



**Map of Missing Policies  
Consultation Paper  
March 2025**

## Contents

Introduction.....	3
Personal mobility.....	5
Cars.....	5
Public mobility.....	10
Buses.....	10
Coaches.....	15
Moving goods.....	19
Heavy goods vehicles.....	19
Vans.....	25
Cross-cutting policies.....	28
Expanding and improving public charging infrastructure.....	28
Speeding up grid connections and upgrades.....	29
Setting out a clear vision for the low carbon fuels sector.....	30
Unlocking access to green finance.....	31
Developing a robust low carbon skills base.....	32
Maintaining resilient supply chains.....	32
Promoting a modal shift to low carbon travel choices.....	34
Priorities for delivering net zero transport.....	36
Delivering a sustainable transition.....	36
Delivering a fair and just transition.....	36
Delivering a place-based transition.....	38

## 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.

We noted that the UK Government has implemented significant policies to reduce GHG emissions from surface transport in the UK. The 'ZEV (Zero Emission Vehicle) Mandate', setting minimum EV sales targets for each manufacturer provides financial incentives for delivery. The previous Government set an intention to end the sale of all non-zero emission heavy goods vehicles (HGVs) from 2040, with lighter HGVs from 2035. The Renewable Transport Fuel Obligation (RTFO) provides incentives to supply low carbon fuels for road vehicles and non-road mobile machinery (NRMM). A grant funding competition for zero emission buses was previously available to local authorities in England, outside of London.

Much more needs to be done to unlock the sector's full potential to reduce emissions and drive green growth. Some policies, such as the 'ZEV Mandate', need further reinforcement to promote zero emission technologies while others, such as the RTFO, lack ambition. There are major gaps in policies for HGVs, vans, buses, coaches, and low carbon fuels, which are crucial for rapidly reducing surface transport emissions by 2035. Little progress has been made with encouraging people to change their travel behaviours and reducing car journeys.

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.

This consultation paper provides the basis for discussions with Zemo members, partners and policymakers about the solutions that are most urgently needed for delivering net zero transport in the UK.



This paper sets out the main opportunities and challenges, suggests where new policy interventions are needed, outlines Zemo’s existing policy proposals and poses questions for further discussion.

We look forward to insightful and stimulating discussions during Spring 2025.

Please send any written comments [hello@zemo.org.uk](mailto:hello@zemo.org.uk).

## Personal mobility

### Cars

Cars account for just under 60% of UK domestic road transport greenhouse gas (GHG) emissions.<sup>1</sup> 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 announced a delay to the end of sale date for new petrol and diesel cars until 2035. The 2024 Labour Party general election 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.<sup>2</sup> 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.

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

### Delivering a zero emission car fleet

Nearly all the zero emission vehicles on the UK’s roads are battery electric vehicles (BEV) and this is not expected to change; other zero-emission technologies (such as hydrogen fuel cell vehicles) may also play a role in the future, albeit likely a much

---

<sup>1</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022>

<sup>2</sup> <https://www.gov.uk/government/news/pathway-for-zero-emission-vehicle-transition-by-2035-becomes-law>

smaller one than BEVs. Electric cars and vans account for 53% of emissions reduction from surface transport in 2040 under the CCC's Balanced Pathway.<sup>3</sup>

While BEV sales are growing impressively, they are not yet fully aligned with the ambitious ZEV Mandate targets. According to the SMMT, 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.<sup>4</sup>

Action is needed to increase the uptake of electric vehicles. This means addressing four key gaps in the policy framework.

### **Provide fiscal incentives for purchasing zero emission cars**

Although prices for BEVs have fallen in recent years, their upfront costs are still 12% higher than those for comparable ICE cars<sup>5</sup>, though there are some higher estimates. BEVs have benefited from the exemption from Vehicle Excise Duty (VED), and the Expensive Car Supplement exemption, but both will end from 1 April 2025. Zero emission cars will then pay the lowest rate of Vehicle Excise Duty (VED) for the first year only.

Zemo has proposed basing VED on size, weight, and emissions across the life cycle of a vehicle, once suitable metrics are available.

The Government may consider providing other forms of financial support -for example, low interest loans for electric vehicle purchases or for home chargers,

### **Questions for discussion**

- *What tax incentives or other fiscal measures should the Government use to encourage consumers to buy zero emission cars?*

---

<sup>3</sup> <https://www.theccc.org.uk/wp-content/uploads/2025/02/The-Seven-Carbon-Budget.pdf>

<sup>4</sup> <https://www.smmmt.co.uk/2025/01/record-ev-market-share-but-weak-private-demand-frustrates-ambition/>

<sup>5</sup> <https://www.bvrla.co.uk/resource/is-the-ev-versus-ice-price-gap-shrinking.html>

- *Should the Government also use regulatory measures – for example, mandating the use of salary sacrifice schemes by large businesses – to encourage increased take-up of electric cars?*

## **Boost demand for used electric cars**

The UK used car market is typically three to four times larger than the new car market but EVs still only represent under 3% of used car sales. This follows significant growth over the last two years.<sup>6</sup>

One factor inhibiting demand for used electric vehicles is consumer concerns about battery longevity, which have been exacerbated by inaccurate media reporting. Zemo has called for the creation of appropriate metrics on the state of batteries and a battery certification scheme to provide reassurance to consumers.

Another factor to consider is the cost of used electric vehicles (EVs). Reforming the Vehicle Excise Duty (VED) system for new EVs, as mentioned above, could help increase supply and meet the growing demand for second-hand EVs. The Government may also implement other policies to encourage the purchase of used EVs. One option is offering interest-free loans, like those provided by the Scottish Government from 2020 to 2024. Another option is providing grants for purchasing or leasing used EVs, a strategy previously used in the Netherlands.

About three-quarters of new EVs each year are purchased by fleet operators<sup>7</sup>. These fleet purchases contribute to the used car market. Therefore, providing incentives for fleet companies to choose EVs when buying new vehicles will help increase the number of used electric vehicles available in the second-hand market.

As the supply of used EVs has increased, prices have fallen sharply since late 2022<sup>8</sup>, a trend that is expected to continue.<sup>9</sup> This may seem a welcome development, but it has impacts in the leasing market, which consumers rely upon to manage the

---

<sup>6</sup> <https://www.smmmt.co.uk/pre-loved-evs-soar-to-record-levels-as-used-car-market-goes-green/>

<sup>7</sup> <https://www.fleetnews.co.uk/news/september-registrations-fleets-continue-to-buy-majority-of-new-evs>

<sup>8</sup> <https://www.parkers.co.uk/car-news/market-trends/used-electric-car-prices/>

<sup>9</sup> <https://www.electricense.com/blog/used-electric-car-prices-are-falling-fast>

upfront cost of EVs. If supply to the second-hand market continues to increase without a corresponding rise in demand, there may be a further loss in value, leading to a corresponding rise in prices charged to new leasing customers. This will lead in turn to a reduction in the number of new EVs available.

### **Question for discussion**

- *What policies should the Government introduce to boost demand for used electric vehicles?*

### **Address consumer scepticism**

The 2024 House of Lords Environment and Climate Change Committee’s EV inquiry heard that a “concerted campaign of misinformation” about EVs in public discourse was hurting consumer confidence.<sup>10</sup> The committee called on the Government to “develop a communication strategy in collaboration with industry partners and consumer organisations to provide clear, authoritative and trustworthy information.”<sup>11</sup>

### **Question for discussion**

- *Should the Government act to counter misinformation about electric vehicles and, if so, how?*

### **Decarbonising the legacy car fleet**

At the end of June 2024, there were 1.1 million zero emission cars in the UK which represented 3.2% of all cars.<sup>12</sup> (Almost all of them were 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.<sup>13</sup> Low carbon fuels could play an important role in reducing GHG emissions as the market for zero emission vehicles matures.

---

<sup>10</sup> <https://publications.parliament.uk/pa/ld5804/ldselect/ldenvcl/51/5105.htm>

<sup>11</sup> Ibid/

<sup>12</sup> <https://www.gov.uk/government/statistics/vehicle-licensing-statistics-april-to-june-2024/vehicle-licensing-statistics-april-to-june-2024#licensed-vehicles>

<sup>13</sup> <https://www.nimblefins.co.uk/cheap-car-insurance/average-age-cars-great-britain>



Zemo proposes that the Government should increase the share of renewable fuels in retail diesel and encourage greater use of drop-in fuels that are fully compatible with existing vehicles. These fuels can help maximise greenhouse gas emissions reduction and support the UK's transition to lower carbon transport options. This could be achieved through the Renewable Transport Fuels Obligation (RTFO), a key mechanism for increasing the use of renewable fuels.

### **Questions for discussion**

- *What measures should the Government introduce to raise the proportion of renewable fuels in retail petrol and diesel?*
- *What measures could the Government take to increase renewable fuels use through other channels (e.g. depot-fuelled commercial vehicles)?*

## Public mobility

### Buses

Buses account for 2% of UK road transport GHG emissions.<sup>14</sup> Encouraging more people to use buses will help to reduce car usage. When fully utilised, buses are a more environmentally friendly option, as they can transport many passengers efficiently. They will play a key role in reducing the UK's transport emissions.

Zero emission buses (ZEBs) use renewable energy to reduce GHG emissions, especially in the towns and cities of the UK.<sup>15</sup> 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.<sup>16</sup>

There are two main types of ZEBs: battery-electric and hydrogen fuel-cell buses.<sup>17</sup> Battery-electric buses make up most sales, with hydrogen buses representing less than one per cent of the UK bus fleet.<sup>18</sup> This reflects hydrogen buses' purchase and operating costs, the lack of a funding stream, a limited, and expensive, refuelling network, plus challenges in installing further infrastructure for hydrogen.<sup>19</sup>

---

<sup>14</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022>

<sup>15</sup> [09\\_10\\_24\\_Zenobe\\_EV\\_Report\\_Charging\\_Forward\\_v17\\_RGB](#)

<sup>16</sup> [09\\_10\\_24\\_Zenobe\\_EV\\_Report\\_Charging\\_Forward\\_v17\\_RGB](#)

<sup>17</sup> [https://www.zemo.org.uk/assets/reports/ZEMO\\_ZERO\\_EMISSION\\_BUS\\_GUIDE\\_2022\\_ONLINE\\_VERSION.pdf](https://www.zemo.org.uk/assets/reports/ZEMO_ZERO_EMISSION_BUS_GUIDE_2022_ONLINE_VERSION.pdf)

<sup>18</sup> <https://www.gov.uk/government/statistics/annual-bus-statistics-year-ending-march-2024/annual-bus-statistics-year-ending-march-2024#bus-fleet>

<sup>19</sup> [https://www.urbantransportgroup.org/system/files/general-docs/A%20Smoother%20Ride%20-%20Unlocking%20a%20green%20bus%20revolution%20FINAL\\_2.pdf](https://www.urbantransportgroup.org/system/files/general-docs/A%20Smoother%20Ride%20-%20Unlocking%20a%20green%20bus%20revolution%20FINAL_2.pdf)

## **Delivering a zero emission bus fleet**

In February 2020 the 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.<sup>20</sup>

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 September 2017 and represented just over 10% of the total licensed bus fleet in Great Britain.<sup>21</sup> Zemo expects this figure to rise to 20% by 2026/2027.

Trends for new bus registrations are also encouraging. 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.<sup>22</sup>

The momentum for zero emission buses must be maintained and low carbon fuel options encouraged.

This means addressing three major gaps in the current policy framework.

## **Set a date to end the sale of new non-zero emission buses**

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. The intention was to give greater confidence to industry.

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.

---

<sup>20</sup> <https://www.gov.uk/government/publications/apply-for-zero-emission-bus-funding-zebra-2/apply-for-zero-emission-bus-funding-zebra-2>

<sup>21</sup> <https://www.gov.uk/government/statistical-data-sets/vehicle-licensing-statistics-data-tables#plug-in-vehicles>

<sup>22</sup> [https://www.zemo.org.uk/assets/presentations/BWG-P-24-17\\_Zemo\\_ZEB\\_Market\\_Monitoring\\_Update\\_September\\_2024.pdf](https://www.zemo.org.uk/assets/presentations/BWG-P-24-17_Zemo_ZEB_Market_Monitoring_Update_September_2024.pdf)

The consultation outcome, including the end-of-sale date for non-zero emission buses, is still pending.

### 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?*

### Put in place a long-term funding trajectory for zero emission buses

The previous government committed £525 million between 2020/21 to 2024/25 to offset the high capital costs of transitioning to ZEBs<sup>23</sup>. 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, which closed in 2024. Much of the progress to date with the adoption of zero emission buses can be attributed to the ZEBRA scheme and its predecessors.

ZEBRA closed in 2024 and currently there are no dedicated government funding streams for ZEBs delivery after this year.

Funding solutions are still needed for ZEBs, given their high upfront capital costs and uncertainties around the difference in whole life costs compared to diesel buses.

A more sustainable long-term funding trajectory needs to be established for ZEBs, moving away from the “stop-start” nature of previous subsidy schemes and enabling manufacturers and operators to plan resources and scale up as necessary.

This could be achieved by reforming the Bus Service Operators Grant (BSOG). Options include:

- increasing the value of BSOG for zero emission buses based on kilometres while tapering the benefit to diesel buses to zero by 2032;
- basing BSOG on kilometres travelled rather than the amount of fuel used, with a higher rate applied to zero emission vehicles.

---

<sup>23</sup> <https://publications.parliament.uk/pa/cm5803/cmselect/cmtrans/161/report.html>

## Questions for discussion

- *How should stable and sustainable long-term funding for ZEBs be delivered?*
- *How should BSOG be reformed to support the business case for purchasing zero emission buses?*

## Deliver a strategy for bus depot infrastructure and grid connections

Challenges around depot infrastructure and grid connections present major risks to the deployment of ZEBs.

Electrifying depots is complex and requires considerable levels of investment, with the cost of installing electric charging infrastructure estimated to exceed £29,000 per bus. The Urban Transport Group has observed that the scale of upgrade requirements in certain depot locations is constraining operators' ability to quickly increase the volume of ZEBs deployed.<sup>24</sup> Limited space for infrastructure at existing and new bus garages is another concern. Emerging safety issues, such as fire safety at bus depots, also pose challenges. In addition, the lead time for adequate power supply has been identified as a key risk.

Grid connection has been highlighted as potentially the most challenging aspect of ZEB deployment, requiring coordination across multiple suppliers and the local Distribution Network Operator (DNO).<sup>25</sup> The cost of connections and lead time is significant, taking 12 to 24 months.

In November 2023, the Department for Energy Security and Net Zero and Ofgem jointly produced a Connections Action Plan which outlines measures DNOs will introduce to reduce the timescales involved in applying for grid connections. This is welcome, but more action could be taken. Options include developing ways of moving depots higher up the priority list for connections and promoting innovation through shared infrastructure use.

---

<sup>24</sup> [https://www.urbantransportgroup.org/system/files/general-docs/A%20Smoother%20Ride%20-%20Unlocking%20a%20green%20bus%20revolution%20FINAL\\_2.pdf](https://www.urbantransportgroup.org/system/files/general-docs/A%20Smoother%20Ride%20-%20Unlocking%20a%20green%20bus%20revolution%20FINAL_2.pdf)

<sup>25</sup> [https://www.urbantransportgroup.org/system/files/general-docs/A%20Smoother%20Ride%20-%20Unlocking%20a%20green%20bus%20revolution%20FINAL\\_2.pdf](https://www.urbantransportgroup.org/system/files/general-docs/A%20Smoother%20Ride%20-%20Unlocking%20a%20green%20bus%20revolution%20FINAL_2.pdf)

## Questions for discussion

- *How can the Government support transport authorities and operators in addressing the cost and other challenges involved in installing charging and refuelling infrastructure?*
- *What action can the Government and Ofgem take to ensure that DNOs give greater priority to the electrification of bus depots?*
- *In what other ways can the Government and Ofgem accelerate investment in depot electrification?*

## Decarbonising the legacy bus fleet

Despite the progress that has been made with rolling out electric buses, and the expected decline in the legacy bus fleet, low carbon fuels have a role to play in the bus market during the transition to electrification, particularly in longer distance and rural routes.

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.

## Question for Discussion

- *How should the Government promote the use of low carbon fuels in the bus sector?*

## Coaches

Coaches account for around 1.5% of the UK's total road transport greenhouse gas (GHG) emissions.<sup>26</sup>

An example journey between London and Glasgow a journey via the average petrol car emits over 4 times more CO<sub>2</sub>e per passenger than the equivalent journey by coach.<sup>27</sup>

The same journey by plane would emit over 6.8 times more CO<sub>2</sub>e per passenger than by coach.<sup>28</sup>

## Towards a decarbonised coach fleet

Only around 1.5% of coaches in the UK are battery electric.

According to the CPT, the most significant challenge for the coach sector is the lack of certainty over which zero emission technology will be most suited to their operations – battery electric, hydrogen fuel cell, or a combination of both.<sup>29</sup>

The relevant gaps in the policy framework and options for addressing them are discussed below.

## Publish a roadmap for decarbonising the coach sector

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;
- what might be a realistic date to end the sale of new non-zero emission coaches;

---

<sup>26</sup><https://www.zemo.org.uk/assets/reports/LowCVP%20Coach%20report%202020%20web%20version%20V2.pdf>

<sup>27</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022>

<sup>28</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2022/transport-and-environment-statistics-2022>

<sup>29</sup>

- what would need to be in place to make the phase out of non-zero emission coaches happen; 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.

A roadmap is needed to set out a clear vision for a decarbonised coach sector and how it can be achieved, with a clear and workable timeframe. Such a roadmap, including a date for the end of sales of new non-zero emission buses or coaches, would provide the coach market with greater confidence.

### **Questions for discussion**

- *How can the Government give the coach sector the clarity it needs to accelerate decarbonisation?*
- *What should be the final date for ending the sale of new non-zero emission coaches in the UK?*

### **Support innovation in the zero emission coach sector.**

The few zero emission coaches available currently do not deliver sufficient range to cover all services provided by coach.<sup>30</sup>

Zemo has suggested using grants to expand the number of zero emission coaches.

An initiative for the coach sector like the Zero Emission HGV and Infrastructure Demonstrator Programme (ZEHID) could help to identify the most suitable technologies for coach operations.

### **Question for Discussion**

- *How can the Government help to expand the range of available zero emission coach models?*

---

<sup>30</sup> <https://www.cpt-uk.org/media/jmrhe0sj/zero-emission-coach-taskforce-phase-one-report.pdf>



## **Provide funding to support the transition to zero emission coaches.**

The upfront cost of electric coaches is typically 70% more than that of diesel coaches. Hydrogen coaches are estimated to be three times more expensive than diesel coaches. Hydrogen is significantly more expensive than diesel fuel.

To date, no financial support has been provided to coach operators to support the transition to zero emission alternatives.

The Government could provide operators, many of whom are SMEs working to tight profit margins, with grants or Government-backed loans, to help meet significantly higher purchase costs.

### **Question for discussion**

- *What forms of financial support should the Government provide for zero emission coaches?*

## **Deliver a strategy for coach charging infrastructure and grid connections**

Range anxiety is another barrier in the electric coach market, given the lack of a reliable network for recharging and refuelling infrastructure.

There is a need for rapid fast chargers at en route locations such as motorway service stations and also at some end-of-route destinations. For depots, the challenges in the bus sector – the cost of infrastructure, limited space and delays in connections – are also relevant to coaches. Moveable recharging and refuelling depot solutions are also needed.

The charging solutions could be delivered by a programme similar to Project Rapid, which provided funding to install electric vehicle charging infrastructure across motorways and major A roads to support cars and vans.

### **Question for discussion**

- *How should the Government support low carbon infrastructure solutions for the coach sector?*

## **Decarbonising the legacy coach fleet**

Low carbon fuels have been shown to significantly reduce carbon emissions and can provide a transitional solution for the coach sector whilst further developments in zero emission technologies are delivered and the required supporting infrastructure installed.

It will take some time to electrify the UK coach market. Low carbon fuels can significantly reduce greenhouse gas emissions and offer a solution while further developments in zero emission technologies are delivered.

High blend biodiesel (for example B20) and hydrotreated vegetable oil (HVO) have been identified as the most suitable options for coaches due to their similarity to diesel. However, their running costs can be more expensive, especially HVO. Fiscal incentives are needed to reduce the cost of low carbon fuels.

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 coach fleet electrification.

### **Question for discussion**

- *How can the Government promote the use of low carbon fuels in the coach sector?*

## Moving goods

### Heavy goods vehicles

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

Decarbonising HGVs is, however, challenging due to their size, longevity, varied configurations and operational profiles. Some behaviours in the HGV sector will need to be adapted. This includes reviewing driver hours regulations to support charging stops.

### Delivering a zero emission HGV fleet

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.

A transition to battery electric HGVs offers several benefits, including reduced air pollution and reduced lifetime carbon dioxide emissions compared to diesel trucks.<sup>35</sup> The declining cost of battery technology is making direct electrification of HGVs increasingly practical for long-term decarbonisation.

---

<sup>31</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022>

<sup>32</sup> <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>

<sup>33</sup> <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>

<sup>34</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022>

<sup>35</sup> <https://www.zemo.org.uk/assets/reports/Vehicle%20life%20cycle%20GHG%20emissions%20study%202024.pdf>

Hydrogen fuel cell HGVs have limited availability as an alternative to electrification. They are not widely perceived as a serious contender in the UK's decarbonised HGV market.<sup>36</sup> High capital and operational expenditure mean that hydrogen infrastructure, vehicles and fuel are significantly more expensive than either biomethane trucks or BEVs.<sup>37</sup> No government policy is in place to address these challenges. There have, however, been suggestions that hydrogen combustion could be explored for niche applications such as off-road machinery.<sup>38</sup>

Hydrogen fuel cell HGVs and refuelling sites are being trialled as part of the Zero Emission HGV and Infrastructure Demonstrator programme (ZEHID). There is an urgent requirement for a robust assessment of their whole life cost compared to diesel trucks for the regional and long-haul duty cycle.

As of June 2024, there were only 862 battery-electric HGVs in the UK, representing 0.16% of all HGVs.<sup>39</sup> In 2024, zero emission HGVs accounted for just 0.5% of new HGV sales.<sup>40</sup> Progress towards zero carbon HGV fleets needs to accelerate quickly.

Policy is needed to address the challenges faced by HGV operators with transitioning to electric vehicles.

### **Establish a mandate to increase the supply of zero emission HGVs**

Despite the UK Government's target to end the sale of new non-zero emission HGVs, there is no 'ZEV Mandate' for HGVs, as there is for cars and vans.

Zemo has called for a Mandate for HGVs based on vehicle weight, to be phased in over three or four years, to increase the supply of zero emission trucks.

### **Question for discussion**

- *When should a 'ZEV Mandate' for HGVs be phased in?*

---

<sup>36</sup> [https://www.aldersgategroup.org.uk/content/uploads/2025/03/Aldersgate-Group\\_Zemo-Partnership-cross-economy-workshop-Faster-decarbonisation-of-heavy-road-freight.pdf](https://www.aldersgategroup.org.uk/content/uploads/2025/03/Aldersgate-Group_Zemo-Partnership-cross-economy-workshop-Faster-decarbonisation-of-heavy-road-freight.pdf)

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> 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

<sup>40</sup> <https://www.smmmt.co.uk/zero-emission-truck-demand-stagnates-as-overall-market-normalises/>

## **Provide funding to support the transition to zero emission HGVs.**

Larger HGVs that travel long distances face significant barriers to operating as BEVs in an equivalent way. These include payload loss due to battery weight and limited charging opportunities.

The total cost of operating electric HGVs remains a substantial barrier to uptake, with upfront purchase costs two to three times greater than diesel alternatives.<sup>41</sup>

There are few financing options and limited financial incentives available for transitioning to electric HGVs. The Plug-in Truck Grant gives buyers a discount of up to £25,000 off the purchase price but this is not sufficient to support the high capital cost of battery electric and hydrogen fuel cell trucks.<sup>42</sup> Zemo has called for the Plug-In Truck Grant to be increased.

The Society of Motor Manufacturers and Traders (SMMT) argues that the Plug-In Truck Grant does not reflect the progress made by the sector in developing new zero emission truck technology. The approval process takes around two years meaning that fewer than half of the models on the market today are eligible for grants.<sup>43</sup>

There may, in time, be less need for government to support electric HGV purchases as EV battery prices are expected to fall dramatically by the early 2030s.<sup>44</sup>

Given the fiscal constraints, new forms of funding assistance, such as vehicle leasing, could be promoted to reduce upfront costs. Other countries have implemented bonus-malus systems that apply a small fee to diesel vehicle purchases to create a larger subsidy pool for buyers of new electric HGVs. This approach is designed to be cost-neutral for both the industry and the public. Funding could be targeted at SMEs, who dominate the HGV sector.

---

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

<sup>43</sup> <https://www.fleetnews.co.uk/news/industry-calls-for-plug-in-truck-grant-overhaul>

<sup>44</sup> <https://www.theccc.org.uk/wp-content/uploads/2025/02/The-Seventh-Carbon-Budget.pdf>

## Question for discussion

- *What financial support is needed in the short to medium-term to stimulate uptake of electric HGVs? What alternatives (for example bonus malus systems) should be considered?*

## Publish a strategy for HGV charging infrastructure and grid connections

The Government should develop a comprehensive zero emission HGV infrastructure strategy, as promised in 2022.

Sufficient infrastructure will be needed to enable electric HGVs to charge en route and at destination points, all while keeping to tight delivery timelines. Electric HGVs require bespoke charging solutions due to their higher power requirements for charging and the extra space needed for accessibility.

The shorter mileage range of larger EVs compared to ICE vans and trucks means that owned (depot) charging infrastructure is unlikely to provide the charging capacity required for long or non-standard routes. But there are fewer than five HGV-dedicated chargepoints on UK roads, according to the SMMT.<sup>45</sup>

The cost of providing charging infrastructure at depots is a major barrier to the uptake of electric HGVs, given the cost of power and the space required. It can take up to 7-8 years to obtain connections to the electricity grid. Chargers for electric HGVs will frequently require upgrades from distribution network operators (DNOs) with upgrade costs ranging 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 fleet transition.<sup>46</sup>

Planning processes for grid upgrades should be streamlined and DNO customer service improved to accelerate grid connections.

Another solution may be to facilitate sharing of charging infrastructure. This, and other options for developing an HGV charging network, could be investigated through the Zero Emission HGV and Infrastructure Demonstrator (ZEHD) programme.

---

<sup>45</sup> <https://www.smmt.co.uk/zero-emission-truck-demand-stagnates-as-overall-market-normalises/#:~:text=The%20provision%20of%20enroute%20infrastructure,2035%2C%20action%20must%20begin%20now.>

<sup>46</sup> [www.greenfinanceinstitute.com/wp-content/uploads/2024/06/Delivering-Net-Zero.pdf](http://www.greenfinanceinstitute.com/wp-content/uploads/2024/06/Delivering-Net-Zero.pdf)

## Questions for discussion

- *How should a national network of public HGV recharging sites be created and financed?*
- *How should the Government expand the provision of charging facilities at HGV depots? How can grid connection and upgrade processes be improved and costs reduced?*

## Decarbonising the legacy HGV fleet

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 support GHG emissions reduction from existing HGVs. A Zemo Partnership study found notable GHG savings from adopting 100% drop-in renewable diesel or biodiesel blends.<sup>47</sup> 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 needed to bridge the cost gap between low carbon fuels and diesel and provide long-term certainty for fleet operators.

---

<sup>47</sup> [Vehicle life cycle GHG emissions study to show the role of renewable fuels in meeting net zero](#)

Zemo has proposed a UK renewable liquid fuels incentive for heavy-duty vehicle operators, to work alongside HGV electrification to encourage more widespread uptake.

The Government should also provide more clarity about the extent to which they expect biomethane high blend biodiesel, HVO to play a significant role in the future. especially given the feasibility challenges around HGV electrification.

Given the complexities of the HGV fleet, a technology-neutral approach to decarbonisation is preferable. A “well-to-wheel” framework should be used to assess HGV GHG emissions when determining suitable pathways, rather than focusing solely on tailpipe emissions.

### **Questions for discussion**

- *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?*
- *How can the Government facilitate a technology neutral approach to decarbonising HGVs?*



## Vans

In 2022, light vans accounted for 19% of UK domestic road transport greenhouse gas (GHG) emissions.<sup>48</sup> 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.

### Delivering a zero emission van fleet

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 2023 then Prime Minister Rishi Sunak pushed back the full 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.<sup>49</sup>

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 Mandate target for the year of 10%.<sup>50</sup>

At the end of June 2024, there were 71,000 electric light goods vehicles (LGVs) in the UK, which represented 1.5% of all LGVs. Both continued development of charging infrastructure and further action to remove barriers to uptake are needed.

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

---

<sup>48</sup> <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2024/greenhouse-gas-emissions-from-transport-in-2022>

<sup>49</sup> [https://www.zemo.org.uk/news-events/news,government-announces-details-of-zev-mandate-setting-trajectory-to-zero-emis\\_4562.htm](https://www.zemo.org.uk/news-events/news,government-announces-details-of-zev-mandate-setting-trajectory-to-zero-emis_4562.htm)

<sup>50</sup> <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>

## **Provide grants to make electric vans more affordable.**

Electric vans can be 50% more expensive to buy than equivalent petrol or diesel engine vehicles.

The Plug-In Van Grant, which provides up to £5,000 for eligible zero emission vans (depending on vehicle weight), is critical for bridging the affordability gap. It is currently due to expire in April 2026.

With fleet operators making investment decisions up to five years in advance, long term certainty around the grant would be desirable. The Government could announce its extension, to allow fleet operators to make informed decisions regarding the future of their fleets.

Electric vans have benefited from the exemption from Vehicle Excise Duty (VED), but this will end from 1 April 2025. Zero emission cars will then pay the lowest rate of Vehicle Excise Duty (VED) for the first year only.

## **Question for discussion**

- *What fiscal measures, if any, are needed to encourage take-up of zero emission vans?*

## **Deliver a strategy for van depot infrastructure and grid connections**

A lack of sufficient public EV charging points, particularly those designed for vans with larger parking bays and longer reach cables, undermines fleet confidence in transitioning to electric.

Some operators need the option of private charging, but the cost of upgrading energy supplies at depots is excessive for logistics companies, most of which are SMEs.

Grid upgrades tend to have long lead times and a lack of DNO standardisation creates confusion about the process and cost of installing infrastructure.

Zemo has called on the Government to provide financial support to SMEs for upgrading grid connections.

Sharing infrastructure may also be a relevant solution for the van sector.

## Questions for discussion

- *How can the Government ensure that public charging facilities cater adequately for electric vans?*
- *What financial and other support should the Government provide for upgrading grid connections at depots?*

## Boost the second-hand electric van market

According to the SMMT, for every new electric van sale, 2.5 used vans are sold.<sup>51</sup>

A healthy used electric van market is essential if SMEs are to be encouraged to adopt electric vans.

The Government could boost the second-hand market for zero emission vans by requiring accessible data to be provided on the state of batteries and introducing a warranty scheme.

## Question for discussion

- *What other steps can the Government take to boost the second-hand market for electric vans?*

## Decarbonising the legacy van fleet

Low carbon fuels 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.

---

<sup>51</sup> <https://www.smmmt.co.uk/reports/light-commercial-vehicles-delivering-for-the-uk-economy/>

## Cross-cutting policies

There are seven key drivers for decarbonising personal mobility, public transportation, and freight that are currently missing in the UK's policy framework.

### Expanding and improving public charging infrastructure

To give drivers confidence to switch to electric vehicles, public chargepoints need to be installed in sufficient numbers and at key locations. Between 25% and 40% of households in the UK have no access to off-street parking and must rely on the public charging network for electric vehicles.<sup>52</sup>

In 2022, the Government estimated that at least 300,000 public chargepoints will be needed to support its commitment to phase out sales of new diesel and petrol cars and vans by 2030.<sup>53</sup> The number of public chargepoints being installed appears to be on track to meet this estimate.<sup>54</sup> There are three caveats, however.

First, the expectation of at least 300,000 public chargepoints required by 2030 is at the low end of scenarios and may not be sufficient to support the growing EV market.<sup>55</sup>

Second, public chargepoints are not distributed unevenly across the UK. So far, they are located largely in the south and in urban areas.<sup>56</sup>

Third, a Cenex report in September 2024 concluded that current metrics to measure progress on delivery of EV infrastructure are not relevant to the full range of user

---

<sup>52</sup> <https://publications.parliament.uk/pa/ld5804/ldselect/ldenvcl/51/5107.htm>

<sup>53</sup> <https://assets.publishing.service.gov.uk/media/6245ba40e90e075f15381cf0/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf>

<sup>54</sup> <https://www.nao.org.uk/wp-content/uploads/2024/12/public-chargepoints-for-electric-vehicles.pdf>

<sup>55</sup> <https://evenergytaskforce.com/reports/ev-energy-taskforce-progress-report-2023/#:~:text=Recent%20geopolitical%20developments%20have%20added,or%20unreliable%20sources%20of%20supply.>

<sup>56</sup> <https://www.nao.org.uk/wp-content/uploads/2024/12/public-chargepoints-for-electric-vehicles.pdf>

needs. It proposed measuring progress by charging use case: near home, journey and destination.<sup>57</sup>

Zemo has proposed that the Government should lead 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. The Government could invest in sites where they are needed but not commercially viable, to ensure accessibility and convenience for consumers.

### **Question for Discussion**

- *How should the Government ensure that public chargepoints are available where they are required and relevant to different user needs in all parts of the UK?*

### **Speeding up grid connections and upgrades**

As discussed above, one of the biggest barriers to chargepoint installation is the delay in securing connections to local electricity grids. The Connections Action Plan will help to address the delays currently experienced in the queue for grid connections and must be delivered at pace. The huge volume of connections that DNOs are handling has led to long lead times in delivery. If this continues, market and consumer confidence will be placed at risk. New investment will be required to reinforce local electricity networks and avoid further delays and bottlenecks.

One solution is to allow further investment in grid upgrades ahead of need. Under the current price control for DNOs (RIIO-ED2), Ofgem has started to allow investment in the network ahead of connection requests, where it is well evidenced, but this is subject to tight criteria. The new flexibility, while welcome, is still not enough to support the level of investment in network reinforcements needed to accommodate increased levels of EV charging by heavy duty vehicle operators, commercial depots and large public charging hubs.

Another barrier is the planning rules associated with chargepoint installation. Planning processes are too often time-consuming and costly. Various consents are required for planning and permitting and these can overlap. Rules are often

---

<sup>57</sup> <https://nevis.cenex.co.uk/metrics>

interpreted inconsistently across different local authorities. Zemo has called for a comprehensive review of all relevant planning and consent rules.

### **Question for discussion**

- *How should the Government bring forward the grid upgrades needed to deliver EV infrastructure?*

### **Setting out a clear vision for the low carbon fuels sector**

Even as zero tailpipe emission vehicles gain greater market share, it will take decades for the residual ICE fleet – cars, vans, trucks, buses and coaches to become fully electrified. This presents a major obstacle to meeting UK GHG emissions targets.

It will not be feasible for some sectors to shift to EVs immediately. The specific challenges involved in the electrification of different transport modes are discussed above.

Expanding the use of low carbon fuels, including liquid and gaseous biofuels, will encourage reductions in GHG emissions as the market for zero emission vehicles matures. They have an important role to play over the next decade. Any delay in the transition can be addressed through the wider adoption of low carbon fuels, especially in long-haul truck and coach fleets. These vehicle modes and NRMM are the hardest to electrify in the near to medium-term.

Many transport operators face challenges and uncertainties in making the transition to low carbon fuels. Policy is needed to bridge the cost differential between low carbon fuels and diesel and provide long-term certainty for fleet operators.

In 2021, the previous Government committed to developing a longer-term strategy for low carbon fuels to identify what additional policy measures may be required to encourage uptake and use across transport modes to 2050. The strategy has never been published.

The Renewable Transport Fuel Obligation (RTFO) requires fuel suppliers to provide a defined share of renewable fuels which is increasing up until 2032 before levelling off. Zemo has called for the 2032 RTFO target to be more ambitious and increased.

As proposed above, the Government should also provide more clarity over the extent to which they expect low carbon fuels to play a significant role in decarbonising HDVs in the future.

### **Question for discussion**

- *How can the Government provide more clarity about the role of low carbon fuels in decarbonising road transport alongside electrification in the near to medium-term?*

### **Unlocking access to green finance**

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 green finance market remains immature. There is a mismatch between the demand and supply of finance for decarbonising transport. Lenders' caution means that private finance is either priced too high or not available.

Zemo has put forward proposals to unlock access to green finance. These include:

- expanding green finance opportunities from commercial and retail banks by investigating the potential role for an intermediary body able to aggregate demand for finance;
- promoting innovative funding models and greater use of asset finance or leasing by providing more transparent data on the use and state of assets beyond the meter; and
- working with retail banks to ensure that their staff have access to the information they need to price risk appropriately.

### **Questions for discussion**

- *What part can government play in delivering these solutions?*
- *What other measures are needed to ensure wider availability of green private finance for the carbon transport sector?*

## Developing a robust low carbon skills base

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

There is evidence of an emerging skills gap in transport. Green Alliance research in 2022 found that the UK transport sector would need an additional 175,000 employees by 2035 because of newly emerging demands from net zero. It found that the main skills gaps in transport are in chargepoint installers and operators, vehicle scrappage and recycling experts, battery manufacturers and operators, and electrification engineers.<sup>58</sup>

The need to reskill workers will be a parallel challenge. The SMMT contends that 80% of automotive job roles that involve powertrain competencies will need to be reskilled or upskilled over the next ten years.<sup>59</sup>

Zemo has called on the Government to:

- develop a comprehensive, long-term skills and retraining strategy for the UK road transport sector;
- reform the growth and skills levy to support upskilling where it is most needed; and
- launch a comprehensive review of qualifications and training pathways.

## Question for discussion

- *What should be the priorities for a low carbon skills and retraining strategy in the road transport sector?*

## Maintaining resilient supply chains

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. There is a risk of price volatility and supply disruptions for minerals needed by zero emission technologies.

---

<sup>58</sup> [https://green-alliance.org.uk/wp-content/uploads/2022/01/Closing\\_the\\_UKs\\_green\\_skills\\_gap.pdf](https://green-alliance.org.uk/wp-content/uploads/2022/01/Closing_the_UKs_green_skills_gap.pdf)

<sup>59</sup> <https://committees.parliament.uk/writtenevidence/130794/html/>





The UK Government is due to publish a new Critical Minerals Strategy in spring 2025. This upcoming strategy will replace the previous versions published in 2022 and 2023.

Zemo has called on the Government to introduce and mandate robust sustainability and GHG emission criteria for critical minerals used in the manufacture of lithium-ion batteries and electric motors.

### **Question for discussion**

- *What other steps should the UK Government take to promote resilient and sustainable supply chains for the low carbon transport sector?*

## 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.

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 and active travel (walking and cycling). Enabling people to choose alternatives to driving can reduce emissions and deliver a range of co-benefits, such as reduced local air pollution and improved health and fitness.

According to the Climate Change Committee, improvements to make buses and active travel more attractive, affordable, and accessible allow 7% of car demand to be switched to public transport and active travel by 2035, compared to the baseline.<sup>60</sup>

Current government policies do not recognise the role new alternatives for personal mobility, such as smaller powered light vehicles (PLVs) such as mopeds, motorcycles, micro cars and micro vans can play in reducing emissions and tackling urban congestion.

The Department for Transport's recent call for ideas to develop a new Integrated National Transport Strategy is welcome. But the Government must do more to encourage a further shift away from cars towards alternative modes of travel.

This includes:

- providing local authorities with long-term funding and powers to deliver improved, faster bus services and to promote walking and cycling;
- promoting increased car occupancy by, for example, encouraging local authorities to exempt car clubs and ride sharing schemes from emission zones;

---

<sup>60</sup> <https://www.theccc.org.uk/wp-content/uploads/2025/02/The-Seventh-Carbon-Budget.pdf>

- promoting the use of congestion charging and parking prices and restrictions where appropriate;
- establishing a consistent national framework for implementing and evolving low emission zones;
- streamlining user licensing to improve access to smaller and lighter PLVs;
- helping people to make informed low carbon travel choices by producing consistent metrics on the cost, frequency, reliability and emissions performance of different transport options;
- conducting an honest national conversation about the potential role of fiscal measures in encouraging more efficient road use.

There is potential for a modal shift in the freight and logistics sector. The Government should:

- bring in incentives that encourage business operators to shift from ICE cars and vans to micro cars and vans.
- add new vehicles (micro cars) to the L-category framework.

### **Questions for discussion**

- *What policies should be introduced to promote greater bus usage?*
- *How should longer-term funding settlements for local authorities be delivered?*
- *What additional policies are needed to support operators serving particular communities – for example, bus operators servicing rural routes who do not have an electric alternative available to purchase?*
- *What policy and regulatory changes are needed to promote new low carbon travel modes, particularly smaller and lighter PLVs?*
- *How can we advance a national discussion on using fiscal measures to promote more efficient road use?*

## Priorities for delivering net zero transport

### Delivering a sustainable transition

There is a risk that policies to promote zero emission technologies will inadvertently increase GHG emissions. For example, policies encouraging the adoption of electric vehicles (EVs) may lead to an increase in the production of EVs, which requires mining and manufacturing of materials like lithium, cobalt, and nickel for batteries. If these materials are sourced from regions with poor environmental practices or through energy-intensive processes, the carbon footprint associated with their extraction could be higher than anticipated, potentially outweighing the emissions savings of using EVs.

The Government can mitigate this risk by promoting a technology neutral approach to comparing decarbonisation options across different vehicle segments. The use of a “well-to-wheel” framework for the HGV sector [see above] is one example.

The Government can promote the reduction of emissions throughout the life cycle of vehicles by embedding life cycle GHG emission metrics into the formation of transport policy.

### Questions for discussion

- *How should the UK Government mitigate the risk that policies to promote zero emission technologies will inadvertently increase GHG emissions?*
- *What other policy interventions are needed to ensure that the transition to net zero transport is environmentally sustainable?*

### Delivering a fair and just transition

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

One example is the adoption of electric cars and access to public chargers. Low income areas, multi-occupancy buildings and rural areas are least

likely to have access to the public charging infrastructure that enables those without off-street parking to charge a vehicle.

Public charging points are subject to 20% VAT, while private chargers have a reduced rate of 5%. The Government could address this unfair situation by:

- applying the lowest rate for electricity used to charge vehicles, no matter where they are charged;
- giving public chargepoint operators tariff options comparable in price to those available to domestic customers;
- reviewing how the costs of local network upgrades are shared between domestic customers and chargepoint providers;
- delinking the price of electricity from fossil gas;
- reforming the standing charge rates applied to electricity at public charging sites.

Vulnerable groups may be left behind. For example, there are a limited number of chargepoints that disabled motorists can use independently and this presents a major barrier for them in transitioning to EVs.<sup>61</sup> The British Standards Institute Guidance on accessible charging (PAS 1899) provides standards for making chargepoints accessible but its application is not mandatory.

There is also a risk that interventions designed to reduce road transport emissions could impact unfairly on some user or socio-economic groups. For example, interventions designed to discourage car journeys or increase road use efficiency could fall heavily on van users.

Some industries and workers will be affected by the transition to net zero in transport. Considerable change is expected in the UK workforce a result of the shift to electric vehicle manufacturing. Developing a long-term skills and retraining strategy [see above] will enable workers to be part of the change.

Decarbonising road transport poses challenges for some parts of the road transport sector. SMEs, which include around 85% of freight operators, face high upfront costs when making investments in, for example, zero emission vans. This needs to be taken into account when designing policies to promote the decarbonisation of specific modes [see above].

---

<sup>61</sup> <https://publications.parliament.uk/pa/ld5804/ldselect/ldenvcl/51/51.pdf>

## Questions for discussion

- *What measures can the UK Government take to reduce the disparity between energy prices for people who can charge at home and those who rely on public charging facilities?*
- *How can the Government expand access to low carbon mobility options for vulnerable and low income groups?*

## Delivering a place-based transition

Every place in the UK has its own unique role to play in ensuring that the UK 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.

Some local authorities use policy interventions such as local plans that embed active travel and public transport solutions, bringing in emissions-based parking permits to encourage lower emission vehicles and introducing workplace parking levies to manage congestion.

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 has called for:

- devolution of decision making in transport policy to the appropriate local or regional levels whenever possible;
- more devolved long-term financial settlements to enable local areas to plan and invest in services and infrastructure that promote low carbon transport options;

- 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.

### **Question for discussion**

- *What action can the Government take to promote more consistent, effective approaches across regions and in local areas to decarbonising road transport? How can 'patchwork' approaches be avoided?*