House of Lords Environment and Climate Change Committee Call for Evidence: Electric Vehicles

Introduction

1. Logistics UK is one of the country's largest business groups, supporting, shaping and standing up for safe and efficient logistics. We are the only organisation representing the entire logistics sector.
2. We represent a sector delivering an increasingly innovative, productive and sustainable system of essential national infrastructure. This system ensures the availability of the products that households, businesses and public services rely on every day, and is supporting the UK's transformation for the future. Our membership of over 20,000 includes global, national and regional businesses and SMEs spanning the road, rail, sea and air industries as well as the buyers of freight services, such as retailers and manufacturers.
3. While we note this call for evidence focuses on passenger cars, this submission is sent to provide information about commercial vehicles and the challenges, costs and benefits they face in meeting decarbonisation targets. Our submission is supported with evidence taken from our *Electric Vehicle Survey 2023*[1] published in May 2023, using information provided during December 2022 and January 2023 by 32 Logistics UK members from a wide range of sectors operating electric vehicles.

Government Approaches

4. Logistics operators' main concerns about meeting the Government's 2030 and 2035 phase-out dates centre on securing adequate and reliable power supplies at commercial vehicle depots and obtaining affordable and timely and co-ordinated power supply upgrades. Additionally, they have significant concerns about increasing appropriate vehicle acquisition and servicing costs, which impact on total cost of ownership calculations and long-term financial planning.
5. Some sectors and business-use cases, such as businesses operating vehicles 24/7 with limited vehicle downtime available for recharging batteries, those operating vehicles in rural and remote areas or in operations with heavy loads or additional power requirements, will find the transition harder to achieve within the deadlines until public chargepoint infrastructure and specialist vehicle and battery technologies have fully developed.
6. Operators will also face challenges of operating different vehicle technologies during the transition to zero emission vehicles and may face physical constraints, such as whether their depots can safely accommodate EVs and diesels in the same space.
7. There will be operational and regulatory challenges for loading, charging and refuelling, vehicle loading, driver allocation and route planning for vehicles with different capabilities. Fleet and facilities managers, technicians, drivers, administrators and financial team members will require training to develop new skills so they understand how the new technologies work and how they will fit in with current operations during the transition period.
8. The zero emission vehicle mandate is welcome, to support the increase of electric vehicle sales volumes as we approach the phase out deadlines. However, it is important that minimum commercial vehicle operating standards are set, such as a minimum mileage range of 120 miles for electric vans, to ensure the UK market is not flooded with poor quality vehicles.
9. The 2030 and 2035 deadlines have sent a very clear signal to the logistics sector and our research indicates that operators are fully aware of the deadlines as well as their obligations to have decarbonised their operations by 2050.
10. Currently, information that is useful to commercial vehicle operators about the public charging network is not regularly available. The types of information commercial vehicle operators want to see is the size and dimensions of chargepoint spaces, live information about the operational status of the chargepoint and what payment methods are available, so they can have confidence chargepoints can be used by the drivers of their vans and larger vehicles when planning vehicles routes.
11. Clarity on what capital tax allowances can be used for investments in decarbonising commercial vehicle fleets would be helpful, especially in respect of increasing energy supplies at depots.

[1] https://logistics.org.uk/research-hub/reports/ev-report

12. More guidance for planners and chargepoint installers is needed to ensure that spaces can accommodate commercial vehicles.
13. The experience of our members at public chargepoints is not good; there is significant uncertainty about whether the chargepoint will be available or whether the charger will be in working order.
14. Media reports have been noted about tensions between drivers of electric cars and commercial vehicles, potentially due to misplaced perceptions that the public chargepoint network is solely there for the use of electric car vehicles.
15. Fleet operators already operate on very low margins and the costs associated with decarbonisation are significant and may have to be passed on to customers.
16. Almost all respondents to our EV Survey 2023 reported higher total costs of ownership, with 64% reporting costs being two to three times more expensive when compared to the acquisition cost of a diesel vehicle. Higher cost differentials were reported for vehicles over 3.5 tonnes.
17. Not only are operators seeing higher vehicle acquisition costs, but they also must consider the cost of installation of charging stations at their depots and chargepoints at the homes of any driver that takes their company electric vehicle home (if they have off-street parking) as well as potential costs for increasing energy supply.
18. Volatile energy prices and sudden changes to plug-in vehicle and chargepoint grant schemes have been unhelpful for business case planning.
19. Operators also report higher costs of servicing EVs due to a shortage of qualified and experienced technicians and engineers.

EV Market and Acquiring an EV

20. Leasing and hiring of EVs is favoured by over half (52%) of operators, with just over a quarter (27%) purchasing EVs outright. Nine per cent opt for a mix of lease, hire and purchase, 8% use trial schemes and 4% make use of full grant funding.
21. It would be useful to amend the qualifying criteria for the 100% tax deductible annual investment allowance for capital spending in the year of expenditure, that was announced in the Spring Budget 2023, so that it includes vehicles acquired via leasing and hiring. We would also like to see the position on the usage of the allowance for investments in both buildings and equipment, including costs associated with increasing electricity supply at commercial vehicle premises, clarified so logistics businesses know whether it can be used to support operators transitioning to net zero.
22. Members report that the range of electric vehicles now available on the market is improving, however, the proportion of plug-in van and truck registrations are less than 1% of the total van parc and only 0.2% of all HGVs in the UK.
23. Car-derived vans have been available on the UK market for the longest period, but vans between 2.5t and 3.5t have been slower to come to market.
24. The Category B Derogation proving an additional weight allowance for operating Alternatively Fuelled Vehicles (AFVs) up to 4.25 tonnes on a standard licence (rather than up to 3.5 tonnes) to ensure no loss of payload from using an AFV was warmly welcomed by Logistics UK and industry, as was the announcement in June 2022 that the derogation would be made permanent. However, some elements of the derogation have proved challenging for operators to take advantage of. We want to see flexibility in the current compulsory five-hour classroom training and for towing to be permitted for these higher weight alternatively fuelled vehicles.
25. The delayed government response to the consultation reviewing the licence flexibility for alternatively fuelled vehicles has been unhelpful for manufacturers and operators and it risks a loss of momentum for operators seeking to utilise this welcome additional weight allowance.
26. To manage total costs of ownership, we are seeing operators retain EVs on their fleets for longer than conventional fossil fuelled vehicles. EVs have fewer moving parts and are therefore subject to less wear and tear; operators of smaller electric vans have also found that battery life expectancy has been better than anticipated and some operators are extending leases or retaining vehicles longer than current vehicle replacement cycles. However, it is too early to be certain that the same will yet apply to heavier electric vehicles.
27. Most vehicle replacement cycles for van operators are typically between five and seven years and with around a fifth (21%) of respondents to our EV Report 2023 introducing EVs into their fleet more than five years ago, this suggests the second-hand market is still quite immature for commercial electric vehicles. This reduced supply of electric vans and trucks will impact SMEs disproportionally as they traditionally rely on the second-hand vehicle market which is supplied from leasing and hiring companies and larger operators who tend to replace their vehicles in predetermined replacement cycles.

28. The changes to the eligibility criteria for the plug in chargepoint grant to include second hand vehicles was helpful, but for many small business owners who take they vehicle home, homeowners or occupiers of houses now no longer qualify for a home chargepoint grant.

29. The uptake of electric vans and trucks needs to increase considerably before there is a plentiful supply of second-hand vehicles.

Experience of using an EV

30. **C**ommercial fleet operators face a range of challenges about electrifying their fleets; the cost of increasing power supplies at depots to ensure adequate supplies to charge EV fleets, energy price volatility, energy security, adequacy of public charging infrastructure for use by commercial vehicles and vehicle acquisition and servicing, as well as managing the transition period using different vehicle technologies while still meeting customer expectations and remaining financially viable.

31. Our members have reported that the introduction of EVs into their fleets have produced a range of benefits including the positive reception from their drivers and colleagues, which has helped employee retention, and from customers, supporting repeat business; they enjoy a competitive advantage particularly when tendering for new business and operating an electric fleet is a visible demonstration of the company's green credentials to potential recruits and the wider public, who often respond warmly, something which takes many drivers by surprise, as sadly they are more used to negative interactions from the general public. Drivers who take their vehicle home are also pleased not to disturb neighbours if setting out early in the morning.

32. Electrification of commercial vehicle fleets are a key element of meeting Scope 1, 2 and 3 reporting standards and supports Corporate Social Responsibility (CSR) and Environmental Social Governance (ESG) policies and objectives.

33. 29% of respondents to our EV Report 2023 reported significant issues with servicing and maintenance of electric vehicles, which aligns with the industry-wide issue of a shortage of trained technicians for all types of commercial vehicles. Where problems are experienced, it can disrupt the business operations, with vehicles off the road for long periods.

34. Those operators who outsource servicing of EVs to dealers and third parties, report increased costs of servicing, despite the service times being shorter than a conventional internal combustion engine vehicle. Reasons suggested included the use of specialised EV technicians attracting higher hourly labour rates and the shortage of technicians with these skills.

35. Operators of large fleets are more likely to service and maintain their vehicles in-house and train their own technicians.

36. Logistics UK was pleased to see the response to the April 2021 Consumer Experience at Public Chargepoints consultation published and that our calls for a consistent and uniform approach to pricing, systems and chargepoint operation across the country, adopting the Open Chargepoint Interface Protocol (OCPI), providing 24/7 free helplines for all public chargepoints and for roaming systems to be in place from all chargepoint operators have been heeded.

37. In our response we also called for a pragmatic approached to setting high reliability standards to avoid disruption of widespread and continued roll out of public chargepoints.

38. While a pragmatic timetable for achieving high reliability standards has been set out in the response, the almost two-year delay since the consultation was first published was very disappointing and has certainly contributed to very poor maintenance of the existing public chargepoint network and diminishing confidence that the public chargepoint network will be available when and where it will be needed to be used by electric vehicle drivers.

39. There is a higher rate of van drivers living in areas of low affluence which can result in limited off-street parking for those living in multi-occupancy buildings, flats, or even houses. If there are no suitable public chargepoints available near where these drivers live this may result in those drivers having to continue for longer with a fossil fuel vehicle.

40. We are also hearing reports of new developments refusing permission for vans of any kind to be parked on driveways, parking areas or roads within the new development. The reason behind this trend is not yet known, but any restrictions on van parking could have a negative impact on the employment choices of residents in these areas, occupiers of home buying schemes and could affect small business owners, who are more likely to keep a single vehicle for personal and business use, thus restricting their access to chargepoints being installed at or near their homes.

41. Total cost of ownership of an electric van is generally regarded as cheaper over its lifetime than an equivalent diesel or petrol van. However, increased costs of acquisition and servicing, volatile energy prices and sudden changes to

grant funding in recent years have made budget management more challenging and been problematic for business case development.

42. As supply of electric vans and trucks improves, we would hope to see prices of commercial electric vehicles become more competitive to support the business case to electrify fleets.

43. As mentioned in our response above (paragraphs 31 & 32) adopters of EVs into their commercial vehicle fleets would expect to see other benefits including improved employee retention, easier recruitment, more business won and retained and better customer satisfaction.

End of Life disposal of EVs

44. Operators who own large commercial fleets will mainly expect to sell on older vehicles to the second-hand market, however, some have trialled the use of old batteries that can no longer support sufficient charge to provide adequate mileage range in smart battery storage arrangements, subject to suitable space being available at their premises. These storage arrangements can help to store charge from the energy supply during times when energy demand is lower and cheaper ready to charge vehicles when they return to the depot. This is helpful for those depots where energy is constrained and can help operators avoid the cost of increasing power supply from their Distribution Network Operators (DNO).

National and regional issues

45. Our members have voiced concerns about National Grid's ability to grow its resources and to make strategic decisions about national priorities for power upgrades to support strategic industries and the strategic power network required for logistics services. For rural areas in particular, electric power upgrades may not be possible where high-voltage network power supply is limited, for example in Wales and across the Pennines.

46. For private cars, a domestic electricity supply will usually be adequate to charge one or two cars on a slow to fast charger overnight, without additional electricity capacity being necessary. The same applies for most vans that are taken home by the driver and charged overnight, using either a domestic supply or on-street residential chargepoints, if the space is large enough. The smallest car-derived electric van batteries start at 20kWh.

47. However, HGVs will require batteries with capacities of up to, or even beyond, 600kWh, meaning that a greater power supply will be required to charge these bigger vehicles. The government's Zero Emission Road Freight Battery and Hydrogen Demonstration trial requires applicants to be able to provide a 'theoretical capability of charging vehicles at around 1MW DC peak'.

48. The DNOs need to have a greater understanding of logistics operators' electrification plans plus the locations and timetables they are working towards to ensure the network will be able to co-ordinate power requirements in time to meet fleet electrification plans.

49. Transparency on available grid capacity and a common service agreement amongst DNOs is vital to support the logistics sector electrify their depots and fleets.

50. Fleet operators will require clear information in plain language from the DNOs to guide them through the process of increasing electricity supply.

51. Access to kerbside can be in high demand from a range of road users, not just those seeking to charge electric vehicles and the needs of charging vehicles must be balanced with other road users, including delivery and servicing vehicles. Local Authorities have been given responsibilities and targets to increase public chargepoint provision, however, the approach to installing public on-street chargepoints can vary between authorities. Any person or organisation (other than a Statutory Undertaker or the Highway Authority) wishing to install an item on the highway must seek permission under *Section 115 of the Highways Act 1980*[2]. In the recent BBC television programme '*Electric Vehicles – what they really mean for you*'[3] a chargepoint operator stated that 'some' local authorities ask for a section 115 permit for each charger, which is very bureaucratic and can delay agreed installations.

52. Vehicles operating in rural areas tend to travel longer distances with fewer deliveries, collections and servicing on a shift than in urban areas. Areas with lower population densities will tend to have fewer public chargepoints on average. Higher mileage and lower availability of public chargepoints mean that route planning can be more challenging to deploy electric vehicles in rural areas.

[2] https://www.legislation.gov.uk/ukpga/1980/66/section/115E
[3] https://www.bbc.co.uk/iplayer/episode/p0fzlswg/what-they-really-mean-for-you-series-1-1-electric-cars

53. In very rural and remote areas, electricity supply may be more constrained and power uplifts come with a higher price tag than areas with more abundant supply.

54. Some business activities such as forestry, mining, quarrying and farming usually take place in rural and remote areas, often off-grid altogether, making vehicle electrification even more challenging. These are the sectors for which low carbon fuels may be the only solution for decreasing GHG vehicle emissions in the short to medium term. Some types of low carbon fuels, such as hydrotreated vegetable oil (HVO) and biofuels, can be used by conventionally fuelled vehicles with little or no modification and according to a report by Zemo Partnership entitled *Market opportunities to decarbonise heavy duty vehicles using high blend renewable fuels*[4] can achieve more than 80% GHG emission savings.

55. Clean air zones and areas where vehicle emissions are restricted are usually found in towns and cities with objectives to improve air quality, so where feasible, commercial operators will use their zero and low emission vehicles in these areas, using older diesel and petrol vehicles for operations where there are no or less stringent vehicle restrictions.

56. Local authorities have a vital role to play in helping to deliver the roll out of the public chargepoint network, supporting energy infrastructure development in conjunction with the DNOs and through their remit for managing and scrutinising planning applications.

57. The Local EV Infrastructure (LEVI) funding announced in February 2023 was a welcome acknowledgement of local authorities' need of specialist knowledge to deliver EV charging infrastructure. It is vital that this knowledge is developed quickly and embedded across key departments within local authorities to allow for better decision making, especially where infrastructure crosses administrative boundaries and to avoid perverse outcomes that hinder desirable decarbonisation outcomes.

58. Commercial businesses, many of whom may have assets that can be utilised to augment energy supply through the use of solar and wind installations, must be encouraged and supported by planning authorities to make maximum use these technologies to relieve pressure on energy networks and provide greater energy security for their operations and potentially for local energy networks.

59. Government can support local authorities by:

    - Developing an EV charging and refuelling infrastructure roadmap, designed in collaboration with business to work for logistics vehicles, backed with clear guidance and incentives for local authorities.
    - Setting a clear government priority for an immediate uplift in the number of public chargepoints that can be used by battery electric vans, and recognising the future needs of battery electric trucks, that leads to a significantly accelerated roll out of public charging infrastructure that is fully accessible to commercial vehicles, with clear milestones for minimum levels of suitable chargepoint provision across the country.
    - Facilitating a centralised and standardised public chargepoint system operating to high reliability standards providing live availability updates and information about chargepoint space size and suitability for use by large electric vans will be available now and for electric trucks in the future.

International perspectives

60. The cost of electricity in the UK is one of the highest in Europe which impacts total costs of ownership for electric vehicles and competitiveness for UK operators.

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[4] https://www.zemo.org.uk/work-with-us/fuels/projects/2020-high-blend-biofuels.htm