Carbon Reduction Plan

Supplier name: Amey Rail Limited

Publication date: 13.12.2024

Commitment to achieving Net Zero

Amey Rail Limited is committed to achieving Net Zero emissions by 2040.

Amey is a leading provider of full life-cycle engineering, operations and decarbonisation solutions for transport infrastructure and complex facilities. Amey Rail Limited is a 100% owned subsidiary of Amey UK Ltd which operates within the Rail Sector of Amey's Transport Infrastructure Business Unit as a leading provider of integrated rail infrastructure services, maximising the breadth and depth of Amey's multi disciplinary capability with cutting-edge digital technologies and delivering on our Environment, Social and Governance commitments, transforming journeys enabling communities to thrive.

Our multi-disciplinary end-to-end expertise that span the whole asset lifecycle cover rail systems, including track, signalling, power, electrification, and associated civil engineering works. Supporting our clients to deliver major infrastructure investment projects to upgrade the rail network with the latest technology as well as delivering day-to-day operations, such as regular asset inspections, to keep the lines running safely. We also operate light rail franchises through Docklands Light Railway (DLR) and Manchester Metrolink.

Supported by our in-house Consulting & Design and Advisory & Analytics services, we renew and enhance railway track, structures, overhead lines, signalling systems, power supplies and security systems.

Amey Rail Limited is currently party to Amey's contract with key clients as detailed in Appendix A and it is these specific activities that the following emissions footprint is based on, whilst our Carbon Reduction Projects and management measures are informed by our wider Rail activities and activities as Amey Group as a whole, as are the management measures that will be in effect when performing the contract.

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.

Baseline Year: 2019
Additional Details relating to the Baseline Emissions calculations.
The 2019 baseline detailed below, was calculated using established datasets for Scope 1 and 2 and Category 6 – Business Travel in Scope 3. The remaining Scope 3 Categories in the scope of this Carbon Reduction Plan have been calculated using new datasets and methodologies which were not established within the business before 2021. These were established to ensure we can

calculate, monitor and reduce our Scope 3 emissions as an integral aspect of our Net Zero Ambition, which was launched in April 2021. The Carbon Emissions detailed within this Carbon Reduction Plan are calculated in accordance with the GHG Corporate Accounting and Reporting Standard and the GHG Protocol Scope 3 Technical Guidance. The operational boundary has been set using the Operational Control approach.
Baseline year emissions:

EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	13,984
Scope 2	90
Scope 3 **(Included Sources)**	Category 4 - Upstream Transport & Distribution 469 Category 5 - Waste Generated in Operations 273 Category 6 - Business Travel 1003 Category 7 - Employee Commuting 3208 Category 9 - Downstream Transport & Distribution 0 Scope 3 TOTAL 4,953
Total Emissions	19,028

Current Emissions Reporting

Reporting Year: 2023	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	6,770
Scope 2	195
Scope 3 **(Included Sources)**	Category 4 - Upstream Transport & Distribution 650 Category 5 - Waste Generated in Operations 787 Category 6 - Business Travel 291 Category 7 - Employee Commuting 2002 Category 9 - Downstream Transport & Distribution 0 Scope 3 TOTAL 3730
Total Emissions	10,695

Emissions reduction targets

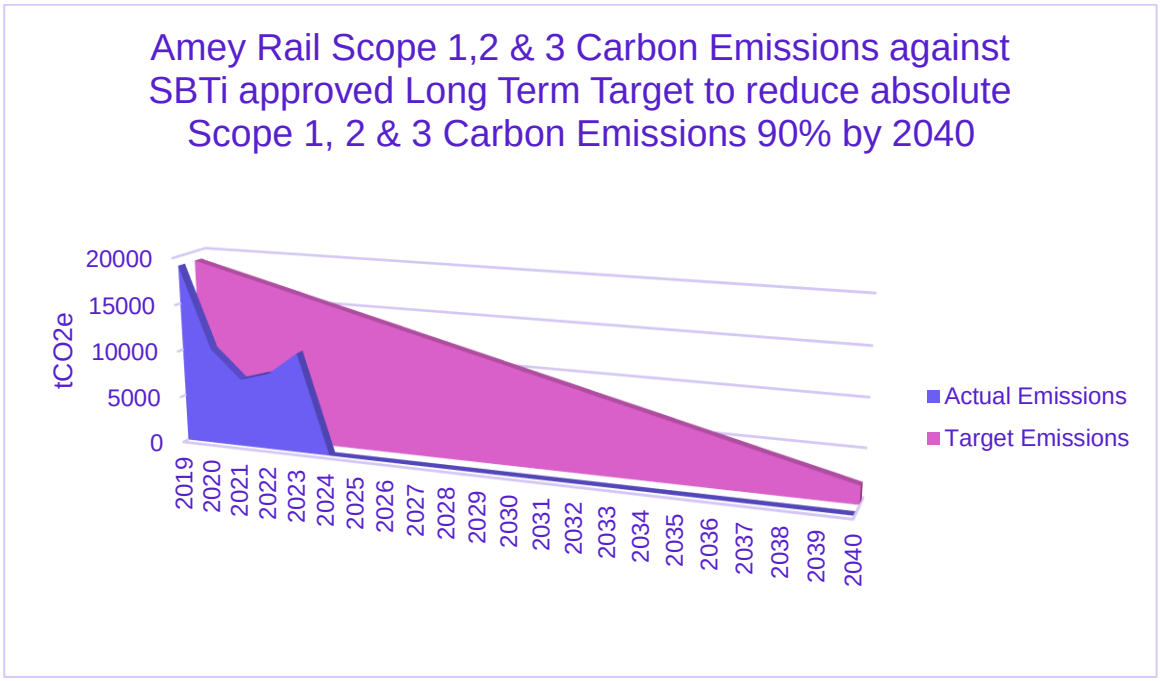
In order to continue our progress to achieving Net Zero, we have adopted the following SBTi approved carbon reduction targets:

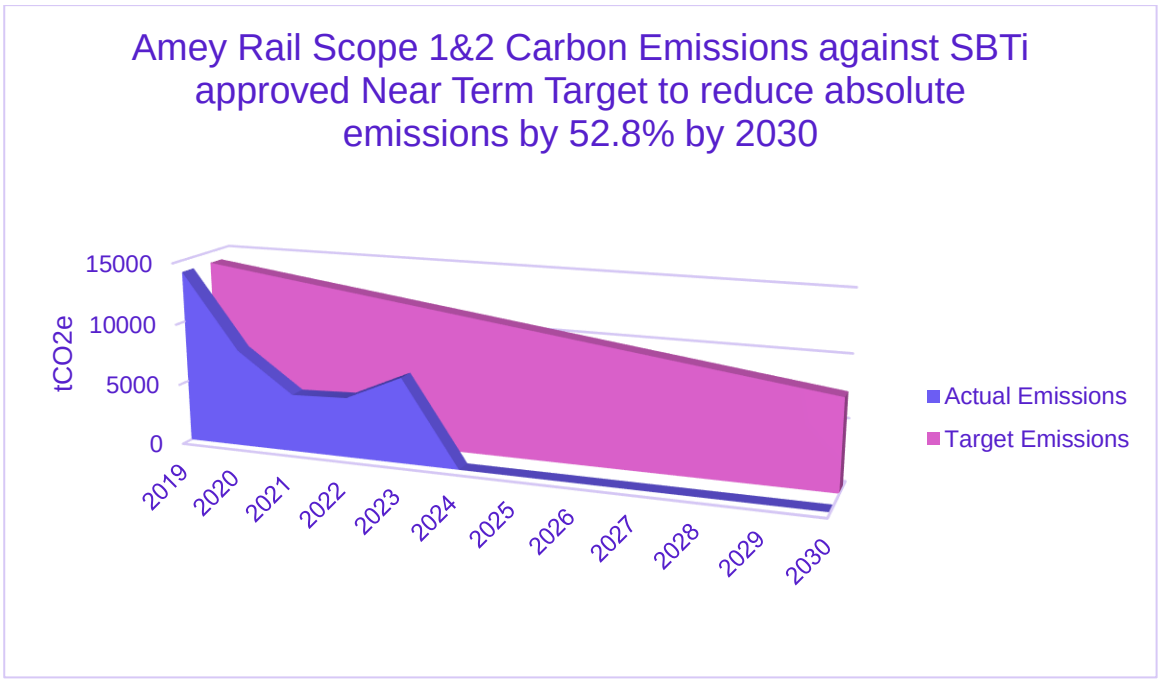
Overall Net-Zero Target: Amey UK Limited (including Amey Rail Limited) commits to reach net-zero greenhouse gas emissions across the value chain by 2040.

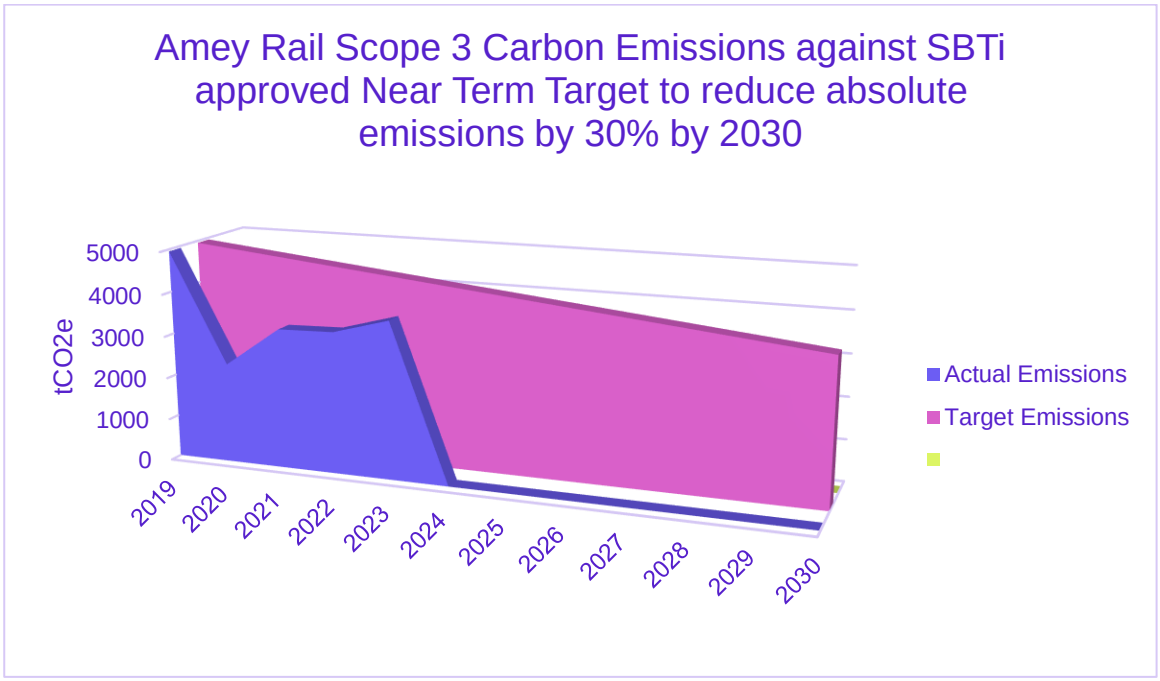
Near-Term Targets: Amey UK Limited (including Amey Rail Limited) commits to reduce absolute scope 1 and 2 GHG emissions 52.8% by 2030 from a 2019 base year. Amey UK Limited (including Amey Rail Limited) also commits to reduce absolute scope 3 GHG emissions 30.0% within the same timeframe.

Long-Term Targets: Amey UK Limited (including Amey Rail Limited) commits to reduce absolute scope 1 and 2 GHG emissions 90% by 2040 from a 2019 base year. Amey UK Limited (including Amey Rail Limited) also commits to reduce absolute scope 3 GHG emissions 90% within the same timeframe.

Progress against these targets can be seen in the graphs below:




Amey Rail Scope 1&2 Carbon Emissions against SBTi approved Near Term Target to reduce absolute emissions by 52.8% by 2030
tCO2e
15000
10000
5000
0
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
Actual Emissions
Target Emissions


Amey Rail Scope 3 Carbon Emissions against SBTi approved Near Term Target to reduce absolute emissions by 30% by 2030
tCO2e
5000
4000
3000
2000
1000
0
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
Actual Emissions
Target Emissions

Carbon Reduction Projects

Completed Carbon Reduction Initiatives

To achieve our Net Zero targets we have implemented a detailed Road Map to Net Zero alongside our ESG Strategy, with our goal to accelerate the change to a resilient and low carbon future delivering long term sustainable value through priority action focused on:

- **Decarbonisation and energy efficiency**: Reduce and optimise the use of energy and natural resources across infrastructure management
- **Nature positive**: Protect biodiversity and enable nature recovery so that it can thrive across the places we work
- **Infrastructure resilience**: Upgrade infrastructure so it can both absorb environmental shocks, and deliver on the energy transition
- **Net Zero organisation**: Getting our own house in order - achieving Net Zero by 2040

Our **Rail Environmental & Sustainability Leadership Model** ensures our leadership and commitment to environmental management, with members of our senior leadership team taking accountability for key environmental material themes, ensuring environmental and social policies and objectives are established, sufficient resources are in place and that environmental sustainability is integrated into our business management and decision making processes.

Our leaders are supported in their role in leading with environmental sustainability, ensuring the continual improvement of our environmental performance through our **Environmental Impact Leadership Programme** developed with the Institute of Environmental Management & Assessment (IEMA).

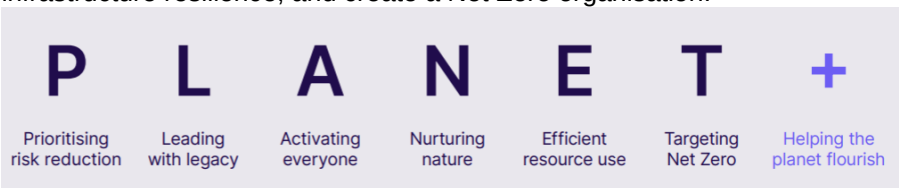
Amey Rail Limited is certified to ISO 14001:2015 (Certificate No. EMS 535951) and our **environmental management system** includes policies, standards, guidance and processes to identify and reduce environmental impacts. It also includes our **PAS 2080:2023 Carbon Management process**, the implementation of which as Asset Owner/Manager, Designer and Constructor has been independently verified and certified, as are our carbon emissions annually to **ISO:14064 Specification for quantification and reporting of greenhouse gas emissions**, by BSI as an accredited independent third party.

Planet+ Our six-point framework for employees to help simplify and elevate great sustainability behaviours and practices.

Activating, educating, and empowering everyone, through a framework that targets barriers and increases environmental awareness so that greener behaviours are easier to achieve. It supports Amey's mindset that every job is a 'green job' and everyone has a unique contribution to deliver sustainability, linked to their day to day roles.

Our way of working to help the planet flourish

Designed to deliver Amey's strategic environmental objectives to achieve decarbonisation and energy efficiency, be nature positive, deliver infrastructure resilience, and create a Net Zero organisation.



In line with the Rail Safety and standards Board (RSSB) Sustainable Rail Blue Print

Decarbonisation, Energy Efficiency - Net Zero Carbon Railway

We are committed to a railway that's central to delivering a net zero economy by 2050.

Decarbonising our Fleet & Plant

In line with the Amey Roadmap to Net Zero:

We have reduced vehicle movement through improved planning of works and service delivery, including the wider roll out of driving monitoring technology; vehicle emissions through green driver training and campaigns to encourage reduced vehicle idling. We actively seek to minimise carbon emissions associated with travelling to site for survey work by using technology like train-borne systems (e.g., RILA) and drones and using survey technology like smart apps and 360° video cameras to minimise future site re-visits.

Case Study Brent Cross Cricklewood Sidings Project - To reduce the number of road vehicles, a temporary rail head was installed to the South Sidings to facilitate engineering trains to enter the site so materials could be delivered to the project and wastes removed from site by rail. For the removal and installation of the North Sidings, the local rail network was utilised. To date, 64,189 tonnes of material have been imported/exported by NR SCO trains as part of the project. This has a resulted in a reduction of an estimated 7,552 road vehicle movements from the local area. Utilising freight train compared to a standard 17 tonne road wagon represents an 86% reduction in kg CO2e, per tonne/per kilometre.

We have introduced an EV First Company Car Policy with 81% of our company car fleet being electric in 2024. To enable this transition we have been working with Novuna Vehicle Solutions to assess our work locations and install, operate and maintain EV charge points.

We are in the process of transitioning our operational fleet and plant away from traditional fossil fuels, adopting available and suitable low carbon technologies for our operations; working with our partners Novuna Vehicle Solutions and Speedy Hire to trial and adopt long term low carbon solutions as and when they become available, building on our alternatives already adopted when carrying out our works including battery powered tools, generators, solar powered lighting, use of bio fuels in site machinery, Hybrid welfare facilities (e.g. Brent Cross) and electric MEWPs for Tunnel Inspection Works (e.g. CEFA/CAFA)

Case Study - Working with our plant and equipment provider Speedy Hire

We are transitioning from traditional diesel-powered welfare units to hybrid eco-welfare units, as standard. The eco-welfare units are supplied with a Fuel Efficiency Assessment. This enables us to monitor how much fuel is saved when they are in situ. In a typical scenario the fuel efficiency assessment lists the daily cost of fuel with a standard diesel generator at £10.50 in comparison with the eco-welfare unit at £1.96, equating to an approximate 81% reduction in fuel cost.

Case Study – Midland Mainline, Network Rail

Our Midland Mainline account has developed a Social Value Plan to prioritise areas of influence where new and emerging technology can reduce the dependence on fossil fuels, adopting the principles of PAS 2080 (carbon management in infrastructure) to work with our supply chain and identify 'fossil fuel-free' alternatives to commonly used items to deliver a rail systems project: Welfare accommodation, Powered tools, Off-track plant (excavators), Generators and site lighting.

During the works, a number of interventions were implemented shifting from traditional plant and equipment. These changes included switching to battery powered tools, battery-powered generators, solar-powered site lighting and the use of biofuels in site machinery. With hybrid eco-welfare facilities also used, the team working at Brent Cross reduced their carbon footprint over the weekend works, by 7,351kg of CO2e – swapping 77% of their power tools to fossil fuel-free alternatives on their journey to Net Zero.

Reducing carbon and increasing value across the whole life of buildings:

Utilising the technical competencies of our in house Facilities and Energy Transition and Sustainability Teams we are working with our clients to determine decarbonisation strategies for the buildings (including stations and Maintenance Depots e.g. Taff Wells, Transport for Wales) we construct and/or operate as part of our services, focusing on:

- energy efficiency, behavioural change and data management
- renewable generation
- building fabric improvements
- heat decarbonisation

Reducing carbon and increasing value across the whole life of rail infrastructure:

In line with our certified PAS 2080 Carbon Management Process implemented as Asset Owner/Manager, Designer and Constructor we put arrangements in place to achieve collaboration between all value chain participants to investigate and drive carbon reduction opportunities across the asset life cycle. Working with Asset Owners and Product/Material Suppliers we are decarbonising our key procurement categories, undertaking trials as needed and implementing innovation in low impact materials and products.

Case Study – Kentish Town, Network Rail

Goal - Utilising the RSSB Rail Carbon Tool (RCT), Amey Rail set a target to achieve a 20% reduction in Carbon from the initial baseline design for the Kentish Town Track Stabilisation project. The project consisted of a 10-day Christmas blockade from December 2021 to January 2022 to repair and replace life expired assets. The RCT was used as an optioneering tool for the design phase and a way of tracking carbon during the construction phase in line with PAS 2080 and Amey's commitment to Net Zero by 2040.

Results - Amey were able to utilise varying design and construction methodologies to successfully achieve a reduction of carbon during each phase of the project. 14 'carbon interventions' were undertaken over the design and construction phases to reduce carbon. The Top 3 contributors to reducing the carbon:

1. Connecting welfare and sight lighting to mains electricity supply – 26% (15.5t CO2e)

2. Undertaking the dig in 1 stage instead of 2 stages – 20% (11.6t CO2e)

3. Reducing amount of track slab requiring removal – 14% (8.1t CO2e)

In total, a 32.36% reduction in carbon was achieved compared with the original design. This equated to an estimated 89 tonnes of CO2e being saved as a direct result of interventions made by Amey over the course of the project.

"This is an incredible achievement from Amey, and it's a significant step towards achieving Net Zero Carbon Emissions by 2050. Network Rail needs more projects to implement this approach and build on this best practice. Great work!" Hamish Critchell-Ward, Network Rail

Case Study – Core Valley Lines, Transport for Wales

Amey Rail is pushing the boundaries of what can be done to drastically reduce the carbon footprint of typical railway electrification schemes in the solutions being developed on the Core Valley Lines (CVL) project in Wales. Our project teams follow the carbon hierarchy, but given the aged infrastructure of the network, it is not always possible to avoid new construction. Our designers have accordingly taken a smart approach, using Amey's sophisticated modelling tools (including One Click LCA) to minimise the need for additional infrastructure.

For example, we introduced permanently earthed sections (PES) to avoid track lowering or bridge deck modification to 55 Victorian bridges that lacked the necessary clearance for live overhead cables. Our design allows for hybrid trains to stop drawing current from the earthed section of cable under the bridge and switch to battery power, reverting to overhead current once safely through the bridge.

This deceptively simple solution avoided the significant carbon emissions that would have accrued from raising bridges and lowering track to create the necessary clearances. Furthermore, our advanced power modelling has helped to optimise the use of battery power by the trains, removing operational carbon from the system.

Low Emission - Clean Air

We are working with our supply chain partners to invest in low emission plant & equipment, improving air quality for those on the railway infrastructure and the communities in which we operate.

Case Study - Hybrid Mobile Elevating Work Platforms

Within the CEFA/CAFA account, the use of mobile elevating work platforms (MEWP's) are crucial in order to conduct examinations and assessments of rail assets, such as bridges. These MEWPs are traditionally powered by fossil fuels such as Diesel Engine Exhaust Emissions (DEEE) can have adverse impacts on air quality and human health. The CEFA/CAFA account have introduced hybrid MEWP's which has had great benefits for the operatives working on site, particularly in confined space locations, such as tunnels.

Circular Economy - Zero Waste

We are committed to a railway that uses resources efficiently and supports a collaborative circular economy.

We incorporate the principles of circular economy to extend the service and future re-use of natural resources. We design with core construction materials that contain high proportions of recycled constituents and design structures or features that can themselves be readily repurposed, re-used or recycled at the end of the asset service life where possible.

We carry out Sustainability Workshops to identify opportunities for promoting resource efficiency, including designing out waste, reducing carbon and water use.

The carbon emission reduction achieved by these schemes is 8,333 tCO2e a 44% reduction against the 2019 baseline.

Nature Positive - A Railway for Nature

We are committed to a railway that supports a thriving natural environment, for the benefit of people and wildlife. In 2024 we have worked with Nature Positive to undertake a Biodiversity Assessment of our activities and have developed a Strategy and Blue Print for our key activities to inform Biodiversity Action Plans for our rail activities.

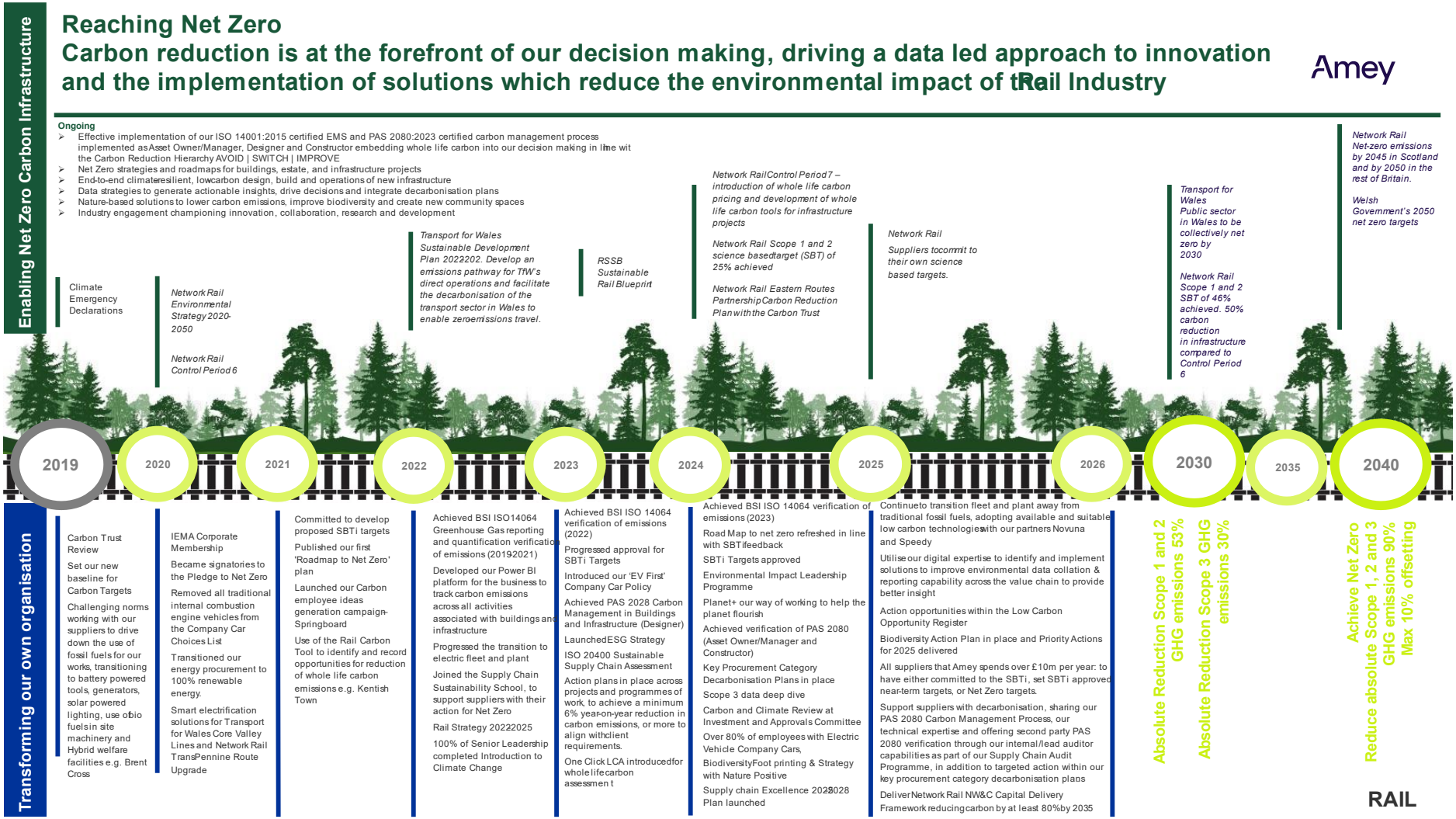
We ensure environmental and social issues are identified and factored into the decision-making processes through our Environmental Impact Assessment Process of Environment and Social Appraisal, Environment & Social Risk Assessment, and development of Environment & Social Management Plan, ensuring that social value to communities and economic value to investors are both met, without eroding biodiversity and natural capital and without pushing beyond environmental limits.

Infrastructure Resilience - Prepared for a Changing Climate

We are committed to a railway that's resilient to extreme weather and prepared for a changing climate.

During design and construction, we work to identify risks to Weather Resilience and Climate Change Adaptation (WRCCA), ensure mitigation is included in the infrastructure we develop or maintain. Where our work involves the examination or assessment of infrastructure, we inform decisions about the risks and opportunities for resilience in the future.

The diagram below shows environmental management measures and projects have been completed or implemented since the 2019 baseline, that will be in effect when performing the contract, as well as measures we hope to implement in the future.



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.

Signed on behalf of the Supplier:

Peter Anderson

Managing Director, Transport Infrastructure, Amey and active officer for Amey Rail Limited

Date: 13.12.2024

Appendix A

Amey Rail Limited is a 100% owned subsidiary of Amey UK Limited (the ultimate operating company of the Amey group) which is a member of the Transport Infrastructure Business Unit of the Group and has its own Managing Director and management team who are responsible for the delivery of the service.

Each operating business unit operates in accordance with policies, procedures and authorisation limits set out on a Group-wide basis as adapted to the specific business unit and operating legal entity requirements.

Therefore, Amey Rail Limited trades as Amey that reflects the operational branding of Amey UK Limited and relevant subsidiaries.

Amey UK Limited is owned by private equity funds operated and/or advised by One Equity Partners and Buckthorn Partners LLP.

Amey Rail Limited contracted works during reporting period of this Carbon Reduction Plan

Network Rail	**Active**	Eastern & Southern Northwest & Central Wales & Western CEFA & CAFA TRU Alliance
	Inactive	Midland Mainline
Transport for Wales	Active	
	Inactive	Taff Wells