

GB Railfreight Limited | 2023

Towards a Sustainable Future

An ambitious Carbon Reduction Plan compliant with PPN 06/21

GB Railfreight





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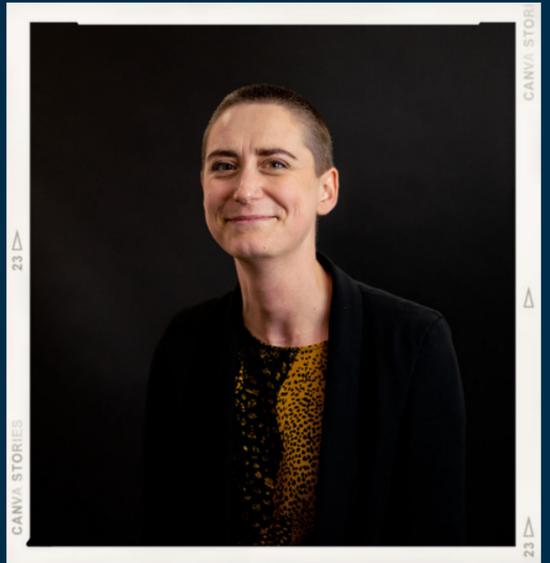
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Introduction

The latest science indicates that the way we live is having a negative impact on our climate. The impacts of climate change are happening now. Severe forest fires, floods and droughts are increasing, scientists have documented evidence that sea levels are rising and we have already seen global temperature rise by 1.2°C above pre-industrial levels. There is a consensus that unless we change, the future looks uncertain in terms of social, environmental, and economic conditions. The Paris Agreement of 2015 established a global goal of limiting global temperature rise to well below 2°C above pre-industrial levels, and to pursue efforts to limit warming to 1.5°C. In 2018, the Intergovernmental Panel on Climate Change warned that if global warming continues at its current pace, we will exceed 1.5°C, which would have catastrophic impacts on the planet.

In 2019 the UK became the first major economy to pass a Net Zero emissions law, meaning the UK government is legally required to reach Net Zero emissions by 2050. When the UK government published its procurement policy notice 06/21 (PPN 06/21), it was clear that businesses should focus on building back the economy in a sustainable fashion. Furthermore, PPN 06/21 requires any company bidding for government contracts to have a Net Zero goal and have a carbon reduction plan in place.

“ At GB Railfreight we recognise the vital role we play in helping the UK reach Net Zero by 2050. The transport sector, of which we're a part, is responsible for around a quarter of the UK's greenhouse gas emissions which are causing climate change. Reducing these emissions is an enormous challenge but one that brings with it opportunities for positive cultural change, innovation and a renewed sense of purpose. This carbon reduction plan is GB Railfreight's first step into meeting this challenge. ”



Suzannah Rockett
Head of Sustainability

Our Approach

GB Railfreight is one of the fastest growing companies in the railway sector and we transport goods for a wide range of customers. We also undertake passenger and charter operations. We believe that our place in the transport logistics supply chain ensures we're critical to the national economy.

By moving goods by rail we can help to cut the UK's carbon emissions because haulage by rail is more efficient than by road.

At GB Railfreight, we are committed to reducing the environmental impact of our operations, and that goes beyond our locomotives. Our purpose is to create a positive and lasting impact on the lives of our people, customers, and communities. We will use this opportunity to take climate action and create social value through our business, company culture, and strategic partnerships. This report demonstrates a real commitment to building a business that has a positive impact on the world.

To this end, our business is undertaking a strategic review to ensure our carbon reduction efforts, are included across the whole business from our supplier to our operations and down to our customers.

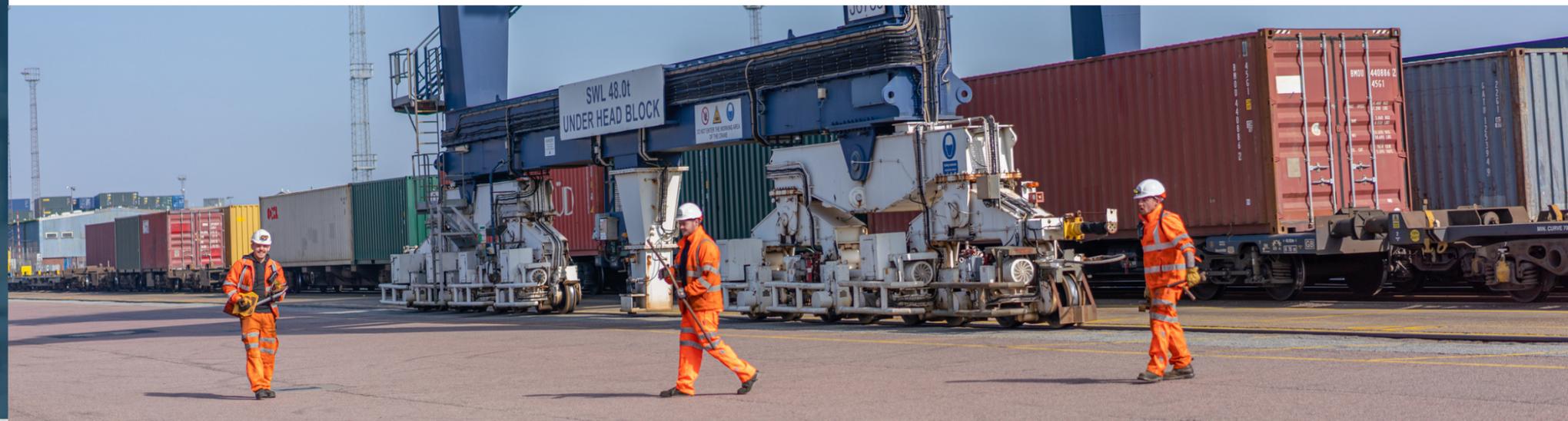
We are focused on the most impactful and valuable areas and have thus set a goal to be net zero by 2050.



Corporate Responsibility and Accountability

GBRf is on a journey to create a sustainable future and we want to ensure that journey is transparent, credible, impactful, and measurable.

To ensure we achieve our aims, we partnered with carbon consultancy Enistic who calculates and tracks our carbon emissions in accordance with the GHG protocol.



Our Carbon Reduction Targets

GBRf is committed to a 100% reduction in all scope 1, 2, and 3 emissions by 2050.

2050



**BUSINESS
AMBITION FOR 1.5°C**



All our emissions reductions will be primarily achieved through ambitious carbon reduction projects and offsetting carbon emissions will only be considered in cases of unavoidable emissions. GBRf will work with its partners to establish a yearly emission reduction target and this KPI will be integrated into our reporting system to ensure annual targets are met.

Emissions Categories

Currently, we measure all our scope 1 and scope 2 emissions following the GHG protocol, and we measure a subset of scope 3 emissions (PPN 06/21 requirement) following the Corporate Value Chain Scope 3 Standard.

GHG Scope	Emissions sources
Scope 1	Direct emissions resulting from sources that are owned and controlled by GBRf
Scope 2	Indirect emissions from purchase of electricity and onsite EV charging
Scope 3	Indirect emissions from other sources not included in Scope 1 and 2 categories



Our Driving Forces

1 Going above and beyond

At GBRf, we are not only committed to implementing sustainable practices throughout our business, but we are also determined to demonstrate that low-carbon methods of rail freight are feasible for business and critical for the UK economy.

Whilst the challenge of Net Zero is ours to own, GBRf will collaborate across the logistics and rail industry, with SMEs and research institutions, to provide innovation and leadership to the challenge of decarbonising UK transport. In so doing, we want to inspire others and provide sustainable, purposeful careers for the next generation.

2 Targeted reductions

In order to ensure we devote the required effort to our carbon reduction programme, our Sustainability team will focus our business across sectors and departments.

Our approach is underscored by a clear understanding of data and decision-making based on analysis of that evidence to target projects throughout the business.

3 Defined approach

To ensure the best results we use a defined approach and frameworks. Our carbon footprint is calculated using the GHG protocol corporate standard used by nine out of ten Fortune 500 companies. Our emissions are calculated using the 'operational control approach' defined in the protocol. The factors we use to calculate our footprint are sourced from the UK government. We will continue to review carbon data, to close gaps and further improve quality.



GBRf Carbon Reduction Plan, in accordance with PPN 06/21 requirements



GB Railfreight



Priority over
oncoming
vehicles



Commitment to Net Zero

GBRf is committing to becoming net zero by 2050. Our carbon reduction goals align with the IPCC's carbon reduction roadmap.

This report sets out a net zero roadmap, detailing the strategies we have put in place to achieve this goal.

Baseline Emissions

Baseline emissions are a record of the greenhouse gases that have been produced in the past – before introducing any strategies to reduce emissions – and are the reference point against which emission reductions can be measured.

2021/2022 was the first year where we had a complete GHG inventory, required for PPN 06/21 compliance. GBRf has not previously baselined emissions, therefore, this reporting year will be the baseline. Reasonable assumptions are made in calculating the Scope 3 emissions for this period.

Baseline year emissions: Calendar year 2022	
Emissions	TOTAL (tCO ₂ e)
Scope 1	164,036
Scope 2	397
Scope 3 (Including Sources)	2,446
Total Emissions	166,879

Baseline Year Calculation Assumptions

December 2022 locomotive fuel use was estimated by applying 2021's November to December percentage difference (a factor of 0.86787) to November 2022.



Emissions Breakdown

Scope 1	Emissions TOTAL (tCO ₂ e)
1: Gas	17
1: Locomotive Fuel	162,015
1: Company-Owned Road Vehicles	2,005
Total Emissions Scope 1	164,036

Scope 2	Emissions TOTAL (tCO ₂ e)
2: Energy – Electricity	397
Total Emissions Scope 2	397

Scope 3	Emissions TOTAL (tCO ₂ e)
3.04: Deliveries (Upstream)	60
3.05: Waste generated in operations	252
3.06: Business Travel	1,074
3.07: Commuting and Home-working	1,056
3.09: Deliveries (Downstream)	6
Total Emissions Scope 3	2,446

TOTAL EMISSIONS	166,879 tCO₂e
INTENSITY RATIOS	27,267 tCO₂e per million total diesel train miles (MTM)
	0.023701 tCO₂e per thousand gross tonne miles (KGTM)

Note – the difference between our diesel and total train miles is currently very small/negligible, but we are aiming to measure and switch to total (including electric) train miles as a metric by 2025.



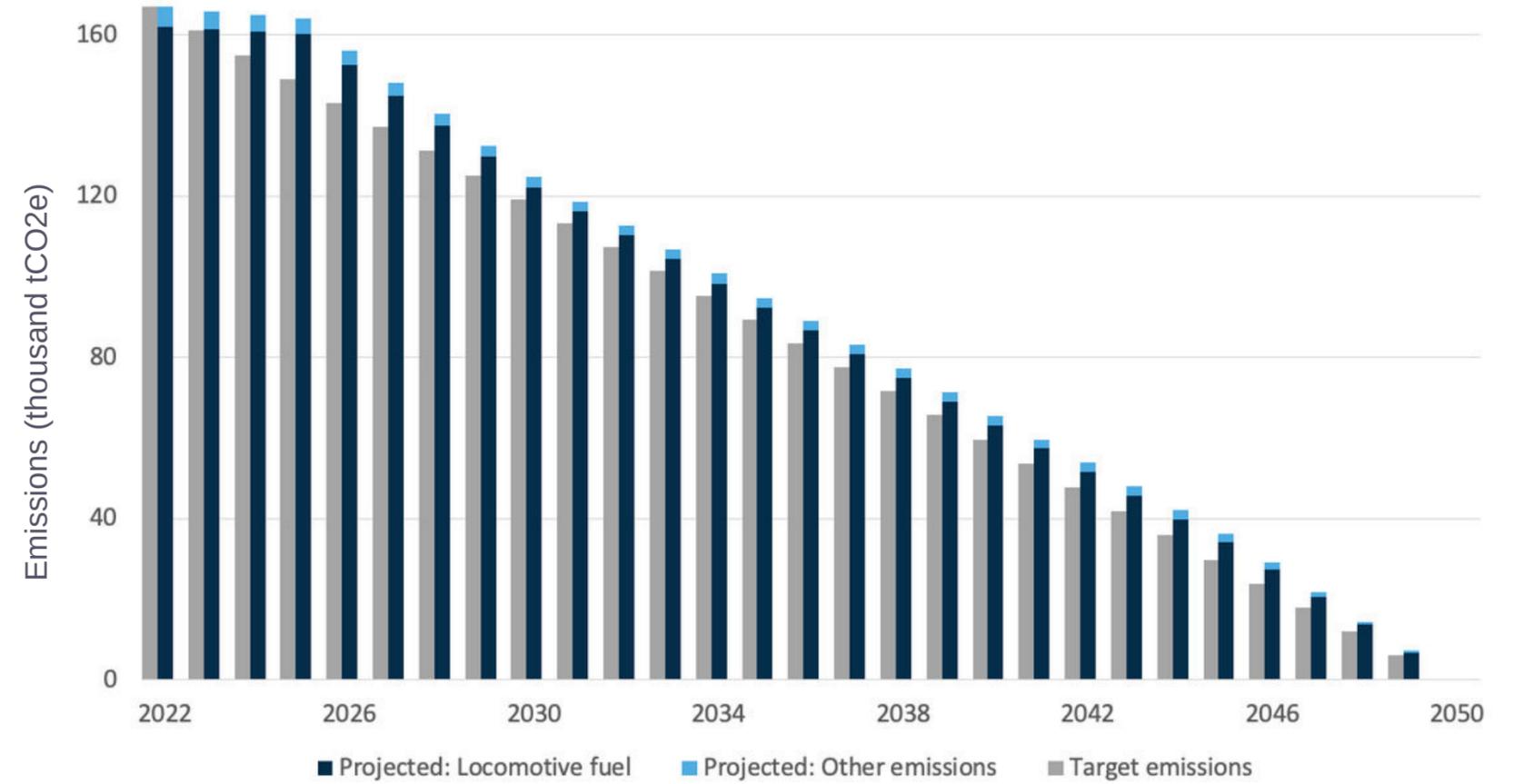
Emission Reduction Targets

To continue our progress towards achieving net zero, we have developed a net zero target for 2050.

We project an absolute linear reduction in our emissions from our baseline year to net zero emissions by 2050. These targets may change as new projects are implemented. Prior to our baseline year, we tracked scope 1 and 2 emissions.

The graph on the right depicts our projected vs targeted emissions. Starting with our emissions from the baseline year (Calendar 2022), the projected bar shows our potential emissions as we introduce our carbon reduction plans. The grey bar shows our target carbon emissions based on our 2050 Net Zero target.

2050 Net Zero Target: Projected vs Target



Year	2022	2023	2025	2030	2040	2050
Projected: Locomotive fuel	162,015	161,350	160,021	122,134	57,353	0
Projected: Other emissions	4,864	4,522	3,824	2,474	2,280	0
Target emissions	166,879	165,873	163,845	124,608	65,466	0

Current Carbon Reduction Projects

We aim to implement the following carbon reduction projects to reach our emission goals.

Replacing our diesel locomotives with Class 99s

We are currently adding Class 99 locomotives to our fleet. These are bimode, modular locomotives meaning they can run on electrified lines and, where the infrastructure is lacking, utilise a Stage V diesel engine. This engine is the most efficient diesel engine of any freight locomotive and so will play a part in reducing our emissions for an interim period. This engine is modular, designed to be able to be replaced by a battery once the technology matches the ambition. The Class 99 will then be the first freight locomotive capable of delivering a fully-electric zero service anywhere on the rail network.

In addition to significantly reducing our fleet's carbon and nitrogen dioxide emissions, the Class 99 also offers improved operational efficiency. Through smoother and more responsive instant torque, locomotives can reach quicker speeds with less force. In turn, this means taking up less 'space' on the rail network, allowing for future freight and passenger growth.

As of February 2023, we have purchased 30 Class 99s, which will start arriving in 2025. Although the Class 99s will initially be additional to our fleet, these will start replacing our Class 66 diesel locomotives once the Class 66s are at the end of their asset life. Government policy over electrification will also be a major determiner for how many of our diesel locomotives will be replaceable with overhead electric variants.

Reducing wasted locomotive fuel through idling

Currently, an estimated 2.9% of locomotive fuel is wasted through idling. We plan to reduce this via two methods: cultural change supported by start-stop technology; and investigating powering the in-cab environment (heat, light and air con) from an alternative source.

We have a local project at a quarry site from which we run multiple services a day. The aim is to target idling at this site and reduce fuel consumption by 1% of the whole journey. We are doing this through the provision of first class rest facilities, communication and an open sharing of data with our staff in order to reduce the time locomotives are on whilst stationary. So far, the identified obstacles to reducing wasted locomotive fuel through idling are: the belief that the engine may not restart and access to alternative rest locations.

Switching some diesel services to alternative fuels

We will be offering our customers the opportunity to switch to hydrotreated vegetable oil (HVO) fuel for some diesel services. This is a diesel replacement fuel made from 100% renewable raw materials, that doesn't require any locomotive modifications or changes to infrastructure. However, because the supply chain for HVO fuel is critical and restrictive, and the cost currently prohibitive for some markets, we foresee only a 5% reduction in our locomotive fuel consumption by 2030, reducing to 10% by 2040 if the supply chain allows.



Replacing diesel shunt engines with electric

Many of our sites require small shunt engines to operate. These have traditionally been diesel engines, many of which are becoming life-expired, providing a great opportunity for change. Working with Beacon Rail, we are testing battery-electric shunt engine at Whitemoor. We will be offering this option in future tenders and for any customers who want to make the switch.

Switching to electric road fleet

We are currently replacing our fossil-fuel road fleet with battery-electric ones, eliminating tailpipe emissions. Our ambition is to have a fully electric road fleet by 2030. In addition to reducing our own transport emissions, our use of electric vehicles will help contribute to cleaner air in the areas they are driven in.

A project to ascertain which manager vehicles need replacing is underway, changing these to electric or hybrid vehicles as each lease expires.

For operational vans, we are working with FUUSE to understand where we can best invest in infrastructure to support a roll out of electric vehicles. Due to the nature of our operation, with mileage and geography demands changing each week, this is a longer-term project. Initial pilots are currently ongoing at Felixstowe Port and our Tonbridge depot.

Reducing sole occupancy car commuting

Due to the nature of our business, with the majority of our employees working shifts and being based in remote locations, a high proportion of commuting is by private car. Similarly our main regional offices are not easily reached by public transport.

In March 2023 we are introducing a salary sacrifice scheme with Octopus for electric vehicles to encourage staff to make a shift from diesel cars.

We will also look to introduce a shuttle service between the main train station and our offices in Doncaster and Peterborough to encourage more people to travel to work by public transport where possible.



Encouraging our suppliers to make sustainable choices

We are taking a multi-pronged approach to our supplier policy and tracking. Currently, we are looking at implementing an ISO14001- and RISQS-compatible system for industry procurement, carbon management and Net Zero commitments, as well as another tool for non-industry suppliers.

We are also aiming to refresh our supplier questionnaire, and request environmental data from suppliers as standard, which is required for Scope 3 Purchased Goods and Services emissions tracking. The majority of our emissions for this category is purchased services (such as maintainers and cleaners), rather than purchased goods.

Increase office recycling and reduce waste

We have started work on this by creating a preliminary project plan, working with suppliers to deliver much higher rates of recycling in our offices. Whilst this will have a relatively small impact from a data perspective, we believe that encouraging better environmental practices at work can lead to a positive cultural change which has a much wider impact.

Future Carbon Reduction Projects

We aim to implement the following carbon reduction projects to reach our emission goals.

Energy production

Because we are currently locked in a three-year energy contract until the end of 2024, we are targeting a 2025 change to 100% renewable energy. As part of this, we will be considering solar PV panels for new builds or refurbishments, including depots. However, producing our own energy will come at a high initial cost, which will be reviewed in our 2024 budget.

Eradicate single-use plastics

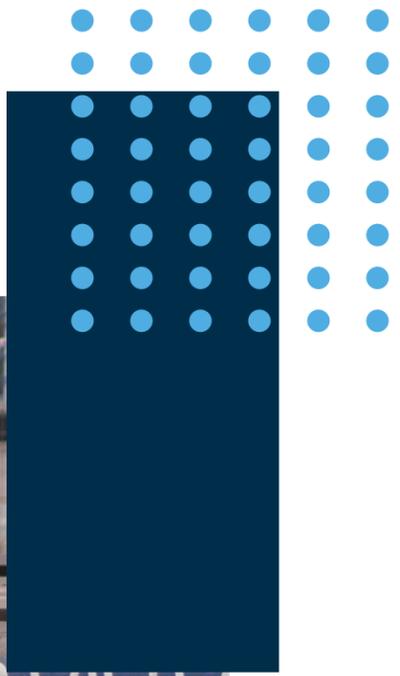
As our current operations use a large amount of single-use plastic bottles, we are aiming to decrease this by 80% by 2024 and eradicate our use of single use plastics across the organisation by 2025. We will do this by ensuring there are drinking water stations at all GBRf sites, ensuring consistent supply at remote sites, communicating with staff to encourage them to move away from single-use plastic bottles and providing reusable bottles to staff.

Reduce office energy consumption

We are aiming to reduce office energy consumption by 25% by: installing LED lighting and sensors after an energy audit in Doncaster and Felixstowe; clarifying and resolving all air con and heating issues; and encouraging staff to be responsible for turning off lighting, air con and heating (as well as a recycling initiative) with an internal communications drive.

Carbon offsetting where eradication is infeasible

Although we will endeavour to eradicate as much carbon as possible from our greenhouse inventory, we will have to offset to reach Net Zero for emissions which are impossible or infeasible to eradicate – the vast majority of which is estimated to be from locomotive fuel. However, we will continue to work with innovators and new technologies to minimise the requirement to use carbon credits to reach Net Zero by 2050.



Other Environmental Projects

Sustainable depot project

We intend this project to enable future carbon reduction projects at our depots. We will firstly identify what a Net Zero Depot looks like, in terms of energy, water, biodiversity, transport and more. We will then perform a gap analysis, which will lead to specific initiatives. Encouraging positive behaviour change will also be considered, with the potential use of monthly competitions.

Improve biodiversity of our sites and improve staff wellbeing

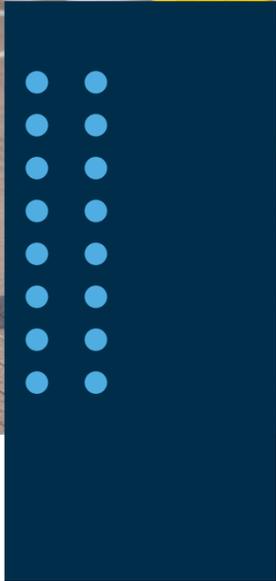
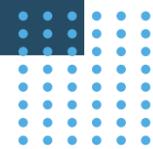
We will do this by creating an outside space which rebalances vegetation clearance – we will also engage suppliers to ensure this. We will also provide support for depot gardens, such as those in RIDC, Tuebrook, and Bardon Hill.

Social grouping/environmental champions

We will support volunteers willing to champion positive changes in their areas (such as recycling and energy behaviour change). This would include them providing feedback and ideas, and creating movement and support across the business. They could also play a role in waste and energy competitions between sites. We have introduced an Environmental Champion monthly award in order to support positive action through recognition.

Eradicating plastic and single-use items from merchandising and events

We will eradicate single-use items and plastics from merchandise by the end of 2023 and consider alternatives where merchandise and branding is required. At events, we will work with suppliers to encourage the use of sustainable materials and avoid single-use items.

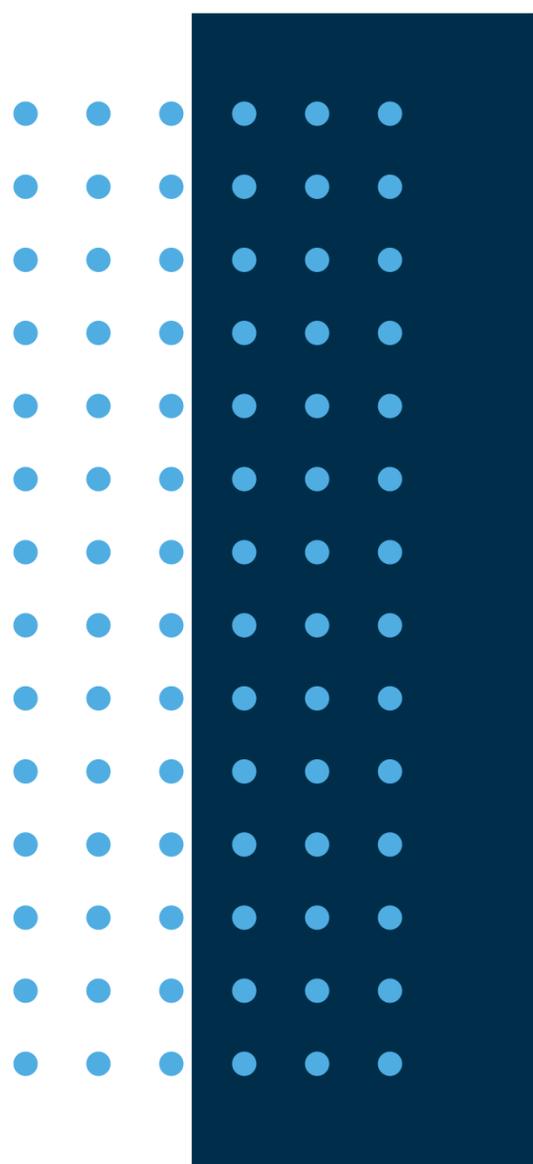


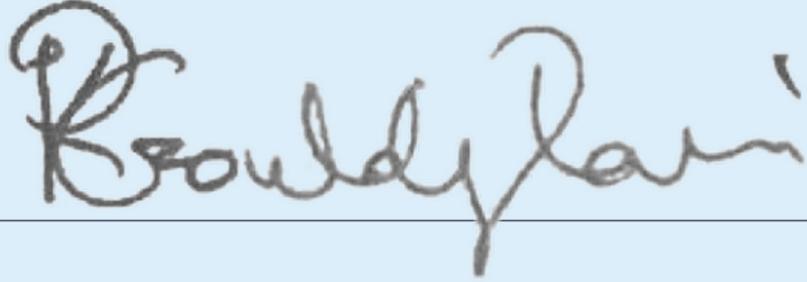
Declaration and Sign Off

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 the Streamlined Energy and Carbon Reporting (SECR) requirements, and the subset of Scope 3 emissions have been reported in accordance with the published 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 for GB Railfreight Limited



Signed	<u></u>
Position	<u>Chief Financial Officer</u>
Date	<u>February 2023</u>



GB Railfreight