



Carbon Reduction Plan June 2023

Our corporate strategy to
becoming a net-zero
emissions business



This strategy was developed
with the support of Walker
Resource Management Ltd



Contents

3	About Econ Engineering
4	Our Corporate Aims
7	Our Carbon Baseline
9	Our Pathway to Net-Zero
10	Our Strategic Objectives
17	Glossary
18	References
19	Declaration and Sign Off

About this Document

This Carbon Reduction Plan establishes our organisational approach to addressing our carbon emissions at Econ Engineering.

The Plan has resulted from a detailed investigation which has considered drivers and legislative requirements, and the corporate risks that climate change, and inaction on climate change, presents to our business. An audit has been carried out on our main site at Ripon in Yorkshire to identify the key areas for improvement that will be addressed through the implementation of this Plan.

The Carbon Reduction Plan is formed of two parts. This particular document acts as Econ's central Plan which provides the high-level overview of our strategy. It is supported by an internal Carbon Reduction Action Plan which provides the granular details of the interventions we will implement to become a net-zero organisation by 2050. This action plan, framed with appropriate timescales, measures, and responsibility holders, will act as a governance tool by which the implementation of this strategy will be guided, and improvement tracked. A separate carbon footprint tool accompanies these documents, which will be used internally to monitor our progress towards achieving net-zero carbon emissions.

This strategy, published in June 2023, has been board-approved and will be implemented with the support from colleagues throughout Econ Engineering. By publishing this strategy, **we are making a commitment to achieve net-zero carbon emissions by 2050.**

About Econ Engineering

Econ Engineering is a company that manufactures and services high quality road maintenance vehicles including road gritters, salt spreaders, tippers, and multipurpose lorries. Our vehicles are specifically designed to meet the needs of the winter and highway maintenance sector and can be seen at work on many highways across the UK throughout the year.

As a leader in the maintenance vehicle manufacturing industry, at Econ we acknowledge our contribution towards climate change and the risks that it will present to our organisation and partners in the future. We are therefore committed to taking action to reduce our impact on climate change.

Drivers for Carbon Reduction

Climate change has been recognised globally as a serious threat to the planet and our people. An assessment report published by the Intergovernmental Panel on Climate Change (IPCC) in 2022 continued to stress the significant risks that climate change poses to our environment, and highlighted the urgency with which we are required to act. The UK's Climate Change Committee is just one of the organisations that has highlighted these potential risks, ranging from extreme weather events and flooding related disruptions, to health impacts for staff members.

The magnitude of this issue is reflected across national legislation and guidance. In line with the Climate Change Act 2008, the UK has established a mandatory target to reduce carbon emissions to net-zero by 2050. To support this ambition, in 2020 the Government set

out their Ten Point Plan, followed by the Net-Zero Strategy: Build Back Greener, which establishes a framework of policies and proposals to guide the UK economy towards achieving net-zero carbon emissions by 2050. To facilitate and encourage the reduction of carbon emissions on a national level, these strategies will be supported by an investment of £5 billion used to trigger the UK's Green Industrial Revolution and create 250,000 new jobs in green energy and technologies.

The importance of addressing climate change has also been reflected in the guidance and activities of the regions across which our facilities at Econ operate. North Yorkshire County Council, Cardiff Council, and Clackmannanshire Council have declared climate emergencies, established net-zero targets in line with the national 2050 objective, and developed climate change strategies in which all organisations within their respective localities are expected to act.

It is expected that the decarbonisation encouraged by these schemes will support Econ Engineering in reducing our carbon footprint. The transition towards electric vehicles brought by a ban in 2030 on the sale of petrol and diesel vehicles will assist Econ in reducing the emissions associated with the use of our vehicles, and the continued decarbonisation of the national grid will contribute to reducing our emissions over the long term.

At Econ Engineering, we understand that we have a responsibility to act on climate change and contribute to both UK and international sustainability goals. Through the implementation of the actions and objectives within this Carbon Reduction Plan, we set ourselves on a pathway to achieve net-zero by 2050.

Our Corporate Aims

At Econ, our customer first approach is at the cornerstone of every business decision, and over the years we have adapted to innovate our service and product range with you in mind. Our first gritter was built in the early 70's based on the desire to improve the efficiency of road clearing after Britain suffered a series of bad winters.

As a manufacturing business, Econ has a high level of power consumption which makes up a significant portion of our carbon footprint. Our other carbon hotspots include the use of raw materials for vehicles and fuel for deliveries to customers. All of these activities contribute to climate change and increase the frequency and intensity of the extreme weather events that we work to address. It is clear to us that customer satisfaction and sustainability go hand-in-hand.

Econ recognise our responsibility to take action on climate change and will continue to monitor and report our emissions annually. We will also implement a suite of actions to address our direct emissions. These actions will be implemented over short, medium and long term timescales, and will aim to deliver reductions to our carbon footprint.

Our Sustainability Progress

At Econ Engineering, it is crucial to recognise that we are not having to reduce carbon from a stationary position. We have invested over £4 million in sustainability practices and infrastructures since 2015 to offset and reduce our carbon impact, and within our existing ways of working have some well-established sustainability measures that provide a foundation on which we will improve our performance.

Regenerate

At Econ, our own brand hire fleet is renewed every 5 years, where most vehicles are refurbished and resold to extend their working life. Where end-of-life vehicles no longer meet UK regulations, they are exported abroad to give them the maximum possible lifespan. Our use of high calibre steel in manufacturing also ensures that maximum recycling yield can be obtained from vehicles if scrapped.

Restore

Our first major step towards energy regeneration was through the installation of 800 photovoltaic panels on the roof of our Ripon factory. These generate 15% of our power from renewable sources and offset 62.5 tonnes of carbon annually. By reducing our reliance on the national grid, we have reduced our energy-related carbon emissions.



Reduce

Waste Management: Econ minimise waste generation by recycling or re-using materials whenever practicable. We pre-sort production bi-products such as paint, metal, plastic, and cardboard into grades before being placed into the collection bins of our local recycling partners, negating the need for additional sorting. It is estimated that up to 83% of our waste materials are re-used.

Laser Cutting: Econ use laser cutting technology which allows us to manufacture the majority of our 4000 raw metal components from far fewer localised sources, resulting in reduced waste, power usage and travel mileage. A nesting programme tessellates the parts to be cut in the most efficient way possible to maximise the use of each piece of metal. The laser cutter is estimated to have saved approximately 41 tCO₂e.

Solar Luminaries: Econ have substituted the halide lights in our factories for 'industry sensing LED luminaries,' which sense movements within workspaces and adjust the light strength accordingly. These are estimated to save approximately 109 tCO₂e per year.

Air Compressor: Econ have installed a modern, environmentally-friendly two-stage variable speed air compressor which uses power when required rather than drawing from it continuously.

Heating: Econ use a zoned heating system which reroutes filtered warm air generated by our compressor and welding fume systems during winter to support varied shift patterns within our factories.

Vehicle Operations

Through collaboration with partners, Econ have developed an in-cab pre-programmable control box called Spargo to distribute optimum levels of de-icing solution to treat roads effectively. This includes a route guidance system which allows routes and distribution rates to be set prior to journeys, reducing the number of miles travelled and grit resource applied by up to 5% during vehicle operation.

Euro 6 Standard: Econ's vehicles are built upon donor manufacturer chassis, and have used Euro 6 'low emission engines' since 2015. With a 10-year lifespan, it is anticipated that by 2025 all customer-owned Econ highway maintenance vehicles will be to Euro 6 standard. All of Econ's hire vehicles have already been converted to this new technology.

Service Hubs: Econ has invested £3.4 million in 2 strategically placed state-of-the-art service centres in Alloa and Cardiff. In April 2022, we also opened a new main hub in Sowerby Thirsk at a cost of £7 million, which also has 114 square metres of solar panelling and exceeded the baseline environmental requirements for new builds. Our new sites are all above standard for heat loss and electricity consumption, and reduce mileage travelled to return vehicles for maintenance. These hubs are estimated to have saved over an annual 154 tCO₂e.

Contractors and Suppliers

Econ's supply chain managers source suppliers, contractors, and components from local sources to support local infrastructure and reduce the carbon footprint of materials, and only companies which can demonstrate similar sustainability standards will be added to our supply chain. We also monitor our purchasing and minimise the ordering of unnecessary items which may generate excess waste and increase our carbon footprint.

Employee Best Practice

Employees adopt energy-saving practices such as turning off computers and lights and ensuring that heating is not used in excess. Ambient temperatures are maintained throughout the working environment with the use of thermostats to maintain comfort. All employees are issued with company fleeces to reduce our reliance on heating.

Low Carbon Commuting

Many of the Econ team live within a short bike or drive and take advantage of the Bike-to-Work and Car share schemes that we run. Econ have also introduced a policy to change their management fleet to electric hybrid vehicles. We have also just launched a new pedestrian and cycle path sprayer which will help our customers to meet their net-zero obligations to increase the number of non-motorised commutes.

Alternative Fuel Vehicles

Econ are working with our main suppliers to develop more sustainable donor vehicles which include electric and hydrogen vehicle options. We have developed a new drive system with Leyland DAF which will enable us to use smaller capacity vehicles for urban areas, with a carbon saving of 5%. We have successfully developed, trialled, and rolled out a new MAN donor chassis which has a direct Selective Catalytic Reduction (SCR) engine to meet the Euro 6 standards which negates the need for an exhaust recirculating system and acts as an ultra low emission vehicle in urban settings. We are also working with cab manufacturers and other third parties to develop effective 'alternative fuel source' vehicles.



Our Carbon Baseline

Addressing our direct and indirect carbon emissions

To establish the carbon impact of our organisation, we have undertaken an in-depth analysis of our key emission sources and calculated our carbon baseline. An audit of our main manufacturing site in Ripon was undertaken in early 2023 with the aim of identifying the carbon intensive activities and processes that Econ undertakes across all service lines. The outcomes of this carbon baselining have helped us to identify targeted actions to deliver emission reductions and will act as the foundation as we map our trajectory to net-zero.

Emission Scopes

As defined by the Greenhouse Gas Protocol (GHGP), carbon emissions can be separated into three distinct scopes. Scope 1: direct emissions from aspects we control such as the use of natural gas; scope 2: indirect emissions from the consumption of purchased electricity; and scope 3: indirect emissions falling outside of scopes 1 and 2 such as those from the goods and services purchased, water consumed, and waste treated. We are currently monitoring our scope 1, 2 and 3 emissions where possible and where we have robust data.

We have less control over our indirect emissions, which can present challenges in accurately quantifying and reporting these emissions. Where we have sufficient and reliable data, and where carbon conversion factors are available, we have quantified our Scope 3 emissions. The Scope of our Greenhouse Gas inventory, including indirect emissions, is given in the following table.

Scope 1 Direct Emissions	Scope 2 Indirect Emissions	Scope 3 Indirect Emissions
Fuel Consumption: Natural Gas	Imported Energy Consumption - Electricity Purchased from the National Grid	Waste Disposal
Fleet Delivery Fuel		Water Consumption
		Materials Purchased

We are currently monitoring the carbon emissions from our gas, fleet delivery fuel, electricity, and water consumption, the impact of our waste disposal, and the embodied carbon impact of the key items we procure, such as sheet steel and bar. For clarity, the emissions associated with the consumption of petrol and diesel in the manufactured vehicles used by our customers have not been included within the quantification of this carbon baseline. The purchase of ready-made items used for the manufacturing process have also not been factored into calculations due to the sheer volume and complexity of the items procured.

As we work towards reducing our carbon emissions to net-zero, we will strive to improve the accuracy of our data collection to enable us to fully quantify our indirect emissions in the future. As data improves and more reliable methodologies become available for quantifying indirect emissions, we will quantify and report fully on our Scope 3 emissions.

Methodology

We have used a location-based emissions quantification method which reflects the average emissions intensity of the national grid on which energy consumption occurs. Our carbon emissions have been calculated by multiplying our consumption data (e.g. kWh for electricity) with the national carbon conversion factors provided by the Department for Business, Energy, and Industrial Strategy (for greenhouse gas reporting), which in February 2023 reformed as the Department for Energy Security and Net Zero (DESNZ). The result provides the annual CO₂e emissions for each emissions source within the monitoring framework. For emission sources without a DESNZ conversion factor (chassis, solvents and paints), we extracted academically verified figures from highly cited, peer-reviewed and recently published papers (Qiao, *et al.* 2017; European Solvent Recycler Group, 2013; Stichnothe, *et al.* 2022).

This emission quantification methodology has been selected to enable us to produce accurate and reproducible results. Using our carbon footprinting tool we will continue to quantify and report our annual emissions each year to enable us to monitor our progress towards net-zero.

Carbon Baseline

This is the first carbon footprint with a complete data set that Econ has developed, and it will therefore serve as the representative baseline year and a benchmark against which all subsequent annual carbon dioxide equivalent (CO₂e) emissions will be compared. Our baseline year has been established as 2022. **Progress against this baseline will be measured and reported on annually.**

Scope	Aspect	tCO ₂ e
Scope 1	Gas	19
	Scope 1 total	19
Scope 2	Electricity	284
	Scope 2 total	284
Scope 3	Waste	102
	Water	0.56
	Products Purchased	4,404
	Fuel	573
	Scope 3 total	5,081
Total		5,384

In our first recorded year, scope 3 was the largest source of greenhouse gas emissions, making up (93.4%) of the total. This was largely due to the procurement of raw steel, accounting for (74.1%) of scope 3 emissions. Other significant sources of emissions within this scope were white diesel (9.4%) and chassis procurement (8.2%). Each emissions source has been categorised into waste, water, products purchased and fuel. Scope 2 emissions accounted for (6.2%) of the total emissions value, with scope 1 contributing the lowest percentage emissions source at (0.3%). Our final emissions total was calculated as 5,384 tCO₂e.

As we undertake subsequent reviews of our carbon impact, we will look to improve the quantification of our scope 3 emissions to cover a wider range of sources, as and when the data becomes available.

Our Pathway to Net Zero

Our direct carbon emission net-zero pathway

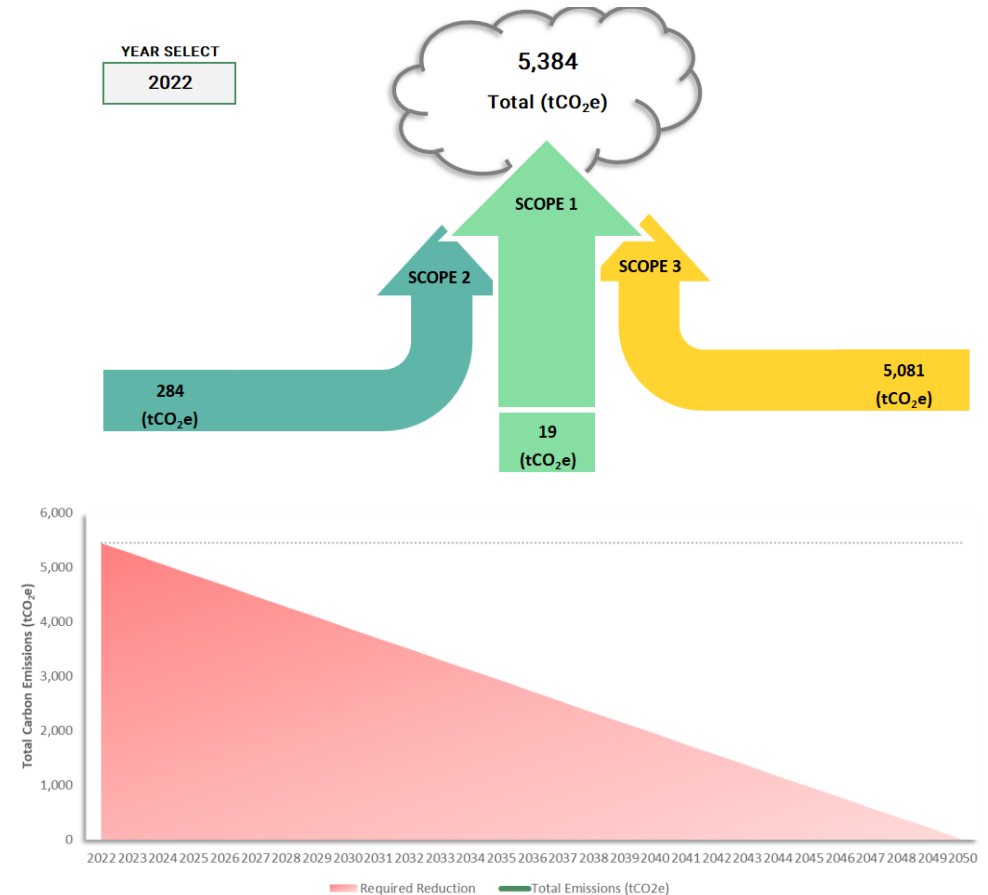
Following the publication of our first carbon audit, we will continue to recognise the importance of acting upon and monitoring these values. We acknowledge that reducing our carbon emissions to net-zero will require significant input from the entire workforce over the next three decades.

We have already invested £4 million into carbon and energy reducing measures and implemented well-established sustainability practices including solar panel installation and the extension of vehicle lifespans through export abroad. However, through the implementation of our carbon reduction strategy and action plan, we will focus on driving further improvements in how we manage the different areas and processes of our organisation.

The actions implemented as part of this plan will deliver incremental improvements in our efficiency and a level of environmental performance that is required for us to become net-zero by 2050 and support our work towards becoming ISO14001 accredited. These actions will enable us to reduce the quantity of emissions we produce and minimise the necessity for offsetting.

Although we don't predict our carbon reduction trajectory will be linear (as some actions will deliver more substantial carbon savings), we will aim to work in line with, or ahead of, the predicted net-zero trajectory as far as possible.

The graph below illustrates the estimated carbon emission reductions that we hope to achieve through some of the interventions suggested in our action plan. These actions will be monitored and implemented within carefully orchestrated timescales and by an allocated lead.



Our Strategic Objectives

To support the delivery of our targets and commitments, we have allocated our suite of specific actions to 10 strategic themes, which were developed following a rigorous consultation process. The adoption of these objectives will enable us to drive carbon reduction throughout the organisation and hold ourselves accountable in meeting our targets. Their relevance, suitability and effectiveness will be continually reviewed.

Our Key Themes:

- ✓ *Corporate Approach*
- ✓ *Asset Management & Utilities*
- ✓ *Estates & Facilities*
- ✓ *Sustainable Production Models*
- ✓ *Digital Transformation*
- ✓ *Greenspace & Biodiversity*
- ✓ *Workforce & System Leadership*
- ✓ *Travel & Transport*
- ✓ *Supply Chain & Procurement*
- ✓ *Adaptation*

To deliver on the actions set out for each theme and those which we have outlined within the carbon reduction strategy, we will utilise an internal action plan, detailing 170 actions that Econ will commit to, in order to tackle carbon emissions across the organisation.

Each intervention detailed within our action plan has a designated action lead, timescale for implementation, and interim monitoring frequencies, to ensure each action is implemented effectively. The action points are grouped into 36 strategic carbon reduction objectives. In this sense, we can monitor and reference our implementation efforts in a targeted way.

The achievement of our targets and strategic objectives will require the support and commitment of the entire Econ workforce, and the roll-out of additional financial investment over the next 30 years. In line with national and regional approaches, Econ has adopted the following target: Net Zero Greenhouse Gas Emissions before 2050.



Corporate Approach

Engaging our management personnel will be critical in the delivery of the carbon reduction plan. By conducting reviews of carbon taxation policies, monitoring changes in sector-specific legislation and responding to these with appropriate contingency measures, we aim to increase our awareness of sustainability in the vehicle manufacturing industry.

“Annually reporting on [our carbon reduction efforts] to our stakeholders, will ensure that our progress is clear and transparent.”

Continually updating our website and adapting our marketing strategy to include information on carbon reduction and sustainability; aligning our mission statements, values and principles to reflect sustainability; sharing best practice with other organisations; encouraging sustainable products and services; and annually reporting on this to stakeholders, will all ensure that our progress is clear and transparent.

Calculating and monitoring our carbon emissions is also fundamental, and Econ will fulfil this by quantifying and publishing the footprint of our workforce, core emissions including waste, water, energy, items procured and travel, and the emissions produced during new projects.

Our financial and operational procedures need to support and facilitate sustainability and carbon reduction. Ensuring that responsibility for action is clear, considering sustainability within all

financial decisions, working towards ISO 14001 and reporting core emissions and KPIs to our Board will positively contribute towards this objective.

Without collaboration with our partners and the local community, we may forego the opportunity to enhance our sustainability performance. Econ will therefore seek ideas from the wider public and contribute to the plans of key partners when appropriate, to promote sustainability across alternative industries and learn best practice.

Asset Management & Utilities

Reducing the carbon emissions associated with our assets and utilities involves the increase in use of renewable energies. This will require the expansion of solar panel use on site, upgrading renewable energy sources, exploring other ways of generating onsite renewables and assessing the viability of a 100% renewable tariff.

“Improving the efficiency of our water and energy use will also significantly reduce our carbon emissions.”

We will also seek to improve the efficiency of our machines through a series of carefully planned actions, including annually reviewing the possibility of retro-fitting machinery, setting assessment criteria for new procurement, replacing kit with more energy efficient versions and maintaining machinery in line with manufacturer suggestions.

Improving the efficiency of our water and energy use will also significantly reduce our carbon emissions. Submetering our water and electricity supplies across our sites, installing LED lights, supporting staff to conserve energy and water and optimising heat distribution within our factories are a few of the ways in which we will support this objective.

We have also committed to increasing the use of and investment in sustainable technologies and materials, which will involve sourcing alternatives as they appear in the market, assessing the suitability of existing products and services alongside these alternatives and investing in measures, like ambient radiation heating systems, that will increase efficiencies across all areas of our estate.

Estates & Facilities

Reducing our waste and adopting a circular approach to resources will be critical in our carbon reduction journey. We will direct our efforts towards recycling and re-using materials where possible, exploring the ways in which we can limit waste disposal, investigating recycling solutions for confidential waste, managing stock carefully and streamlining product lines.

In addition, improving the segregation of our waste, implementing a waste management policy, identifying opportunities within the waste hierarchy, monitoring waste outputs and setting targets for waste minimisation will all ensure we effectively advance waste management procedures.

By focusing on reducing overall material use, liaising with our supply chain to maximise repair and re-use opportunities, reducing the use of single use items, encouraging supplier carbon reductions, identifying opportunities to convert our waste into resources and embedding resource efficacy into the design specification for new builds and refurbishments, we will considerably improve our management of resources.

“Reducing our waste and adopting a circular approach to resources will be critical in our carbon reduction journey.”

Following this, we will seek to review and improve our building efficiency and design through ensuring BREEAM standards are met, assess energy efficiency and space utilisation, integrate a whole life costing approach to large projects, and calculate the carbon performance of our buildings.

Sustainable Production Models

Most of the emissions associated with our production models relate to the manufacture of steel. As such, we will seek to expand the lifespan of our vehicles by researching and implementing vehicular efficiency improvements, calculating whole life costing measures, improving the longevity of paints, and exporting our vehicles abroad when they no longer meet UK safety regulations.

We will also seek to improve our manufacturing process by utilising nitrogen to cut parts precisely and increase joint durability, explore the creation of on-site nitrogen supplies, invest in energy saving measures and energy-efficient speed air compressors, and continue to use high-calibre steel to further increase maximum vehicle lifespan.

“Our management personnel will continue to annually review the financial and social co-benefits of alternative production models.”

Throughout this process, our management personnel will continue to annually review the financial and social co-benefits of alternative production models, embed resource sustainability into decision criteria, and continually review alternative products and technologies.

We have also committed to increasing the use of and investment in sustainable technologies and materials, which will involve sourcing alternatives as they appear in the market, assessing the suitability of existing products and services alongside these alternatives and investing in measures, like ambient radiation heating systems, that will increase efficiencies across all areas of the estate.

Digital Transformation

As we operate in the post-covid era, utilising and improving our use of digital technologies is more paramount than ever. Maximising monitoring technologies, especially with regards to energy and resource use, increasing teleconferencing capabilities, minimising and

consolidating unnecessary travel arrangements, improving the adaptation of our infrastructure through new technologies and adopting performance monitoring techniques within our production models, will maximise the sustainability of our services.

“As we operate in this post-covid era, utilising and improving our use of digital technologies is more paramount than ever.”

Digitising our paper-based financial and operating systems, and implementing a digital technology use policy will encourage active involvement with the initiative in our workforce.

Greenspace & Biodiversity

Following the recent release of the Science Based Targets Initiative Report on Corporate Responsibility for Biodiversity, we have a duty to assess how we might prevent, reduce and improve our impact on green space and biodiversity across our sites and within our supply chain.

By assessing our impacts and putting mitigating measures in place, monitoring protected species, maintaining high-quality habitat features, and publishing a board-approved green space / biodiversity strategy, we will move closer towards the effective enhancement of local biodiversity.

“We have a duty to assess how we might prevent, reduce and improve our impact on green space and biodiversity across our sites and within our supply chain.”

Our greenspaces have the potential to support and improve the mental and physical well-being of our workforce. That’s why it is crucial we seek to maintain and improve access to them through assessing their health, safety and cleanliness, engaging with suppliers regarding potential bio-toxicity risk products, managing our waste to minimise negative impacts and planting more trees to increase offset efforts.

Workforce & System Leadership

There are three key strategic objectives under this theme which include upskilling our workforce on environmental and sustainability practices, increasing our internal sustainability communications and encouraging our workforce to take personal action on sustainability.

Critical to this will be the roll-out of training or ‘toolbox talks’ on product carbon emissions, sustainability within the company and industry, and Econ specific policies and procedures, accessible to the entire workforce. Enlisting a team of ‘green champions’ will also support in raising awareness and encouraging action across the organisation.

Further coordination of campaigns such as an internal communications newsletter, annual emissions reports, daily meeting standing topics, and sustainability events and report publicity will support active sharing of information regarding the benefits of sustainability and improve workforce participation. Within our training, we will consistently address the key areas of carbon emissions, climate change, energy, food waste, the waste hierarchy, energy, vehicle use and air travel.

“Enlisting a team of ‘green champions’ will also support in raising awareness and encouraging action across the organisation.”

Travel & Transport

As transport contributes to roughly a quarter of the EU’s total greenhouse gas emissions (EEA, 2022), it is essential that we use it as a critical theme in our carbon reduction strategy. Within the theme we target the areas of innovative technologies, unnecessary business travel, air pollution reductions, electric vehicles and low carbon / active travel.

Working with our suppliers to identify and develop alternative fuel sources, promoting the use of our cycle-path sprayer and engaging with current suppliers regarding emerging technologies, including electric and hydrogen options when they become available, will ensure we enhance our use of innovative technologies.

As soon as feasible, all company cars will be switched to electric, and vehicle charging points will be installed, both on site and externally, focusing particularly on our rural and remote customers. To accompany this, we will launch our first fully electric powered gritter, contributing to national targets for decarbonisation.

In support of our target to reduce air pollution we will instate a Board-approved business travel policy, an approval system for all high carbon business travel and continue to calculate our total business travel and staff commuting carbon footprint.

“As soon as feasible, all company cars will be switched to electric, and vehicle charging points will be installed.”

All future sites will be chosen in consideration of ease of access for staff to reduce mileage and lower the emissions of commuting. Our customers will be directed to driver training to promote efficiency and we will continue to implement our service hubs in appropriate localities to encourage lower emissions associated with the return of vehicles for maintenance. We will also work closely with our partners and stakeholders to improve the local air quality by developing plans for traffic management.

To encourage the uptake of low carbon and active travel, we aim to incentivise staff through travel allowances, improvements to current facilities and educating staff on the personal benefits of sustainable commuting including making use of our site’s cycling facilities.

By developing a Board-approved travel plan in which we look to introduce a car sharing scheme and increase the quality of our storage, lockers and showers, we will further encourage low carbon travel options in line with the travel hierarchy.

Supply Chain & Procurement

Sustainable supply chains are crucial to business longevity and the health of our people and planet. Asking our suppliers to provide information on their carbon footprint and environmental impacts, sourcing alternative and additional suppliers who have increased sustainability visibility and discussing potential changes to practice with current suppliers will support our target to work with suppliers that prioritise sustainability and carbon reduction.

“Sustainable supply chains are crucial to business longevity and the health of our people and planet.”

To avoid unnecessary procurement, we will monitor our purchasing levels and minimise the ordering of items which generate excess waste, and conduct reviews of existing customer needs to isolate areas where improvements can be implemented.

To support our work in the development of sustainable production models and promote the use of products that reduce our environmental impact and carbon emissions, we will create a repository of products and services, document their impacts and evidence interventions, ensure that our chassis specifically are the most sustainable on the market, and educate our customers so that they are openly aware of sustainable gritter options.

Adaptation

As we draw closer to 2050, the environmental impacts of climate change are becoming increasingly more apparent, particularly through the increase in severity and frequency of wildfires, heat waves, snowstorms and flash floods. To ensure resilience and robust management of facilities, we aim to recruit an adaptation lead to deliver on emergency preparedness, communicate these plans to our workforce, and involve a wide range of representatives from individual departments to ensure a coordinated approach.

It is critical to assess potential business risk considering the aforementioned issues, which is why we are committed to understanding the financial impacts of climate change, carrying out an assessment of site preparedness for extreme weather events, and embedding its effects into our organisational risk register.

Managing these risks is the next step in this process, and we will train our staff to understand their responsibilities in this context, including adaptation within our research and development efforts and ensuring resource efficiency and erosion reduction to optimise salt distribution for winter clearing.

“The environmental impacts of climate change are becoming increasingly more apparent, particularly through the increase in severity and frequency of wildfires, heat waves and flash floods.”

Ensuring resource efficiency is of paramount importance to ensure our products and services can be delivered long into the future. We will contribute to this target by developing a mitigation and contingency strategy and working closely with our suppliers to understand their resilience measures and the contingencies in place to support business as usual under extreme scenarios.

Glossary

Air Pollution: the presence and introduction into the air of a substance which is harmful to human health

Carbon Intensity: a means of calculating the amount of carbon generated for a specific energy source (e.g. electricity)

Carbon Net-Zero: a state in which an organisation emits no carbon emissions from its activities. Or a state in which all carbon emissions are offset

Carbon Offset: an action or activity (such as the planting of trees or carbon sequestration) that compensates for the emission of carbon dioxide or other greenhouse gases to the atmosphere

CO2e (Carbon dioxide equivalent): a unit used to express total greenhouse gas emissions. There are multiple GHGs, each with a different impact on climate change. CO2e equates all GHGs to the impact of carbon dioxide. CO2e is used to report all GHG emissions

Greenhouse Gas (GHG): a gas that contributes to the greenhouse effect, leading to climate change (e.g. CO2)

kWh (kilowatt hours): a unit of measurement for energy usage (e.g. gas and electricity)

Direct emissions: CO2e emissions from sources which are owned or controlled by the Trust

Indirect emissions: CO2e emissions from sources which are not owned or controlled by the Trust, but are generated due to the Trust's activities (e.g. purchase of electricity, procurement, waste disposal)

Scope 1 emissions: direct emissions from owned or controlled

sources (e.g. on-site fuel combustion, company vehicles, anaesthetic gases)

Scope 2 emissions: indirect emissions from the generation of purchased electricity, steam, heating, and cooling

Scope 3 emissions: all other indirect emissions that occur in an organisation's supply chain (e.g. purchased goods, employee commuting, waste disposal)

References

Stichnothe, *et al.* 2022. Estimating the Carbon Footprint of Paints: Some Important Considerations. Surface Coating International. [online] Accessed: https://www.researchgate.net/publication/359577531_Estimating_the_Carbon_Footprint_of_Paints_Some_Important_Considerations.

European Solvent Recycler Group (ESRG) 2013. Carbon Footprints of Recycled Solvents. ETHOS Research. [online] Accessed: https://esrg.de/media/PDF/Study_print_090514.pdf

Qiao, *et al.* 2017. Comparative Study on Life Cycle CO2 Emissions from the Production of Electric and Conventional Vehicles in China. Energy Procedia. [online] Accessed: https://www.sciencedirect.com/science/article/pii/S1876610217309049?ref=pdf_download&fr=RR-2&rr=7d49cb2caf46dce3

European Environment Agency, 2022. Greenhouse Gas Emissions from Transport in Europe. Indicators. [online] Accessed: <https://www.eea.europa.eu/ims/greenhouse-gas-emissions-from-transport#:~:text=The%20transport%20sector%20is%20responsible,since%201990%20as%20other%20sectors>.

UK Government, 2023. Greenhouse gas reporting: conversion factors 2023. Department for Energy Security and Net Zero. [online] Accessed: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Declaration and Sign Off

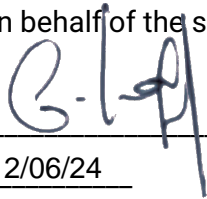
This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard 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 signed off by the board of directors (or equivalent management body).

Signed on behalf of the supplier:

A handwritten signature in black ink, appearing to be 'G. L. A.', written over a horizontal line.

Date: 12/06/24