Zemo Partnership

Accelerating Transport to Zero Emissions

Decarbonising UK Road Transport: Map of Missing Policies

June 2025

Acknowledgements

Zemo Partnership is grateful to the European Climate Foundation for their guidance and funding of the research and to Zemo members and many industry experts for their peer review comments and assistance.

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1. Introduction

In December 2024, Zemo Partnership published the Delivery Roadmap for Net Zero Transport in the UK[1], which outlines how to accelerate investment and promote the behavioural changes required to decarbonise the road transport sector with the necessary urgency.

The paper observed that although the UK Government has implemented significant policies to reduce greenhouse gas (GHG) emissions from surface transport, much more needs to be done to unlock the sector's full potential. Some policies—such as the Zero Emission Vehicle (ZEV) Mandate for cars and vans—require further reinforcement by stimulating demand for zero emission vehicles. Others, like the Renewable Transport Fuel Obligation (RTFO), lack sufficient ambition.

Major gaps also remain in the policies for decarbonising heavy goods vehicles (HGVs), vans, buses, and coaches. These must be addressed to achieve the rapid and substantial reductions in surface transport emissions required by the early 2030s.

The European Climate Foundation has commissioned Zemo Partnership to conduct a more detailed analysis of the "missing policies" needed to decarbonise UK road transport.

The Map of Missing Policies project builds on our Roadmap by:

- identifying gaps in the policies of the UK's four nations for achieving net zero transport by 2050;
- proposing timely solutions to fill these gaps;
- establishing clear priorities for policy implementation.

Since the beginning of the year, we have engaged with Zemo's cross-sectoral membership, conducted in-depth discussions within our working groups, and consulted a broad range of external stakeholders and experts. Together, we have pinpointed weaknesses

[1] https://www.zemo.org.uk/news-events/news,roadmap-sets-out-urgent-actions-needed-to-deliver-net-zero-transport-and-tr_4679.htm

in the existing policy framework for decarbonising UK road transport and developed practical solutions.

This paper presents the conclusions of those discussions, starting with the cross-cutting themes: unlock access to green finance; joining up transport and energy; deliver a sustainable transition; a fair and just transition; and deliver a place-based transition

The following sections explain how the UK Government can drive down road transport emissions with urgency—by accelerating the shift to a zero emission fleet, decarbonising the existing vehicle stock, and encouraging low carbon travel behaviours, using consistent, coherent, and robust policies.

Zemo Partnership thanks our members and partners for their valuable contributions, ideas, and insights to date.

We look forward to engaging with decision-makers and partners across the UK to discuss the analysis and proposals outlined in this paper.

2. Cross Cutting Themes

2.1 Unlock Access to Green Finance

Delivering the transition to zero emission transport needs major investment in every mode and its supporting infrastructure requirements. The scale of the transformation is such that it will require private sector investment. But this will need to be facilitated in certain areas by public finance which has a role in market creation and de-risking investment in the early stages, until private capital takes over. . Three main issues need to be addressed.

First, financial institutions have been slow to address the needs of low carbon investments due to a range of challenges. These include questions regarding the value of an asset once it is returned to the lender and whether there will be a secondary market for such assets. However, many asset finance lenders are funding green assets and developing green finance already. There is an appetite from banks and non-banks to do more. We have already seen lenders support local authorities in transitioning to clean air zones by deploying specialist asset finance expertise and funds. Additionally, local authorities access the Public Works Loan Board to provide low-cost finance that supports capital projects, often as part of their Climate Action Plans. The British Business Bank's (BBB) Growth Guarantee Scheme is already playing its part, and the Green Finance variant offers an opportunity to do more. There is also the National Wealth Fund with its remit to support large-scale projects and work with the BBB.

Second, low carbon investments need to be re-risked. This could be achieved through a greater use of more innovative asset finance or leasing. Asset finance can be available as part of a wider contract agreement for example by a Distribution Network Operator (DNO) providing network connection and financing additional assets, such as charging equipment. A lack of tangible data available to allow investors to quantify the risk they face is a challenge. Ofgem imposes requirements on DNOs to provide open data on the use and state of

assets. If this principle were extended beyond the meter and to assets, such as vehicle batteries and charging equipment, it would open up opportunities to de-risk investments and introduce innovative methods of financing. Investment in EV infrastructure could also be encouraged through the use of Utilisation Linked Finance as proposed by the Green Finance Institute.[2]

Third, Distribution Network Operators and retail banks tend to react to customer approaches on an individual basis rather than developing partnerships and consortiums that would help reduce the cost of finance for projects. The aggregation of grid connection applications has the potential to de-risk investments and share costs.

Some institutions are beginning to offer green finance, but there appears to be a mismatch in terms of the size of investment being offered and sought in the market. Consequently, the overall supply of investment at the size being sought by investees remains constrained. An expansion of green finance opportunities from commercial and retail banks, and non-bank lenders aimed at both the private and public sectors is required.

To unlock the wholesale investment side, and provide finance to bank and non-bank lenders, a green finance insurance product may be required. This could assist in encouraging institutions to finance low carbon technologies.

In summary, there is already a lot of activity in this area as lenders and investors seek out commercial opportunities to fund green or offer finance. This will need to be underpinned by greater data transparency to ensure the competitive pricing of risk, and greater risk sharing between public and private finance providers, as well as those commissioning the investments.

Zemo recommends the following key actions:

[2] https://www.greenfinanceinstitute.com/products-solutions/charging-infrastructure/

- Ensure that local authorities are aware of the potential for asset finance to support investments in transport decarbonisation and clean air zones.
- Increase funding for the BBB's Growth Guarantee Scheme and its Green Finance variant to improve access to affordable finance for businesses investing in sustainable assets.
- Encourage greater access to data on asset usage and condition to promote investment by clarifying associated risks.
- Encourage the use of Utilisation Linked Finance as proposed by the Green Finance Institute.
- Ensure that organisations with a remit to support the net zero transition coordinate effectively to provide effective green finance.
- Commission the Green Finance Institute to explore options for providing green finance insurance to the wholesale investment sector.

2.2 Join up transport and energy policy making

With the drive to electrify road transport fleets, energy policy has a growing impact on the sector. Electricity prices are a major challenge for operators and manufacturers. Ensuring that sufficient power is available to electrify UK road transport will be a major challenge in the coming decades. Too often, however, energy and transport policies are misaligned.

All relevant policy areas should work coherently and consistently to decarbonise road transport. Energy policymaking needs to take full consideration of the transport sector and its requirements and dynamics.

The Government should facilitate more "joined up" policymaking for delivering net zero transport, by ensuring that DfT and DESNZ and other relevant departments provide the necessary resources,

structures and processes to ensuring integrated approaches across transport and energy policy making.

Improve strategic planning of the grid

As surface transport and other sectors electrify, electricity demand is expected to rise significantly, increasing pressure on the existing grid. Strategic planning for the grid is essential to provide greater certainty around investment needs and ensure that the grid can meet future demand efficiently and effectively.

New initiatives have been taken to enable strategic planning and development of the grid. In October 2024, the National Energy System Operator (NESO) was officially established as an independent, publicly owned organisation responsible for planning and operating Great Britain's electricity and gas systems.

NESO's Regional Energy Strategic Plans (RESPs) will aim to ensure effective coordination for strategic planning of the system, enabling long-term investment to be made with confidence and ahead of need. NESO will work with local government and other stakeholders to produce a cross-vector pathway that can inform network investment plans. Distribution network operators will need to align their investment plans to the plans but will retain responsibility for planning and delivering network investment.

These are welcome developments, but the RESPs will need to be based on forecasts of high-level electricity demand from facilities serving heavy-duty vehicle operators, commercial depots, and large public charging hubs. The forecasts—shaped by greater stakeholder involvement and collaboration—would enable NESO to adopt a more strategic approach to future network planning. The information would also be valuable to DNOs, especially as Ofgem moves toward a more flexible stance on anticipatory investment.

The Government should work with industry, stakeholders and academic experts to produce a UK-wide map indicating where the initial recharging/ hydrogen refueling public charging stations and depots for zero emission commercial vehicles, buses and coaches

are required. The information will provide critical Information for each RESP. It will also help DNOs to verify plans, including anticipatory investment, for Ofgem's ED3 price control and local authorities seeking capital funding support, for example under the Zero Emission Bus Regional Areas (ZEBRA) scheme.

Ofgem could use the Strategic Innovation Fund to provide DNOs with incentives for mapping future energy demand at local level.

The Government should also make support available to local authorities with lower capacity and knowledge so that RESPs take account of local plans and priorities.

Reduce delays in connections

Obtaining connections to the electricity grid can take up to 7-8 years for HGVs. If this continues, market and consumer confidence will be placed at risk.

Depots need to be able to handle the high power demand of multiple electric vehicles. Grid connections will frequently require upgrades from DNOs. Upgrade costs range from £10 million to £65 million for distribution centres; overall, an estimated £11–24bn investment is needed for depot charging infrastructure to support a zero emission HGV fleet transition.

Grid connection has been highlighted as possibly the most challenging aspect of zero emission bus (ZEB) deployment. It requires coordination across multiple suppliers and the local Distribution Network Operator (DNO). Lead time is significant, taking 12 to 24 months.

Ofgem's connections reforms will deprioritise almost 500GW of capacity from the connections queue, releasing capacity and enabling faster connections for the most advanced projects that are aligned with strategic needs as set out in the Clean Power Action Plan. This approach replaces the previous "first come, first served" policy for grid connections. With a revised connections queue, the information provided to NESO by truck, bus and van depot operators will identify the sources of new demand for electricity generation.

However, while demand projects[3] such as EV charging hubs will be required to meet readiness criteria (for example, having acquired land rights), only generation and storage projects will be prioritised according to strategic needs (for example, facilitating new economic growth). As transport and heat networks become more dependent on electricity infrastructure, they too should be prioritised according to strategic need. This may require a new set of criteria for surface transport, covering economic, social and environmental impacts.

In December 2024, the Government published the outcome of a review on improving the grid connection process for electric vehicle charging infrastructure. The review addresses common issues surrounding the rollout of EV Infrastructure and grid connections, outlines best practice and clarifies roles and responsibilities. Further action is needed to improve customer service.

Ofgem should introduce minimum service standards and stronger incentives for major connections, to ensure timely connections for all network customers.

Expand opportunities for sharing infrastructure

Sharing ZEV charging infrastructure and LCF refuelling provision, as well as parking and driver facilities provides a huge opportunity to reduce the overall demand on the energy network. Sharing infrastructure can provide a new revenue stream for operators and remove a barrier for entry for users who do not have access to a depot

Some e-HGV operators can share energy infrastructure with other heavy duty vehicles, such as buses and coaches. There are also examples of electrified bus depots sharing charge points with local van businesses, coaches and HGVs, while buses are in operation during the day. Such partnerships will better inform local authorities about which users are transitioning away from fossil diesel, whilst

[3] A project that seeks to connect a new or increased demand for electricity to the grid,

providing a focal point for DNOs to better plan grid reinforcement work.

The Government should enhance opportunities for sharing the use of infrastructure by standardising planning rules (for example, to ensure easy access to chargers). removing irrelevant restrictions (for example, on vehicle access relating to noise and emissions) and expanding access rights to apparatus for access and maintenance. Government funding for EV infrastructure could be used to encourage sharing of infrastructure.

Reform planning processes

National and local planning processes are too often time-consuming and costly. Various consents are required for planning and permitting and these can overlap. Rules are often interpreted inconsistently across different local authorities.

For transmission, the Government is committed to reforming the planning and consenting process, and expediting Ofgem's regulatory approval process. The Planning and Infrastructure Bill, currently before Parliament, speeds up planning decisions for energy infrastructure and gives the Government new powers for improving the process for managing connections to the transmission or distribution systems.

Planning reforms are also needed to accelerate the upgrade, enhancement and maintenance of distribution networks. The National Infrastructure Commission set out a package of reforms dealing with overhead lines, consents in private streets, and planning permission for small substations.

2.3 Deliver a Sustainable Transition

Traditionally, UK transport policy has focused on reducing tailpipe (exhaust) emissions. However, this only accounts for emissions during vehicle use and ignores significant emissions from manufacturing, fuel production, and end-of-life processes.

Map of Missing Policies

With the rise of electric vehicles, which have higher manufacturing emissions (especially from battery production) but much lower operational emissions, focusing solely on tailpipe emissions can be misleading.

Policies to deliver net zero transport should seek to reduce emissions throughout the life-cycle of a vehicle.

The Government should embed life-cycle GHG emission metrics into the formation of transport policy. When determining suitable pathways, a "well-to-wheel" framework should be used to evaluate the total energy consumption and greenhouse gas (GHG) emissions of a technology across its entire life-cycle, from raw material extraction through to fuel production, distribution, and final use in the vehicle rather than focusing only on tailpipe emissions. This enables a more accurate comparison of total carbon impact in the operation of different technologies.

Using life-cycle GHG emission metrics will enable an accurate assessment of the true environmental impact of different vehicle technologies. Policy makers can also identify which stages of a vehicle's life-cycle offer the greatest opportunities for emission reductions. This approach could shape vehicle standards, incentives, and regulations to focus on reducing total GHG emissions from surface transport, not just tailpipe emissions.

Embedding life-cycle GHG emission metrics into transport policy could help to avoid regulations having unintended consequences, such as shifting emissions from the use phase to manufacturing or disposal.

It will be important to ensure that the methodology used for life-cycle GHG emission metrics is based on harmonised international regulations and standards wherever possible.

2.4 Deliver a Fair and Just Transition

There is a risk that too many people will be left behind in the transition to net zero transport.

Decarbonising transport depends on ensuring the rollout of zero emissions vehicles, the vast majority of which will be battery powered, based on current market trends. The price gap between electric cars and comparable ICE equivalents has fallen recently, helped by discounts and incentives. Prices for used electric cars continue to fall. But policy interventions are still needed to boost uptake for electric vehicles, targeting the more affordable models. Zemo's proposals are set out in section 3 below.

Poor access to reliable charging is a key barrier to electric car and van buyers. Estimates suggest that between 25–40% of UK households do not have access to off-street parking and must rely on public chargepoints.[4] This disparity is most likely to affect those in multi-occupancy buildings and lower-income households.[5] But public chargepoints are charged VAT at 20% compared to 20% for home chargers.

Zemo proposes addressing this unfairness by applying the lowest VAT rate used for charging regardless of where electric cars are charged. This could be informed by modelling potential revenue implications: the potential tax revenue foregone as a result of the change compared to the increased revenue from higher electric car uptake. Our proposals to expand the availability of chargepoints in areas where their installation is not commercially viable, encourage the sharing of private chargers and expand the availability of cross-pavement solutions are set out in section 3. below.

Vulnerable groups may also be left behind. By 2035, 1.35 million disabled drivers are expected to be partially or wholly reliant on public chargepoints. However, many current chargepoints, or their surrounding environment, have features which make them

[4] https://publications.parliament.uk/pa/ld5804/ldselect/ldenvcl/51/51.pdf
[5] Ibid.

inaccessible to drivers with disabilities.[6] The British Standards Institute Guidance on Accessible Charging (PAS 1899) provides standards for making chargepoints accessible but its application is not mandatory. There are still no chargepoints in the UK which are fully compliant with the standard.[7] Zemo's proposals to promote the adoption to PAS 1899 are set out in section 3 below.

Decarbonising road transport poses challenges for some parts of the road transport sector. SMEs face high up-front costs when making investments in zero emission vehicles and charging and refuelling infrastructure. Our proposals to ensure that smaller buses, coaches, HGV and van operators can be part of the transition to net zero transport are set out in sections 4 and 5 below.

2.5 Deliver a place-based transition

Every place in the UK has a unique role to play in ensuring that the country meets its target of net zero by 2050.

Local and regional authorities now have important opportunities to make more rapid progress in delivering net zero transport. Regional authorities in England have adopted ambitious net zero strategies.

The powers and resources available to local authorities to help deliver road transport decarbonisation should be expanded by, for example:

- giving local councils flexibility to facilitate the expansion of car clubs;
- increasing total capital funding for bus priority measures, ring-fenced if necessary;
- promoting traffic demand management measures such as congestion charges and parking controls and

[6] https://www.nao.org.uk/wp-content/uploads/2024/12/public-chargepoints-for-electric-vehicles.pdf
[7] https://www.disabilitynewsservice.com/not-one-electric-vehicle-public-charging-point-across-the-uk-meets-governments-accessibility-standard-say-mps/#:~:text=But%20two%20years%20on%20from,much%20as%20private%20charge%20points.

removing the need for Government approval before councils can adopt them.

There are, however, challenges with local decision making. There is a major shortage of resources, skills, and knowledge at the local level and lack of coordination between planning and transport functions. Many local authorities do not have the practical information, expertise, knowledge or resources they need to deliver policies for net zero transport. Devolved and local decision making has become fragmented and complex.

Zemo advocates the following:

- devolution of decision making in transport policy to the appropriate local or regional levels whenever possible;
- greater use of devolved long-term financial settlements to enable local areas to plan and invest in services and infrastructure that promote low carbon transport options;
- providing councils with practical advice on delivering net zero strategies and more support for making decisions over funding;
- a comprehensive review of all policy tools and resources available to regional and local decision makers;
- a review of governance in transport policy to clarify how, when and by whom decisions are made and investment priorities set.

3. Passenger 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 and cutting vehicle noise. The following tables set out the objectives, current situation and a gap analysis identifying missing policies required to deliver net zero for the passenger car sector.

Increase the supply of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
The Government has clear ambitions for the transition to zero emission cars and a policy trajectory that provides the markets with confidence.	Electric cars had 19.6% market share in 2024, which was below the 22% ZEV mandate for the year.[8] Electric cars made up 20.9% of all new UK car registrations in the YTD to May 2025, up from 16.1% for the same period in 2024. But that compares to a 28% Zero Emission Vehicle (ZEV) Mandate target for 2025.[9]	Commitment to end the sale of new, purely ICE cars by 2030, with all new cars and vans being fully zero emission by 2035. The Zero Emission Vehicle (ZEV) Mandate requires 28% of new cars sold in Great Britain to be zero emission in 2025, rising to 80% by 2030 and 100% by 2035. The ZEV Mandate will be changed to make it easier for industry to switch to making electric	While progress is encouraging, further demand-side interventions are needed to ensure compliance with the ZEV Mandate.	Zemo's proposals to increase the uptake of zero emission cars are set out below.

[8] https://w/ww.smmt.co.uk/record-ev-market-share-but-weak-private-demand-frustrates-ambition/
[9] https://www.smmt.co.uk/new-car-market-returns-to-growth-as-discounting-lifts-ev-registrations

Increase the supply of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
		vehicles, delivering the Government's commitment to end sales of new petrol and diesel cars by 2030, while providing more flexibility to support manufacturers. Hybrid cars and vans will now be permitted to be sold until 2035, to allow for a more gradual transition to electric vehicles. The updated ZEV mandate allows increasing flexibility of the mandate for manufacturers up to 2030, so that more cars can be sold in later in the transition.		

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
The total cost of ownership for electric cars is comparable to ICE equivalents.	The gap between prices for battery electric and comparable ICE cars has recently narrowed; discounts and incentives reduce this gap for some buyers.	Zero emission cars pay the lowest rate of Vehicle Excise Duty (VED) for the first year. Favourable Benefit in Kind (BIK) tax rates for company car drivers using electric vehicles (EVs) under a salary sacrifice scheme. The Plug-in Wheelchair Accessible Vehicle Grant supports people with accessibility needs.	Key support measures for electric car buyers have ended: The Plug-in Car Grant, which provided discounts on new battery electric and plug-in hybrid cars, was phased out in 2022. The exemption from electric cars from VED ended on 1 April 2025. The Expensive Car Supplement exemption for EVs also ended from 1 April 2025. ICE vehicles are still being leased under the Motability scheme.	Investigate basing VED for electric cars on GHG emissions across the life-cycle of a vehicle, once a harmonized, industry-recognised methodology is in place to estimate such emissions. Reintroduce the Plug-In Car Grant, targeted on more affordable models. Investigate possible government support for social leasing schemes - offering subsidized lease rates for EVs to lower income groups. Increase the Expensive Car Supplement threshold for EVs to support private buyers with the upfront costs. Widen access to salary sacrifice schemes (e.g. to public sector workers). Limit the use of PIP for road vehicle rentals to

Map of Missing Policies

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
				zero emission vehicles only (or to hybrid vehicles where home charging is impractical). Develop a cost benefit analysis model to show the financial and environmental impacts of fiscal measures designed to increase the uptake of new and used zero emission vehicles, starting with cars. This will enable the Government to improve the targeting and effectiveness of such measures.
There is robust demand for used electric cars.	Supply of used electric cars is outstripping demand and prices continue to fall potentially deterring some new car buyers who may be paying for that difference or left		There are no support measures in place for the second-hand electric car market. If supply to the second-hand market continues to increase without a corresponding rise in demand, there may be further loss in value, leading to	Introduce grants for used electric cars that fall within the typical price range of equivalent new entry- to mid-level models, with the scheme running for five years. Investigate reducing VAT

Map of Missing Policies

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	with a heavily depreciated asset.		a corresponding rise in finance costs for new leasing customers. This will lead in turn to a reduction in the number of new EVs available.	on smaller, lower cost, used battery cars. Exempt affordably priced used battery cars from BIK tax for five years. Investigate options for a residual values (RV) stabilisation scheme, to address the challenges from asset depreciation.
Consumers have confidence in used battery electric cars.	Consumer concerns about battery longevity are a major barrier to used EV purchase.[10]	Commitment to implement international standards for battery state of health information, warranties.	No plans announced for the implementation of the UN's Global Technical Regulation 22 (In-vehicle Battery Durability for Electrified Vehicles) which establishes internationally harmonised minimum performance requirements and test procedures for the durability of in-vehicle batteries used in electrified vehicles.	Implement GTR 22 to standardise battery condition information and provide consumers with transparency.

[10] https://www.axa.co.uk/newsroom/media-releases/2025/63-of-motorists-dont-plan-to-buy-an-ev-axa-uk-research-shows-battery-health-concerns-are-a-key-factor/#:~:text=New%20research%20by%20AXA%20UK,their%20local%20area%20(36%25).

Map of Missing Policies

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Private / home charging is widely accessible to consumers through off-street parking and cross pavement solutions.	The initial investment for a home charger, including installation costs, can be a barrier for some drivers, especially those who are not already EV owners.	Electric Vehicle Chargepoint Grant offers renters, landlords, and flat owners up to £350 off the installation cost of a home EV charger and is available for cross-pavement solutions. Workplace Charging Scheme covers up to 75% of the cost of installing up to 40 EV chargepoint sockets at an organisation's site. On-Street Residential Chargepoint Scheme (ORCS) provided local authorities with funding to install EV charging infrastructure on residential streets, specifically for those without off-street parking (now closed). Local authorities can include cross-pavement	The Electric Vehicle Chargepoint Grant is due to close in March 2026. The Electric Vehicle Homecharge Scheme (EVHS) has not been available to homeowners since April 2022. The Electric Vehicle Chargepoint Grant needs to be maintained and broadened to remove a capital barrier to adopting EVs. Cross-pavement options should be made more accessible to individual drivers, especially by removing planning barriers.	Reform the Electric Vehicle Chargepoint Grant to support homeowners, targeting lower- and middle-income groups, as well as renters, owners and landlords with the cost of home chargepoints. The scheme would be operated for a limited time. Expand the availability of cross- pavement charging solutions by removing planning barriers – e.g., broadening permitted development, removing the need for section 50 licenses, developing a right to charge for people residents of multi-occupancy blocks who do not have access to home charging.

Map of Missing Policies

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
		solutions in their LEVI capital fund projects, subject to conditions.		
Public chargepoints are available insufficient numbers to support a growing electric car market.	Government estimates that at least 300,000 public chargepoints will be needed by 2030. Nearly 80,000 publicly available EV chargepoints were installed as of 1 May 2025. [11] (This is on track to reach 300,000 by 2030)[12] . Zapmap data suggest a strong national correlation between charger growth and EV uptake.[13]	Electric Vehicle Infrastructure Strategy (£1.6 billion) aims to increase the number of public chargepoints tenfold from 2022-30. Local EV Infrastructure (LEVI) Fund - allocated £381 million to local authorities in England to fund tens of thousands of chargepoints.	300,000 public chargepoints may not be sufficient to support the growing EV market.[14] A Cenex report in September 2024[15] concluded that current metrics to measure progress on delivery of EV infrastructure do not address the full range of user needs.	Devise new metrics for measuring progress in chargepoint rollout to enable the development of policies that focus on where they are, what consumer needs are served and how much power is being delivered. Provide incentives for sharing home chargers. Extend LEVI Fund for three years and make it easier for local authorities to use Compulsory Purchase Orders.

[11] https://www.current-news.co.uk/uk-inches-closer-to-80000-public-charger-milestone/
[12] https://www.nao.org.uk/press-releases/spending-watchdog-finds-chargepoint-rollout-on-track-but-several-hurdles-remain/
[13] https://www.zap-map.com/news/zapmap-statistics-q1-2025-show-continued-growth-charging-infrastructure
[14] https://evenergytaskforce.com/reports/ev-energy-taskforce-progress-report-2023/#:~:text=Recent%20geopolitical%20developments%20have%20added,or%20unreliable%20sources%20of%20supply.
[15] https://nevis.cenex.co.uk/metrics

Map of Missing Policies

Increase the uptake of zero emission cars				
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Public chargepoints are widely distributed throughout the UK.	Public chargepoints tend to be concentrated in London, south, urban areas.[16] There are innovative alternatives to public charging. The practice of enabling neighbours who cannot install their own chargers to share private ones has been operational in the UK for over four years.	Use the LEVI programme to mitigate broader regional inequalities.	For LEVI, some areas may remain less commercially viable for operators. The Government's current measure of the number of 'chargepoints per head' in each region does not reflect the variations within regions, or what is required in the future.[17]	Develop targeted government interventions for specific areas where installing public charging points is not commercially viable. Develop a more detailed understanding of regional needs to identify where further support may be required. Encourage innovative alternatives to public charging –For example, offering £50 to the first 100,000 private charger owners to register them on a sharing platform, would more than double the UK's available chargepoints at a cost of just £5m.

[16] https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/512/report.html#heading-3

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Increase the uptake of zero emission cars				
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Payment and taxation for chargepoint use is fair to all consumers and facilitates a 'just transition' to net zero road transport.	Public chargepoints are subject to 20% VAT, home chargers 5%; people in low income, disadvantaged groups and rural areas more likely to rely on public chargepoints.	DfT monitors the costs of different charging behaviours but unable to describe how these differing costs fall on different groups in society but plans to monitor this in future.[18]	This is a major barrier to EV adoption that risks leaving thousands of households behind in the transition to net zero transport.	Apply the lowest VAT rate used for charging no matter where electric cars are charged, following a modelling of potential revenue implications (revenue foregone vs. increased revenue from higher EV uptake). Give public chargepoint operators tariff options comparable in price to those available to domestic customers. Review how the costs of local network upgrades are shared between domestic customers and chargepoint providers.
Public chargepoints are accessible to all driver groups.	Many chargepoints, or their surrounding environment, have features which make	DfT, Motability Foundation sponsored the BSI Guidance on accessible charging (PAS 1899) which	DfT has not mandated the use of PAS 1899 and is conducting a review to address practical challenges and unforeseen barriers. There are still no	"Encourage wider adoption of PAS 1899 by requiring publicly funded chargepoints to meet minimum accessibility

[18] https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/512/report.html#heading-2

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Increase the uptake of zero emission cars				
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	them inaccessible to drivers with disabilities.	provides standards for making chargepoints accessible.	chargepoints in the UK which are fully compliant with the standard.[19]	standards, and by phasing in its mandatory use.
Rapid chargepoints are widely available at motorway service areas throughout the UK.	DfT ambition for operators to install six ultra–rapid charge points at every motorway service area by the end of 2023. By January 2025, only 80 out of 114 motorway service areas had met this target.[20] The DFT had a target for 2500 ultra–rapid chargepoints within one mile of the wider strategic road network by 2030. 2,377 of these were installed in July 2024.[21]	Rapid charging fund (RCF) – Project Rapid - announced in 2020 to future proof electricity capacity on the strategic road network, by part–funding the capital costs of upgraded grid connections. Includes a £70 million rapid charging fund pilot to support the rollout of ultra-rapid chargepoints at motorway service areas. Operators are required to maintain a high level	DfT has yet to issue any of the £950 million of RCF funding. There are indications that the DFT will revise the original RCF concept.[22]	Develop a new strategy for a national network of ultra-rapid chargepoints.

[19] https://www.disabilitynewsservice.com/not-one-electric-vehicle-public-charging-point-across-the-uk-meets-governments-accessibility-standard-say-mps/#:~:text=But%20two%20years%20on%20from,much%20as%20private%20charge%20points.
[20] https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/512/report.html#heading-2
[21] https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/512/report.html#heading-2
[22] https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/512/report.html#heading-2

Map of Missing Policies

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	Ultra-rapid chargepoints are unevenly distributed across the UK.	of reliability for rapid chargepoints.		
Average consumer knowledge and confidence in EVs is strong.	SMMT, Auto Trader, and ChargeUK have highlighted that misinformation about EVs is widespread.[23] DfT has observed a campaign of misinformation via the media.[24]	The Government is committed to increasing consumer awareness and confidence in zero emission vehicles (ZEVs), by providing information at the point of sale and engaging with stakeholders. Commitment to work with the industry to counter misinformation; guidance published to address misconceptions about EVs.	Government needs to take a more proactive, leading role in communicating a positive vision of the EV transition to consumers.	Develop, with the industry, a proactive communications strategy on the benefits of EVs. Disseminate robust, consistent information to the public about zero (tailpipe) emission vehicles including range, charging options and full life-cycle environmental impacts compared with ICE vehicles. Use a digital new car environmental label to give buyers the information they need to choose the most environmentally friendly

[23] https://www.perplexity.ai/search/what-is-the-latest-evidence-of-rqGMItY.SaG.tS0uQMCkCA
[24] https://publications.parliament.uk/pa/ld5804/ldselect/ldenvcl/51/5105.htm

Map of Missing Policies

Increase the uptake of zero emission cars				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
				and cost-effective car for their needs. Map all points of contact between the national, regional and local public sectors and motorists with a view to encouraging the use of electric vehicles an advantage wherever possible e.g. local authority parking policies.

Map of Missing Policies

Decarbonise the Existing Car Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Low carbon fuels play an important role in reducing GHG emissions as the market for zero emission passenger vehicles matures.	Zero emission cars account for around 3% of all cars in the UK.[12] The residual fleet, "the other 97%", needs to be decarbonised.	The UK seeks to increase the share of renewable fuels in retail diesel through the Renewable Transport Fuels Obligation (RTFO). The current blending limit for biodiesel in retail diesel is 7% (B7).	There is no policy for residual ICE other than RTFO. Policies are needed to: a) Increase the share of renewable fuels in retail diesel. b) Encourage greater use of drop-in fuels that are fully compatible with existing vehicles.	Create an improved incentive structure for drop-in fuel through the RTFO.

Make Car Use More Efficient				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
More people pursue shared mobility options, focused on zero emissions, demonstrated by an increased average occupancy rate.	The average occupancy rate is 1.6 across cars and vans, and for commuting trips, this rate is only 1.2.[25] Average car occupancy rates have been static since 2002.	The last government committed to increasing car occupancy by 2030. DfT has published guidance and toolkits for local authorities to help integrate car clubs into local transport and net zero strategies.	Planning barriers, for example the rules governing Traffic Regulation Orders, hold up the expansion of car clubs.	Give local authorities more flexibility to move ahead with Traffic Regulation Orders that facilitate expansion of car clubs.

[25] NTS0905a: Average car or van occupancy by trip purpose: England, 2002 onwards [notes 1, 2]

Map of Missing Policies

Make Car Use More Efficient				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Consumers pursue flexible alternatives to car ownership.		Grant funding for car club chargepoints is available through the LEVI fund. ORCS includes funding for car club charging infrastructure.		

Encourage a Modal Shift to More Sustainable Forms of Transport				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
More people use sustainable alternatives to cars for personal mobility.		UK Government provides, through the Automotive Transformation Fund (ATF), targeted funding for feasibility studies and innovation in the PLV sector.	Lack of progress on licensing reforms suggested in the action plan for zero emission PLVs developed by UK Government, Zemo Partnership and MCIA in 2023.	Promote smaller and lighter powered light vehicles (PLVs) by streamlining user licensing to make access more affordable and straightforward.

4. Public Transport

Just 2% of UK road transport GHG emissions comes from buses and coaches. When fully utilised, they are a more environmentally friendly option than passenger cars, as they can transport many people efficiently. Buses and coaches will, therefore, play a key role in reducing the UK's transport GHG emissions.

The bus and coach sectors are discussed separately below.

4.1 Decarbonise Buses

The following tables set out the objectives, current situation and a gap analysis identifying missing policies required to deliver net zero for the bus sector.

Increase the Supply of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
The Government has clear ambitions for the transition to zero emission buses. **There is a clear policy trajectory for ending the sale of non-zero emission buses and/or increasing the market penetration of zero emission buses.** **Manufacturers are confident and operators empowered to develop**	In 2023 and 2024, over 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. According to the SMMT, about 30% of double and single-decker buses sold in the first quarter 2025 were zero emission.[26]	In February 2020 the UK Government committed to supporting the purchase of at least 4,000 new zero emission buses (ZEBs) by 2025, equating to just over ten per cent of England's total bus fleet. This aim has been achieved.	It is still cheaper to buy and operate diesel buses than ZEBs in many circumstances. There is a risk that the momentum towards a zero emission bus fleet will stall without government intervention to address specific market barriers to the uptake of zero emission buses.	Zemo's proposals are set out below.

[26] Best Q1 in 17 years as zero emission bus demand doubles - SMMT

Map of Missing Policies

Increase the Supply of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
and implement plans for decarbonising their fleets.	Zemo expects ZEBs to account for 20% of the UK bus fleet by 2026/2027, compared to just over 10% currently.			
The Government provides a clear timeframe as to when the sale of new, non-zero emission buses will end.	In July 2021, the DfT consulted on a date to end diesel bus sales. This was followed by a second, more detailed consultation in March 2022 on ending the sale of new non-zero emission buses. No decision was made on an end date before the 2024 General Election.	The Bus Services (No 2) Bill, currently before Parliament, enables the Secretary of State for Transport to set a date from which no new non-zero emission buses can be used on registered bus services, franchised services and local services in London. The commencement date, to be specified in secondary legislation, will not be earlier than 1 January 2030.	The Secretary of State's new powers under the Bus Services (No 2) Bill do not apply to diesel buses or those registered before the commencement date. There is a risk that some bus operators, particularly rural and small or medium-sized enterprises (SMEs)—may need to continue running their diesel buses for longer to maintain service provision.	Traffic commissioners could attach conditions to operating licenses, requiring operators to transition to zero emission vehicles within a specific timeframe.
More zero emission buses are manufactured in the UK, boosting key growth-driving sectors, preventing the loss of further direct and	The UK has three main bus manufacturers: Alexander Dennis, Switch Mobility, formerly known as Optare, and Wrightbus. They have all	The Government's ZEB Manufacturing Expert Panel brings together local industry experts and local leaders to ensure that the UK remains an	Action is needed to ensure that UK electric bus manufacturers have a more level playing field with international competitors.	Develop an action plan for making the bus industry internationally competitive. Investigate ways of encouraging bus

Map of Missing Policies

Increase the Supply of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
indirect jobs and reducing our dependency on importing buses from foreign competitors.	developed electric buses and have a number in service across the UK. The three companies combined directly employ over 3,500 people.[27]	expert in bus building and supports local authorities to deliver their zero emission ambitions.		operators and local authorities to place a greater emphasis on social value and economic impact on local community in evaluating tenders involving public funding.

Increase the Uptake of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Total cost of ownership of zero emission buses is comparable to diesel equivalents. **The Government uses stable, long-term funding mechanisms to support improvements in bus services and provide incentives for purchasing zero emission buses and**	Electric buses can cost more than twice as much as their diesel counterparts, with the price difference often reaching up to £250,000 or more per vehicle.[28] The up-front cost of hydrogen buses can be double that of	Most ZEBs operating in England have been purchased with support from the Government's Zero Emission Bus Regional Areas (ZEBRA) scheme. ZEBRA has encouraged significant private sector investment.	The sporadic and uncertain nature of ZEBRA funding can hinder long-term planning for electric buses, weakening the investment case and causing demand spikes and manufacturing delays.	Extend the ZEBRA scheme and ensure it is designed to maintain consistent demand and supply patterns for zero emission buses.

[27] https://researchbriefings.files.parliament.uk/documents/CDP-2024-0097/CDP-2024-0097.pdf
[28] https://www.zenobe.com/wp-content/uploads/2024/11/Zenobe_EV_Report_Charging-Forward.pdf

Map of Missing Policies

Increase the Uptake of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
associated infrastructure.	comparable battery-electric models.[29]			
The Government uses ongoing sources of bus funding to encourage a shift from diesel to cleaner buses.	[see above]	The Bus Service Operators Grant (BSOG) is paid to operators of eligible local bus services based on the amount of fuel they use. Under the ZEB Incentive zero emission buses e may receive a supplementary 22p per kilometre rate of BSOG for those vehicles. BSOG+ funding applies to ZEBs, calculated as 40% of the existing BSOG ZEB incentive, plus a 5.5p per km distance-based payment.	BSOG needs to be fully aligned with environmental goals and support the shift to cleaner transport by removing incentives for fuel use.	Phase in a higher basic BSOG for electric buses and simultaneously taper it for existing diesel models up until 2032. This would allow BSOG to be reformed in a fiscally neutral manner.
Zero emission buses can charge or refuel at their depots at reasonable cost.	Electric charging and hydrogen refuelling depots require substantial investment to develop the required		A capital funding strategy is needed to facilitate strategic planning and investment and maintain the current	Put in place a five-year capital funding framework for charging and refuelling infrastructure, to

[29] https://cleantechnica.com/2025/03/11/the-hydrogen-bus-illusion-essen-mulheims-costly-reality/

Map of Missing Policies

Increase the Uptake of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Government policy and regulation on networks, charging and infrastructure consistently promote a shift to zero emission buses.	infrastructure. Hydrogen refuelling infrastructure is more expensive than electric charging infrastructure and considerably more expensive than diesel. In parts of the UK, zero emission bus operations are constrained by the capacity of the local electricity grid and the high cost of necessary upgrades.		momentum to zero emission fleets,	provide operators and local authorities with the financial certainty needed for strategic planning and investment. Develop more innovative approaches to funding infrastructure, including expanding opportunities for sharing infrastructure, de-risking investment and encouraging investment consortia to share costs.
		Ofgem's Targeted Charging Review (TCR) links residual transmission network charges for large energy users to their agreed grid connection capacity. The TCR unintentionally discourages electrification.[30]	The unintended consequence of the TCR need to be addressed.	Exempt electric bus depots from residual network charges.

[30] The TCR aimed to address concerns about the fair distribution of residual costs. Previously, businesses that could shift consumption outside of TRIAD periods benefited from lower charges, which in turn shifted more of the cost burden onto smaller consumers without that flexibility.

Map of Missing Policies

Increase the Uptake of Zero Emission Buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Smaller operators can implement decarbonisation plans.	Smaller operators face distinct challenges, including limited resources to apply for funding, restricted space for charging infrastructure, and insufficient capacity to invest in new charging and refuelling infrastructure.		A new focus is needed on the particular challenges faced by smaller operators.	Create a new capital funding stream to ensure the distribution of infrastructure funding to smaller operators.
Passengers, operators, investors and drivers are confident that the risk of fires in bus garages is very low.	In London, issues are emerging around fire safety at bus garages, especially, but not limited to, enclosed, underground garages or garages with oversite property. This leads to challenges in terms of insurance, the tendering process and operations.		There is a lack of regulations, standards and policies on EV fire safety, particularly for heavy-duty vehicles and the garages/depots they are parked/charged in.	Issue clearer design guidance for EV bus garages that are enclosed /underground and guidance on recommended fire safety mitigations at garages/depots for heavy duty vehicles.

However, electric bus depots are now subject to the new charges—even though they typically do not draw power during peak hours. Due to the need to charge entire fleets overnight, depots require a high-capacity connection, resulting in higher charges despite their off-peak energy use. Depots have legitimate economic and logistical reasons for avoiding peak periods and many contribute to grid stability through responsive smart charging. The unintended consequence of the TCR needs to be addressed.

Map of Missing Policies

Decarbonise the Existing Bus Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Low carbon fuels play an important role in reducing GHG emissions as the market for zero emission buses continues to mature.	Despite the progress that has been made, ICE buses may still account for 70% of the licensed bus fleet in the late 2030s. Policies will be needed to address the legacy bus fleet during the transition to electrification, particularly in longer distance and rural routes.	The Government seeks to increase the share of renewable fuels in retail diesel through the Renewable Transport Fuels Obligation (RTFO). The current blending limit for biodiesel in retail diesel is 7% (B7).	Ensure continued supply of sustainability-accredited higher blend biofuels.	Increase the supply of high blend biofuels in the heavy-duty vehicle fleet by making the RTFO target more ambitious and extending beyond 2032. Adopt Zemo's proposed UK renewable liquid fuels incentive for the hardest to electrify modes. The incentive would use a sliding discount on fuel duty based on the life-cycle greenhouse gas emission performance of different renewable fuels. Bus operators using fuels with higher GHG emission savings would receive greater fuel duty reductions. This fiscal incentive would work alongside fleet electrification.
Government policy supports a range of	Hydrogen-powered internal combustion		There are currently no specific policies directly	Ensure that in any proposed trials using

Map of Missing Policies

Decarbonise the Existing Bus Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
viable options for decarbonising the existing bus fleet, including repowering.	engines (H2 ICE) can enable volume demand for hydrogen to be demonstrated at scale, while saving costs. There are also important co-benefits, including significant improvements in air quality and reduced reliance on fossil fuels. effectively and at scale.		aimed at promoting repowering.	green hydrogen that zero emissions ICE propulsion is evaluated alongside other technologies to assess relative cost and benefit.

Map of Missing Policies

Encourage a modal switch from cars to buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
People switch from cars to zero emission buses, helping to reduce GHG emissions and deliver wider benefits, such as reduced congestion, improved air quality and enhanced connectivity for those without access to private cars.	In 2023/24, there were approximately 3.6 billion passenger journeys made by local bus in England. This figure is about 22% lower than in 2004/05[31], though there are indications that passenger demand has risen recently.[32] In England outside London, bus mileage (patronage and provision) in 2023-24 was around 30% lower than in 2004/05[33]. As a result, operators have less revenue with which to decarbonise their fleets.		Further policies are needed to make bus travel an attractive alternative to the car.	Zemo's proposals to enable faster bus routes and expand bus priority infrastructure are set out below.
Bus speeds across the UK are improved through wider use of bus priority measures such as bus lanes, bus gates	The use of bus priority measures is uneven across England. London and some major cities have extensive networks	In England, the Government awards capital funding to local transport authorities for implementing bus	Currently, key funding mechanisms do not sufficiently encourage the delivery of bus priority	Increase total capital funding for bus priority measures, ringfenced if necessary.

[31] https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2024/annual-bus-statistics-year-ending-march-2024
[32] Best Q1 in 17 years as zero emission bus demand doubles - SMMT
[33] https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2024/annual-bus-statistics-year-ending-march-2024

Map of Missing Policies

Encourage a modal switch from cars to buses				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
and priority at junctions or traffic lights.	and ongoing investment, but outside these areas, implementation is patchy and in some places bus lanes have been removed.[34]	service improvements via the Bus Service Improvement Plan (BSIP). Since 2022, £2 billion has been allocated to local authorities in England for BSIPs. Capital funding is allocated to the Mayoral Combined Authorities via their City Region Sustainable Transport Settlements.	measures or congestion reduction strategies. Local transport authorities can often struggle to coordinate services effectively due to limited resources and expertise. Smaller authorities often rely on external consultants to develop effective BSIPs, leading to significant variation in the quality of consultation, research, and the ability to consistently evaluate their impact.	Ensure that allocations to local transport authorities for implementing bus priority measures avoid the development of two-tier system of funding bus service improvements. Provide councils with practical advice on delivering net zero strategies and more support for making decisions over funding. Promote and support council-run bus services, such as the award-winning Nottingham City Transport, which has seen an increase in bus usage.

[34] https://researchbriefings.files.parliament.uk/documents/SN01497/SN01497.pdf

Map of Missing Policies

Influence travel behaviours and improve traffic efficiency				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Demand management strategies are widely used to reduce congestion, make better use of existing transport infrastructure.	Schemes like the London Congestion Charge and Clean Air Zones (CAZs) in cities such as Bath and Birmingham impose fees on vehicles entering certain areas, especially during peak times, to reduce unnecessary car trips and encourage alternative modes of transport, including buses. Local authorities also use parking controls, such as limiting on-street parking, increasing parking fees, or introducing Workplace Parking Levies (WPL), as seen in Nottingham to discourage car use in busy areas and generate revenue for public transport improvements. A range of low emission zones is in use across the country to improve air	Local authorities in England (outside London) and Wales wishing to introduce a Workplace Parking Levy (WPL) must obtain approval from the Secretary of State for Transport before implementing such schemes. London boroughs must secure approval from both the Mayor of London and the Secretary of State for their WPL schemes.	The Government has done little to promote congestion charges and parking controls.	Promote such measures as congestion charges and parking controls; remove the need for Government approval before councils can adopt them. Provide guidance around communications and messages for rolling out different forms of lower emissions zones.

Map of Missing Policies

Influence travel behaviours and improve traffic efficiency				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	quality and reduce pollution and some local authorities use more than one.			

4.2 Decarbonise Coaches

The following tables set out the objectives, current situation and a gap analysis identifying missing policies required to deliver net zero for the coach sector.

Develop a Pathway for Zero Emission Coaches				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
The Government has clear ambitions and a clear pathway, developed in cooperation with the sector, for a transition to zero emission coaches. **Government policies recognise the potential role for coaches in reducing emissions.**	Only around 1% of coaches in the UK are battery electric. The few zero emission coaches available currently do not deliver sufficient range to cover all services provided by coach. Currently, 75% of coach operators have no plans to introduce zero emission vehicles to their fleets.[35] Zero emission coaches are much more expensive than their diesel counterparts. The coach sector is populated by many SMEs,		According to the CPT, one of the most significant challenges for the coach sector is the lack of technology certainty, and whether battery electric, hydrogen fuel cell, or a combination of both will be appropriate for their needs. [36] This, coupled with unclear and inconsistent government policy leaves coach operators unable to invest in technology solutions. There is no end-of-sale date for non-zero emission coaches, which give operators and	Work with industry to agree a realistic end-of-sale date for new non-zero emission coaches, as the first step in a broader zero emission coach strategy. Develop an initiative for the coach sector modelled on the Zero Emission HGV and Infrastructure Demonstrator Programme (ZEHID) to identify the most suitable technologies for coach operations and trial opportunities for innovation.

[35] https://www.route-one.net/coach/end-date-certainty-called-for-as-rha-publishes-first-net-zero-report/
[36] https://www.cpt-uk.org/media/jmrhe0sj/zero-emission-coach-taskforce-phase-one-report.pdf

Develop a Pathway for Zero Emission Coaches				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	many of whom will not have the capital needed to invest in new or even second hand zero emission vehicles.		manufacturers a clear timeframe to work towards, thereby supporting them to develop and acquire zero emission solutions. The zero emission HGV and coach infrastructure strategy promised in 2022 has not been delivered. While HGVs have received £200m to support decarbonisation, similar funding has not been given to the coach sector.	Consider using grant or other funding to support the growth of the zero-emission coach market, once more models of coach are available for purchase. Deliver a strategy for zero emission coach infrastructure. Promote infrastructure sharing by ensuring compatible charging infrastructure, suitable space to park up and plug in with appropriate passenger facilities.

Decarbonise the Existing Coach Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Low carbon fuels (LCFs) play an important role in reducing GHG emissions as options for zero carbon coaches develop.	Coach is a hard-to-electrify mode; the zero carbon coach sector is in its infancy.	The Government seeks to increase the share of renewable fuels in retail diesel through the	Policies are needed to ensure the supply of sustainability-accredited higher blend biofuels such as high blend	Increase the supply of high blend biofuels in the heavy-duty vehicle fleet by making the RTFO target more ambitious

Map of Missing Policies

Decarbonise the Existing Coach Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	Policies will be needed to address the legacy coach fleet during the transition to electrification, particularly in longer distance and rural routes.	Renewable Transport Fuels Obligation (RTFO).	biodiesel and renewable diesel/HVO. ICE coaches may still account for 90% of the coach fleet in the late 2030s without urgent intervention.	and extending it beyond 2032. Adopt Zemo's proposed UK renewable liquid fuels incentive for the hardest to electrify modes. The incentive would use a sliding discount on fuel duty based on the life-cycle greenhouse gas emission performance of different renewable fuels. Coach operators using fuels with higher GHG emission savings would receive greater fuel duty reductions. This fiscal incentive would work alongside fleet electrification.

5. Commercial Vehicles

The discussion of decarbonising commercial vehicles is divided into truck and van sectors.

5.1 Decarbonising Heavy Goods Vehicles

Heavy goods vehicles (HGVs) represent 19% of UK domestic road transport greenhouse gas emissions[31], though they account for just 5% of total vehicle mileage[32]. In comparison, cars and taxis make up 76% of vehicle mileage[33] but contribute nearly 60% of road transport emissions.[34] Decarbonising HGVs is essential for making progress in the transition to net zero transport

The following tables set out the objectives, current situation and a gap analysis, identifying missing policies required to deliver net zero for the truck sector.

Increase the Supply of Zero Emission HGVs				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Government has clear ambitions for the transition to zero emission HGVs and a policy trajectory that provides the markets with confidence.	As of June 2024, there were only 862 battery-electric HGVs in the UK, representing 0.16% of all HGVs.[37] in the first three months of 2025, registrations of new zero emission HGVs almost doubled compared to Q1 2024 to reach 97 units (1% of the overall market compared with 0.5% in 2024).[38]	UK Government has 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.	There is no 'ZEV Mandate' for HGVs but demand for electric HGVs needs to increase before such a measure can be considered.	Zemo's proposals for increasing uptake are set out below.

[37] Department for Transport (DfT), Vehicle licensing statistics data tables, VEH0141, VEH0105

[38] Zemo Partnership News - Zero emission truck sales reach record levels while UK's ZE bus sales lead Europe

Increase the Uptake of Zero Emission HGVs				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Total cost of ownership for zero emission HGVs is comparable to ICE equivalents.	Up-front purchase costs for electric HGVs are two to three times greater than diesel alternatives.[39] Zero emission HGVs face higher infrastructure costs, including upgrades at depots for electric trucks, high cost of hydrogen refuelling infrastructure and the high cost of green hydrogen.	Fiscal support is provided for specific models through the Plug-in Truck Grant, up to £25,000 per vehicle.	PiTG support is not scaled to reflect zero emission range or battery size. There are limits on the number of Plug-In Truck Grants that can be claimed annually.[40] Industry concerns include the cost impact of the current range test, and that the maximum grant available (£25k) is still insufficient due to high upfront CapEx costs.[41] The approval process takes around two years, so fewer than half of the models currently on the market are eligible for grants.[42]	Extend the Plug-In Truck Grant to 2030, removing annual review processes and ensuring longer term financial commitment. Scale the level of the grant to reflect the cost of technology and operational characteristics of the vehicle. Review existing order limits for truck grants. Ensure all available zero emission HGV models are eligible for the Plug- in Truck Grant.

[39] Ibid.
[40] https://www.zemo.org.uk/assets/reports/Zemo__Actions_for_Accelerating_the_Decarbonisation_of_Commercial_Vehicles_in_Wales.pdf
[41] Ibid.
[42] https://www.fleetnews.co.uk/news/industry-calls-for-plug-in-truck-grant-overhaul

Map of Missing Policies

Increase the Uptake of Zero Emission HGVs				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Zero emission HGVs can charge en route and at destination points	There are five HGV-dedicated public chargepoints on UK roads.[43]	In 2022, the previous government promised a comprehensive zero emission HGV infrastructure strategy. The Rapid Charging Fund (RCF) - Project Rapid - has a total budget of £950 million to fund the installation of rapid chargers at key motorway service areas (MSAs) and other strategic locations. Project Rapid can help to ensure grid capacity for HGVs.	The zero emission HGV infrastructure strategy has not been delivered. Project Rapid does not provide dedicated funding for HGV charging infrastructure. DfT has yet to issue any of the £950 million of RCF funding.There are indications that DFT will revise the original RCF concept.[44]	Publish a strategy for supporting a national charging infrastructure for heavy duty vehicles along the strategic road network and at motorway service areas; make dedicated funding available under Project Rapid.
Zero emission HGVs can charge or refuel at their depots at a cost on parity with diesel. **Depot-based infrastructure plays a**	The cost of providing charging infrastructure at depots is a major barrier to the uptake of electric HGVs.	The Electric Vehicle Infrastructure Grant for staff and fleets provides operators with funding to cover up to 75% of the cost of installing charging	The Electric Vehicle Infrastructure Grant is capped at £15k and only available for EV charging infrastructure.	Put in place a five-year funding framework for fleet charging and refuelling infrastructure, ensuring that grants for with infrastructure

[43] https://www.smmt.co.uk/zero-emission-truck-demand-stagnates-as-overall-market-normalises/#:~:text=While%20the%20cyclical%20nature%20of,exponentially%20in%20the%20next%20decade.
[44] https://publications.parliament.uk/pa/cm5901/cmselect/cmpubacc/512/report.html#heading-2

Map of Missing Policies

Increase the Uptake of Zero Emission HGVs				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
vital role in the transition to zero emission HGVs.	The electricity supply and connection to the local distribution network will require upgrades, with costs ranging from £10 million to £65 million for distribution centres. The capital and operational cost of hydrogen is also significant.	and refuelling infrastructure. The Zero Emission Heavy Duty Vehicle and Infrastructure Demonstrator (ZEHID) scheme funds a series of projects involving zero carbon trucks, some of which include installing and operating truck charging infrastructure.	Unlike other vehicle types, there has never been dedicated funding for HGV charging infrastructure—public or private.	development timeframes. Create a new capital funding stream to ensure the distribution of infrastructure support to smaller operators using their own depots.

Decarbonise the Existing HGV Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Low carbon fuels, including liquid and gaseous biofuels, mitigate delays in realising the benefits of zero emission HGVs. (Diesel HGVs - especially in hard-to-abate, high-mileage, high-payload	There are c10,000 HGVs running on biomethane, HVO and high blend biodiesel. Many transport operators face challenges and uncertainties in making the transition to low carbon fuels.	The UK Government's main policy mechanism for encouraging the use of low carbon fuels in road vehicles, non-road mobile machinery (NRMM) and other surface transport modes is the Renewable	The current supply of LCFs represents around 7.5% of ground transport fuels. Low carbon fuels can make a more significant contribution to the fuel mix and reduce GHG emissions from road transport. Further policies	Make the RTFO target more ambitious and extend it beyond 2032. Evolve the RTFO volume-based target into a GHG emission target, thereby encouraging biofuels with the highest GHG savings.

Decarbonise the Existing HGV Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
vehicles may remain in the fleet until 2050.) **High-blend renewable fuels such as biomethane, biodiesel, and renewable diesel/HVO support GHG emissions reduction from existing HGVs, where battery electric options are either impractical or too expensive.** **Government policy provides operators and investors with certainty that low carbon fuels have a long-term role in decarbonising the UK road transport sector.**	Policy interventions are needed to bridge the cost differential between some low carbon fuels and diesel and provide sufficient incentive for investment in domestic low carbon fuels production.	Transport Fuel Obligation (RTFO). In 2025, this obligation is set at 14.0% as a share of total liquid fuel by volume and is set to increase to 17.6% in 2032, after which it will remain flat. In November 2024, the UK Government launched a call for evidence to inform a statutory review of the RTFO and future changes to the scheme. Areas covered include future RTFO targets and how low carbon fuels are rewarded.	are needed to increase supply. The 2021 Transport Decarbonisation Plan committed to develop a strategy for low carbon fuels. The strategy has never been delivered. In the same plan, the previous Government also committed to exploring how high blend biofuels, such as B20 and HVO, could be used to decarbonise HGVs.[45] No progress has been made public.	Adopt Zemo's proposed UK renewable liquid fuels incentive for the hardest to electrify modes. The incentive would use a sliding discount on fuel duty based on the life-cycle greenhouse gas emissions performance of different renewable fuels. HGV operators using fuels with higher GHG emission savings would receive greater fuel duty reductions. This fiscal incentive would work alongside fleet electrification. Issue a clear statement that biomethane high blend biodiesel and HVO will play a significant role in decarbonising the HGV fleet over the near- and

[45] https://questions-statements.parliament.uk/written-questions/detail/2022-05-18/4488

Map of Missing Policies

Decarbonise the Existing HGV Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
				medium-term, complementary with an increasing use of zero emission HGVs.
Government policy focuses on all the options for decarbonising the existing fleet, including hydrogen international combustion engines (H2 ICE) repowering.	H2 ICE vehicles offer similar efficiencies to hydrogen fuel cell vehicles but with significantly lower capital costs. They also provide the demand required for hydrogen supply infrastructure.	In April 2025, the Government amended regulations to allow hydrogen-powered construction and agricultural machinery (non-road mobile machinery) to legally use public roads,	More supportive and sustained policy frameworks are needed to ensure H2 ICE deployment keep pace with net zero ambitions.	Harmonise regulations for hydrogen ICE with the EU. Commission a study on the applicability and impacts of H2 ICE for road freight. ○

5.2 Decarbonise Vans

The following tables set out the objectives, current situation and a gap analysis identifying missing policies required to deliver net zero for the bus sector.

Increase the Supply of Zero Emission Vans				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Government has clear ambitions for the transition to zero emission vans and a policy trajectory that provides the market with confidence.	For January to May 2025 YTD zero emission vans up to 4.25T accounted for 8.2% of new van registrations, compared to 5% for the same period in 2024. However, that compares with a Zero Emission Vehicle (ZEV) Mandate requirement of 16%. [46]	Commitment to end the sale of new, purely ICE cars by 2030, with all new cars and vans being fully zero emission by 2035. The Zero Emission Vehicle (ZEV) Mandate requires 16% of new vans sold in Great Britain to be zero emission in 2025, rising to 70% by 2030 and 100% by 2035. ZEV Mandate now includes increased flexibility for manufacturers. The continued sale of new internal combustion engine (ICE) vans, hybrid electric vans and plug-in	Further policies are needed to remove barriers to electric van uptake and ensure continued expansion of charging infrastructure.	Zemo proposals are set out below.

[46] https://www.smmt.co.uk/van-market-shrinks-for-sixth-month-running/

Map of Missing Policies

Increase the Supply of Zero Emission Vans				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
		hybrid vans is permitted post-2030, until 2035.		

Increase the Uptake of Zero Emission Vans				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Total cost of ownership for electric vans is comparable with ICE equivalents.	Electric vans can be between 20% and 50% more expensive to buy than equivalent petrol or diesel engine vehicles.	The Plug-In Van Grant provides up to £5,000 for eligible zero emission vans (depending on vehicle weight). It has been extended until April 2026. As from 1 April 2025, zero emission vans pay the standard rate of Vehicle Excise Duty (VED). They are no longer exempt from VED.	Lack of long-term certainty for Plug-In Van Grant.	Extend the Plug-In Van Grant beyond April 2026. Investigate introducing lower rates of VED for new and used zero emission vans.
There is a robust market for used electric vans, encouraging SMEs to make the transition and bolstering the automotive supply chain.	More electric vans are entering the used market with a 178% increase in supply expected by 2028. This growth in supply is outpacing demand, putting downward pressure on residual		Fiscal support for the second-hand market is critical to encourage sole traders and SMEs to switch to e-vans.	Introduce grants for second hand electric van purchases on a time limited basis. Investigate reducing VAT on used electric vans. Develop options for a residual values (RV)

Map of Missing Policies

Increase the Uptake of Zero Emission Vans				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	values, which have already decreased by 50% over the past two years.[47]			stabilisation scheme, to address the challenges from asset depreciation.
Buyers are confident that electric vans are fit for purpose and have sufficient range.	Published range figures for electric vans suggest a real-world range performance of around 140 miles, which is below the published WLTP figures. This has caused hesitancy among operators.	The current performance criteria for electric vans within the ZEV Mandate is 100 miles.	A real-world performance in the region of 200 miles (or 285 miles WLTP) is needed to be widely accepted across the zero emission van market.	Design incentives to encourage manufacturers to supply van technologies capable of longer ranges in line with market demand.
There are no unnecessary regulatory barriers to the adoption of electric vans.	4.25t electric vans are required to undergo MOT testing on the same basis as HGVs. This is costly and causes unnecessary downtime. 4.25t electric vans are required to undergo roadworthy tests one year after first registration, compared to	The UK Government is consulting on and has proposed legislative changes to move 4.25t electric vans out of the HGV testing and drivers' hours regimes. If implemented, these changes will align their regulatory treatment with 3.5t diesel vans, reducing	Swift action is needed to address these requirements, as they are a key obstacle to increasing demand.	Move 4.25T electric vans to the same MOT testing as 3.5T diesel vans. Align roadworthiness testing timelines for 4.25 t electric vans with 3.5 t diesel vans. Remove 4.25t electric vans from assimilated drivers' hours rules.

[47] https://www.bvrla.co.uk/resource/industry-unites-to-urge-government-action-on-used-ev-market.html

Map of Missing Policies

Increase the Uptake of Zero Emission Vans				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	three years for 3.5 t diesel vans. If a 4.25t electric van travels 62 miles from its base, EU drivers' rules apply. This creates unnecessary costs, makes deployment on routes beyond 100km unviable and undermines fleet electrification.	costs, downtime, and operational complexity		
Public chargepoints are widely available and accessible to electric van drivers.	A lack of sufficient public EV chargepoints, particularly those designed for vans with larger parking bays and longer reach cables, undermines fleet confidence in transitioning to electric.[48] Maneuverability is also a challenge.	New public chargepoints must meet updated accessibility standards, which include requirements for larger parking bays and better physical access.	Due to the large number of van operators reliant on public charging infrastructure, more policy action is needed.	Require any Compulsory Purchase Order (CPO) receiving public funds to produce an accessibility delivery plan outlining how it will cater to van users. Expand availability of cross-pavement charging solutions'
Van operators have the option of using private charging depots.	The cost of upgrading energy supplies at depots is excessive for		There is no specific government policy or grant currently in place to	Put in place a five-year funding framework for fleet charging and

[48] https://www.smmt.co.uk/electric-vehicle-infrastructure-position-paper/

Map of Missing Policies

Increase the Uptake of Zero Emission Vans				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
	logistics companies, most of which are SMEs.		directly offset the costs of upgrading depot energy supplies for van and LCV operators.	refuelling infrastructure, including for vans.

Decarbonise the Existing Van Fleet				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Low carbon fuels (LCFs) play an important role in reducing GHG emissions as the market for zero emission vans matures.	Zero emission vans account for less than 2% of all vans in the UK. Policies are needed to decarbonise the residual fleet.	The UK seeks to increase the share of higher blend fuels through the Renewable Transport Fuels Obligation (RTFO).	Ensure continued supply of sustainability-assured higher blend biofuels.	Make the RTFO target more ambitious and extend it beyond 2032.

Encourage a Modal Shift to More Sustainable Forms of Freight Transport				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
Operators shift from ICE cars and vans to smaller, lighter micro cars and vans, which predominantly use battery electric	Some logistics firms and innovators are trailing micro electric vehicles for last mile delivery.		More incentives and information is needed to encourage a modal shift to micro cars and cars. Need to clarify L7 (micro car) standards.	Use consumer and business incentives to encourage the use of PLVs for last-mile deliveries.

Map of Missing Policies

Encourage a Modal Shift to More Sustainable Forms of Freight Transport				
What We Hope to See	**Current Situation**	**Government Policy**	**What's Missing**	**Zemo Proposals**
powertrains, for last-mile deliveries.				Add a new vehicle category to the L-category framework to fill regulatory gaps. Enforce rules around the use of illegal high-powered e-bikes and cargo bikes. Run a joint government-industry awareness campaign to educate businesses and consumers about zero emission alternatives to conventional delivery vehicles.

6. Conclusion

The UK has set ambitious, legally binding targets to achieve net zero greenhouse gas (GHG) emissions by 2050. While there has been notable progress—especially in the power sector—the UK is not currently on track to meet its emissions goals. Transport accounts for around a quarter of total UK emissions, making it the largest emitting sector. The Climate Change Committee has made clear that the pace and scale of action to reduce emissions from surface transport must increase significantly if the UK is to stay on course.

Road transport is well placed to play a major role in reducing GHG emissions. The priority now must be delivery, with the Government providing a long-term strategy and clear, consistent policy signals to drive investment in decarbonising the sector.

As this paper outlines, significant gaps remain in the policy framework for achieving net zero road transport. There is a lack of robust measures to stimulate demand for zero-emission cars. The long-promised infrastructure strategy for zero-emission HGVs has yet to be delivered. The Government's stance on the role of biomethane, high-blend biodiesel, and HVO in decarbonising the HGV fleet remains unclear. Without intervention to tackle specific market barriers, progress toward a zero emission bus fleet could stall. Additionally, no progress has been made on a strategy for zero-emission coaches, and more needs to be done to accelerate the uptake of zero-emission vans.

There are also broader, cross-cutting challenges. Despite some recent steps forward, further efforts are needed to reduce grid connection delays and improve strategic grid planning. Growth in the green finance market remains sluggish and must be addressed.

This paper offers practical solutions to these challenges. Developed in collaboration with our members, Zemo Partnership's policy proposals aim to stimulate demand for zero-emission vehicles, support the decarbonisation of the legacy fleet, and encourage a shift toward more sustainable travel choices.

Map of Missing Policies

Now is the time for government and industry to come together with renewed focus and commitment to decarbonise road transport in the UK. Zemo Partnership welcomes the opportunity to work with policymakers and partners across the UK to develop and advocate these proposals. Together, we can build a cleaner, more secure, and fairer transport future for everyone.

7. About Zemo Partnership

Zemo Partnership (formerly Low Carbon Vehicle Partnership) is a longstanding, public-private partnership established by the Government in 2003 to support the decarbonisation of UK road transport. An independent non-profit organisation, Zemo Partnership works with policy makers, businesses and experts to accelerate the transition of UK transport to zero emissions in line with the UK's legal targets under the Climate Change Act.

Zemo Partnership works in collaboration with government at central, regional and local levels, convening a uniquely broad range of representatives of stakeholder organisations from industry (transport and energy), academia, road user bodies, environmental groups and consumer organisations.

With its cross-sectoral membership, Zemo Partnership is uniquely well-placed to provide guidance to government, create opportunities for UK businesses and deliver a sustainable shift to net zero transport.

www.zemo.org.uk

Zemo Partnership

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