

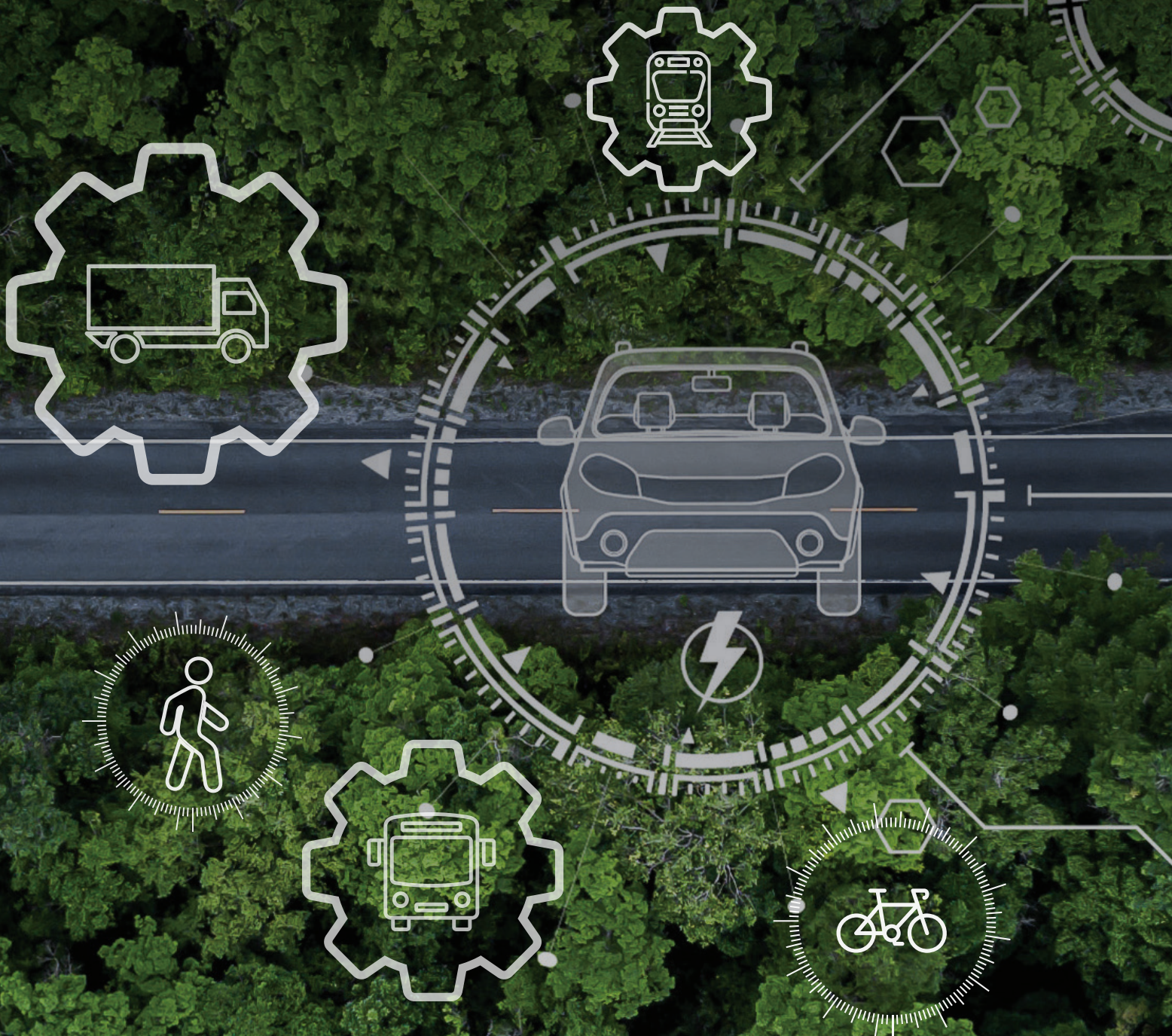


**Zemo  
Partnership**  
Accelerating Transport to Zero Emissions

# Delivering Net Zero Transport in the UK

Briefing for the new Government

September 2024





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## Preamble

**In 2019, the United Kingdom led the world's major economies in setting a target of net zero greenhouse gas emissions by 2050. This target will drive ambitious changes in how we power our society and economy, heat our homes, factories, offices and schools, use our land, manufacture our goods and move around our communities, cities, and nations.**

At the same time, net zero is creating a new era economic opportunity. McKinsey has estimated that supplying the goods and services to enable the global net zero transition could be worth more than £1 trillion to UK businesses between 2021 and 2030.<sup>1</sup>

We should celebrate the UK's global leadership on net zero and the progress that has been made so far, but there is still much work to be done.

The climate challenge is more urgent than ever. A record 15 national heat records have been broken so far in 2024, as weather extremes grow more frequent and climate breakdown intensifies. People everywhere are struggling with the fatal impacts of worsening extreme heat, which is harming economies, growing inequalities and undermining the world's development goals.

Emissions – including from surface transport – will need to decline much more rapidly during this decade if the UK's targets are to be achieved. A great deal more remains to be done to achieve surface transport's full potential as a driver of green growth for the UK. The message is clear: the government and the sector must now work together to focus on delivering net zero transport.

In December of this year, Zemo Partnership will publish its Delivery Roadmap for Net Zero Transport, to set out how to bring forward the investment and encourage the changes in behaviours needed to decarbonise the sector at pace.

Zemo Partnership is well placed to bring forward such a Roadmap. For more than two decades we have been at the heart of accelerating road transport decarbonisation in the UK. At the nexus of industry and government, Zemo uniquely brings together businesses, policy makers and experts across all fuels and technologies and all forms of road transport.

The Council for Net Zero Transport, convened by Zemo Partnership and comprising senior stakeholders, will help steer UK transport's decarbonisation transition as it moves into this crucial delivery phase. The Council is chaired by Lord Deben, a former environment secretary and past chair of the Climate Change Committee. It will work with senior figures from government, industry, environment and academic sectors to forge a clear, strategic direction for road transport decarbonisation.

This paper discusses the main themes for the Delivery Roadmap for Net Zero Transport: act swiftly; take a multi-path approach; provide a stable policy environment; apply net zero solutions across the whole UK economy; deliver at national, regional and local level; ensure a fair and just transition; and take people with us.

The paper draws on extensive consultations conducted for Zemo in 2023 and 2024, including stakeholder interviews, roundtable discussions and a series of workshops involving our cross-sectoral membership.

The conclusion was that the UK can and must deliver on the many opportunities offered by the fast-growing green economy. And it is vital that we build and maintain public support for the transition to net zero transport. If we get this right, we will build a cleaner, safer and fairer future for us all.



**Claire Haigh**  
Executive Director  
Zemo Partnership

3 September 2024

# Introduction

## The green growth opportunity

The United Kingdom has set a legally binding target of net zero greenhouse gas emissions by 2050. The net zero target offers exciting opportunities to drive forward green growth in this country.

Renewable energy generation, electric car manufacturing, green agrotechnology and household insulation retrofit technologies are all part of a net zero economy that is worth over £70bn<sup>2</sup> – more than twice the value of the energy sector itself.

There are 20,000 net zero businesses across the UK, employing 840,000 people who earn, on average, almost £10,000 more than they would receive in other jobs. Workers in these industries are 1.7 times more productive than the national average.<sup>3</sup>

The net zero economy is stronger and more productive in the UK regions, outside of London. There are twenty 'hot spots' across the UK with significant net zero economies. These include the Tyneside/Teesside coast, South Yorkshire/North Derbyshire, the Mersey River and Cambridgeshire.<sup>4</sup>

Chris Skidmore's Mission Zero: Independent Review of Net Zero (2023) highlighted that the decarbonisation of the transport sector offers significant growth opportunities, with the potential for thousands of new jobs in manufacturing, infrastructure, and services. The manufacturing and infrastructure development opportunities in the transition towards zero tailpipe emission vehicles could create more than 70,000 jobs by 2050.<sup>5</sup>

The Skidmore review also noted that the UK could capture a first mover advantage in road freight decarbonisation. There may be significant growth opportunities for technologies, infrastructure and services that enable more sustainable travel options. The manufacturing, distribution and repairs of bikes alone could be associated with 100,000 jobs.<sup>6</sup>

Progress has been made in realising the opportunities for green growth in transport. But much more remains to be done to meet the sector's full potential.

One example is the massive expansion in sales of electric vehicles (EVs) since 2019. Growth in the EV portion of the new car market has stalled over the past year, however, largely because of concerns about affordability and the perception of insufficient and unsuitable charging infrastructure. Infrastructure challenges need to be addressed if mass market EV penetration, and increased take-up of zero emission HGVs and vans are to be achieved.

In other parts of the sector, such as local buses, HGVs, motorcycles and coaches, there are major gaps in net zero policy. Little progress has been made in areas where people need to make changes in their behaviour such as reducing car travel.

These gaps must be addressed as a matter of urgency.

The government and the transport sector need to work together and ensure that economic opportunities are not lost due to a lack of consistent long-term policy or investment.





### The transport emissions challenge

The UK has set ambitious, legally binding targets to achieve net zero greenhouse gas emissions (GHG) by 2050. These include a 65% reduction by 2030 and 72% reduction by 2035, relative to 1990 levels. Surface transport emissions will need to reduce by an estimated 73% to achieve the levels of GHG emission abatement required to reach the 2030 target.

The pace and scale of action to mitigate GHG emissions will need to increase substantially if the target is to be met.

### A new focus on delivery

Delivering the UK's emissions targets and realising the opportunities for green growth in transport must now be the priorities.

A long-term vision and a strategy to reduce the cost of investment and underwrite risk is urgently needed. The government and the sector must now work together to focus on delivery.

Zemo Partnership's Delivery Roadmap for Net Zero Transport will:

- Take an economy-wide, whole-systems approach to delivering net zero transport, by setting out the measures needed across all policy areas to bring forward investment in low carbon technologies, create the energy infrastructure needed for a decarbonised transport system, minimise the environmental impacts of the surface transport fleet and encourage greener travel choices.
- Support existing, detailed region-specific roadmaps across the UK, by identifying common blockages, showing how to resolve shared challenges, describing where policy changes are needed and suggesting where greater collaboration would be helpful.
- Reflect the highly complex landscape for decision making, by recognising the interfaces between different sectors and networks, with travel behaviour that is multi-modal and multi-geographical, crossing multiple administrative boundaries.

The main themes of our approach to delivering net zero transport are set out below.



### 1. Act swiftly

Net zero presents the UK with huge economic opportunities. But other economies have acted quickly to attract investment and develop new technology and industries. Most notably, through the 2022 Inflation Reduction Act, the USA has committed more than \$370 billion in incentives and programmes to accelerate action on climate and energy. The EU has brought forward the Green Deal's €600 billion worth of investment. Germany and France have developed multi-billion Euro funds to speed up the low carbon transition.

As Chris Skidmore's review noted, if the UK does not act swiftly and decisively, we will all lose opportunities to other countries and see current economic activity move away.<sup>7</sup>

Urgent action is also needed to reduce transport emissions. Transport is responsible for around a quarter (26%) of total UK emissions, making it the largest emitting sector of the UK economy.<sup>8</sup> Just over half (52%) of the UK's transport emissions come from cars.<sup>9</sup>

Overall greenhouse gas emissions have fallen since carbon budgets were introduced in 2008. Electricity supply has been the primary driver of the emissions reductions that have been achieved. By contrast, emission trends from transport have been largely flat.

The UK is not on track to hit its target to reduce emissions in 2030 by 68% compared to 1990 levels. The Climate Change Committee (CCC) has identified transport as one of the three sectors outside electricity where reductions in emissions must accelerate very rapidly if the target is to be met.<sup>10</sup>

In its latest progress report to Parliament, the CCC concluded that "the coming seven years will require substantial reductions in surface transport emissions" and called for a significant increase in the recent rate of emissions reductions.<sup>11</sup>

Some important policies have been put in place to deliver net zero transport, but a new more urgent approach is now required, working across the transport sector, applying solutions for the whole economy and acting at national, regional and local levels.





## 2. Take a multi-path approach to decarbonising transport

Existing Government policies for road transport decarbonisation focus on replacing the internal combustion engine (ICE) with zero emission technology, most notably battery but potentially also hydrogen fuel cell electric vehicles. The adoption of zero emission technologies is necessary for delivering net zero transport, but it is by no means sufficient.

First, the deployment of zero emission vehicles in the coming decades will be dependent on sufficient reinforcement of the grid, efficient grid connection processes and roll-out of appropriate charging infrastructure. This will be especially true for commercial vehicles. Zemo believes that greater alignment of energy and transport planning is needed to ensure well evidenced investment in the grid takes place. This is true for providing power for battery electric or hydrogen fuel cell vehicle refuelling. While battery electric vehicles will dominate the emerging zero emission market, hydrogen fuel cells may have an important role to play, particularly for heavy duty vehicles. This will be highly dependent on how extensively hydrogen is used in the overall industrial and energy sectors. Further investigation is needed in this area.

Second, even as zero tailpipe emission vehicles gain greater market share, it will take decades for the entire residual ICE fleet – cars, vans, trucks, coaches – to become fully electrified. More than a fifth of the UK car fleet is more than 13 years old<sup>12</sup> and that figure is set to increase. Sustainable low carbon fuels have a critical role in decarbonising the existing ICE fleet. Faster and higher ambition is therefore needed to increase the contribution of sustainable low carbon fuels. This includes increasing the main Renewable Transport Fuel Obligation (RTFO) target and extending it beyond 2032.

The Government also needs to publish the long-awaited Low Carbon Fuels Strategy to provide a clear policy direction for the industry.

Third, electric and hybrid cars create more GHG emissions during their production than standard vehicles – but are still greener over their whole vehicle life cycle. Studies have shown that some of the GHG savings made during the use of electric and hybrid vehicles greatly outweigh the increased emissions created during their

production and disposal.<sup>13</sup> Increasing focus on recyclability of key components such as batteries will further reduce the life cycle GHG emissions of EVs in the future.

Net zero transport policy should therefore seek to reduce emissions across the lifecycle of a vehicle: vehicle production, in-use and end of life. Greater attention needs to be given to assessing and mitigating environmental impacts associated with producing and disposing of zero emission vehicles. This could present an opportunity for British manufacturing which will benefit from an increasingly decarbonised electricity grid.

Fourth, decarbonising transport at the pace and scale that is needed will also require changes in personal behaviours, and a step change in the efficiency of passenger and freight movement.

A large-scale shift from private car use to more sustainable transport modes will be essential to reduce emissions and improve urban mobility. Greener journey planning can be achieved through increased investment in zero tailpipe emission bus and train services and providing greater support for walking, cycling, car clubs and lift sharing. Policy and funding for these measures needs to be consistent so that local authorities can plan and invest for the long term.

A shift from road use towards rail is needed in freight transport. Innovative, local solutions can also be considered. Government policy could, for example, seek to ensure ‘the right vehicle for the right journey’ by maximising the potential of powered light vehicles and promoting urban logistics hubs.

We believe that the time has come for an honest national conversation about the potential role of pricing in encouraging greener travel and more efficient road use. Reforms to the tax structure can provide incentives for businesses and consumers to change their behaviours. Such a dialogue will become more urgent as the fleet decarbonises and lost fuel duty needs to be replaced. If existing cost structures are not addressed, there is a real risk that rising traffic growth and congestion will be baked into the transport system.

Zemo Partnership would be pleased to assist with facilitating and supporting this vital discussion.

### 3. Provide a stable policy environment

If the transition to net zero transport is to be achieved, business needs long-term certainty to make investment decisions for low carbon technologies and fuels. Such certainty depends on a stable, consistent policy environment. This may include clear targets and mandates, stable funding programmes and a consistent regulatory framework. It is critical for business and investor confidence that once the government sets targets for specific technologies or announces funding programmes, these are maintained.

The decarbonisation of road freight is one area where a clearer policy trajectory is needed. Heavy goods vehicles (HGVs) contribute one fifth (20%) of UK surface transport GHG emissions.<sup>14</sup> The adoption of zero emission at the tailpipe solutions and low carbon renewable fuels would decarbonise HGVs and put UK road freight on the path to net zero by 2050.

The previous government set an intention to end the sale of new, non-zero emission HGVs weighing 26 tonnes or less from 2035, and for all new HGVs to be fully zero emission at the tailpipe from 2040. But battery-electric HGVs accounted for just 0.5% of all new HGV sales in the first quarter of 2024, according to SMMT.<sup>15</sup>

Barriers to private investment in new technologies include the high upfront purchase cost of freight assets, and a lack of charging infrastructure. A clear government strategy is needed to support the roll-out of a public charging infrastructure for HGVs.

We recognise that electrification is not the only route to decarbonising the HGV fleet. At the end of December 2023, there were 734 battery electric HGVs in the UK, which accounted for 0.1% of all HGVs.<sup>16</sup> Heavy duty vehicles such as trucks and coaches, and Non-Road Mobile Machinery (NRMM) have longer transition timelines than cars and vans; legacy diesel NRMM is likely to remain in the transport fleet well beyond 2045.

Expanding the use of renewable fuels, including liquid and gaseous biofuels, is essential for decarbonising the existing HGV fleet as it transitions to zero emission (at the tailpipe) technologies. Renewable fuels provide a critical near-term solution for mitigating GHG emissions for medium and long-haul HGVs.

In 2021, a study by Zemo Partnership found that the business case is insufficient to motivate a change in fuel purchasing behaviour by fleet operators.<sup>17</sup> We have developed a proposal for a UK Renewable Diesel Incentive to encourage fleet operators to adopt higher blends of renewable diesel.<sup>18</sup> Fleet operators would receive a fuel duty discount for high blend renewable liquid fuels such as renewable diesel and biodiesel, based on the emission performance of the renewable fuel. RTFO targets should also be raised to support an increase in the overall supply of renewable diesel into the HGV sector. Such a fiscal incentive would work alongside a long-term strategy for HGV electrification.

The existing diesel-based bus fleet needs to be replaced with zero emission alternatives. In recent years, the UK has led Europe in meeting this challenge – over 50% of new bus registrations in the last 3 years have been zero emission.<sup>19</sup> Despite this progress, less than 5% of local bus operators in the UK use electric buses.<sup>20</sup> Greater policy certainty is required to build on this early momentum and achieve expansion in electric powered bus manufacturing. A date needs to be set for the end of sales of new non-zero emission buses, alongside the application of zero emission vehicle (ZEV) mandates to provide certainty to operators and manufacturers alike. Support is required with mitigating risks of installing the charging infrastructure and overcoming constraints arising from the capacity of the grid.



The main funding source for zero emission buses (ZEBs) in England has been the Zero Emission Bus Regional Areas (ZEBRA) scheme, a grant funding competition which was available to local authorities in England outside of London, but has now closed. A sustainable long-term funding trajectory should be established for zero emission buses, moving away from the stop-start nature of grant funding schemes.

The UK is well placed to lead on coach decarbonisation. But with less than 100 zero emission coaches currently on the road in the UK<sup>21</sup>, the challenge at hand seems insurmountable to operators while technology options are limited and support from government is non-existent. A net zero development roadmap is needed for the coach sector.

The importance of taking a consistent approach to announced targets was demonstrated by the previous government's decision in September 2023 to roll back some key net zero policies. This included deferring from 2030 to 2035 a ban on the sale of new, non-hybridised petrol and diesel cars and vans. At the same time, vehicle manufacturers remained subject to a strict ZEV mandate. The motor vehicle industry had invested considerable time and resources in ensuring that the deadline would be met. The policy change caused significant confusion and consumer confidence was badly affected.



### 4. Apply net zero solutions across the whole UK economy

**The UK urgently needs an ambitious industrial strategy for net zero transport. A plan of action is required to shorten supply chains and bring manufacturing and green jobs to this country.**

The industrial strategy would act as a catalyst for new technologies and innovation and both identify and support emerging industries by:

- setting out the actions required from government and industry to maximise the green growth opportunities in transport, both immediately and over the next decade;
- providing a clear regulatory framework and long-term funding commitments in R&D and infrastructure;
- using targeted tax and subsidy reforms to promote the adoption of zero tailpipe solutions, with the level of support depending on how energy prices change over time;
- addressing issues arising from Brexit on regulatory alignment, recognising that many vehicles are imported from outside the UK.

A strategy for net zero transport cannot be developed in isolation from other parts of the economy. We need a whole-systems approach to net zero transport that reflects the shift to digital connectivity, and the integration of transport with planning, energy, green finance and all the trip generating sectors of the economy, such as health, employment and education.

The integration of transport and energy is an important priority. Securing timely connections to the grid and the cost of electricity are fundamental concerns for providers of net zero transport technologies.

The queue system for connections must be brought up to date, given the expansion of widely distributed low carbon technologies. Reforms to speed up connections are in progress, but consideration could also be given to further changes – for example, developing strategic spatial energy plans, so that demand and supply for can be co-located in local areas.

Major reinforcements to the grid will be required as the use of zero emission vehicles expands rapidly. Fair ways of sharing the costs need to be developed. This may require further changes to connections charging to, for example, facilitate expensive grid connections before mass adoption is achieved.

Better coordination is also needed between National Grid, DNOs, energy infrastructure providers, vehicle, EV manufacturers, funding bodies and local authorities. Challenges arise when, for example, a DNO is unable to unlock power supplies in their network because of the significant upgrade required.

The Electric Vehicle Energy Taskforce was an excellent initiative, but it only covered light duty vehicles. The taskforce should be revived and developed, to cover both heavy and light duty vehicles.

The government's strategy for delivering net zero transport needs to address the full range of environmental impacts. Examples include pollution from NO<sub>x</sub>, particulates, auxiliary engine greenhouse gas and air pollution emissions and non-exhaust emissions from tyres.

It is crucial that government policy across these areas is fully aligned. Action is needed to break down the silos that exist between all the UK government departments that influence the many different aspects of net zero policy.





## 5. Deliver at national, regional and local level

**In this critical delivery phase, decisions on key infrastructure and investment will increasingly be made by the devolved administrations and local government across the nations and regions of the UK.**

This is an important opportunity to make more rapid progress on delivering net zero. It is easier for regional and local decision makers to break down government silos and develop integrated strategies for transport, housing, skills and economic development.

Regional authorities have adopted ambitious net zero strategies. For example, the West Midlands Combined Authority has set the region a target to be net zero by 2041. Greater Manchester aims to be carbon neutral by 2038 and has a five-year Environment Plan focused on increasing public transport usage, expanding the availability of EV charge points, tackling freight emissions and increasing the number of zero emissions buses.

But regional and local leaders must be able to plan and invest for net zero on an integrated, long-term basis. Inviting bids for different pots of money is resource intensive and holds back the joined-up strategic thinking and planning needed. Moving to more devolved long-term financial settlements for local authorities (LAs) must be a priority.

The delivery of net zero policies at the local level needs to be strengthened. Most local authorities have declared a climate emergency but have yet to articulate what that means in practical and

policy terms and often do not have the resources to deliver. Councils need practical advice on delivering net zero policies and more support in making purchasing decisions.

We also recognise that, for all the opportunities it provides, devolved and local decision-making has become fragmented and complex. Sub-national Transport Bodies (STBs) are encouraging more collaboration at a regional level, but do not tie in with government regions. Funding for local transport schemes has been moved from Local Enterprise Partnerships (LEPs) back to local transport authorities. The Strategic Road Network is handled separately from local roads and some investment is subject to a bidding process. Greater clarity is required on how, when and by whom investment priorities are set and decisions made.

This principle of having national frameworks that are implemented locally is correct, but it does not always work in practice. For example, the UK framework for Clean Air Zones is implemented in most of England but not in London and enforcement is lacking.

Significant divergences have emerged between the UK government and the devolved administrations in their policies to deliver net zero transport. One of the notable differences is the level of ambition in terms of reducing vehicle mileage and demand management. Closer engagement and cooperation are needed between the UK government and devolved administrations on delivering the net zero agenda.



## 6. Ensure a fair and just transition

The transition to a net zero economy will see new green jobs created in some areas, such as zero emission vehicle manufacturing and infrastructure. But we recognise that jobs and livelihoods will be lost in others. Some groups, especially those on low incomes, will be less able to take advantage of the new low carbon technologies.

The government and the transport sector should work together, to ensure a fair and just transition, in which those who face financial challenges are supported and the substantial benefits of a green economy transition are shared widely. An equitable approach will be essential to maintain public support for net zero.

Decarbonising transport poses difficulties for parts of the sector. SMEs, which include around 85% of freight operators, face high upfront costs in making investments in, for example, zero emission vans. Freight operators face their own challenges, as they generally operate under tight profit margins. They may require funding support from the public and private sectors if they are to adapt and make the most of the opportunities from a net zero economy. As discussed above, the

Government should introduce fiscal incentives for fleet operators to support the shift to net zero emissions technologies and low carbon fuels.

Too many people are being left behind in the transition to net zero. Decarbonising transport depends on ensuring the roll-out of zero emissions vehicles, the majority of which will be battery electric based on current market trends. But the upfront cost of electric vehicles (EVs) puts them out of reach for most consumers: a new electric car cost around 40% more than an equivalent ICE vehicle in 2023.<sup>22</sup>

Poor access to reliable charging is another key barrier to potential electric car and van buyers. Between 25% and 40% of households in the UK have no access to off-street parking and must rely on the public charging network.<sup>23</sup>

This is unsatisfactory, for three reasons. First, low-income areas, multi occupancy buildings and rural areas are least likely to have access to the infrastructure which allows those without off-street parking to charge a vehicle. Second, while the total number of public charge points is increasing, this is not keeping pace with the number of EVs projected to be on the road in future. Third, public charge points are charged VAT at 20%, compared to 5% for private chargers. Consumers are thus financially penalised for not having a private driveway or garage.

Charging infrastructure should be accessible to everyone. The government needs to increase the pace of EV charge point installation, especially where charge points might not be commercially viable. Specific solutions could include grant funding for new charge points, a review of planning regulations and action to address delays to local authority funding for charge points.

The unfairness in VAT charging between private and public charge points must be addressed, by applying the lowest rate for electricity used for charging regardless of where the vehicle is charged.





## 7. Take people with us

More than four out of five people in the UK are concerned about climate change. The level of concern has been consistent for some years.<sup>24</sup> Yet there is no guarantee that the public will support policies designed to deliver net zero. Individual solutions may be perceived as too costly or inconvenient for individuals or businesses, likely to produce uncertain outcomes or having the potential to advantage some sections of the community.

Without enduring public support, net zero policies could be placed at risk. The 'gilet jaunes' in France successfully mobilised against attempts to increase taxes on fuel in 2018. Last year, the populist Alternative for Germany (AfD) led a successful public revolt against a new law requiring households to install heat pumps reliant on clean energy. The anti-ULEZ protests in London in 2023 showed the potential sensitivity of transport-related policy measures.

Maintaining public backing for net zero measures will be a particular challenge in transport. The policy framework to deliver net zero transport is still not in place, but people will be asked to make some changes to their lifestyles during the late 2020s and into the 2030s.

The government can endeavour to ensure that specific solutions are robust and fair. But concerted action will also be needed to convince the public of the need for specific behaviour changes and to explain the benefits they will deliver to individuals.

The government will need to lead a sustained communications campaign to persuade the public of the case for net zero transport and to explain specific solutions. The campaign should present net zero as an opportunity to build a greener, more efficient transport system that will drive prosperity for everyone. It will be essential to highlight the co-benefits – cleaner air, less congested roads, better public health and improved public transport – to people, communities and businesses.

Such a communications drive must be a two-way process. Evidence from IPPR's Citizen's Juries suggests that the public supports action on climate change but consumers remain unsure about what they can do. People understand intuitively that decarbonising transport will deliver health and other benefits, but they want to be listened to when decisions are made about the solutions to be used.

The transport sector has a vital role to play in supporting and advising consumers on effective action to address climate change. Zemo Partnership stands ready to work with the government, green transport and other sectors in taking the public with us on this historic journey.



### References

- 1 <https://www.mckinsey.com/capabilities/sustainability/our-insights/opportunities-for-uk-businesses-in-the-net-zero-transition>
- 2 <https://eciu.net/analysis/reports/2024/the-uks-net-zero-economy-2024>
- 3 <https://eciu.net/analysis/reports/2024/the-uks-net-zero-economy-2024>
- 4 <https://eciu.net/analysis/reports/2023/mapping-the-uk-net-zero-economy>
- 5 <https://assets.publishing.service.gov.uk/media/63c0299ee90e0771c128965b/mission-zero-independent-review.pdf>
- 6 <https://assets.publishing.service.gov.uk/media/63c0299ee90e0771c128965b/mission-zero-independent-review.pdf>
- 7 <https://assets.publishing.service.gov.uk/media/63c0299ee90e0771c128965b/mission-zero-independent-review.pdf>
- 8 [https://www.gov.uk/government/statistics/transport-and-environment-statistics-2023/transport-and-environment-statistics-2023#:~:text=transport%20is%20the%20largest%20emitting,emissions%20in%202021%20\(427%20Mt-CO2e%20\)](https://www.gov.uk/government/statistics/transport-and-environment-statistics-2023/transport-and-environment-statistics-2023#:~:text=transport%20is%20the%20largest%20emitting,emissions%20in%202021%20(427%20Mt-CO2e%20))
- 9 [https://www.ons.gov.uk/economy/environmentalaccounts/articles/climatechangeinsightsuk/february2023#:~:text=the%20remaining%2017%25-,Over%20half%20\(52%25\)%20of%20all%20domestic%20transport%20emissions%20came,as%20they%20were%20in%201990.](https://www.ons.gov.uk/economy/environmentalaccounts/articles/climatechangeinsightsuk/february2023#:~:text=the%20remaining%2017%25-,Over%20half%20(52%25)%20of%20all%20domestic%20transport%20emissions%20came,as%20they%20were%20in%201990.)
- 10 <https://www.theccc.org.uk/wp-content/uploads/2024/07/Progress-in-reducing-emissions-2024-Report-to-Parliament-Web.pdf>
- 11 <https://www.theccc.org.uk/wp-content/uploads/2024/07/Progress-in-reducing-emissions-2024-Report-to-Parliament-Web.pdf>
- 12 <https://assets.publishing.service.gov.uk/media/66437bbabd01f5ed32793aec/veh1111.ods>
- 13 [https://www.zemo.org.uk/news-events/news,new-study-shows-significant-greenhouse-gas-savings-can-be-made-by-switching\\_4603.htm](https://www.zemo.org.uk/news-events/news,new-study-shows-significant-greenhouse-gas-savings-can-be-made-by-switching_4603.htm)
- 14 <https://www.gov.uk/government/statistics/transport-and-environment-statistics-2023/transport-and-environment-statistics-2023>
- 15 <https://www.smmmt.co.uk/2024/05/hgv-growth-stabilises-while-zero-emission-market-share-rises/>
- 16 <https://www.gov.uk/government/statistical-data-sets/vehicle-licensing-statistics-data-tables>
- 17 [https://www.zemo.org.uk/assets/lowcvpreports/Market\\_opportunities\\_decarb\\_HDVs%20using%20HBRF\\_2021\\_.pdf](https://www.zemo.org.uk/assets/lowcvpreports/Market_opportunities_decarb_HDVs%20using%20HBRF_2021_.pdf)
- 18 [https://www.zemo.org.uk/assets/reports/Decarbonising\\_Heavy\\_Duty\\_Vehicles\\_and\\_Machinery\\_Zemo\\_Nov2022\\_.pdf](https://www.zemo.org.uk/assets/reports/Decarbonising_Heavy_Duty_Vehicles_and_Machinery_Zemo_Nov2022_.pdf)
- 19 [https://www.zemo.org.uk/assets/workingdocuments/BWG-P-24-12\\_Zemo\\_ZEB\\_Market\\_Monitoring\\_Update\\_April\\_2024.pdf](https://www.zemo.org.uk/assets/workingdocuments/BWG-P-24-12_Zemo_ZEB_Market_Monitoring_Update_April_2024.pdf)
- 20 <https://www.gov.uk/government/statistical-data-sets/bus-statistics-data-tables#vehicles-operated-by-local-bus-operators-bus06>
- 21 [https://www.zemo.org.uk/assets/workingdocuments/BWG-P-24-12\\_Zemo\\_ZEB\\_Market\\_Monitoring\\_Update\\_April\\_2024.pdf](https://www.zemo.org.uk/assets/workingdocuments/BWG-P-24-12_Zemo_ZEB_Market_Monitoring_Update_April_2024.pdf)
- 22 <https://www.gov.uk/government/publications/electric-vehicles-costs-charging-and-infrastructure/electric-vehicles-costs-charging-and-infrastructure>
- 23 <https://publications.parliament.uk/pa/ld5804/ldselect/ldenvcl/51/51.pdf>
- 24 <https://www.gov.uk/government/statistics/desnz-public-attitudes-tracker-spring-2024/desnz-public-attitudes-tracker-net-zero-and-climate-change-spring-2024-uk>



## 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](http://www.zemo.org.uk)





# **Zemo Partnership**

Accelerating Transport to Zero Emissions

## **Zemo Partnership**

3 Birdcage Walk, London, SW1H 9JJ

**T:** +44 (0)20 3832 6070

**E:** [Hello@Zemo.org.uk](mailto:Hello@Zemo.org.uk)

**Visit:** [Zemo.org.uk](https://Zemo.org.uk)



@Zemo\_org



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