Infrastructure for zero emission heavy goods vehicles and coaches call for evidence

Summary

- Access to charging and refuelling infrastructure will be a critical enabler for the logistics sector to decarbonise.
- The infrastructure strategy must consider the different segments of HGV vehicles broken down into urban, inter-urban/regional and long-haul. This will help determine the short, medium, and long-term actions needed to develop the required infrastructure.
- The sector needs a greater say on the plans for energy infrastructure development to give businesses the confidence to invest in the transition to zero tailpipe emission HGVs at pace.
- The government should carefully consider the work being undertaken by the Freight Energy Forum and other stakeholders to determine where energy infrastructure for HGVs will be needed, as part of the development of the forthcoming strategy.
- As the infrastructure for zero tailpipe emission HGVs is considered, this must also include the infrastructure needed to enable the logistics industry to fully utilise low cardon fuels.
- The grid must be urgently upgraded in order to accommodate the additional demand for HGV charging or refuelling infrastructure. Focus needs to be on transport hubs and the road network utilised by HGV fleets, alongside consideration for vehicle use in rural or remote locations.

About Logistics UK

Logistics UK is one of the country's largest business groups, representing the entire logistics industry and supporting, shaping and standing up for safe and efficient logistics. Our membership of more than 20,000 includes global, national and regional businesses and SMEs spanning road, rail, inland waterways, sea and air as well as the buyers of freight services, such as retailers and manufacturers. As an organisation, we deliver services, representation and thought leadership, helping members and policy makers to seize new opportunities for the sector and the economy as a whole, right across the country.

Consultation response

Logistics UK welcomes the opportunity to comment on the relevant sections of the infrastructure for zero emission HGVs and coaches call for evidence.

The logistics sector is embracing the decarbonisation agenda and is committed to playing its part to help the UK achieve net zero, including some of our members who have set their own net zero targets ahead of 2050. However, our members are raising urgent questions over the energy infrastructure required to support a fair transition to a green economy, which is inhibiting private sector investment into decarbonisation technologies.

Early adopting businesses need support now with the higher costs associated with operating zero tailpipe emission vehicles. These early adopters are vital for helping the sector understand these new technologies, but this comes at a higher cost to acquire vehicles, install infrastructure, and adapt to the changing skills and operating models that are needed.

For the longer term, the sector needs a greater say on the plans for energy infrastructure development to give businesses the confidence to invest in the transition at pace. The recently allocated zero emission HGV and infrastructure demonstrator programme (ZEHID) involving around 310 battery electric vehicles and 60 hydrogen fuel cell HGVs, as well as up to seven refuelling sites and more than 50 battery electric charging sites will ultimately help provide clarity about which vehicle and energy technologies are most appropriate for various use cases, but the results will not be reported in full until at least 2030.

While it is recognised battery electric HGVs are likely to be a dominant solution for many HGV vehicle categories, there is far more uncertainty around heavier, long-haul HGVs and those with particular use cases where range or power

availability is important. For this reason, the forthcoming infrastructure strategy must consider the different segments of HGVs broken down into urban, inter-urban/regional and long-haul. Currently, technology development and evidence point to the first two of these predominantly being battery electric (with possible use case exceptions). For long-haul HGVs predicting the energy infrastructure requirements is significantly more difficult. As such, an approach of considering the different HGV segments will help determine the actions in the infrastructure strategy that are required in the short, medium, and long-term.

The government should also carefully consider the work being undertaken by the Freight Energy Forum and other stakeholders to determine where energy infrastructure for HGVs will be needed, as part of the development of the forthcoming strategy.

Our members feel strongly that low carbon transitional fuels will be a necessary element of HGV fleet decarbonisation until vehicle manufacturers can bring appropriate zero tailpipe emission HGVs to market and the infrastructure and acquisition costs can support their adoption at scale. To be operationally viable, our members need zero tailpipe emission HGVs to be on par with diesel in terms of payload, range and performance.

It is critical that the low carbon fuels strategy is published as a matter of urgency. Included in that strategy must be clear direction and support from government for low carbon fuels, especially for specialist vehicle applications. As the infrastructure for zero tailpipe emission HGVs is considered, this must also consider the infrastructure needed to enable the logistics industry to fully utilise low carbon fuels.

The forthcoming strategy must also consider the other keys to a successful decarbonisation of the heavy road freight sector:

- Development of an electricity generation roadmap with expected milestones showing the incremental percentages of registered vehicles that are likely to move to electric to ensure sufficient supply margin as more vehicles rely on the National Grid.
- A fair and equitable approach for funding electricity asset extensions to enable the expansion of depot charging for electric vehicles, including through the tax system and the plug-in grant being available to fund connections and charging infrastructure.
- Understanding how different technologies perform during trials for operators uncertain about which technology or mix of technologies will be appropriate for their business operations.
- Reforms to planning to enable the installation of charging infrastructure at depots and points of delivery.
- Transparency on available grid capacity to help inform investment decisions, together with distribution network operators (DNOs) adopting common approaches to costs and service agreements, as well as increasing their own capacity and accepting load balancing options.
- This should consider provision for rural, remote or off-grid located businesses to ensure provision does not only follow existing connections and arterial routes.
- The qualifying criteria for the 100% tax deductible annual investment allowance for capital spending in the year of expenditure to be amended, to include vehicles acquired via leasing or hiring, and clarify the usage of the allowance to investments in both buildings and equipment, including costs associated with increasing electricity supply at commercial vehicle premises to support the transition to net zero logistics and increased productivity.
- Sudden changes to plug-in vehicle and chargepoint grant schemes to be avoided where possible to support better business planning and provide certainty for operators.
- Electric charging and refuelling infrastructure roadmap designed with businesses to work for logistics vehicles, backed with clear guidance and incentives for local authorities. This includes chargepoints designed with sufficient space for logistics vehicles and fast charging points to enable operators to maximise the efficiency of fleets.
- Ensuring that the roll out and installation of the public chargepoint network recognises the future needs of battery electric trucks, alongside incentives to help reduce the cost of electricity at public charging points and ensure better alignment of costs with depot and domestic electricity supply.
- Centralised and standardised public chargepoint system operating to high reliability standards providing live availability updates and information about chargepoint space size, capacity and suitability for use by electric commercial vans that is future-proofed to include the needs of electric trucks in the future.

While outside the scope of the call for evidence it is important to note that current technology options present challenges with payload due to the weight and size of batteries, or other zero emission fuel, and it is therefore critical that regulatory changes are made to limit this impact as far as possible. An urgent and fundamental reform of road vehicle weight thresholds is required to ensure that the industry can avoid putting additional vehicles on the road to deliver the same quantities of goods to customers and thus maintain a competitive and efficient service.

Responses to relevant questions

1. What is your name and email address?

Denise Beedell, Senior Policy Manager
dbeedell@logistics.org.uk

2. Are you responding on behalf of an organisation?

Yes

3. If you are responding on behalf of an organisation, what is the name of the organisation?

Logistics UK www.logistics.org.uk

What we represent

Logistics is a sector delivering an increasingly safe, sustainable and efficient system of national infrastructure – creating opportunities across the UK and linking the UK to the global trade network. Spanning land, water and air, it delivers for everyone, everywhere, every day.

- Logistics delivers big public value on small margins, ensuring the availability of the products households, businesses and public services rely on. It moves goods more than 200 billion tonne-km within the UK per year and enables the trade of more than £1 trillion of goods, while working hard to avoid adding pressure to the cost of living. This is a challenge with fuel and energy costs at a historic high and restrictions on logistics growing.

- The sector delivers smart, green, resilient growth and jobs. It contributes £163 billion to the economy each year (12% of UK non-financial GVA), employs 2.7 million people (8.2% of the UK workforce), pays £5 billion in revenue to Treasury through Vehicle Excise Duty (VED) and Fuel Duty, in addition to other taxes. It is becoming ever more innovative and integrated – within businesses and between logistics sites and transport modes. Its key hubs provide a catalyst for further growth and investment, helping places to thrive.

- Logistics delivers for the future, as an essential system for growth. It underpins the whole economy, with an economic footprint three times larger than its direct GVA contribution, with the public sector and other private sector businesses spending 15% of their total input-related spending on logistics services per year.

Current zero emission HGV market

7. Based on your knowledge and understanding of HGV and road freight operations, what vehicle capabilities will be needed for zero emission HGVs to meet existing and future business needs?

Zero tailpipe emission HGVs will need to be able to replace diesel HGVs on a like for like basis, with the same load carrying capacity, mileage range and performance, as well as handle geographical and adverse weather conditions at least as effectively.

Zero tailpipe emission HGVs will need to be recharged or refuelled within similar timeframes to diesel in order to ensure vehicles can still carry out the same number of shifts. Failure to achieve parity with diesel would require additional vehicles being added to fleets which would result in increased operator costs, increased greenhouse gas (GHG) emissions on a lifecycle basis and a detrimental impact on UK roads and infrastructure.

Given there is limited knowledge of how zero tailpipe emission HGVs will perform across the numerous use cases where HGVs are currently deployed, particularly in the heaviest gross vehicle weight (GVW) categories, the findings of the ZEHID projects will play a vital role in informing the sector and helping with fleet decarbonisation planning. The interim findings of these projects must be shared with the industry quickly to aid understanding of these issues.

From the information currently available it seems likely that battery electric HGVs will be used for shorter and urban duty cycles, at least in the short to medium term as current battery technology suggests the payload and mileage range required will be more compatible with this type of activity and we would expect to see public charging for HGVs develop in urban locations first. This also looks likely for HGVs used for inter-urban/regional HGVs.

For long-haul duty cycles, there is far more uncertainty. Some operators are interested in hydrogen HGVs which may be more viable as this technology offers mileage ranges that are closer to conventional diesel trucks. While the energy intensity needed to produce hydrogen is a concern, it seems likely hydrogen will be used for some vehicle categories.

One set of analysis carried out by McKinsey in 2022 estimates that 'by 2035, as many as 850,000 hydrogen-fuelled medium and heavy-duty trucks could be on European roads'[1], which is almost 15% of the market.

However, at present, there are no hydrogen fuelled HGV prototypes available to pilot, although it is anticipated by our members that they will begin to enter the market in 2025 and at this point, some operators will look for opportunities to test these new vehicles. This is heavily reliant on having a network of hydrogen refuelling stations to make the most of the vehicle range and cover longer routes than is currently possible with battery electric HGVs.

Other technologies such as Electric Road Systems remain of interest and Logistics UK note that these are being trialled on the continent. Battery swapping does not appear to be currently under consideration by vehicle manufacturers although there are some interesting developments in China.

At present, there is currently no proven zero tailpipe emission HGV technology that is capable of supporting all heavy, long-distance journeys. As such, our members see a significant role for low carbon fuels for the foreseeable future for these vehicles until such technology is fully developed and can be supported with the required infrastructure for this size of vehicle.

All these factors are important to consider as logistics operators need to maintain high levels of efficiency within their business models.

12. What is needed from infrastructure across the UK to support the adoption of zero emission HGVs in the UK, in and out of mainland Europe and Ireland?

Fuel supply
Before zero tailpipe emission HGV fleets can decarbonise at scale, operators need to have confidence that adequate sustainably produced power and fuel supplies will be available and that a national network of recharging and refuelling facilities will be located near to the routes used by HGVs.

In the same way that some operators currently bunker fuels to refuel their vehicles at their operating centres, some operators expect to be undertaking their primary vehicle charging at their depots with any required supplemental charging being undertaken either at their destination or en route. In this instance, ensuring sufficient power supply is available at their operations centres and depots is a significant concern. The current process for obtaining increased power connections to depots is difficult for operators to navigate. The costs involved can be over £1million for increasing energy supply to depots of large fleets of vans, and when scaled up with HGV depots in mind, will be many times more costly. Modelling undertaken by the Port of Dover, suggests that the cost of installing adequate power supplies for port operations and to recharge all vessels using the port will be in excess of £93million.

However, not all operators see themselves relying on depot charging due to supply and cost of land, meaning they will be reliant on charging at offsite hubs or public charge points. While this approach will reduce the capital expenditure required to scale fleets, access to charging infrastructure will be a critical enabler for the logistics sector to decarbonise.

Hydrogen
It is possible that no single zero tailpipe emission technology will meet the needs of the HGV sector in the future and other zero emission fuels, such as hydrogen, have the potential to play a part in decarbonising the sector. To do this a national network of renewably produced hydrogen refuelling stations would need to be established. However, given the nature of hydrogen, refuelling hubs are likely to be predominantly public as they will need to be in locations that enable hydrogen to be brought to the site and it is unlikely operators will have the resources required to deploy hydrogen in depot refuelling hubs.

Currently, the UK has limited availability of hydrogen that is suitable for use in transport. However, some major European HGV and coach manufacturers have plans to develop hydrogen fuel-cell vehicles. This must therefore be considered as part of the future mix of zero tailpipe emission technologies for HGVs in the future.

It is crucial that any uptake of hydrogen-powered technology is supported by a network of green or blue hydrogen filling stations. It would be counterproductive to roll out vehicles which are refuelling with non-renewable hydrogen as this would result in increased lifecycle greenhouse gas (GHG) emissions. Any future policy decisions must consider the well-to-wheel GHG emissions and not just those from the tailpipe.

[1] Unlocking hydrogen's power for long-haul freight transport, McKinsey, 2022.

Public truck and coach charging/refuelling
It's vital that the government ensures that the grid is urgently upgraded in order to accommodate the additional demand for HGV charging or refuelling infrastructure. Focus needs to be on transport hubs and the road network utilised by HGV fleets, alongside consideration for vehicle use in rural or remote locations. Our members are concerned that the grid will not be able to cope with the additional demand required for HGV charging and refuelling. To provide reassurance to the sector, the government's plans and timescales for ensuring the grid will be upgraded to meet this demand must be communicated through the forthcoming strategy and other work with the industry.

For public charging, operators need to know that the chargepoints will supply adequate power, be in working order and accessible to commercial vehicles, and operate to internationally adopted standards for all heavy vehicles that are allowed for use on UK roads.

Trucks have many reasons to move off the public highway. For example, when they are being loaded and unloaded, for drivers to take their rest breaks and while they are waiting to access ports, railheads and airports. However, not all stopping places will be able to provide adequate electricity or have the space for charging HGVs.

While vehicles can spend time on port land to load and unload, the energy capacity requirement of the port's own operations and for electrified vessels leaving and entering the ports will be insufficient to cater for the needs of visiting trucks.

The location of public truck charging needs to be carefully planned to ensure it is located where HGVs and coaches will be able to stop safely and securely. There is currently no map available to show the location of EV chargers suitable for HGV access. The government needs to ensure this is in place so operators can easily identify sites where they can charge, what the kWh tariff will be and what the technical specification of the chargers will be. This needs to incorporate chargers funded under ZEHID but also any privately funded public access sites.

A single network wide software solution is also needed to enable booking charger slots across multiple providers' networks. This software should have the capability to indicate charger availability and charging capacity, as well as enable advanced booking to limit range anxiety for drivers and provide assurance for operational planning.

Under current HGV driver regulations, regular rest breaks must be taken to ensure the driver is fully rested and safe to drive a heavy vehicle on the public highway. The rules are very clear that the driver must not undertake any work during these rest periods. There will need to be clear guidance for drivers about how they manage vehicle charging to avoid contravening the drivers' rest breaks regulations.

The roll out of adequate recharging and refuelling provision for zero tailpipe emission HGVs and coaches provides an excellent opportunity to address the poor standard of current welfare provision for truck drivers, while ensuring good quality charging infrastructure, increase security to reduce crime, and upgrade the standard of driver hospitality provision on offer. Coach operators will want to ensure that disembarking passengers have good quality rest places and the vehicles are secure and the coach passengers would not tolerate the poor standard of welfare provision that has to be used by truck drivers. Logistics workers, like workers in any sector, need quality, secure and hygienic rest facilities.

MSAs and dedicated truck parks will be a key part of the public charging network for HGVs and they must be required to ensure high and consistent standards of operation and maintenance of HGV chargepoints to avoid issues with plugging in and charging that could compromise driver's rest breaks

Cost of charging
Our members are keen to see more transparency around the electricity costs of charging an HGV at a public chargepoint as anecdotally, they are seeing rates that are two to three times the cost of depot charging. To support private, semi-public and public charging, incentives are required in the short-term to improve the commercial case for investment in infrastructure.

13. Who should provide this infrastructure?
Energy Supply and Plans
Logistics UK would expect energy infrastructure to continue to be owned and operated by the private sector, but where market failure becomes apparent, we would expect the government to intervene to ensure all parts of the UK are able to access adequate supplies of energy to transition to net zero. Areas where this may be required will mainly be rural and remote areas, but it is incumbent on the energy suppliers to produce tools which show clearly where power supplies are abundant and where they are constrained.

A clear roadmap for how electricity supply will be provided across the country with a timetable for key milestone targets is essential with transparency on available grid capacity to help inform business decisions, together with DNOs adopting common approaches to costs and service agreements, as well as increasing their own capacity and accepting load balancing options.

Depot energy supply
To support the freight sector, a fair and equitable approach for funding electricity asset extensions to enable the expansion of depot charging for electric vehicles must be found, including through the tax system and the plug-in grant being available to fund connections and charging infrastructure.

Operators bear the cost of replacing current fleets with new zero tailpipe emission vehicles, which are currently three to four times more expensive to acquire than conventionally fuelled vehicles, and this is compounded by installing new charging or refuelling equipment at their depots. The government needs to consider what additional financial support it can provide for operators to offset the significant investment required to switch to zero emission vehicle technologies. Funding for vehicles and infrastructure under the ZEHID project is very welcome but this currently only benefits the small number of operators involved in the demonstration projects. There needs to be a support plan in place which is available to all HGV operators to help with the transition to net zero, until such time as the market develops and costs reduce.

Where depot charging is used by operators, they may also have to pay to increase power supplies, costs which under current rules cannot be offset against tax liabilities, or amortised through their balance sheets because these are not owned assets. If they rent or lease their premises, they cannot retain any benefit if they leave and we hear reports of some landlords removing the additional power supply infrastructure after the company vacates the premises. Installed power and charging infrastructure must remain after a tenant vacates a property and landlords should be compelled to either retain installed equipment or replace it with more up to date versions.

Logistics UK believes the fully expensed capital allowances criteria could be considered to offset the costs of increasing power supplies at depots to support operators electrify their fleets and manage the wider costs of decarbonisation.

Some operators bunker diesel fuel at depots and operating centres to secure fuel supplies for their fleets. With good maintenance, fuel bunkers can be expected to last for up to two decades before replacements are required. By contrast, chargepoint equipment is currently not expected to be used for more than a few years before it either breaks or becomes obsolete distorting total cost of ownership (TCO) calculations.

There needs to be greater recognition that relocation of an HGV depot is a last resort for operators. Availability of logistics land has been diminishing over many decades with HGV depots pushed to the outer reaches of most towns and cities. Finding alternative premises, with good access to the strategic road network (SRN) and in reach of customers, as well as adequate existing and future power supplies can be challenging.

The current planning regulations are often cited by members as a barrier to installing charging infrastructure at depots and Logistics UK wants to see reforms to the system to speed up the planning process and minimise restrictions.

However, not all operators see themselves relying on depot charging due to supply and cost of land, meaning they will be reliant on charging at offsite hubs or public charge points. While this approach will reduce the capital expenditure required to scale fleets, access to charging infrastructure will be a critical enabler for the logistics sector to decarbonise.

Public Charging
Private sector providers are already rolling out more public charging points, and the government's Rapid Charging Fund was welcomed by Logistics UK to encourage installation of more rapid chargepoints at motorway service areas (MSAs). However, much of the fund has been aimed at car and vans and government must do more to ensure that adequate charging is planned for and available for use by HGV fleet operators. It is imperative that government does more to ensure public charging will be ready to meet the demand of zero tailpipe emission HGVs so that operators have the confidence to decarbonise their fleets and to avoid inhibiting widespread deployment of these vehicles.

Local Authorities have a key role to play in safeguarding appropriate land that can be used for commercial vehicle public charging. As with installation of charging infrastructure at depots, the planning system can work against decarbonisation plans for public chargepoints making reform essential to ensure HGV chargepoints are installed in an appropriate and timely manner.

14. What implications do you foresee the transition to zero emission HGVs having on existing HGV operations?

The experience of van operators suggest that like for like replacement of diesel vehicles is some way off and according to Logistics UK's Electric Vehicle Survey 2023, established EV operators tailor their operations to fit the capability of their electric vehicles.

Operators are still learning about new zero tailpipe emission technologies and whole HGV fleet transitions are unlikely for many years.

The cost of energy supply and vehicle acquisition will be a key factor in the pace of the conversion of fleets. As the phase out deadlines draw closer, demand for energy supply uplifts will increase and there are concerns whether the energy sector will be able to deliver the additional power requirements in time. It already takes around 18 months to plan for increased energy supply at an operating centre; as demand increases, we are concerned that this application-to-installation period will lengthen, which in turn will impact on operators' decarbonisation plans.

In the long term, replacing fleets to battery electric is reliant on the buildout of infrastructure with electricity rates below that of diesel to achieve total cost ownership parity with diesel HGVs for operators. Without this, the cost implications are significant for businesses. According to the report by the Green Finance Initiative, *Delivering Net Zero: Unlocking Public and Private Capital for Zero Emission Trucks*, a battery electric truck costs on average two to three times the diesel equivalent, and a fuel cell electric truck three to five times.

Pressure will increase on transport managers as they manage old and new fuel and vehicle technologies across their operations. This could impact on recruitment and retention into the logistics sector, so it is vital that training and qualifications for the sector are regularly reviewed to remain relevant and ensure there is greater availability of trained zero tailpipe emission vehicle technicians and engineers as decarbonisation progresses.

Without appropriate levels of fiscal support for operators to manage the additional costs of decarbonisation, especially until a wide range of zero tailpipe emission vehicles reach the market at scale and the process for obtaining power uplifts is streamlined and better understood, logistics operators will have to pass on costs to customers. This will be extremely difficult given the current pressure on businesses to keep prices low due to the cost of living crisis, so any uplift in charges is likely to be challenged.

Operators with small fleets of vehicles may decide to leave the industry rather than adapt their fleets to the new zero tailpipe emission vehicle technologies.

There is a danger some operators will leave transitioning to zero tailpipe emission technologies to the last possible minute given the current uncertainties and to avoid additional costs.

ZEV Mandate for HGVs
While our members support ambitious targets, the current feedback from members is it is too early to set a ZEV Mandate on heavier vehicle categories. The final results of the ZEHID trials will not be published until 2030 and this is a better date to consider introducing a mandate, once it is clearer which zero tailpipe emission technologies will lead to effective freight operations. Any future mandate must be both evidence based and deliverable.

15. What behavioural changes might be needed to accommodate the transition to zero emissions?
In the long term, it is hoped that as battery technology progresses, greater mileage range and payload will be possible, reducing the time that HGVs will have to spend during a shift recharging the vehicle.

In the interim, operators that decide to transition to zero tailpipe emission HGVs quickly will have to reconsider operating models, perhaps using more vehicles to meet customer needs and increasing vehicle movements.

Before whole HGV fleets are decarbonised, operators will seek to deploy zero tailpipe emission HGVs where they can be used most efficiently, meaning the benefits of these vehicles may not be felt in rural and remote areas for some time.

Additional training will be required for fleet managers and drivers to improve awareness on zero tailpipe emission vehicle operation, charging and maintenance. Maintenance and repair services will need to be trained on zero tailpipe emission vehicle operation. To help adapt to this, the apprenticeship syllabus for engineers should be updated to reflect these new necessary skills and knowledge as currently they need to undergo further training.

Route planning systems will need to be adapted to zero tailpipe emission vehicles ranges, charging locations and charging down-time.

Consideration should also be given to HGV movements in certain geographical locations as a change of approach by local administrations may be helpful in encouraging the shift to zero tailpipe emission HGVs. Allowing these vehicles to enter towns and cities where conventional vehicles are restricted at certain times, such as with the London Lorry Control Scheme, will achieve air quality benefits as well as removing more vehicles from peak periods, reducing congestion at peak times and leading to more reliable journey times for other road users.

Transitional technologies

16. What role will transitional technologies (such as low carbon fuels, plug-in hybrid vehicles, hydrogen combustion) play as the UK's fleet shifts to fully zero emission HGVs?

Currently operators seeking to decarbonise operations quickly are turning to low carbon fuels to support this ambition. Low carbon fuels can provide a viable option for immediately reducing emissions from logistics by more than 80%, including where battery electric is not currently an option and given that many logistics vehicles have a long lifecycle. A report by Zemo Partnership entitled *Market opportunities to decarbonise heavy duty vehicles using high blend renewable fuels* concluded renewable fuels such as biomethane, biodiesel and hydrotreated vegetable oil (HVO) can achieve greenhouse gas emissions savings beyond 80%. Logistics UK supports the use of low carbon fuels to help those operators who wish to reduce their GHG emissions, until electric HGVs become a feasible solution.

The government does not currently consider low carbon fuels to provide a long-term solution and the sector recognises that other modes will require use of these type of transitional fuels for longer than road vehicles. However, while the aim of reaching net zero by 2050 is supported by our industry, operators are keen to reduce their emissions as soon as possible and see low carbon fuels as a valid method to achieve this more quickly than waiting for zero tailpipe emission vehicles to come to market at scale. In addition, it is likely that many conventional HGVs will be on the roads past 2050, and the sector needs an established way to minimise emissions from such vehicles.

Government's targets for vehicles are based on tailpipe emissions, so this does not take into account the other lifecycle emissions associated with battery or hydrogen production. Given the challenges of decarbonising HGVs, our members feel strongly that all fuels and technologies are considered on a well-to-wheel basis to help enable the transitional journey to net zero and reduce GHG emissions immediately. Low carbon fuels such as HVO and biomethane can offer GHG benefits on a par with electric and hydrogen vehicles when considered on a well-to-wheel basis, and in some cases provide greater benefits such as if the electricity or hydrogen is produced from non-renewable sources.

An area of particular concern to members are the changes to the Greenhouse Gas Protocol in respect of biomethane used in vehicles and vessels for the purposes of Scope 3 emissions reporting within IFRS S2. The proposal for location-based reporting is based on a misunderstanding that if biomethane is fed into the gas grid, the carbon benefit is published by Defra, and it would be double counting for transport users to report the carbon savings too. However, Defra's figures only take account of biomethane used for heating and not for transport use.

Zero emission HGV refuelling and recharging

21. Do you think that members of the HGV sector could benefit from working together to support their transition to zero emission, particularly in terms of infrastructure?

22. How do you think that members of the HGV sector could benefit from working together to support their transition to zero emission, particularly in terms of infrastructure? (Q21 & 22 answered jointly)

There is already evidence of operators collaborating and sharing information about their decarbonisation journeys.

However, whilst sharing learnings of fleet decarbonisation is well supported and much appreciated by other operators, the logistics sector is a competitive industry and considerations about commercially sensitive information must be respected.

Where operational methods allow, some operators of lighter vehicles are already using charging infrastructure at customer premises and for some these form part of contractual agreements.

Logistics UK regularly runs webinars and conferences featuring members who have already taken steps to decarbonise their fleet operations and who are happy to help other operators avoid some of the pitfalls. We also run

regular surveys and undertake research to monitor the progress and concerns of members working to decarbonise their fleet operations.

Logistics UK is an active member of Department for Transport's (DFTs) Freight Energy Forum and Transport Scotland's (TS) Zero Emission Truck Taskforce and we regularly engage with regional and sub-regional administrations to discuss the charging and refuelling needs of HGV operators. Our members have been active in many of these forums, either directly or through feedback given to Logistics UK.

Work is also being undertaken across the industry to help support further collaboration. For example, a new, open-source software called CHALET (Charging Location for Electric Trucks) has been designed to help private industry, governments, electricity network operators, and local authorities determine where electric charging points for heavy road vehicles should be built.

HGVs and coaches

36. Do you think that zero emission HGVs and zero emission coaches will have similar infrastructure requirements?

Battery electric HGVs will need charging facilities at the start and end of journeys, as well as enroute for those travelling longer distances, including near ports, and at terminals and depots, which may be different to the needs of coaches. However, it is likely that the technical requirements for recharging and refuelling coaches will be similar to those for HGVs, although for some types of HGVs, such as the very heavy HGVs above 40 tonnes, a greater power supply is likely to be required, beyond what a coach may require.

Access roads will be similar, requiring more turning space than cars and vans.

MSA Facilities
Space requirements at MSAs for HGVs and coaches are likely to be similar and both types will require rapid charging. Therefore, it is reasonable to expect the charging spaces to be located in similar areas of the MSA. Care will need to be taken to keep passengers leaving coaches away from moving HGVs. Both types of vehicles will require secure areas where vehicles can be left while charging.

The roll out of adequate recharging and refuelling provision for zero tailpipe emission HGVs and coaches provides an excellent opportunity to address the poor standard of current welfare provision for truck drivers, while ensuring good quality charging infrastructure, increase security to reduce crime, and upgrade the standard of hospitality provision on offer. Coach operators will want to ensure that disembarking passengers have good quality rest places, and the vehicles are secure. The coach passengers will not tolerate the poor standard of welfare provision that currently has to be used by truck drivers. Logistics workers, like workers in any sector, need quality, secure and hygienic rest facilities.

MSAs and dedicated truck parks will be a key part of the public charging network for HGVs and they must be required to ensure high and consistent standards of operation and maintenance of HGV chargepoints to avoid issues with plugging in and charging that could compromise driver's rest breaks

Denise Beedell, Senior Policy Manager, Logistics UK
dbeedell@logistics.org.uk