% from our baseline year.

SBTi recommends that organisations commit to near-term targets (that cover a minimum of 5 years/maximum of 10 years from the baseline year), as well as long-term targets.

## Our near-term targets:

- Reduce scope 1 emissions by 50% by 2033.
- Maintain site scope 2 emissions at zero through to 2033, and any vehicle scope 2 emissions at zero by 2033.
- Reduce scope 3 emissions by 27% by 2030.
- Measure all upstream scope 3 categories by 2025.
- Measure all downstream scope 3 categories by 2028.

## Our long-term targets:

- Reduce our total market-based emissions (scope 1, 2 and 3) by at least 90% by 2045.
- Neutralise any residual emissions using verified carbon offsets.

**Scope 1 emissions:** direct greenhouse gas emissions that occur from sources owned or controlled by a company, such as emissions from the combustion of fuels in on-site boilers, furnaces, or vehicles.

**Scope 2 emissions:** indirect greenhouse gas emissions that result from the generation of purchased electricity, steam or other forms of energy consumed by a company.

**Scope 3 emissions:** all other indirect greenhouse gas emissions that occur in an organisation’s value chain, including emissions from upstream and downstream activities.

# Our Carbon Footprint

## Baseline Emissions Footprint

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 emissions reduction can be measured. We have chosen to set our baseline year as 1 July 2023 – 30 June 2024.

### Baseline Year: 2023-24

Additional details relating to the Baseline Emissions calculations:

*The current reporting year (1 July 2023 – 30 June 2024) is the first year that we have measured and reported our carbon footprint and will serve as the baseline year for future measurements.*

# Current Emissions Reporting

Current Reporting Year: 2023-24	
Emissions	Total (tonnes CO <sub>2</sub> e)
Scope 1	257.7
Scope 2*	Market-based: 0.0 Location-based: 23.4
Scope 3 including: <ul style="list-style-type: none"> <li>- Purchased Goods &amp; Services <i>(for operations only)</i></li> <li>- Capital Goods</li> <li>- Fuel &amp; Energy Related Activities</li> <li>- Business Travel</li> <li>- Upstream Transportation &amp; Distribution</li> <li>- <i>Downstream Transportation &amp; Distribution (none)</i></li> <li>- Employee Commuting &amp; Homeworking</li> <li>- Operational Waste &amp; Water</li> <li>- <i>Leased Assets (Upstream &amp; Downstream) (none)</i></li> <li>- <i>Franchises &amp; Investments (none)</i></li> </ul>	168.7
<b>Total Measured Emissions*</b>	<b>Market-based: 426.5 Location-based: 449.9</b>

\*Purchased electricity can be measured in two ways. A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice). A market-based method therefore takes into account the purchase of electricity via a verified renewable energy tariff. We have chosen to base our Net Zero target on a market-based methodology.

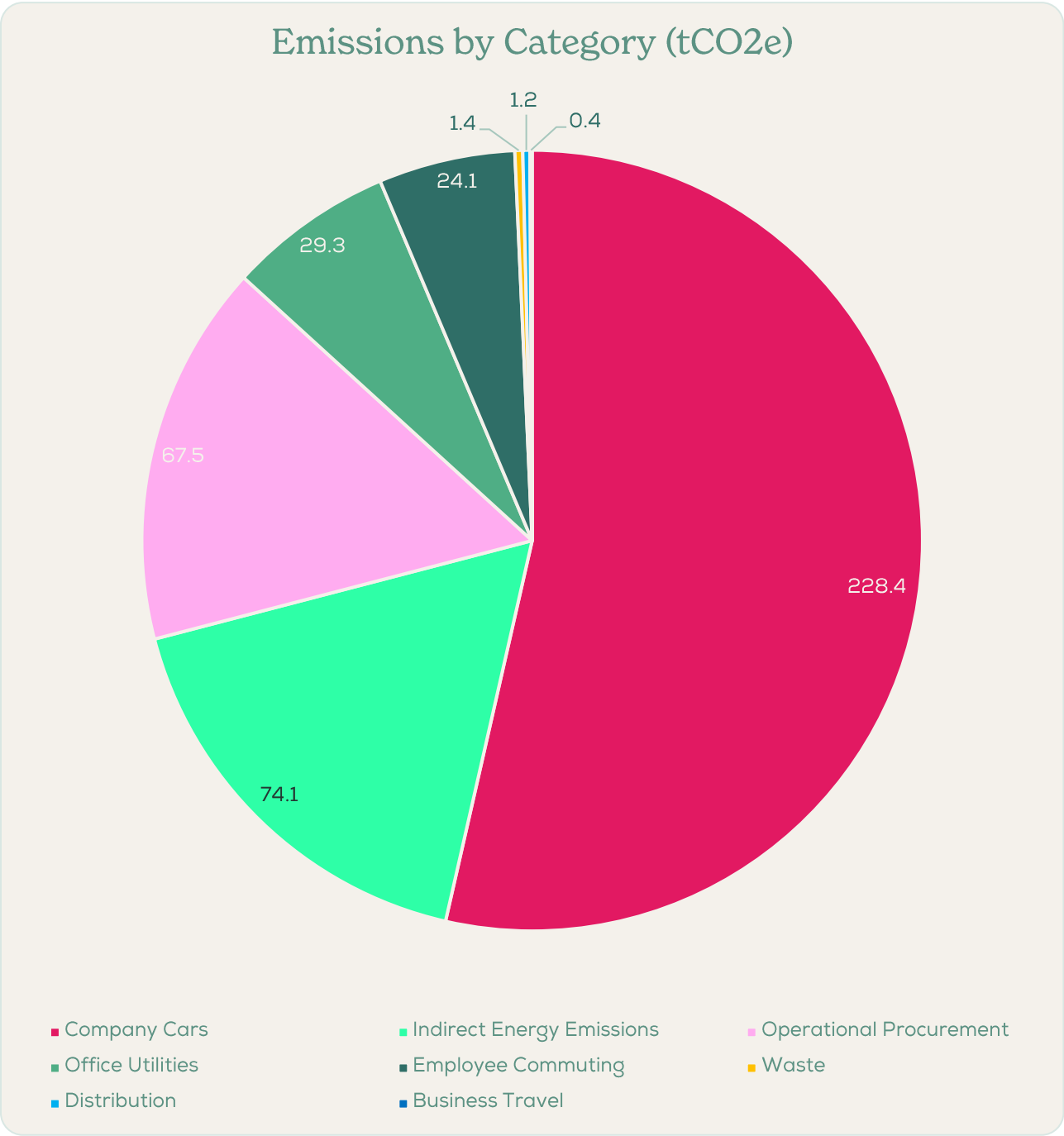
## Carbon Intensity Metrics

Current year: 2023-24	Carbon intensity metric (measured emissions)
Employees (tCO <sub>2</sub> e per FTE)	10.9

Revenue (kgCO <sub>2</sub> e per £)	0.07845
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Based upon 39.1 FTEs (full-time employee equivalents), and a £5.44 million revenue during the measurement period. We are using market-based emissions to calculate our intensity metrics.

### Carbon Emissions Breakdown



Scope 1	tonnes CO <sub>2</sub> e
Stationary Combustion	29.3
Mobile Combustion	228.4
Fugitive Emissions	0.0
Process Emissions	0.0
Scope 2	
Electricity ( <i>Location-based</i> )	23.4
Electricity ( <i>Market-based</i> )	0.0
Heat & Steam	0.0
Scope 3 (Upstream)	
Purchased Goods & Services ( <i>operational procurement only</i> )	50.8
Capital Goods	16.7
Fuel & Energy Related Activities	74.1
Upstream Transportation & Distribution	1.2
Operational Waste & Water	1.4
Business Travel	0.4
Employee Commuting & Homeworking	24.1
Upstream Leased Assets	0.0
Scope 3 (Downstream)	
Downstream Transportation & Distribution	0.0
Processing of Sold Products	(not measured)
Use of Sold Products	(not measured)
End-of-Life Treatment of Sold Products	(not measured)
Downstream Leased Assets	0.0
Franchises	0.0
Investments	0.0

# Carbon Reduction

## Our Net Zero targets

SBT Engineering is committed to achieving Net Zero by 2045. To achieve Net Zero under this scenario, we will need to reduce our absolute emissions by 90% from our baseline year. To keep us on track, we have also set the following near-term targets to 2033.

## Our near-term targets:

- Reduce scope 1 emissions by 50% by 2033.
- Maintain site scope 2 emissions at zero through to 2033, and any vehicle scope 2 emissions at zero by 2033.
- Reduce scope 3 emissions by 27% by 2030.
- Measure all upstream scope 3 categories by 2025.
- Measure all downstream scope 3 categories by 2028.

## Our long-term targets:

- Reduce our total market-based emissions (scope 1, 2 and 3) by at least 90% by 2045.
- Neutralise any residual emissions using verified carbon offsets.

## Progress

There are no previous existing carbon emission reduction targets against which to report progress.



## Completed Carbon Reduction Initiatives

The following emissions management measures and projects have been completed or implemented.

Activity	Completion Date	Scope
Commit to measuring carbon footprint of business activities year on year to gain an understanding of pinch points and regularly be making efficient and direct improvements to reduce these emissions. Year 1 appointed Positive Planet to support with calculating baseline carbon footprint and reduction recommendations.	2024	1,2,3
Created a Green Lead to lead initiatives. This lead has been supporting the roll out of initiatives and management of data, this includes sharing and collaborating throughout the organisation.	2024	1,2,3
Explored full electrification for our company fleet (especially our vans), however this was seen as unfeasible at this time due to insufficient range for our operational requirements. To make this feasible, a 500 mile van range or construction site charging provisions would be needed.	2023	1,2
Explored the prospect of procuring higher biofuel grades of diesel (up to B20 and even B30 in the summer, which have a larger percentage of low-carbon biofuel than regular B10 diesel) – however as our fleet is geographically distributed throughout the whole country, having our fleet coming back to Manchester to refuel would actually cause more emissions, not less.	2024	1
Switched to a 100% renewable electricity tariff. This change has reduced our market-based electricity emissions (from previous tariff) to 0 tCO <sub>2e</sub> .	2024	2
ISO 9001, ISO 14001 certifications. These quality and environmental management systems have allowed us to monitor our environmental impact more closely, and have put in place a process for improving our impact.	Pre-2007 (ISO 9001) 2013 (ISO 14001)	1,2,3
Currently switching to LEDs – as of July 2024 we are currently at 40% LED lighting.	2024	2
Started batching courier deliveries to reduce delivery emissions.	2023-2024	3



Purchased new diesel vehicles (Transit vans and Hiab), which are more efficient due to their Euro VI certification.	2023-2024	1
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## Future Carbon Reduction Plans

We are committing to action the following emissions management measures and projects in line with our Net Zero targets.

Reduction Plans – Scope 1 & Scope 2				
Activity No.	Activity	Target Date	% Reduction Target	Category
1	Consider low-cost options such as adding heat & sunlight control reflective window sheets.	2026	Low	Stationary Combustion
2	<p>Engage with an energy auditor to explore potential improvements to insulation, potentially with the use of thermal cameras to identify draughts and air leaks. Improve office area insulation.</p> <p>As our site has a combined indoor workshop/depot and office space, enforce a thermal separation between the non- or minimally-heated workshop/depot area and the heated office area. This means insulation should be strengthened and automatic door closers installed between these areas.</p> <p>For high ceilinged areas over 5m in height, explore the feasibility of installing destratification fans, which save on heating by pushing warm air from the ceiling down to the floor.</p>	2027	Medium	Stationary Combustion
3	<p>Total <b>location-based</b> electricity emissions (National Grid energy mix) are still 23.4 tCO<sub>2</sub>e so there is an opportunity to reduce energy use.</p> <p>We will implement behaviour change initiatives within the workplace for reduction of emissions, including clear messaging for turning off lights, monitors, computers, and</p>	2024-2025	Low (location-based)	Purchased Electricity

	<p>other electrical appliances where appropriate. We will assign roles and responsibilities to Green Team members.</p> <p>High-level monitoring of energy use is key to understanding further pinch points.</p>			
4	<p>Implement energy efficiency measures to reduce the overall amount of electricity consumed at sites, and optimise operational procedures.</p> <p>Examples of reduction measures include:</p> <ul style="list-style-type: none"> <li>- upgrading lighting to LED – we have a target to have 60% LED lights by 2026, and 100% LED at 2030</li> <li>- introducing more sensor lighting, and aligning sensor times to usage patterns (eg 3 minutes for corridors, 20 minutes for working spaces)</li> <li>- installing timers on sockets/equipment to automatically turn appliances off during non-working hours</li> <li>- reviewing and renewing inefficient equipment (when at end of life), and actively consider the energy efficiency of equipment when new purchases are required (eg laptops, fridges, dishwashers, machinery)</li> </ul>	2024-2025	Medium (location-based)	Purchased Electricity
5	<p>Explore installing radiative heating systems in our workshop/depot area, which is ideal for large, cold spaces as they heat the person and not the space around them. This will allow us to stop using gas space heating in our workshop/depot area.</p>	2024-2025	High	Stationary Combustion
6	<p>To completely reduce market and location-based energy emissions to zero, explore the feasibility of installing on-site renewable energy generation and/or heating technologies where feasible, such as solar PV panels, solar heating, heat pumps (following an energy audit to assess feasibility and payback periods) to generate 100% of heating and energy demand. Consider</p>	2033	100% (location and market-based)	Stationary Combustion Purchased Electricity

	<p>removing on-site stationary combustion (gas) heating.</p> <p>If the UK Grid is 100% powered by renewable energy before this point, your Scope 2 location-based (and market-based) electricity emissions will already be zero. You would still need to consider gas emissions unless removed (or better technology is available).</p>			
7	<p>Conduct a review of company vehicles to outline a two-phase strategy for company vehicle electrification, beginning with hybrid and ending with a fully electrified fleet:</p> <ul style="list-style-type: none"> <li>- determine which fossil-fuel vehicles to move to hybrid first, dependent on which vehicles are used most, which vehicles are most polluting, and which vehicles are oldest.</li> <li>- determine a timeframe for vehicle hybridisation and commit to this.</li> </ul> <p>Although we would have liked to directly switch to electric vehicles (especially for our vans), the fact that current vehicles on the market do not meet our operational requirements (500 mile van range or construction site charging provision) makes this option unfeasible currently.</p> <p>Therefore, once one of these requirements is in place, we shall then convert our fleet to fully electric.</p>	2024-2025	100%	Mobile Combustion Purchased Electricity (EVs)
8	<p>Consider driver-efficiency training for company vehicle users (especially vans and heavy vehicles) – this should demonstrate a reduction in total fuel/electricity use.</p>	2024-2025	Low-medium	Mobile Combustion Purchased Electricity (EVs)

Based upon the above completed and planned initiatives, it is projected that Scope 1 & 2 carbon emissions will decrease will further decrease over the next seven years from the current normalised measurement of 257.7 tCO<sub>2</sub>e to 128.9 tCO<sub>2</sub>e by 2033. This is a **reduction of 50%** and will keep us on track to Net Zero.

We also aim to implement the further initiatives below to reduce Scope 3 emissions:

Reduction Plans – Scope 3				
Activity No.	Activity	Target Date	% Reduction Target	Category
1	<p>Commit to measuring the remaining Scope 3 categories, meaning that year's carbon emissions measurement will be a full picture of SBT Engineering's carbon impact.</p> <p>Currently, the largest missing category is purchase of sold products, however there is also disposal of sold product emissions, meaning that once these are measured, specific reduction activities targeted at these categories will be able to be created.</p>	2025-2028	-	<p>Purchased Goods &amp; Services (sold products)</p> <p>Disposal of sold product</p>
2	<p>Consider training and engagement for the Green Lead, leadership, and the wider employee base. Including and not limited to, creating spaces for environmental positive conversations (internal comms, newsletters, slack, Teams etc), certified Carbon Literacy Training for all applicable to roll out to further workforce and share with externals where appropriate. On average, certified learners reduce their carbon footprints by 5-15%, of which ~50% are work-related.</p>	2024-2025	2.5 - 7.5%	<p>Commuting &amp; Homeworking</p> <p>Business Travel</p>

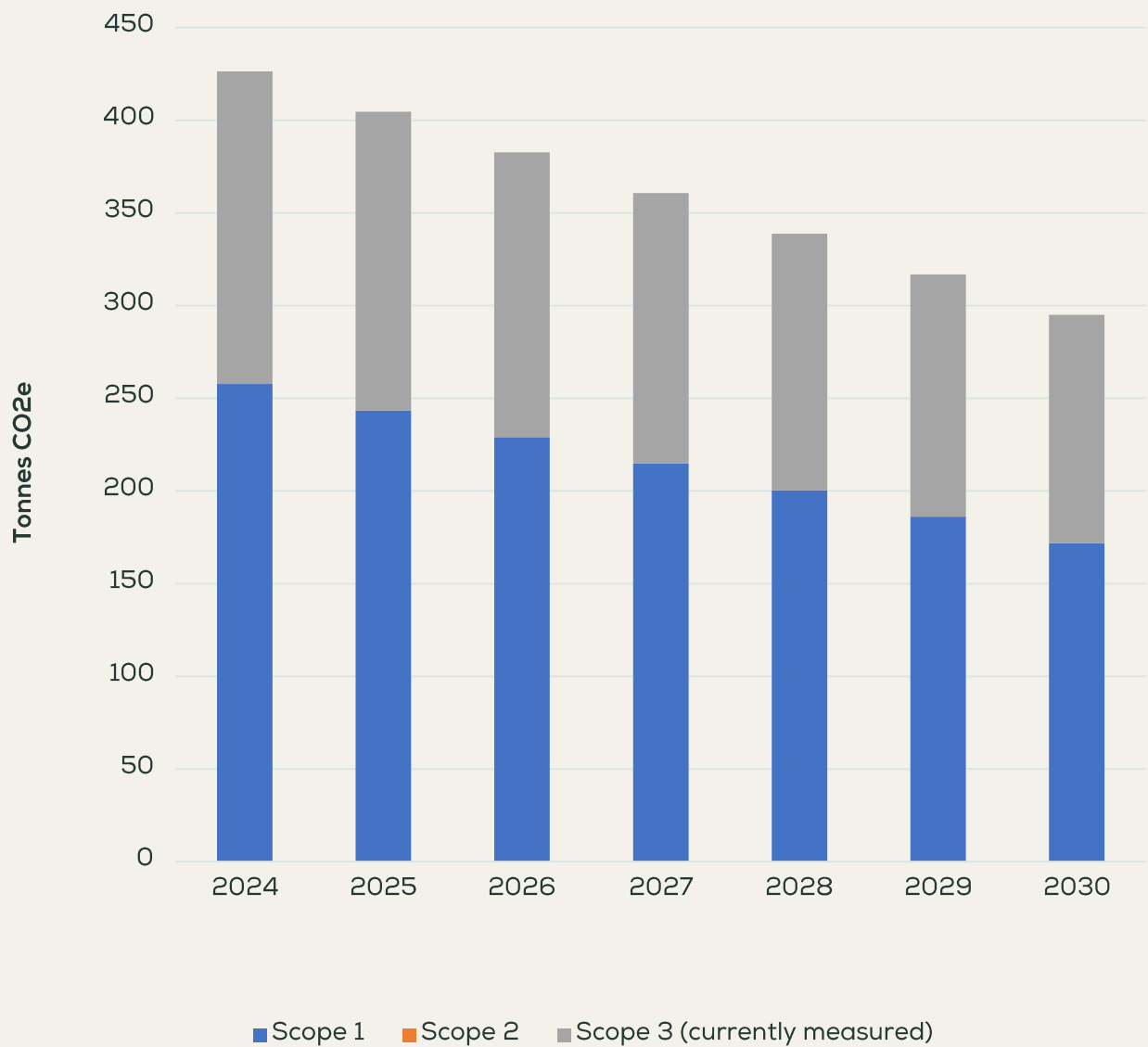
3	<p><b>Implement a Sustainable Procurement Policy.</b> Encourage suppliers to adopt sustainable practices and improve their own carbon footprint through supplier engagement, procurement policies and contracts, and monitoring reporting mechanisms.</p> <p>Commit to a Sustainability Audit or Survey to request further information regarding credentials – Plan to send these to the top 5/10 suppliers by spend. This data collection will support reduction journey by gathering important data for future measurements &amp; encourage supply chain integration towards Net Zero.</p> <p>Complete this audit within two phases:</p> <ol style="list-style-type: none"> <li>1. Identify suppliers for engagement</li> <li>2. Formulate and collect data (survey/scoring)</li> </ol> <p>Once completed prioritise suppliers with lower carbon footprints as part of the above phased approach. This may also involve purchasing second hand/refurbished (furniture, IT equipment) and extending the lifespan of purchased items.</p> <p>Develop and monitor procurement policy for all new suppliers to align to Net Zero goals.</p>	2024 - 2027	High	Purchased Goods & Services
4	<p>Review couriers and utilise the above Sustainable Procurement Policy. Work with providers to gather their emissions data, and/or switch to lower-carbon providers.</p> <p>Prioritise purchasing from local suppliers to limit delivery mileage.</p>	2024 - 2027	Low-medium	Upstream Distribution
5	<p><b>Develop and implement a Sustainable Commuting Policy</b> to support the environmental impact of choices when commuting. The priorities within this policy will</p>	2024-2025	Medium-high	Business Travel Commuting



	<p>support active travel and low emission travel options where appropriate.</p> <p>Commit to offering support to workforce with options for active and low-carbon travel, such as:</p> <ul style="list-style-type: none"> <li>- Cycle to work schemes</li> <li>- EV salary sacrifice schemes</li> <li>- Season ticket loans</li> <li>- Encouraging car sharing opportunities</li> </ul> <p>Consider creative ways to engage and support the workforce to influence change.</p> <p>Examples include extra holiday days for low emission travel choice, subsidised travel, equal mileage payments for diesel/petrol/EVs/cycling.</p>			
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Based upon the above completed and planned initiatives, it is projected that (as a minimum) measured Scope 3 carbon emissions will further decrease over the next seven years from the current normalised measurement of 168.7 tCO<sub>2</sub>e to 123.2 tCO<sub>2</sub>e by 2030. This is a **reduction of 27%** and will keep us on track to Net Zero.

## Reduction Targets to 2030



# Declaration and Sign Off

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

This Carbon Reduction Plan has been reviewed and approved by SBT Engineering Executive Team.

**Signed on behalf of SBT Engineering:**

*Paul Laidlaw*

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**Name:** *Paul Laidlaw*

**Position:** Director

**Date:** 26/11/2024

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<sup>1</sup> <https://ghgprotocol.org/corporate-standard>

<sup>2</sup> <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>