

# Consultation on the phase out of the sale of new, non-zero emission heavy goods vehicles

British Vehicle Rental and Leasing Association (BVRLA) members represent the demand-side of the automotive industry, buying around 50% of new vehicles, including over 80% of those manufactured and sold in the UK. In doing so, they support almost 500,000 jobs, add £7.6bn in tax revenues and contribute £49bn to the UK economy each year.

BVRLA members are responsible for over 100,000 heavy goods vehicles (HGVs) meaning they own, operate or manage 1 in 5 trucks on the UK's roads. BVRLA members recognise they have a crucial role to play in supporting the decarbonisation of road transport and we are grateful for the opportunity to share our views on when and how best to phase out the sale of new, non-zero emission heavy goods vehicles.

## Summary of BVRLA view

### Setting the phase out date

There is still a huge amount of uncertainty about which powertrain technology will work best and what infrastructure will be available to support the transition to zero-emission HGVs.

The huge variety of use cases will require a nuanced and studied approach to setting dates. As a minimum, the split between 2035 and 2040 phase out dates should occur at 18 tonnes not 26 tonnes and another earlier split at 7.5 tonnes should be considered.

There is a vast array of challenges in meeting any phase out date and it will require extensive collaboration and support from across Government (BEIS, DfT, Defra and HM Treasury) to meet them.

### Extending the phase out date to all non-zero emission HGVs

Low carbon fuels will support the sale of low carbon HGVs as infrastructure and technology becomes cheaper and more widespread. If the phase-out date is set too soon, operators will be reluctant to invest in these cleaner 'transition' technologies and will hold on to their older, more polluting vehicles before making the leap to zero emission HGVs. Alternative fuel HGVs should be supported to create immediate carbon reduction gains while zero emission product is not viable.

### Maximum permissible weights

There should be an increase to maximum permissible weights to cater for the additional weight and loss of payload when moving to zero-emission vehicles. A wider review of vehicle weights should be considered to prepare for a range of zero-emission technologies being used.

### Further engagement

It is critical that this phase out is achieved through collaboration. The BVRLA is keen to work with DfT on a delivery plan that would give much needed certainty to the sector. Such a plan would provide a mechanism to ensure vehicles are produced and infrastructure rolled-out in line with end user needs and that there is an ongoing process for review.

Government should set up a taskforce with a range of stakeholders, including end users, to work on developing recommendations for the delivery plan. This group should also have a role in identifying the challenges in reaching the phase out dates and in developing the solutions needed to overcome them.

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## Setting the phase out date

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### Proposed dates

We welcome the Government setting out its ambitions in the paper and believe that setting a phase out date will help to drive innovation and give operators some certainty in planning their future fleet cycles. This will only be possible if the technology available meets users' needs (payload, range, operating and whole life costs) and is accompanied by appropriate infrastructure.

It is imperative that the Government works with a broad range of stakeholders, including manufacturers, infrastructure providers and end users, to back up any date with a clear roadmap that all stakeholders are comfortable with. All use cases must be catered for. The roadmap should include commitments to regular periods of review to assess progress against it. Where needed, the reviews should be able to trigger additional targeted support to unlock barriers to meeting the deadline, including the roll-out of appropriate and affordable infrastructure.

### Splitting by weight category

When looking at setting the phase out dates, we do not think the current proposals cater for the range of use cases and would propose a more nuanced breakdown is needed.

Members do not agree that the split at 26 tonne recognises the diversity of ways in which the vehicles are used. One major leasing company we spoke to found that at 18 tonnes and over, 100% of its vehicles had significant power take-off (PTO) requirements.

PTO is a part of the gearbox that can harness power from the engine to make ancillary equipment work on the truck – including tail lifts, cranes, fridge motors, winches, lifting floors, refuse trailers, concrete mixers and many others. PTO power requirements will vary massively from one use case to another, but a single vehicle will commonly have multiple elements drawing power. For example, a plant lifting crane, landing legs, full CCTV, direct vision equipment, falls safety equipment and beacons that require power. All these power requirements will make decarbonising vehicles over 18 tonnes significantly more challenging in general.

As weights increase, the challenges and differentiation in uses only become more complex. For example, a 26 tonne chassis can be used for anything from parcel logistics to gritting, concrete mixing and refuse collection. It is essential that the usage of the vehicle is considered alongside its ability to refuel or charge. Refuse vehicles and concrete mixers present a useful contrast of use cases. For refuse vehicles there has been a lot of development in zero-emission options given how this can work for their journey profile. They have a regular route and base and can charge overnight. These factors allow for predictable ranges, power requirements and recharging opportunities.

In contrast, a concrete mixer will need to travel over variable terrain, both on the road network and “off road” in construction sites. It will have on board power requirements to continually rotate the concrete and has no set route or work pattern. All these make it a vastly more challenging prospect to decarbonise even if it is the same weight as the refuse vehicle.

Broadly, members view a split at 18 tonnes as more appropriate than 26. However, some members would like to see an additional earlier split at 7.5 tonnes to give even greater flexibility when considering use cases. Vehicles between 3.5 tonnes and 7.5 tonnes will have the most similar usage profiles and power requirements and can have their phase out dates most easily aligned. Between 7.5 tonnes and 18 tonnes greater analysis of usage is required before members can be committed to the same date. At 18 tonnes and beyond, for the reasons outlined above, our members believe the challenge becomes far more difficult and the latter of the dates is more appropriate.

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## Challenges and barriers

- **Ongoing uncertainty** - without clear direction on what technology is right for the different use cases/vehicle types it is unlikely we will see investment in the infrastructure to support the roll-out. People may be unwilling to trial and definitively invest in HGVs without knowing how and where they can charge/refuel them
- **Cost and functionality** - will be a significant barrier when a zero-emission HGV is hugely more expensive than an internal combustion engine (ICE) comparator and vastly less functional. Currently a leasing company will need to charge its customer more than double the monthly rental for a zero-emission 18 tonne HGV than an ICE equivalent, even with Plug-in Grant support and the acceptance that the range of the zero-emission vehicle (ZEV) is less than a quarter of the ICE option. This divergence in cost and functionality only becomes worse as weights and use case complexity increase. Members estimate that many applications will be at least five times more expensive for a company to run as ZEV. It is far from clear that vehicle manufacturers will be able to bring these costs down to a level that will make the total cost of ownership (TCO) work for members and their customers. As we have seen with the van market it can be exceptionally difficult to make a business case stack up for early adopters who will not only need to invest in the HGV but also the supporting infrastructure. It cost one member's customer over £1 million to install just six charge points. If firms and customers must carry these costs in the same way they do currently, the mass uptake of zero-emission HGVs within the ambitious timeframes proposed will not be possible. Refuelling with hydrogen or charging with electricity on a public network could also be cost prohibitive, especially if the investment needed to roll out the infrastructure is not heavily subsidised by Government or infrastructure providers.
- **Supply** – operators need assurances that there will be adequate supply and choice of vehicles that meet needs in terms of cost, usage, payload and range. Issues have already emerged in the van market where a limited range of vehicle options has led to a poor take-up of certain zero-emission vans. It is essential that we learn the lessons from the van transition and do not repeat the same mistakes where manufacturers provide vehicles which can only be used for a fraction of the applications that the ICE comparator is used for. A standardised measure which allows operators to assess and easily compare vehicle performance and credentials must also be adopted so operators can make the right investment decisions.
- **Availability and reliability of infrastructure** – we already see issues with the availability, accessibility and reliability of charge points for commercial vehicles. For heavier vehicles where their operation is more regulated this could present issues with driver's hours due to the time taken to charge. This could be especially problematic if limited or shoddy infrastructure creates queues to charge or the charge points are out of service. Issues with infrastructure will need to be overcome more quickly than with cars to provide confidence for operators to invest in zero-emission HGVs.
- **Infrastructure costs** - are a major concern that is currently holding back operators' ability to make the transition to zero-emission cars and vans. These concerns will be amplified when looking at the cost of infrastructure for HGVs. Costs are likely to be far higher due to larger batteries requiring higher power charging or creating new on-site refuelling infrastructure for hydrogen. It is expected that HGV depots will face grid upgrade costs more often and at higher levels given their requirements. The recent Ofgem proposals will not reduce the financial burden of installing sole use assets, which are expected to bear the majority of these costs. The need to create new refuelling infrastructure for hydrogen could also see costs quickly mount unless existing infrastructure can be adapted. Road transport needs to form part of integrated hydrogen thinking to ensure that infrastructure is located where operators need it most and where it can be generated cheaply and cleanly.

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- **Residual Values (RVs)** – these form a critical part of the TCO calculations which will support operators in making the switch to ZEVs. Operators plan their fleet cycles many years in advance and need to ensure they are not caught out by any sudden cliff edge that could render their assets worthless. Currently, members are concerned that RVs set for cars will not be realised three to four years in the future as the used market for this product is not yet tested. As RVs in the market fluctuate unpredictably this creates both concern and conservatism, pushing up prices for those looking to move into the technology. This period of poor data and uncertainty will last even longer with HGVs where fleet cycles are up to 12 years. The concern is that it could see first generation zero emission HGVs become obsolete and lose value as they are superseded by cheaper, more advanced technology. It is imperative that Government work to create confidence in ZEV HGV RVs and the used market long before any market failure occurs. A robust battery recycling industry is needed so that battery value at end of life can contribute to vehicle RV stability.
- **Alignment of policy** – it is critical that all government policy is aligned, and support is available for those looking to decarbonise as soon as possible. For example, the BVRLA is concerned that the Clean Air Zone (CAZ) standards of Euro VI for HGVs appears to be at odds with the Government’s ambitions to move to zero emission as quickly as possible. There are already programmes of support for CAZs, but these often exclude leasing and rental options. These options provide businesses with a fixed cost and more flexibility over ownership. Opening up support to leasing and rental would give operators the agility to opt for Euro VI and then move to ZEV HGVs as and when they become available. Instead, they are being encouraged to buy outright a more polluting vehicle that could be on their fleet for 10 years or more. It is also essential that the introduction of Zero-Emission Zones keep pace with technology and are not introduced ahead of the technology being widely available.
- **Avoiding unintended consequences** – it is imperative that the Government gets the decision on the phase out date right to avoid any unintended consequences. The biggest risk here is on the current adoption of low carbon alternative fuel vehicles. In-depth analysis of the possible ramifications of alternative fuel uptake on the proposed deadline should be conducted to ensure that near term carbon reductions are not put at risk.
- **Skills** – there are some significant knowledge gaps when it comes to evolving technologies and how these can best be deployed safely at operator’s sites, especially when involving hydrogen and high voltage equipment. As we look to roll-out zero-emission HGVs and infrastructure it will be essential that people have the appropriate skills to support, maintain and operate large zero-emission vehicles but also to ensure safe use and inspection of the supporting infrastructure. This upskilling will be both expensive and time consuming. The roadmap for delivery should include a skills roadmap for the sector and support to achieve it.
- **Weight derogations** – more clarity is required around weight derogations for alternatively fuelled vans and HGVs. If these derogations are to have a strong impact on the market there needs to be clearer signalling of their role and importance to all stakeholders. The current derogation of 3.5 tonne to 4.25 tonne was only set as a temporary measure and has been very poorly understood. This could mean people are unwilling to invest in technology that may become obsolete in the next few years. This certainty is also essential to protect residual values.

## Overcoming the barriers

- **R&D** – while the £20 million investment in freight trials is welcome, the trials appear to be focused on the heavier vehicles and those which do higher mileage. The trials must look across the wide and broadest range of technologies and use cases. When considering the lighter end of the market, where vehicles can transition the soonest, there is a notable absence of R&D trials. It is imperative that R&D helps to provide evidence to support the business case of operators who are looking to invest early

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in zero-emission HGVs. Further investment in R&D could also help identify where production costs could be reduced and support infrastructure roll-out by providing greater certainty about what technology will meet users' needs and where infrastructure might be best placed.

- **Delivery plan and taskforce** – the Government should look to produce an HGV delivery plan similar to that seen for the 2035 car/van phase out. To support this, the Government should set up a taskforce with a range of stakeholders, including end users, with a view to conducting a mapping exercise which would help identify current usage patterns, technology options and where infrastructure could be best placed to meet needs. It would also help identify where there are skills gaps and make recommendations of how these should best be plugged. The taskforce could also create a framework for private companies wishing to conduct their own ZEV HGV trials and guidance on how existing infrastructure could be adapted for future technology. For example, it could examine whether CNG storage could be redeveloped for the safe use of hydrogen.
- **Policy framework** – attention should be given to creating the right policy framework that will support the transition to zero-emission HGVs. Any delivery plan needs to be a collaboration across Government with coordination with the devolved administrations and local authorities to ensure consistency across the country. Without sufficient funding this transition will not happen. Local authorities will require clear guidance and assistance to ensure local measures, such as CAZs, are aligned with the overarching direction travel.
- **Grants and incentives** – need to be designed to stimulate the market and to make the move to zero-emission HGVs viable. In the same way as the BVRLA has called for an extension of grants for vans, we believe we will need to see a similar approach for HGVs. Strong incentives will be critical to stimulate demand. A review of the current Plug-In Grant will also be necessary to ensure these reflect the true cost of transition. For example, the current grant of £16,000 for 3.5 tonnes to 12 tonnes represents only 12% of the actual cost of moving from ICE to alternatively fuelled vehicles.
- **Funding for infrastructure** – in the [BVRLA's Van Plan](#) we have made a series of recommendations which would help drive down the cost of connections and installing infrastructure. These would all be broadly applicable to HGV depots where challenges will only be more severe than for vans. This support will be essential if we are to encourage operators to make the switch to zero-emission HGVs within the ambitious timeframes that have been proposed.
- **Skills** - there needs to be an urgent review undertaken which assesses what skills will be required to ensure the safe deployment of zero-emission HGVs and supporting infrastructure. This needs to consider the whole lifecycle of the vehicle and all its touchpoints to ensure there are people with the appropriate skills in place, for example able to work with high voltage and hydrogen technology safely, as operators begin to transition to zero-emission HGVs.
- **Weight Derogations** - need to be set permanently and clearly communicated.

## Extending the phase out dates to all non-zero emission HGVs

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The use of low carbon fuels has been instrumental in helping reduce emissions and should continue to be supported. Allowing the sale of low carbon HGVs will support operators in decarbonising as infrastructure and technology becomes cheaper and more widespread. The role of fuels where carbon capture/offsetting can be used must also be more fully developed.

The market requires certainty and customers who have currently invested in low carbon fuels must have clarity about their longevity. Low carbon fuels have required significant investment and changes in operating practices. Where people have invested this might make them reluctant to trial specific zero-emission technology options for fear of being caught out again by a cycle of obsolescence.

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## Maximum permissible weights

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We agree that the maximum permissible weights need to be amended to reflect the increased weight of zero-emission vehicles, which can be between 5-10% in some scenarios. This is particularly pertinent where payload will be affected which could lead to having to make additional journeys or additional vehicles having to be purchased, which would cause greater levels of congestion.

Some members have suggested increasing the limit to 46 tonnes as, in some cases, the vehicles are specifically designed to maximise the payload to ensure fewer journeys are required. If a move to zero-emission will increase the weight of these vehicles and the maximum permissible weight remains at 44 tonnes, this could force operators to increase the number of vehicles used and the number of trips taken.

When answering whether the weight limits should only be offset against additional weight due to the alternatively fuelled or zero-emission technology, we believe this raises a wider debate about the Gross Train Weight (GTW)/Gross Combination Weight (GCW) in the UK. There should be a wider review that is undertaken on GTW/GCW to drive a reduction in emissions which is linked to advancements in suspension and tyre technology so as not to impact the UK's roads.

## Further engagement

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The BVRLA is grateful for the opportunity to share its views on when to phase out the sale of new, non-zero emission heavy goods vehicles. Our members recognise the important role they have to play in helping decarbonise the transport sector. However, they have struggled to offer appropriate advice and guidance for those looking to decarbonise HGVs as there is still so much uncertainty. Whilst we believe that Government putting a stake in the ground in relation to the date is a positive step, this needs to be backed up by a strong delivery plan, with clear support measures, metrics and regular review.

We are very keen to work closely with DfT to produce this plan and to provide further use cases that will help ensure the phase out date and weight split is best placed for those who will be investing in the vehicles. To support this, a taskforce of a broad variety of stakeholders, including the BVRLA and other end users, should be convened as described in detail earlier in the consultation.

A phase out of the sale of new non-zero emission HGVs is achievable within the ambitious timeframes being considered, but it will require unprecedented collaboration, communication and drive across multiple sectors, market segments, government departments and industry.

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## About the BVRLA

The BVRLA represents over 970 companies engaged in vehicle rental, leasing and fleet management. Our membership is responsible for a combined fleet of four million cars, vans and trucks – one-in-ten of all vehicles on UK roads.

BVRLA members represent the demand-side of the automotive industry, buying around 50% of new vehicles, including over 80% of those manufactured and sold in the UK. In doing so, they support almost 500,000 jobs, add £7.6bn in tax revenues and contribute £49bn to the UK economy each year.

Together with our members, the association works with policymakers, public sector agencies, regulators, and other key stakeholders to ensure that road transport delivers environmental, social and economic benefits to everyone. BVRLA members are leading the charge to decarbonise road transport and are set to register 400,000 new battery electric cars and vans per year by 2025.

BVRLA membership provides customers with the reassurance that the company they are dealing with adheres to the highest standards of professionalism and fairness.

The association achieves this by reinforcing industry standards and regulatory compliance via its mandatory Codes of Conduct, inspection regime, government-approved Alternative Dispute Resolution service and an extensive range of learning and development programmes.

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