Map of Missing Policies
Discussion Paper

Contents

Map of Missing Policies: Discussion Paper Introduction

In December 2024, Zemo Partnership published our *Delivery Roadmap for Net Zero Transport in the UK,* which explains how to accelerate investment and encourage the behavioural changes needed to decarbonise the sector at pace.

The report and *Delivering Net Zero Transport in the UK – Briefing for the new Government*, published in September 2024, identify gaps in the existing policy framework and suggest how these should be addressed.

The European Climate Foundation has commissioned Zemo Partnership to carry out a more detailed analysis of the "missing policies".

The "Map of Missing Policies" project will build on the roadmap by:

- identifying gaps in the policies of the four nations of the UK to achieve net zero transport by 2050;
- making proposals to address them in a timely manner;
- providing a clearer sense of priorities for implementation.

The "Map of Missing Policies" consultation paper will be launched at the Council for Net Zero Transport Quarterly Briefing in Westminster on 5 March 2025.

This consultation will provide the basis of a stakeholder outreach programme in the spring. A final policy paper will be published at the Council for Net Zero Transport Quarterly Briefing at Westminster on 5 June 2025.

But first, we want to hear from our members. On 26 February, we are holding an all-members' workshop to discuss the main policy gaps and identify priorities for further work.

To inform the discussion, this paper sets out the key issues in decarbonising UK road transport, provides an overview of relevant UK Government policies and outlines Zemo's existing proposals.

We look forward to an insightful and stimulating discussion.

Personal Mobility

Cars

Cars account for just under 60% of UK domestic road transport greenhouse gas (GHG) emissions.[1] Moving to zero emission (at the tailpipe) cars is vital for reducing GHG emissions as well as eliminating other tailpipe pollutants such as nitrogen dioxide and cutting vehicle noise.

In November 2020, the then Prime Minister Boris Johnson announced that the sale of new fully petrol and diesel cars and vans would be phased out by 2030, and that all new cars and vans would be zero emission by 2035. In September 2023 the then prime minister Rishi Sunak changed this phase-out date to 2035. The 2024 Labour party manifesto promised to restore the phase-out date of 2030 "for new cars with internal combustion engines".

The Zero Emission Vehicle (ZEV) mandate currently requires 28% of new cars sold in Great Britain to be zero emission in 2025, rising to 80% by 2030 and 100% by 2035.[2] The regulation aims to support the UK's goal of achieving net zero emissions by 2050 and provide certainty for the automotive industry and charging infrastructure sector.

While battery electric vehicle (BEV) sales are growing impressively, they are not yet fully aligned with the ambitious ZEV mandate targets. In 2024, BEVs made up 19.6% of the market, up by more than a fifth from the previous year, but still short of the 22% demanded by the mandate.[3]

At the end of June 2024, there were 1.1 million zero emission cars in the UK which represented 3.2% of all cars.[4] (Almost all of them are battery electric vehicles). This raises the question of how to decarbonise the residual fleet, "the other 97%". Nearly a quarter of the UK car fleet is over 13 years old, a figure that is set to increase.[5] Low

[1] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022
[2] https://www.gov.uk/government/news/pathway-for-zero-emission-vehicle-transition-by-2035-becomes-law
[3] https://www.smmt.co.uk/2025/01/record-ev-market-share-but-weak-private-demand-frustrates-ambition/
[4] https://www.gov.uk/government/statistics/vehicle-licensing-statistics-april-to-june-2024/vehicle-licensing-statistics-april-to-june-2024#licensed-vehicles
[5] https://www.nimblefins.co.uk/cheap-car-insurance/average-age-cars-great-britain

carbon fuels will play an important role in reducing GHG emissions as the market for zero emission vehicles matures.

In December 2024, the Government announced a consultation seeking views on delivering the commitment to end the sale of new cars powered solely by international combustion (IC) engines by 2030, supporting the transition set out in the Zero Emission Vehicle Mandate.

The following table summarises the market barriers to decarbonising cars, (particularly through electrification), the key government policies to address them and Zemo's proposals.

Market barrier	Policy Lever	Delivery	Zemo Proposals
High upfront cost of electric cars compared to petrol and diesel options.	Tax incentive.	Exemption from Vehicle Excise Duty (VED), and the Expensive Car Supplement exemption (which applies to all new cars with a list price of £40,000 or more). Both tax incentives will end from 1 April 2025. Zero emission cars will pay the lowest rate of Vehicle Excise Duty (VED) for the first year only.	Base VED on size, weight, and emissions across the life cycle of a vehicle, once suitable metrics are available.
	Support manufacturing and supply chain.	Advanced Manufacturing Plan (2023: £2 billion for the automotive industry for 5 years from 2025/26. Funding through the Advanced Propulsion Centre (APC), Automotive Transformation Fund (ATF).	

Market barrier	Policy Lever	Delivery	Zemo Proposals
Uneven distribution of public chargepoints across the UK - so far, they are largely in the south and in urban areas. "Range anxiety" for some consumers.	Target for expanding charging infrastructure.	Aim for a minimum of 300,000 chargepoints in the UK by 2030.	Recognise that the expectation of at least 300,000 public chargepoints by 2030 is at the low end of scenarios and may not be sufficient to support the growing EV market. Use more relevant metrics for the rollout of charging infrastructure.
	Financial support.	Support local government chargepoint strategies through the On-Street Residential Chargepoint Scheme (now closed) and Local Electric Vehicle Infrastructure (LEVI). Range of grants (capped at £350) for installing EV chargepoints.	Introduce low interest loans for home chargers.

Market barrier	Policy Lever	Delivery	Zemo Proposals
	Financial support.		Conduct a strategic review of public charging infrastructure, including the number, type, and power of chargers, and map their distribution in relation to the location and usage of EVs. Invest in sites where they are needed but not commercially viable, to ensure accessibility and convenience for consumers.

Market barrier	Policy Lever	Delivery	Zemo Proposals
High reliance on public charging for some income groups; differential VAT rates for public and home charging.	Reform VAT rate. Reform electricity tariff options and standing charge rates. Review cost sharing for local grid upgrades. Electricity price reforms.		Apply the lowest VAT rate for electricity used to charge vehicles, no matter where they are charged.
Delays in securing connections to local electricity grids.	Reform grid connection process.	NESO planned to submit proposals and options for connections reform to Ofgem by the end of 2024. Ofgem expects to decide on proposals in early 2025.	
	Financial support.		Provide financial support with grid connections to SMEs.

Market barrier	Policy Lever	Delivery	Zemo Proposals
Consumer scepticism.	Public information.	The Government plans to set out a strategy for engaging the public in the net zero transition in early 2025.	Launch a publicly funded campaign to convince the public of the need to decarbonise transport and enabling policies.
	Fiscal measures		Reform the Apprenticeship Levy to support upskilling where it is most needed.

Questions for Discussion

- *What tax incentives would most effectively encourage consumers to buy zero emission vehicles?*
- *What further action can the UK Government take to support the manufacturing and supply chain for electric vehicles?*
- *How should the Government ensure that public chargepoints are available where they needed in all parts of the UK?*
- *What mechanisms can the UK Government use to limit the gap between typical energy prices paid by people who can charge at home and those who must use public charging facilities?*

Public Mobility

Buses

Buses account for 2% of UK road transport GHG emissions.[6] They will play a key role in helping the UK reach its 2050 net zero target. Encouraging more people to use buses will reduce car usage. When fully utilised, buses are a more environmentally friendly option, as they can transport many passengers efficiently.

Zero emission buses (ZEBs) use renewable energy to reduce GHG emissions, especially in the towns and cities of the UK.[7] By producing no harmful tailpipe emissions, ZEBs will deliver substantial reductions in particulate matter (PM2.5) and nitrogen oxide (NOx) emissions, which are associated with chronic disease, premature death, and excess costs to the NHS.[8]

There are two main types of ZEBs: battery-electric and hydrogen fuel-cell buses. [9] Battery-electric buses make up most sales, while hydrogen buses represent less than one per cent of the UK bus fleet. [10]

In February 2020 the Government committed to supporting at least 4,000 new zero emission buses (ZEBs) on the road by 2025, equating to just over 10 per cent of England's total bus fleet in England.[11]

In March 2024, there were 4161 licensed battery electric buses and coaches across the UK. This number has increased more than fourteenfold from 285 at the end of

---

[6] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022

[7] 09_10_24_Zenobe_EV_Report_Charging_Forward_v17_RGB

[8] 09_10_24_Zenobe_EV_Report_Charging_Forward_v17_RGB

[9] https://www.zemo.org.uk/assets/reports/ZEMO_ZERO_EMISSION_BUS_GUIDE_2022_ONLINE_VERSION.pdf

[10] https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2024/annual-bus-statistics-year-ending-march-2024#bus-fleet

[11] https://www.gov.uk/government/publications/apply-for-zero-emission-bus-funding-zebra-2/apply-for-zero-emission-bus-funding-zebra-2

September 2017 and represented just over 10% of the total licensed bus fleet in Great Britain.[12] Zemo expects this figure to rise to 20% by 2026/2027.

New bus registrations reflect this progress. In 2023 and 2024, around 60% of all new buses registered across the UK had drivetrains that were fully zero emission at the tailpipe, either battery electric or hydrogen fuel cell electric. This followed two consecutive years where ZEB registrations accounted for 50% of total market registrations in 2021 and 2022 respectively.[13]

The momentum for zero emission buses must be maintained and low carbon fuel options encouraged. The following table summarises the current policy framework for decarbonising buses.

[12] https://www.gov.uk/government/statistical-data-sets/vehicle-licensing-statistics-data-tables#plug-in-vehicles

[13] https://www.zemo.org.uk/assets/presentations/BWG-P-24-17_Zemo_ZEB_Market_Monitoring_Update_September_2024.pdf

Market barrier	Policy Lever	Delivery	Zemo Proposals
Lack of market certainty.	Set targets or deadlines for transition to zero emission bus fleet. Sales mandate on manufacturers.	The National Bus Strategy (2021) committed to setting a target to end the sale of new non-zero emission buses in the UK by 2032 at the latest, with a goal for the entire fleet to become zero emission. In 2021, the DfT consulted on a date to end diesel bus sales. followed by a second, more detailed consultation in March 2022 on ending the sale of new non-zero emission buses. The consultation outcome, including the end-of-sale date for non-zero emission buses, is still pending.	Set a date for ending the sale of non-zero emission buses. Investigate a zero emission vehicle mandate to support an end of sales date.
High capital cost to purchase zero-emission buses and charging / refuelling infrastructure.	Grant funding.	The Government pledged £525 million from 2020/21 to 2024/25 to support the transition to ZEBs.[14] The primary funding source for ZEBs and related infrastructure in England (outside London) has been the Zero Emission Bus Regional Areas (ZEBRA) grant competition for local authorities.	Use a sustainable long-term trajectory for ZEBs. This could embrace incentives for vehicles, infrastructure and the overall business plan.

[14] https://publications.parliament.uk/pa/cm5803/cmselect/cmtrans/161/report.html

Market barrier	Policy Lever	Delivery	Zemo Proposals
Cost and time needed to secure access to energy (grid connections) for infrastructure at depots. Cost and time needed to deliver grid upgrades.	Strategy to expand charging and refuelling infrastructure at bus depots.	In October 2023 the previous government ran a call for evidence on infrastructure for zero emission heavy duty vehicles and coaches. The previous government said it planned to launch a strategy on zero emission heavy duty vehicle (HDV) infrastructure "in early 2024". Such a strategy had not been published at the time of change of government.	Carry out a strategic review of charging infrastructure. Designate grid upgrades that support chargepoint installations as 'nationally critical infrastructure' and fast-track the approval of such projects. Speed up the planning and approval processes for installing charging points.
Reduced operators' income resulting from long-term decline in bus patronage.	Operational incentives.	The Bus Service Operators Grant (BSOG) helps bus operators, local authorities, and community transport organizations offset fuel costs. Zero Emission Bus (ZEB) incentive offers operators £0.22/km for zero emission buses. The Low Carbon Emission Bus (LCEB) incentive provides an extra 6p/km for low carbon vehicles.	Reform BSOG to better support the business case for purchasing zero emission buses.

Market barrier	Policy Lever	Delivery	Zemo Proposals
Availability of higher blend biofuels.	Supply incentive.	Renewable Transport Fuel Obligation (RTFO) requires fuel suppliers to provide a defined share of renewable fuels with the target increasing to 12.15% in 2025 and 14.6% by 2032.	Raise the RTFO target for 2032.
Cost of higher blend biofuels.	Fiscal Incentive		Zemo's proposed renewable liquid fuels incentive would be available to bus operators to lower the costs of higher blend biofuels. This fiscal incentive would work alongside bus fleet electrification.

Questions for Discussion

- *What should be the final date for ending the sale of new non-zero emission buses in the UK?*
- *Should the UK Government bring in a zero emission vehicle mandate for buses?*
- *How should the UK Government ensure that a zero emission infrastructure is delivered for HDVs and coaches?*
- *How should a sustainable long-term funding programme for ZEBs be delivered?*
- *How should the UK Government reform BSOG to support the business case for purchasing ZEBs? (For example, should BSOG be based on kilometres travelled rather than the amount of fuel used, with a higher rate applied to zero emission vehicles?)*

Coaches

Coaches account for around 1.5% of the UK's total road transport greenhouse gas (GHG) emissions.[15]

An example journey between London and Glasgow a journey via the average petrol car emits over 4 times more CO2e per passenger than the equivalent journey by coach.[16]

The same journey by plane would emit over 6.8 times more CO2e per passenger than by coach.[17]

The UK Government has not set a date for the end of sales of new non-zero emission buses or coaches.

Around 1.5% of coaches in the UK are battery electric. Attention must now turn to decarbonising coaches. This means addressing the limited range of technologies available and encouraging the use of low carbon fuels during the transition to electrification.

[15]https://www.zemo.org.uk/assets/reports/LowCVP%20Coach%20report%202020%20web%20version%20V2.pdf

[16] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022

[17] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022

Market barrier	Policy Lever	Delivery	Zemo Proposal
Lack of market confidence	Set targets or deadlines for transition to zero emission coach fleet.	The DfT consultation in 2022 on setting a specific date between 2025-2032 for ending the sale of new non-zero emission (at the tailpipe) buses sought evidence and views to understand the challenges to transitioning to a zero-emission coach fleet and what might government do to accelerate the transition. The previous government did not respond to this consultation by the end of the last Parliament.	
Limited range of models with sufficient range available.	Grant funding.		Use grants to encourage the supply of new coach models.

Market barrier	Policy Lever	Delivery	Zemo Proposal
	Support research and development.		
Lack of reliable recharging / refuelling infrastructure and/or moveable depot solutions.	Strategy to expand charging and refuelling infrastructure at coach depots.	In October 2023 the previous government ran a call for evidence on infrastructure for zero emission HDVs and coaches. The government said it planned to launch a strategy on zero emission HDV infrastructure "in early 2024". Such a strategy had not been published at the time of change of government.	Strategy to improve public charging infrastructure should ensure that high quality chargepoints cater to diverse user needs. Provide financial support to help SMEs with grid connections and upgrades.
Availability of higher blend biofuels.	Supply incentive.	Renewable Transport Fuel Obligation (RTFO) requires fuel suppliers to provide a defined share of renewable fuels.	Raise the RTFO target for 2032.

Market barrier	Policy Lever	Delivery	Zemo Proposal
Cost of higher blend biofuels.	Fiscal Incentive.		Zemo's proposed renewable liquid fuels incentive would be available to coach operators to lower the costs of higher blend biofuels. This fiscal incentive would work alongside coach fleet electrification.

Questions for Discussion

- *What policies are needed to expand the range of available zero emission coach models? Could trials modelled on the ZEHID programme used for HGVs help provide clarity over which technology(ies) will be best suited to coach operations?*
- *What type of grants are needed to promote the use of low carbon fuels in the coach market?*
- *What strategies are needed to make suitable charging and refuelling infrastructure available for coaches?*

Moving Goods

Heavy Goods Vehicles

Heavy Goods Vehicles (HGVs) represent 19% of UK domestic road transport greenhouse gas emissions[18], though they account for just 5% of total vehicle mileage.[19] In comparison, cars and taxis make up 76% of vehicle mileage[20] but contribute nearly 60% of road transport emissions.[21]

Decarbonising freight is challenging due to HGVs' size, longevity, and varied uses. Battery-electric and hydrogen fuel-cell technologies will have roles, with the best option depending on vehicle weight, duty cycles, and journey lengths.

In November 2021, the UK Government set a target to end the sale of new non-zero emission HGVs (26 tonnes or less) by 2035, aiming for all new HGVs to be fully zero emission at the tailpipe by 2040. In 2022, a consultation on possible exemptions was held. The Government has yet to respond to this consultation.

Policy is needed to address the challenges faced by HGV operators, particularly SMEs with tight margins, in transitioning to zero-emission vehicles. As of June 2024, there were only 862 battery-electric HGVs in the UK, representing 0.16% of all HGVs.[22]

The zero emission HGV market is in its early stages, and while ICE HGV sales are set to end by 2040, diesel HGVs may remain in the fleet until 2050, especially in high-mileage, high-payload vehicles. This could hinder the UK's emissions targets, as significant amounts of fossil diesel will still be used.

During the transition, high-blend renewable fuels such as biomethane, biodiesel, and renewable diesel/HVO will reduce emissions from existing HGVs. A Zemo Partnership study found notable GHG savings from adopting 100% drop-in renewable diesel or

---

[18] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022

[19] https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2022/road-traffic-estimates-in-great-britain-2022-traffic-in-great-britain-by-vehicle-type

[20] https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2022/road-traffic-estimates-in-great-britain-2022-traffic-in-great-britain-by-vehicle-type

[21] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022

[22] Department for Transport (DfT), Vehicle licensing statistics data tables, VEH0141, VEH0105 49 SMMT, HGV growth stabilises while zero emission market share rises, 16 May 2024

biodiesel blends.[23] B20 and 20% renewable diesel adoption can also significantly cut emissions in the short to medium term. Delays in the transition can be addressed through the wider adoption of low carbon fuels, especially in long-haul truck and coach fleets, the hardest vehicle modes to electrify in the near to medium-term.

Many regional and long-haul fleet operators currently use biomethane and HVO to achieve short-term decarbonisation goals, where BEV options are either impractical or too expensive. These fuels may continue to play a role in meeting medium term decarbonisation goals.

However, transport operators face challenges and uncertainties in transitioning to low-carbon fuels. Policy is also needed to bridge the cost gap between low-carbon fuels and diesel and provide long-term certainty for fleet operators.

[23] Vehicle life cycle GHG emissions study to show the role of renewable fuels in meeting net zero

Market barrier	Policy Lever	Delivery	Zemo Proposal
Lack of market certainty for electric HGVs.	Clear Government strategy / roadmap for HGV electrification. Funding.		
	Policy on new non zero emission HGVs. Sales mandate on manufacturers	Target to end the sale of new non-zero emission HGVs weighing 26 tonnes or less by 2035, with a goal for all new HGVs to be fully zero emission at the tailpipe by 2040. A ZEV mandate is not in place for HGV manufacturers.	Phase in over three or four years a 'ZEV Mandate' for HGVs based on vehicle weight.
Total cost of operation of BEVs, including their upfront purchase cost.	Grants to encourage adoption.	The Plug-in Truck Grant in 2016 offers up to 20% off the purchase price for zero emission commercial vehicles, up to £25,000 available for the largest HGVs.	Increase the Plug-In Truck Grant.

Market barrier	Policy Lever	Delivery	Zemo Proposal
High electricity costs compared to diesel			
Underdeveloped and costly public charging infrastructure. Grid connection delays. Cost of upgrades.	Strategy to expand and upgrade charging network. Improve grid upgrade processes. Review distribution of connection costs. Funding.	In 2023, the previous government sought input on developing a zero emission HGV and coach infrastructure strategy. The strategy had not been published by the 2024 General Election. NESO planned to submit proposals and options for connections reform to Ofgem by the end of 2024. Ofgem expects to decide on proposals in early 2025.	Conduct a strategic review of public charging infrastructure, ensuring chargers are appropriately distributed and aligned with HGV usage patterns. Allow DNOs to invest in making grid upgrades ahead of need. Designate grid upgrades that support ChargePoint installations as 'nationally critical infrastructure'. Simplify the planning and approval process for installing chargepoints. Use Zero Emission HGV and Infrastructure Demonstrator (ZEHID) programme to support the development of HGV charging network. Provide financial support with grid connections to SMEs. Promote the use of lower risk and innovative financing options.

Market barrier	Policy Lever	Delivery	Zemo Proposal
Supply of high blend biofuels including biomethane, HVO, biodiesel.	Supply incentives.	Renewable Transport Fuel Obligation (RTFO) requires fuel suppliers to provide a defined share of renewable fuels with the target increasing to 12.15% in 2025 and 14.6% by 2032.	Raise the RTFO target for 2032.
Cost of high blend biofuels including biomethane, HVO, biodiesel.	Fiscal incentive.		Proposed UK renewable liquid fuels incentive for heavy-duty vehicle operators, to work alongside HGV electrification.
Lack of certainty in low carbon fuels market.	Strategy on the role of low carbon fuels in decarbonising HGVs alongside electrification in the near to medium term.	In 2021, the Government promised a long-term strategy for low-carbon fuels. The strategy has not been published.	Publish a long term low carbon fuels strategy covering fiscal incentives, regulation, vehicles roadmap for infrastructure.

Questions for Discussion

- *When should a 'ZEV mandate' for HGVs be phased in?*
- *How should Government accelerate electrification of the HGV fleet?*
- *How should the Government increase the availability of charging sites for HGVs? How should a national network of public HGV recharging sites be created and funded? How would the demand for power be met?*
- *How should the Government encourage the increased use of low carbon fuels, such as for biomethane and HVO, to decarbonise HGVs in the early market stages of electrification?*

Light Goods Vehicles

In 2022, vans accounted for 19% of UK domestic road transport greenhouse gas (GHG) emissions.[24] Transitioning vans to zero emission (at the tailpipe) as soon as possible is crucial to delivering significant reductions in CO2 emissions, as well as improving air quality and realising cost savings for businesses and consumers.

In November 2020, the then then prime minister Boris Johnson announced that the sale of new fully petrol and diesel cars and vans would be phased out by 2030, and that all new cars and vans would be zero emission by 2035. In 2023 then prime minister Rishi Sunak changed this phase-out date to 2035. The Zero Emission Vehicle (ZEV) mandate currently requires 16% of new vans sold in Great Britain to be zero emission in 2025, rising to 70% by 2030 and 100% by 2035.[25]

Demand for battery electric vans continues to fall behind the mandate. In 2024, industry data suggest that zero emission vans comprised around 6.3% of total van registrations, the same as in 2023, and compared to a headline ZEV target for the year of 10%.[26]

At the end of June 2024, there were 71,000 electric LGVs (light goods vehicles) in the UK, which represented 1.5% of all LGVs.

In December 2024, the Government announced a consultation seeking views on delivering the commitment to end the sale of new cars powered solely by IC engines by 2030, supporting the transition set out in the Zero Emission Vehicle Mandate. The consultation also sought views on potential requirements for new non-zero emission vans sold between 2030 and 2035.

Low carbon fuels also have a role to play in decarbonising the van fleet during the transition to electrification. Rural and regional duties are harder to decarbonise because of their range and payload. This makes them a suitable candidate for the adoption of high blend biofuels.

---

[24] https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022

[25] https://www.zemo.org.uk/news-events/news,government-announces-details-of-zev-mandate-setting-trajectory-to-zero-emis_4562.htm

[26] https://assets.publishing.service.gov.uk/media/679382182de28ea2d392f37f/phasing-out-the-sale-of-new-petrol-and-diesel-cars-from-2030-and-support-for-the-zero-emission-transition.pdf

Market barrier	Policy Lever	Delivery	Zemo Proposals
Cost of electric vans compared to diesel equivalents.	Grant.	Plug-in van grant provides up to £5,000 for eligible zero-emission vans (depending on vehicle weight).	
	Tax incentive.	Tax incentives, including exemption from Vehicle Excise Duty (VED), and the Expensive Car Supplement exemption (which applies to all new cars with a list price of £40,000 or more). Both tax incentives will end from 1 April 2025.	
Shortage of sufficient public EV charging points, reach cables.	Strategy to expand charging infrastructure suitable for electric vans.		Strategy should ensure that high quality chargepoints cater to diverse user needs.
Cost of upgrading energy supplies at depots.	Financial support.		Provide financial support with grid connections to SMEs.

Market barrier	Policy Lever	Delivery	Zemo Proposals
Regulatory barriers and costs e.g., electric vans have heavier batteries and vans of 4.25 tonnes pay MOT, licensing costs, driver hours regulated on the same basis as for HGVs.	Review regulatory barriers.	DfT consultation on Electric Vans: Regulatory Flexibility (closes 3 March 2025).[27] Proposals for ZEGVs with a MAM of 3.5t to 4.25t: • move from the heavy vehicle testing system to the MOT network • have their first test after 3 years from first registration (and annually thereafter) • remove from the requirements for tachograph use.	
Supply of high blend biofuels.	Supply incentive.	Renewable Transport Fuel Obligation (RTFO) [see above].	Raise the RTFO target for 2032.

[27] https://www.gov.uk/government/consultations/zero-emission-vans-regulatory-flexibility/zero-emission-vans-regulatory-flexibility

Questions for discussion

- *What new grants or tax incentives, if any, are needed to encourage take-up of zero emission vans?*
- *How can government policy ensure that public charging facilities cater adequately for electric vans?*
- *What financial support should be provided for charging facilities at depots?*

Cross-Cutting Issues

There are important risks and policy areas that are common to decarbonising personal mobility, public mobility and moving goods.

Policies to promote zero emission technologies may inadvertently increase GHG emissions or have other unintended environmental impacts. Policy to deliver net zero transport should seek to reduce emissions throughout the life cycle of a vehicle: vehicle production, in-use and end-of-life.

Manufacturing clean technologies in the UK, including zero emission vehicles, depends on a resilient supply chain of critical minerals. This needs to be maintained in an increasingly challenging global context.

Delivering the transition to zero emission transport requires major investment in every mode. This will require public sector investment, but the size of the transformation means that it must also be combined with green private finance.

The UK needs a strong low carbon skills base to attract investment and achieve the transition to net zero.

Policies to address these risks and issues are summarised in the table below.

Ensure environmental sustainability of transition to net zero transport			
Challenge	**Policy Lever**	**Delivery**	**Zemo Proposal**
Risk that policies to promote zero emission technologies will inadvertently increase GHG emissions.	Facilitate a technology neutral approach to comparing decarbonisation options across different vehicle segments..		Promote the reduction of emissions throughout the life cycle of vehicles Embed life cycle GHG emission metrics into the formation of transport policy.
Ensure resilience of industrial supply chain			
Challenge	**Policy Lever**	**Delivery**	**Zemo Proposal**
Risk of price volatility and supply disruptions for minerals needed by zero emission technologies.	Use environmental, social and governance standards to promote mineral security.	UK Government's Critical Minerals Strategy includes accelerating the UK's domestic capability, collaborating internationally, enhancing international markets.	Introduce sustainability and GHG emission criteria for critical minerals used in the manufacture of lithium batteries and electric motors.

Ensure availability of green private finance			
Challenge	**Policy Lever**	**Delivery**	**Zemo Proposal**
Immature green finance market – mismatch between finance sought and available.	Expand green finance opportunities from commercial and retail banks.	British Business Bank offers a range of debt and equity products through over 200 delivery partners. New Industrial Strategy under development, supported by National Wealth Fund.	Investigate potential role for an intermediary body able to aggregate demand for finance.
Lenders' caution: private finance is priced too high or not available.	Improve lenders' perceptions of risk.		Work with retail banks to ensure that their staff have access to the information they need to price risk appropriately.
	Facilitate the use of lower risk financing options.		Provide more transparent data beyond the meter.
	Promote innovative funding models – greater use of asset finance or leasing. Encourage partnerships between fleets to share facilities.		Provide more transparent data on the use and state of assets beyond the meter and to assets such as charging equipment.

Develop a strong low carbon skills base			
Challenge	**Policy Lever**	**Delivery**	**Zemo Proposal**
Emerging skills gap.	Provide standards, frameworks, qualifications criteria, funding.	Skills England aims to improve the skills system "so that it is simpler, more data driven, and responsive."	Develop a comprehensive, long-term skills and retraining strategy.
Need to reskill workforce.	Targeted tax measures.	New growth and skills levy, which replaces the existing apprenticeships levy, aims to enable employers to access a broader range of high-quality training offers.	Reform the Growth and Skills Levy. Conduct comprehensive review of qualifications and training pathways.
Lack of reliable data.			Build a robust evidence base.

Questions for Discussion

- *What should the UK Government do to ensure a technology neutral approach to comparing decarbonisation options across different vehicle segments?*
- *How can the UK Government's Critical Minerals Strategy be improved?*
- *How can government ensure a wider availability of green private finance?*
- *What should be the priorities for a skills and retraining strategy?*

Promoting a Modal Shift to Low Carbon Travel Choices

Achieving the UK's net zero goals requires a combination of strategies, including changes in travel behaviours. This involves driving fewer miles in smaller, more efficient vehicles and making better use of roads.

While electric vehicles are fast growing in number, the shift is gradual and will not meet emission reduction targets quickly enough. Replacing ICE vehicles takes time, whereas altering travel habits can reduce emissions immediately.

Demand for car travel can be reduced through societal and technological changes (for example shared cars, remote work) and shifting to lower-carbon transport options: public transport, active travel (walking and cycling) According to the Climate Change Committee, the combined effect of these factors is a reduction in demand of 7-16% of total car-kilometres in 2030 and 12-34% by 2050 compared with baseline demand.[28] A shift to new low carbon transport mode, such as smaller and lighter Powered Light Vehicles (PLVs), is a further option.

There is also potential for a modal shift in the freight and logistics sector. The “right vehicle for the right journey” - reducing the high number of single occupancy car and lightly laden van journeys with greater use of more affordable, zero emission PLVs - could see an increase in the road space available for other users, a reduction in energy use and less demand on our charging infrastructure.

As well as enabling the UK transport sector to achieve its net zero target, limiting traffic growth can improve people’s health, reduce congestion and enhance wellbeing.

The DfT’s *Transport Decarbonisation Plan* (2021) included an aspiration for public transport and active travel to be “the natural first choice for our daily activities”.[29] The plan set a target to increase average road vehicle occupancy by 2030.

The DfT has set four specific objectives for active travel:

- Increase the percentage of short journeys in towns and cities that are walked or cycled from 41% in 2018-19 to 46% in 2025, 50% in 2030, and 55% in 2035.

[28] https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Surface-transport.pdf

[29] https://assets.publishing.service.gov.uk/media/5fa03423d3bf7f03a7a99151/decarbonising-transport-setting-the-challenge.pdf

- Increase walking activity to 365 stages per person per year by 2025.
- Double cycling from 0.8 billion stages in 2013 to 1.6 billion stages in 2025.
- Increase the percentage of children aged 5 to 10 who usually walk to school from 49% in 2014 to 55% in 2025.[30]

The central aim of the previous government's National Bus Strategy (2021) was to get more people travelling by bus - first, to return overall patronage to pre-COVID-19 levels, and then to exceed it.[31]

Local bus journey numbers have yet to recover to pre-Covid levels. In the year ending March 2024, bus use was around 10% lower than the year ending March 2020.[32] Before the pandemic, bus use had been gradually falling since around 2015.[33]

Current UK government policies to increase average car occupancy rates and promote modal shifts to active travel and public transport are summarised, with Zemo's proposals, in the following table.

[30] https://www.nao.org.uk/reports/active-travel-in-england/
[31] https://assets.publishing.service.gov.uk/media/6086912fd3bf7f013c8f4510/DfT-Bus-Back-Better-national-bus-strategy-for-England.pdf
[32] https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2024/annual-bus-statistics-year-ending-march-2024
[33] https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2024/annual-bus-statistics-year-ending-march-2024

Modal Shift to Active Travel			
Objective	**Policy Lever**	**Delivery**	**Zemo Proposal**
	Invest in cycling and walking.	In 2022 and 2023, the Government announced investment in cycling and walking totalling £3.8bn for 2021-25. Investment subsequently reduced to £3 billion.	Use long term funding settlements for local authorities to improve walking and cycling routes and improvements to help pedestrians.
Reduce Car Use			
Objective	**Policy Lever**	**Delivery**	**Zemo Proposal**
Overall objective to reduce car use.	National target.	No national target in England.	

Increase Car Occupancy			
Objective	**Policy Lever**	**Delivery**	**Zemo Proposal**
	Promote and encourage car clubs and ridesharing schemes.	Guidance for local authorities on support for shared car vehicle ownership and shared occupancy published 2022.	
	Promote sustainable travel options.	Commitment in 2021 to investigate a Commute Zero programme to work with leading companies to research, support and encourage long-term changes to employee travel habits. Progress has been limited.	.
	Promote sustainable travel options.	Commitment in 2021 to explore the introduction of a new sustainable travel reward scheme supported by businesses, community organisations and charities. Limited progress.	

Promote a Modal Shift to Public Transport			
Objective	**Policy Lever**	**Delivery**	**Zemo Proposal**
Reduce public transport fares.	Bus fare cap.	Bus fare cap in England introduced on 1 January 2023. Maximum single bus fare capped at £2. Cap raised to £3 on 1 January 2025 and extended to end of 2025.	More targeted options are available – for example, providing free travel for key groups such as under-22s or jobseekers.
Increase public transport journeys, frequency. Enable local bus services to be run as part an integrated, coordinated, local network.	Bus service standards	Local authorities are mandated to set up either a franchising scheme, or an Enhanced Partnership (EP) with local bus operators. Operators agree to a set of standards, such as on the time and frequency of services and vehicle standards.	Bus Services Bill: • contains measures to make it easier and faster for all local transport authorities to franchise bus services in their area. • repeals the ban on local authorities creating municipal bus companies.

Objective	Policy Lever	Delivery	Zemo Proposal
Faster bus routes.	Funding to improve bus services.	In England, local transport authorities and bus operators are mandated to jointly submit an annual local Bus Service Improvement Plan (BSIP); received funding to use Enhanced Partnership or franchising scheme to improve bus services in their area. Previous government allocated £1.1 billion to fund BSIPs and £160 million under BSIP 2 for 2022-25. Current government has allocated £670 million to local transport authorities to deliver their BSIPs in 2025/26. Funding amounts have been calculated based on "place need, levels of deprivation and population." In the 2024 budget the Government committed £925 million for local authorities to "introduce new bus routes, make services more frequent and protect crucial bus routes for local communities."	Bring in more devolved long term financial settlements for local authorities. This could provide clarity about the future of BSIP funding beyond 2025 and address funding imbalances. Carry out a comprehensive review of all tools and resources available to regional and local decision-makers.

Objective	Policy Lever	Delivery	Zemo Proposal
	Funding to maintain fares, service levels.	Bus Service Operators Grant (BSOG) a fuel subsidy paid by the DfT to bus operators, community transport operators and (some) local transport authorities. The previous government acknowledged the need to reform BSOG. No decisions were taken by the time of the change of government.	
Integrate bus and rail services.		DfT is currently consulting on a new Integrated National Transport Strategy.	
Help people to make low carbon travel choices.	Provide consistent information on the emissions produced by each travel option.		Produce metrics on the cost, frequency, reliability of public transport options.

Promote new low-carbon transport modes			
Objective	**Policy Lever**	**Delivery**	**Zemo Proposal**
Enable consumers to access new transport modes.	Evaluate new transport modes.	National e-scooter trials used since 2020 have produced useful data on environmental impact, safety, and mode shift potential.	
Increase demand for new low carbon transport modes.	Public information.		Increase public and business awareness of PLVs.
	Operational incentives.		Bring in consumer and business incentives that encourage business operators to shift from ICE cars and vans to micro cars and vans.
	Regulation.		Add new vehicles (micro cars) to L category
Improve market access for new, low carbon alternatives.	Licensing.		Streamline user licensing for PLVs.

Increase supply of new, low carbon transport modes.	Supply chain policies.		Government action to stimulate the supply chain for PLVs.
Discourage car use			
Objective	**Policy Lever**	**Delivery**	**Zemo Proposal**
Increase the cost of driving.	Congestion charging in cities.	London Congestion Charge covers the central area of the city. Birmingham, Bath, Portsmouth, Bristol, Bradford and Sheffield have implemented a Clean Air Zone (CAZ) charging system.	Promote the use of congestion charging in cities, where applicable.
	Parking charges and restrictions.	Parking restrictions and charges are used extensively across cities and towns in England.	Promote the use of parking charges and restrictions, where applicable.
	Fiscal measures.		Conduct an honest national conversation about the potential role of fiscal measures.

Questions for Discussion

- *What new policies are needed to encourage increased bus use?*
- *How should funding settlements for local authorities be improved (for example, for BSIP or a successor programme)?*
- *How should BSOG be reformed? (Options include moving to a distance-based subsidy, providing extra support for rural services, limiting to operators with an Enhanced Partnership.)*
- *What policy and regulatory changes are needed to promote new low carbon travel modes, particularly smaller and lighter PLVs?*
- *What new policies are needed to promote cycling and walking?*
- *Should the UK Government adopt a target for reduced car use in England?*