

Net Zero Highways plan

2025 update

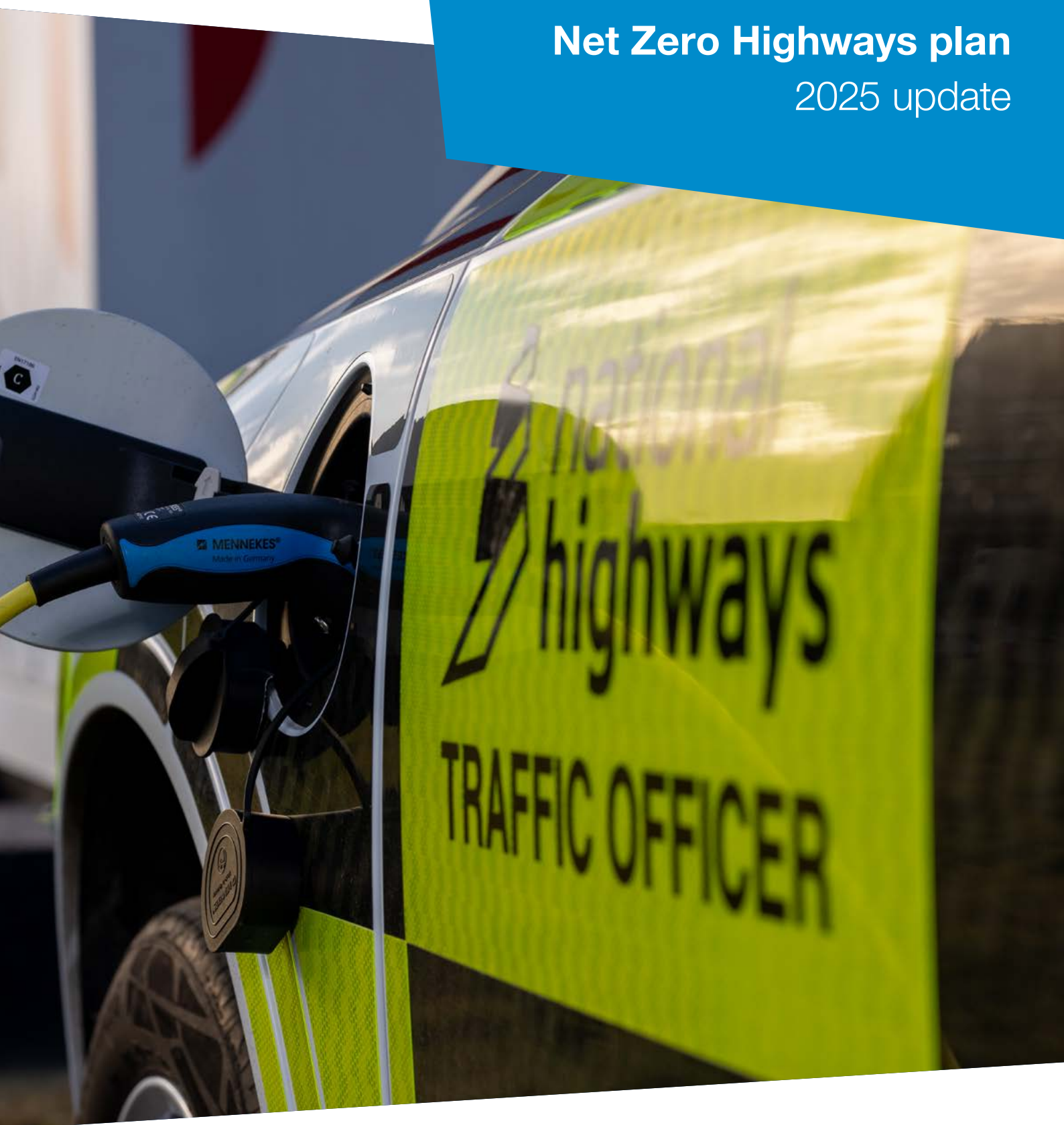


Table of contents

Chapter	Page
Table of contents	2
Executive Summary	3
1. Introduction	5
2. Net Zero Plan: Core Areas	5
3. Our 2024-2025 emissions	7
4. Corporate Carbon Emissions	8
4.1. Corporate Carbon Case Study	9
5. Maintenance and Construction Emissions	10
5.1. Construction & Maintenance Carbon Case Study	11
6. Road User Emissions	12
6.1. Road User Case Study	13
7. Progress on our Enabling actions between April 2024 and March 2025	13
8. Progress on our commitments	14
8.1. Progress in 2024/25 against other NZP commitments	15

Executive Summary

This report, our fourth annual progress update since we published our Net Zero Plan in 2021, demonstrates that work towards achieving our net zero goals has continued at pace during the financial year April 2024 to March 2025. All of the commitments we pledged to complete by March 2025 have been achieved. In addition, our corporate and maintenance and construction targets have been verified by the Science Based Targets initiative (SBTi) - reflecting our commitment to ensure our Net Zero Plan remains in-line with the latest climate science.

We have seen some variation in our year-end figures, driven by changes in our construction programme and factors outside of our direct control. These are reported transparently and with explanations.

Our **corporate carbon emissions** have increased by 18% since last year. This was driven by two significant factors: one motorway service operator ceasing to claim renewable energy certificates, and changes to how we calculate emissions associated with the materials we buy, a result of a data improvement exercise that we carried out as part of our verification by the SBTi. The year on year increase in emissions is disappointing, but should be viewed in the context of the significant progress that has been made throughout the year with our core corporate carbon projects including:

- 51% of our road lighting are now upgraded to LEDs (from 40% in 2023/24).
- the proportion of our light fleet made up of plug-in hybrid and electric vehicles increased to 98% (from 88% in 2023/24) with 28% of our fleet now fully electric
- a further nine depots have received energy efficiency upgrades (in addition to the 22 depots which received upgrades in 2023/24)

Our **maintenance and construction emissions** reduced by 23% compared to previous reporting year. While any decrease is positive, it is important to note that maintenance and construction activity fluctuates year-on-year. This year's results were driven by a number of factors including; a higher proportion of less carbon intensive maintenance activity compared to major projects and a change in profile of our works. The National Emergency Area Retrofit, for example, was a large programme of work with a lower carbon footprint than conventional road upgrades.

A number of key achievements were made throughout the year including:

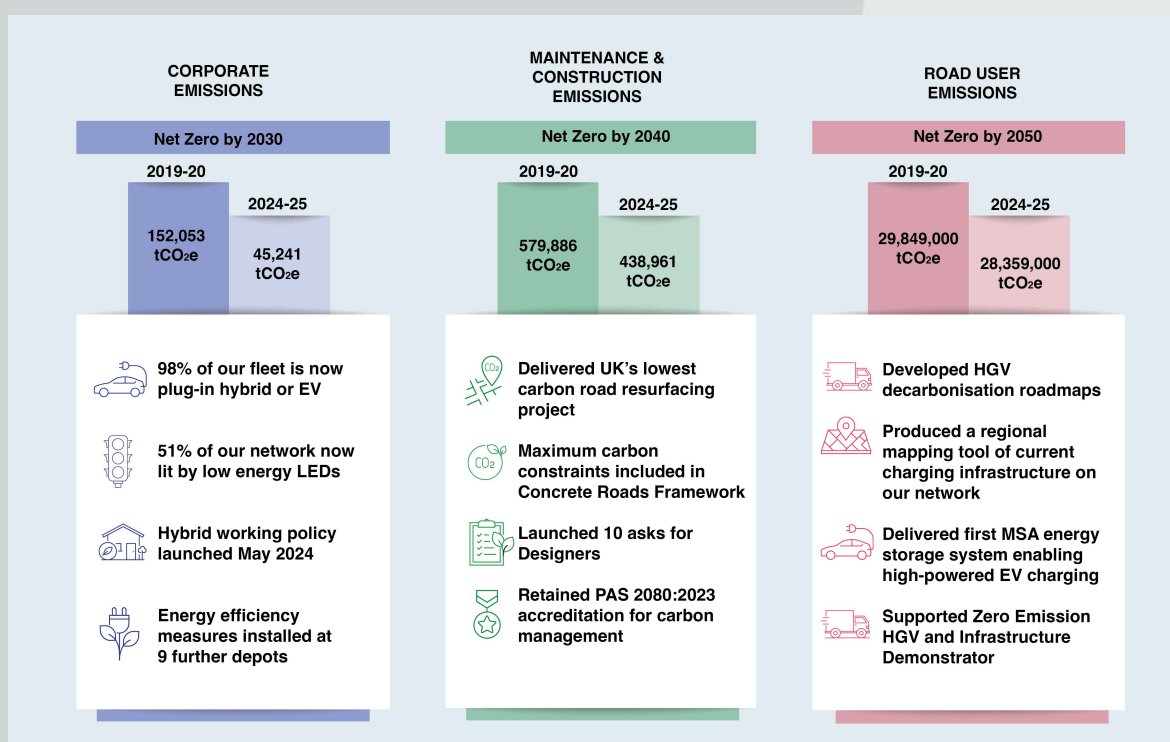
- delivering the UK's lowest carbon road resurfacing project on the A64, which achieved a 75% reduction in carbon emissions compared to traditional resurfacing
- receiving the Institution of Civil Engineers (ICE) carbon champion recognition for two biogenic schemes, where carbon-intensive binder in asphalt is replaced with a bio-based alternative
- retaining the PAS 2080:2023 accreditation for our management system to reduce carbon during the design, construction, and operation of England's strategic road network

Road user emissions on our network decreased by 1.3% compared to 2023/24 emissions due to ongoing improvements in vehicle efficiency and the increased adoption of Electric Vehicles (EV). To contribute to a reduction in road user

emissions, National Highways delivered our first energy storage system at a motorway service area to enable high-powered EV charging to locations where it cannot yet be achieved by the existing power grid alone. To support the transition of Heavy Goods Vehicles (HGV), we have developed a decarbonisation roadmap and a regional mapping tool. Alongside, we provide ongoing support to the Zero Emission Heavy Goods Vehicles and Infrastructure Demonstrator (ZEHID) programme – a UK Research and Innovation (UKRI) initiative aimed at accelerating the transition to zero-emission HGVs.

We remain dedicated to achieving our 2030/40/50 targets and will continue to demonstrate leadership, champion innovation, share best practice, inspire and support the wider industry to achieve net zero.

Progress update on our 2030 / 2040 / 2050 plan



1. Introduction

The Climate Change Act (2008) committed the UK to net zero by 2050, to avoid more hazardous impacts resulting from climate change. The Strategic Road Network (SRN) has an important role to play in connecting the country and contributing to achieving net zero. In 2021 we published Net Zero Highways: our 2030 / 2040 / 2050 plan (NZP), which set out our roadmap for decarbonising England's strategic road network (SRN). Our NZP aligns with and supports the net zero target set by government. We have committed to be net zero for our corporate emissions by 2030, our maintenance and construction emissions by 2040 and our road user emissions by 2050.

In 2022, we were the first roads and highways owner-operator in the world to establish a Carbon Management System (CMS) certified against PAS 2080, a global industry recognised specification for carbon management. In 2023, we published our Environmental Sustainability Strategy (ESS), which sets out our vision for “a connected country, a thriving environment”. The ESS integrates net zero carbon with our other key themes of protection and enhancement of nature and communities and support for community health and wellbeing.

Our NZP, CMS and ESS support a culture of continuous improvement and demonstrate our commitment to work more sustainably. We remain steadfast in our aim to put roads at the centre of a net zero Britain.

This report is focused on our key achievements in the financial year April 2024 to March 2025, including the latest position on our commitments and includes any revised actions. Actions previously completed have become part of our business-as-usual activities and aren't included in this progress update.

2. Net Zero Plan: Core Areas

The NZP commitments are backed by numerous actions which provide an indicator of the progress being made. Our three core areas are corporate emissions, maintenance and construction emissions, and road user emissions.



Corporate Emissions: Net zero for our own operations by 2030

This area covers energy used to light and power our network, travel by our traffic officers, and the energy used in our offices and other travel. We also include the carbon locked up in trees and plants on our road verges and the land surrounding our roads in this target. It includes our Scope 1 and 2 emissions, and some Scope 3.



Maintenance & Construction: Net zero for our maintenance and construction activities by 2040 This target covers the greenhouse gases emitted in making the materials we use to keep our network

in good condition. This includes cement, steel, and asphalt. We also include the transport of materials to where we use them and emissions from construction on our sites.

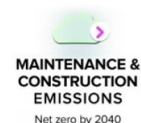
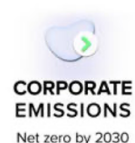


Road User Emissions: Net Zero for road user emissions by 2050

The largest source of emissions comes from the vehicles driving on our network. Government's latest emissions projections to 2050 see an ambitious reduction in emissions from road transport. Our plan will enable this transition by providing the infrastructure needed for zero carbon motoring on the strategic road network.

3. Our 2024-2025 emissions

This table shows our Greenhouse Gas (GHG) emissions for 2024-25. Emissions are reported against the scope and requirements of Greenhouse Gas Protocol and Science Based Targets Initiative Net Zero Standard in line with the Global Reporting Initiative Standard 305.



Emissions Source	Scope	Baseline tCO ₂ e	Reporting year tCO ₂ e	Progress	Intensity ratio
Corporate		2019/20	2024/25		tCO₂e / full time equivalent employees
Vehicle fuel	1	10,431	6,810	↓	1
Buildings gas	1	1,252	1,142	↓	0.17
Electricity	2	85,644	18	↓	0
Corporate purchases	3	27,174	18,039	↓	2.64
Business Travel	3	3,536	2,745	↓	0.4
Leased Assets	3	24,014	16,487	↓	2.41
Total	N/A	152,053	45,241	↓	6.62
Maintenance and Construction		2019/20	2024/25		tCO₂e. / £mil spent on maintenance and construction
Cement and concrete	3	167,768	60,910	↓	20.48
Material transport	3	120,440	87,020	↓	29.26
On-site plant	3	67,611	63,576	↓	21.38
Steel	3	58,957	37,594	↓	12.64
Asphalt	3	88,074	106,376	↑	35.77
Other materials and aggregates	3	49,367	70,911	↑	23.84
Supply chain operational energy	3	10,927	11,351	↑	3.82
Purchased goods and services	3	14,777	1,222	↓	0.41
FBS Depot	3	1,965	-	↓	-
Total	N/A	579,886	438,961	↓	147.6
Road User		2019/20	2024/25		tCO₂e. / billion km travelled on network
Cars	3	14,958,000	14,028,000	↓	n/a
Articulated HGVs	3	7,206,000	7,028,000	↓	n/a
Vans	3	4,989,000	4,779,000	↓	n/a
Rigid HGVs	3	2,455,000	2,313,000	↓	n/a
Buses and coaches	3	241,000	211,000	↓	n/a
Total	N/A	29,849,000	28,359,000	↓	204,900
Carbon removals	N/A	-15,000	-15,000	—	N/A

4. Corporate Carbon Emissions

We are committed to achieving net zero for our own operations by 2030

This year, our total corporate emissions were **45,241 tCO₂e**. This total represents an 18% increase from last year (38,388 tCO₂e¹). Compared to our 2020 baseline (152,053 tCO₂e), we have reduced carbon emissions by **70%**. The increase this year was largely due to two factors;

- Total emissions arising from the property assets we lease to others were impacted by one motorway service operator ceasing to claim renewable energy certificates. This resulted in an increase in the emissions associated with the electricity they use. This is outside of our direct control and resulted in an increase in our scope 3 emissions which include emissions associated with the electricity they use.
- Alongside the recalculation of our corporate carbon emissions to achieve SBTi verification we undertook a data improvement exercise. One area that was investigated was the emissions data from the salt we purchase. We reviewed the distance salt travels from the supplier to our depots and updated this value. We will conduct further assessments to continue ensure that data we report is accurate.

In July 2024, our corporate, maintenance and construction targets were verified by the Science Based Targets initiative (SBTi). This means they are in line with the latest climate science to meet the goals of the Paris Agreement. This agreement aims to limit global warming to 1.5°C above pre-industrial levels. To learn more [visit the Science Based Targets web page](#).

As part of our successful SBTi submission, we recalculated our 2019-20 baseline meaning our 2024-25 corporate, maintenance and construction GHG emissions are now calculated using an updated methodology. This resulted in our corporate baseline increasing from 110,352 tCO₂e to 152,053 tCO₂e. While a significant proportion of this change reflects the introduction of a more comprehensive and updated accounting methodology, some variation may also be linked to changes in operational activity over the period.

Key drivers of the change include:

- Expanded Scope: Inclusion of upstream (“well-to-tank”) emissions for electricity, vehicle fuel, and business travel.
- Methodology Updates: Adoption of market-based electricity calculations for leased assets and use of DEFRA spend-based emission factors over the discontinued GHG Protocol Quantis tool.

¹ This figure has been restated from previously reported 23/24 figure of 37,738 tCO₂e in our 2024 Annual Report and Accounts as part of our SBTi accreditation.

- Additional Sources: Counting emissions from transportation and upstream supply chain impacts (e.g., salt deliveries), plus inclusion of the Managed Property Portfolio.

Corporate Carbon – 24/25 Key Achievements:

- Installed 12,745 LED lights during the April 2024 and March 2025 reporting year. This means that 51% of our network is now lit by LEDs, with more than 25,000 LED upgrades delivered in total.
- We conducted a *National Asset Inventory survey* to improve our data and confirm the location of LED and non-LED lights on the SRN, improving our data and future planning of works.
- We transitioned a further 10% of our light vehicle fleet to electric and plug-in hybrid vehicles. This means that 98% of our fleet have moved away from petrol and diesel engines by the end of March 2025, with 28% of our fleet now EVs.
- We installed energy efficiency measures at a further nine depots (in addition to the 22 depots which received upgrades in 23/24).
- This included five lighting and heating decarbonisation upgrades and nine solar panel upgrades. We also completed a series of energy audits at an additional 40 depots. We continue to install EV charging points for our fleet. There are a total of 413 chargers across our corporate estate.
- We delivered a programme to donate IT equipment to schools and charities when they reach the end of their serviceable life. This keeps resources in use, reduces waste and lowers the carbon footprint of devices.

4.1. Corporate Carbon Case Study



Our estate is more than just the 4,500 miles of road we look after. We lease a large number of depots, outstations and offices and it is important we bring them up to date with the most modern, energy efficient technologies. This will help us to achieve our corporate carbon net zero target by reducing our energy usage. We retrofitted nine of

our depots with energy efficiency measures within the 2024-25 reporting year. This included roof mounted solar panels, fossil fuel heating replacements, LED lighting and smart sensors. Early feedback is positive so far. We expect to see a 60-tonne reduction in our carbon emissions each year with these new measures.

These sites are a great example of the type of work we want to progress with this year. In our *Estates Decarbonisation Plan*, we identified over 30 sites to retrofit in between April 2025 and March 2026. This will help to make our estate a greener place for our people and the environment.

5. Maintenance and Construction Emissions

We are committed to achieving net zero for our maintenance and construction activities by 2040.

This year, our total emissions were **438,961 tCO₂e**. This total represents a 23% reduction from last year (567,794 tCO₂e.). Compared to our 2019/20 baseline we have reduced carbon by 140,905 tCO₂e. The carbon intensity, measured by calculating the tCO₂e per million pounds spent on maintenance and construction, also reduced from 210 T/£m in 23/24 to 148 T/£m in 24/25.

While any decrease is positive, it is important to acknowledge that the carbon intensity of our maintenance and construction activity fluctuates year-on-year depending on the nature of the work carried out. Further variations are expected in future years as the portfolio continues to change. Factors which led to the reduction include:

- Several existing schemes finished or completed the most carbon intensive parts of their construction.
- Some of the projects this year have used less materials than historic averages, such as the National Emergency Area Retrofit Schemes. These schemes are enhancements to existing sections of smart motorway rather than new sections.
- Some of the road projects that we expected to start between April 2024 and March 25 have been cancelled.

As well as this overall change in emissions, we continue to improve our data. There are significant differences in the proportion of emissions produced when different categories of materials are made. Previously, we had been using data from April 2023 to March 2024 to calculate emissions. This data previously relied on historic averages, which were subject to inaccuracies in reporting. We updated our data this year, using data from April 2024 to March 2025 to get a more accurate understanding of the amount of emissions produced.

Maintenance and construction – 24/25 Key Achievements:

- Following an annual audit, we retained our PAS 2080:2023 certification.
- We delivered the UK's lowest carbon resurfacing scheme on the A64 near Bramham in North Yorkshire. This achieved a 75% reduction in carbon

emissions compared to traditional resurfacing saving over 260 tonnes of carbon.

- We installed a low carbon asphalt scheme on the M11, resulting in around 60% carbon savings compared to traditional methods. We also ran a 12-month trial of graphene-based asphalt on the A12. Two biogenic asphalt schemes were delivered on the A2 and the A34. These schemes achieved ICE carbon champion recognition in September 2024.
- We continue to collaborate with the University of Nottingham to accelerate low carbon asphalt testing. If successful, the results will be used to update our specification to allow for use across the network.
- We added maximum carbon intensity levels for asphalt, steel and ancillary concrete to our *Legacy Concrete Roads Reconstruction framework*. This will prevent the use of higher carbon forms of key construction materials.
- We developed specific innovation challenges for decarbonisation, including increasing digital asset and soft estate resilience to climate change, maximising whole life carbon benefits, and accelerating getting low carbon approaches onto the network. This challenge-led approach guides programme and investment decisions, building a collaborative pipeline across National Highways and industry. It keeps innovation focused, measurable, and aligned with long-term goals.
- New contract wording was introduced into our New Engineering Contract 4 (NEC4) model contract documents with optional clause X29 Climate Change as a foundation. The use of X29 and the carbon drafting aims to reduce the impact of construction on climate change, whilst aligning with our maintenance and construction net zero by 2040 commitment. The updated models will apply to all future procurements using NEC4, including Scheme Development Framework 2, and include options to include maximum carbon intensities, climate change requirements and a carbon cap for more complex projects.

We worked with the Transport Research Innovation Board to accelerate the UK calcine clay market.

5.1. Construction & Maintenance Carbon Case Study

A groundbreaking trial on the A64 near Bramham in North Yorkshire delivered the UK's lowest carbon resurfacing scheme. Teams used cutting-edge techniques to show how sustainable solutions and collaboration can lead the way to net zero.



The trial was delivered in collaboration with Tarmac, Kier, HW Martin and other suppliers. We achieved a 75% reduction in carbon emissions compared to traditional resurfacing. This is a saving over 260 tonnes of carbon. Innovative techniques used to make this possible. We use warm mix asphalt,

recycled materials and electric plant equipment. The new road surface is designed to last 20% longer, reducing future maintenance and operational carbon. This project reflects our commitment to a sustainable, decarbonised future and understanding the art of the possible. We're taking strides towards net zero, and the A64 trial is a vital step in demonstrating how innovative practices can reduce carbon emissions and improve outcomes for road users. The project embraced our "10 Asks," showing how decarbonising design and construction can be embedded at every stage of delivery. Watch the [A64's trial](#) take shape.

6. Road User Emissions

We are committed to achieving net zero carbon travel on our roads by 2050.

The largest source of our emissions comes from the vehicles driving on our network. Government has set its trajectory for net zero road transport by 2050. This is a rapid transition. This requires up to a 55% reduction in emissions by 2030 and up to 90% by 2040. To learn more about this transition, visit the [Decarbonising Transport: A Better, Greener Britain website](#).

This year, the total road user emissions on our network were **28,359,000 tCO₂e**. This total represents a 1.3% reduction from last year (28,733,000 tCO₂e). This is largely due to the transition of the UK transport fleet to lower emission vehicles and the uptake of electric cars and vans. Since 2020 baseline (29,849,000 tCO₂e), there's been an overall 5% reduction in carbon emissions from vehicles using the SRN.

Road user – 24/25 Key Achievements:

- We continued to deliver energy storage systems at motorway service areas (MSAs) to supplement the grid supply. This allows high powered (150kW) EV charging for drivers. One site is live and a further 7 are being commissioned. A further site is in the design and planning stage.
- We undertook research to produce a roadmap for HGV decarbonisation. This will improve our understanding of how the sector will evolve and investment needed to support decarbonisation initiatives. The roadmap is closely aligned to the *Climate Change Committee's Seventh Carbon Budget*.

- We produced a regional mapping tool of current and planned HGV decarbonisation initiatives (e.g., charging hubs, trials). Engagement was carried out with sub-national transport bodies and industry to understand current and planned interventions. This work has helped us to consider our role in HGV decarbonisation and identify intervention opportunities.
- We continue to support ZEHID, which aims to deploy over 350 zero-emission HGVs and build over 70 infrastructure installations by 2030. In 2024, four projects were launched to gather real-world data on the operation of both battery electric and hydrogen fuel cell HGVs, charging technologies and refuelling stations. These projects will provide valuable intelligence to the logistics industry and government.
- We are collaborating with industry to accelerate delivery of rapid and ultra rapid charge points on the Strategic Road Network.

6.1. Road User Case Study



We installed the first two megawatt-hour energy storage system at Tebay services on the M6 northbound. This was identified as an area with low power connectivity. The new high-capacity batteries take power from the grid at less busy times and store it. Then it can be used during peak demand to charge EVs. This is one of the first uses

of this technology in the UK and the project has been complex and challenging to deliver. This aligns with the government's target to have six ultra-rapid 150kw EV charge points at MSAs. The system is performing faultlessly, with just under 1MW of extra power available to help reduce charging times. For EVs charging at 150kW, this means up to 200 miles of range will be added by charging in 30 minutes. This is over twice the range previously possible without the energy storage system boost.

7. Progress on our Enabling actions between April 2024 and March 2025

A series of enabling actions were identified in the NZP to support delivery of our commitments. A summary of our progress and achievements is provided below:

- We continue to update our Carbon Hub to provide tools and learning resources. This includes 'how to' videos to assist our suppliers with carbon reporting. Since April 2024, the hub has received almost 10,000 visits.

- In September 2024, we delivered our biggest annual Carbon Week internal and external webinars focusing on low carbon innovation with 275 people attending.
- We delivered face-to-face carbon literacy training with over 1170 colleagues, each pledging to take action to reduce carbon.
- We've updated our corporate carbon key performance indicator to align with the NZP reporting methodology and the latest climate science.

We continue to work with partners like the [Infrastructure Client Group](#) and the [Construction Leadership Council](#). We also attend events like the Regional Delivery Partnership East Carbon Conference. This allows us to share lessons and discuss innovation across wider industry

8. Progress on our commitments

We have achieved all the NZP commitments we pledged to complete by March 2025:

Commitment	Update
Net zero concept scheme for asphalt	A64 net zero scheme delivered in October 2024. 68% carbon savings against BAU practises and 75% carbon savings against 2020 baseline (over 260 tonnes carbon)
Our specifications Manual of Contract Documents for Highways Works (MCHW) have integrated net zero thinking	Our MCHW has been updated to include net zero thinking and will be republished later this year
We have carried out a review of data systems and will develop a plan to upgrade our processes, systems and assurance, which will be complete for the end of 2024	Our Data Improvement Plan was published on our website in January 2025
Develop a deliverability plan to deploy solar panels on the network and explore long term electricity generation options in 2024/25	<p>This commitment has been updated following feasibility surveys to:</p> <p><i>Develop a deliverability plan to deploy solar panels on the network and explore long-term electricity generation options in 2024/25.</i></p> <p>By delivering solar on our estate, we can reduce our demand on the grid. This will also reduce our operational costs. We will continue to review opportunities for energy generation as part of our power purchasing strategy.</p> <p>500kW of solar photovoltaic (PV) were installed across nine depots in between April 2024 and March 2025</p>

8.1. Progress in 2024/25 against other NZP commitments

Corporate emissions (net zero by 2030)	
Commitments	Latest update for April 2024 to March 2025
We will aim to reduce the overall size of our estate by one third by 2027	We are on track to reduce our estate by one third by 2027. Our hybrid working policy was launched in May 2024. Colleagues whose roles allow them to work in a hybrid way can split their time between working in an office or remotely.
100% of our business mileage will be by electric vehicles (hire or personal) by 2030	<p>We launched our green car salary sacrifice scheme in 2022, helping employees to play their part in reducing emissions. So far, 4.04% of our staff (284 employees) have joined this scheme.</p> <p>Our updated travel hierarchy encourages staff to use sustainable transport. We continue to raise awareness and encourage our people to use sustainable transport for business use. We saw an 83% reduction in domestic flights (only permitted in exceptional circumstances) from April 2024 to March 2025, compared to April 2023 to March 2024.</p> <p>In April 2025, we launched a new hire car contract. This includes a new measure to make sure vehicles delivered emit no more carbon than the class of vehicle booked by the hirer.</p>
Plant at least an extra 3 million trees by 2030	Between April 2024 and March 2025, over 177,000 trees were planted on 27 National Highways and community projects. This is in addition to tree planting in the design and mitigation of road projects.
Develop a deliverability plan to deploy solar panels on the network and explore long term electricity generation options in 2024/2025	Between April 2024 and March 2025, we installed approximately 500kW of solar PV across nine depots. At the same time we delivered further energy efficiencies, heat decarbonisation and battery installation at these sites. We developed an Estates Decarbonisation Action Plan to help reduce emissions at our depots, offices and outstations. The plan includes measures to upgrade 35 sites with energy and water efficiency measures. The plan also includes measures to install a further 32 solar PV between April 2025 and March 2026. Further carbon reduction improvements are planned for future years.
Aim to agree zero carbon memoranda with our landlords by end of 2022	We continue to work with landlords to build relationships and encourage collaborative working to reduce emissions. This will help increase carbon and efficiency savings across the leasehold estate. We will also include carbon efficiencies and sustainability in negotiations for new leases.
We will buy 100% of our electricity via zero carbon tariffs	We are developing an electricity procurement strategy to make sure 100% of our electricity is procured from zero carbon sources. This strategy will also make sure we can export excess green electricity into the UK grid, when we generate more than we need. This work includes ongoing feasibility studies of large-scale solar on our estate.
Our heavy vehicle fleet will be 100% electric or hydrogen heavy vehicles by 2040	There are currently no zero-emission HGV models available that meet our requirements. We continue to explore options for lowering our HGVs' carbon footprint, such as biofuels like Hydrotreated Vegetable Oil (HVO). We are monitoring the market around zero-emission HGVs. We're engaging with manufacturers to explore options that will support our requirements in future.

Maintenance and construction emissions (net zero by 2040)	
Commitment	Latest update for April 2024 to March 2025

In each road period we will identify which low/zero carbon products we will use in maintenance and construction	We continue to update our <i>Low Carbon Opportunities Register</i> with new opportunities. We have identified over 270 activities to date. We launched our <i>10 asks for designers on our schemes</i> . This sets out 10 things that can be done today to cut carbon on schemes. When we developed our Low Carbon Demonstrator Fund, we identified priority initiatives for low carbon asphalt on active schemes between April 2025 and March 2026.
100% electric or hydrogen heavy vehicles deliver to our sites by 2040	We continue to engage with suppliers to learn about their plans for zero emission deliveries with heavy vehicles. We work together to identify challenges and assess information to understand how to achieve our goal.
100% zero carbon plant used on sites and site cabins by 2030	We are developing a roadmap that sets out a series of scenarios for the shift towards zero emission plant and equipment. The roadmap sets out milestones for key emission sources and actions for suppliers to drive forward. We will continue to work with our suppliers to understand how this could be rolled out.
100% electric vehicle site cars and vans by 2030, and all compounds run on renewable electricity by 2030	We continue to engage with the suppliers to improve our understanding of the zero emission technologies. From this work, we have developed a roadmap to show our path to zero emission sites by 2030 and beyond. This will be used to guide our suppliers on our expectations and how they can support us.
Develop a zero carbon 2040 roadmap for steel, cement, concrete and asphalt	We are introducing maximum carbon intensity levels for concrete, steel and asphalt. We are continuing to develop levels for each material up to 2040, ahead of introduction into relevant contracts. This builds on our <i>Material Decarbonisation Roadmaps</i> and our <i>Contracting for Carbon policy</i> .
We require our Tier 1 and Tier 2 suppliers to have their own certified carbon management systems (CMS)	Large and medium suppliers must implement their own PAS 2080 verified CMS by the end of 2025. They must also set SBTi aligned targets. We continue to send targeted communications and support our suppliers through our Low Carbon Hub. The Carbon Hub clarifies Tier 1 and Tier 2 suppliers to mean directly procured large and medium contractors as defined by Cabinet Office guidance.

Road user emissions (net zero by 2050)	
Commitment	Latest update for April 2024 to March 2025
Support the delivery of high-powered charging infrastructure on the Strategic Road Network enabling the transition to net zero	Supporting the Government, we have gained a deeper understanding and lots of valuable insights which have helped us understand industry capabilities better. As a result, we've strengthened collaboration among stakeholders and improved understanding of future energy demand. We've also fostered innovative solutions to enhance grid capacity. This has allowed us to make smaller, incremental power upgrades which has enabled more charge points to be activated faster, without waiting for major connections.
Develop and test a comprehensive programme to expand travel choice in second road period & integrate into the third road period	We progressed the Solent Travel Choice project in collaboration with large employers to shape travel choice policy. This has allowed us to promote lift sharing, the Love to Ride cycling app and workplace grants for sustainable transport facilities. For example, cycle parking and shower facilities. As part of the Manchester Travel Choice project, a lift-sharing pilot at Salford Royal Hospital introduced dedicated car-sharing parking spaces for staff. Staff can also access the Liftshare app.
Recommend a preferred solution for HGVs and investment plan for implementation in the fourth road period	We will use insights from the Innovate UK zero-emission HGV projects to shape future solutions and investment plans. Alongside this, we're researching global market trends to understand their impact on zero-emission HGVs on our network.

Identification of additional actions to influence and go further to support reducing road user emissions on SRN.

In addition to the Innovate UK ZEHID initiative, we have conducted further studies on HGV decarbonisation. These studies are:

The HGV Roadmap study. This study has improved our understanding of how the sector will evolve and investment needed to support decarbonisation initiatives.

The Regional Mapping study. This study provided a tool that shows locations of current charging infrastructure on our network. This also include data around what is planned by national bodies and private sector. This highlights where future interventions may be needed.

The Zero Emission Vehicle Asset Resilience study. This study explored the impacts of mass-uptake of all-sized electric vehicles on our network.

If you need help accessing this or any other National Highways information, please call **0300 123 5000** and we will help you.

© Crown copyright 2025.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence:

visit www.nationalarchives.gov.uk/doc/open-government-licence/

write to the **Information Policy Team, The National Archives, Kew, London TW9 4DU**,
or email psi@nationalarchives.gsi.gov.uk.

Mapping (where present): © Crown copyright and database rights 2025 OS AC0000827444. You are permitted to use this data solely to enable you to respond to, or interact with, the organisation that provided you with the data. You are not permitted to copy, sub-licence, distribute or sell any of this data to third parties in any form.

This document is also available on our website at www.nationalhighways.co.uk

For an accessible version of this publication please call **0300 123 5000** and we will help you.

If you have any enquiries about this publication email info@nationalhighways.co.uk or call **0300 123 5000***. Please quote the National

National Highways creative job number CRE25_0512

*Calls to 03 numbers cost no more than a national rate call to an 01 or 02 number and must count towards any inclusive minutes in the same way as 01 and 02 calls.

Please quote the National Highways publications code **PR49/25**.

These rules apply to calls from any type of line including mobile, BT, other fixed line or payphone. Calls may be recorded or monitored.

Printed on paper from well-managed forests and other controlled sources when issued directly by National Highways.

Registered office Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ

National Highways Limited registered in England and Wales number 09346363