Consultation on a proposed new heavy goods vehicle CO2 emissions regulatory framework for the United Kingdom: Aldersgate Group response

March 2026

Introduction

The Aldersgate Group is an alliance of major businesses, academic institutions and civil society organisations, driving action for a competitive and environmentally sustainable UK economy.[1] Our corporate members represent all major sectors of the economy and include Associated British Ports, Aviva Investors, BT, the John Lewis Partnership, Michelin, Netflix, Nestlé, Siemens, SUEZ, Tesco and Willmott Dixon. Aldersgate Group members believe that ambitious environmental policies make clear economic sense for the UK, and we work closely with members when developing our independent policy positions.

Purpose of the consultation

The Department for Transport (DfT) is seeking views on the most appropriate future regulatory framework to support the transition to zero emission heavy goods vehicles (HGVs).

The consultation, including the full list of questions, is available here.

Questions

Part B: New regulation options for HGVs

2. What are your views on Option 1 regarding a strengthened and expanded CO_2 standard for HGVs?

Our members do not see an expanded CO_2 standard as the most effective option for incentivising the HGV transition. Incremental improvements in ICE HGV efficiency are expected due to ongoing measures such as reduced rolling resistance, improved aerodynamics, and idle-reduction technologies, although these gains are diminishing in scale. The end goal needs to be full technology change. Policy focus should therefore be on creating maximum clarity about how the transition will work, throughout the value chain. This includes both the phase-out trajectory for ICE vehicles and the role of low-carbon fuels in supporting residual ICE vehicles in reducing their emissions, noting that the latter will be in operation for many more decades.

The policy package must also place a strong emphasis on developing the infrastructure required to make zero-emission HGVs viable commercially and logistically. In particular, with the rapid expansion of AI and data centres, businesses are increasingly competing companies for grid capacity. This is creating constraints for organisations seeking to electrify their operations, which is a critical enabler of decarbonisation.

Maintaining high levels of logistics service is paramount for businesses. The policy framework must therefore be designed in a way that does not compromise service levels, while maintaining system resilience and supporting a transitional period in which hybrid

[1] Individual recommendations cannot be attributed to any single member and the Aldersgate Group takes full responsibility for the views expressed.

fleets are likely to operate. It must also reflect the high penetration of SME haulage businesses.

3. **What are your views on Option 2 regarding the introduction of a ZEV mandate limiting the sales of non-ZE HGVs?**

Aldersgate Group strongly supports full electrification as an end goal for the UK's HGV fleet: it is the solution delivering the lowest CO_2 emissions and lowest negative impact on air quality, as well as a quieter driving experience.

We are tentatively in favour of a sales mandate for BEV HGVs as part of a suite of interventions that could help deliver this outcome. Designed well, a mandate would offer clarity to all those in the value chain about the expected technology trajectory and enable fleet operators and users to plan their own transitions.

It is very important that any sales mandate learns from the progress of the BEV car mandate, while also recognising that the HGV market functions very differently from the car market. With the car mandate, manufacturers have pushed down prices substantially to stimulate consumer demand for electric vehicles. This has been beneficial from an environmental and overall market penetration perspective, but domestic manufacturers will reach a point at which further cost reductions are unfeasible commercially. There is a risk that the UK market becomes dominated by cheaper foreign imports, thus undermining the opportunity for domestic manufacturing and risking over-reliance on specific markets. In setting policy on a sales mandate for BEV HGVs, the government should make a deliberate choice about whether the priority is fast adoption of electric models (regardless of provenance) or supporting a domestic supply chain (which might come with higher costs).

In the case of HGVs, there is very limited room for manoeuvre among operators and customers on cost and price. All major logistics customers (e.g. retail, construction, film & TV) are keen to decarbonise that element of their operations. However, for products with narrow profit margins, any cost increases associated with this transition are likely to be passed on to customers. UK retailers are highly conscious of cost-of-living pressures and international competition and will therefore seek to minimise any increases in consumer prices, which makes this a challenging proposition.

Meanwhile, third party logistics providers operate on even narrower margins and are therefore not themselves able to absorb cost increases. 46% of HGVs are purchased outright, rather than leased or financed, which is a very different pattern from the car market.[2] This means that any mandate needs to be designed to align with vehicle availability and cost reductions, and not run ahead of those factors.

A mandate also needs to take into account the availability of charging infrastructure at depots and ports, as well as on motorways. Without sufficient infrastructure, companies are unlikely to purchase these vehicles, as operational barriers would make the business model uneconomic. At the moment, the expansion of charging infrastructure needed vastly outstrips the availability of grid connections. Grid connection delays of up to 7–8 years are common for depot charging, with upgrade costs ranging from £10 million to £65 million for distribution centres. Overall, an estimated £11–24bn investment is needed for depot charging infrastructure to support a zero-emission fleet transition.[3]

[2] Green Finance Institute, 2024: Delivering Net Zero
[3] Ibid.

The trajectory and end point for a mandate should be designed bottom up, factoring in practical constraints and the need to support logistics providers as a vital element of the UK economy. This needs to be balanced with the government's existing commitments to ICE sales phase-out dates in 2035 and 2040, and the benefits of maintaining a consistent message. If necessary, a ratchet mechanism could be considered as a way of balancing these factors (see section E).

On balance we believe that a mandate would be beneficial, but only if very carefully designed. It would also need to be supported by incentives (e.g. capital grants and tax relief) to support vehicle purchasing and supporting infrastructure. Overall, it should be presented as part of a full HGV transition package, rather than as an isolated measure.

4. **If you agree with using Option 2 as a future framework, should the ZE HGV mandate be accompanied by a CO_2 standard for non-ZE HGV vehicles?**

No.

5. **What are your views on Option 3 considering requirements for fleets to purchase or lease an increasing share of ZE HGVs?**

This option has potential benefits but also significant risks. Fleet operators have extremely limited financial headroom, creating a barrier to adoption of zero-emission HGVs if the costs do not reduce very significantly. Additional costs associated with BEV use include down-time requirements associated with charging (i.e. loss of vehicle utilisation) as well as costs of vehicles, electricity and charging infrastructure. In some cases, primarily for the heaviest loads, BEVs are not yet fit for purpose. Other associated costs remain uncertain and may be particularly high in the early stages of BEV HGV adoption, before the market scales and confidence builds. These factors could act as additional barriers to uptake. Such costs include insurance premiums, repair and maintenance expenses linked to skills shortages, electricity prices, and the potential need to rely on public charging infrastructure.

Approximately 50% of UK HGVs are operated by small and medium-sized enterprises (SMEs),[4] who would rightly not be affected by a fleet mandate. Applying a fleet mandate in isolation would therefore be insufficient to effect the necessary transition overall.

In addition, efforts to protect the SME sector could disrupt the market, potentially causing unintended consequences for market structures and risking gaming, if only large companies are made to bear additional costs. If fleets have to adopt higher cost BEVs, transport buyers and logistics third party logistics providers could pivot from dedicated fleets to lower cost SME subcontracts. Dedicated fleets will often be optimised for the operation and therefore more efficient and might include low carbon fuels. SMEs are more likely to be running generic diesel 44 tonne equipment. SMEs also account for around 85% of long-distance heavy trucks (which constitute around 30% of all HGVs). So, if not handled carefully, this measure could potentially *increase* carbon emissions.

Aldersgate Group members representing the creative industries as well as food manufacturing noted their high dependence on SME operators, which would mean a fleet mandate would not directly support their logistics decarbonisation efforts.

[4] Road Freight Transport SMEs: Trading, Operational and Decarbonisation Perspectives - The Centre For Sustainable Road Freight

In summary, while a fleet mandate could accelerate uptake among large operators, its impact would be structurally limited due to SME dominance, cost pressures, and operational constraints. On balance, it carries higher risks than a carefully calibrated sales mandate.

8. **Of the options presented, what is your preferred approach, or combination of approaches, for reducing emissions from HGVs and delivering a phase-out of new non-ZE HGVs?**

We would favour a BEV sales mandate, but only with a very carefully set trajectory, and supported by a comprehensive package of incentives and infrastructure planning. This should be accompanied by clarity on the role that alternative fuels are expected to play during the transition, given the pressing need for businesses to deliver short-term emissions reduction targets. See answer to question 9.

9. **Are there any alternative approaches that the government should consider to reduce CO_2 emissions from HGVs?**

Even if it is possible to phase out the sale of ICE HGVs by 2040 (on which caveats are included above), technology costs, practical challenges for the heaviest loads, and the high proportion of SME operators means that there is likely to be a substantial "long tail" of ICE HGVs continuing to operate well into the 2050s. If it is not possible to achieve 2040 phase-out, the tail will remain for longer.

Most major business freight users have stretching, science-based company-wide CO_2 reduction targets. These targets often include a net zero ambition by 2050, with significant reductions ahead of that date. Companies take these commitments seriously and are reluctant to change them without very good reason. With power supply now being rapidly decarbonised across the economy, freight emissions are becoming one of the most challenging aspect of company carbon targets to deliver, in line with national emissions trends. Although most companies are keen to embrace a transition towards electrification of their logistics, they will only be able to do this if their operations remain profitable. With cost-of-living pressures being widely felt in society, companies are also reluctant to pass additional costs through to consumers unless it is unavoidable.

Whatever mechanism is chosen to support decarbonisation, a conscious decision will need to be made about whether cost increases are acceptable within the supply chain and if so, how they should be absorbed. This is a very different sector from passenger transport (both car and aviation), where there is a higher degree of discretion about journey choices. To deliver change fairly, the overall framework is likely to require both supply-side and demand-side measures, designed to avoid unintended effects or market distortions.

The result of these multiple pressures is that a practical, affordable decarbonisation route for HGVs is needed urgently, in parallel to a transition to electric solutions. Low-carbon fuels offer a viable option in the short to medium term.

The Renewable Transport Fuel Obligation (RTFO) already requires that standard diesel contains up to 7% biodiesel. A number of companies are also currently choosing to use higher-blend hydrotreated vegetable oil (HVO) for their truck fleets, as a quick, practical and reasonably affordable way to decarbonise their operations. HVO demand reached nearly 800 million litres in 2024.[5] However, HVO costs are increasing and there is growing concern about fraud in the supply chain and competition for feedstocks across a range of end uses including SAF. For those reasons, we are hesitant to propose any additional incentives for

[5] What fleet operators need to know in 2025 about HVO fuels - FORS - Fleet Operator Recognition Scheme

the uptake of HVO in truck fleets, albeit theoretically this could support fast, short-term lifecycle emissions reductions.

Biomethane has more potential benefits. Fuelling trucks with biomethane is already commercially viable, thanks to the existing duty incentive and RTFO support. There is a growing network of UK refuelling stations for gas HGVs.[6] Biomethane production has the advantage of being possible domestically, offering an opportunity for UK farmers to diversify their income base. Its production leaves a high-quality digestate which can be used as an organic alternative to chemical fertilisers. Some estimates indicate an opportunity to scale production very substantially. We support the call made in a 2025 literature review (by Regen for the MCS Foundation) for biomethane and bioenergy to be included within future iterations of the Strategic Spatial Energy Plan (SSEP) being produced by NESO.[7]

A typical 44-tonne 6×2 biomethane articulated truck consumes around 0.4–0.45 GWh of renewable gas per year, meaning that a strategic transition of 100,000 long-range vehicles would require approximately 40–45 TWh of biomethane annually, well within the UK's projected 120 TWh biomethane potential by 2050[8]. RTFO data analysis shows that the average biomethane used in the UK transport sector saves over 80% of the life cycle CO_2 relative to diesel.[9] RTFO statistics also show that a large proportion of this biomethane is imported, so currently poses very little risk to the domestic supply chain further reinforcing its value.

Each biomethane truck delivers ~100 tonnes of CO_2 savings per year, compared with ~74 tonnes if the same biomethane were used for heat, giving a 25% greater carbon benefit when directed to heavy transport. At the same time, biomethane upgrading produces a pure biogenic CO_2 stream at around 1 tonne per 7 MWh, meaning that widespread CO_2 capture across UK plants could deliver several million tonnes of durable removals each year, enabling genuinely carbon-negative transport fuels.

The cost of a new biomethane tractor unit is around 30% more than the equivalent diesel unit, whereas full electric units (where they exist) are currently more than double the cost. The cost savings, initially on the fuel duty but also including pollution charges, add up to lower full life cycle costs.

Some Aldersgate Group members including John Lewis Partnership and Tesco are already investing in biogas fleets. However, there is caution in the market generally about investing in gas trucks because of concern about the government's long-term support for the technology, and how it might work alongside electric HGVs. There is an opportunity to support the increased adoption of biomethane as an interim solution in HGVs, simply through a public indication that the government sees this as a credible option, as part of a longer-term strategy for HGV decarbonisation.

We are aware that there is a need to prioritise the use of biogas and biomethane resources across different end uses, depending on resource availability. However, such prioritisation will only be effective if it is accompanied by incentives which drive the desired outcomes. If heavy goods transport is seen as a priority use for biomethane, even if only for an interim period (say, up to 2040), this should be acknowledged clearly at strategic level, given that

[6] Infrastructure Map UK - Gas Vehicle & Hydrogen Refuelling Stations | GV Network
[7] Making the most of biomethane
[8] https://greengastaskforce.co.uk/wp-content/uploads/2025/09/GGT-Unlocking-the-Potential-of-Biomethane.pdf
[9] https://www.gov.uk/government/statistics/renewable-transport-fuel-obligation-rtfo-statistics-2024-final-report/renewable-transport-fuel-obligation-rtfo-statistics-2024-final-report#development-fuel

the incentives already exist. At the moment, the signals to industry about the preferred end use of biomethane (in particular, heating or transport) are confusing.

We would therefore encourage the publication of a clear statement from government, together with the proposed trajectory for phasing out ICE vehicles, about plans for supporting emissions reductions during the transition. Ideally this would include recognition that biomethane is an environmentally and economically beneficial option, and should give a transitional timeframe during which it is likely to be most used. This would not need to distract from the end goal of electrification as long as it was presented as part of a coherent, deliverable overall strategy.

Part E: ZE HGV uptake/CO_2 emission reduction trajectories

26. For your chosen regulatory option, what target trajectory do you think should be set?

We have not conducted sufficiently detailed analysis to support a specific trajectory. However, the trajectory needs to be chosen with great care. The UK is highly reliant on road freight; for example, it transports 98% of all food and agricultural products. Disruption to the market could have significant consequences for industry, supply chains and consumers.[10]

The trajectory should take into account the likelihood that a range of current delivery challenges can be addressed (also considered in more detail in our 2025 briefing note[11]). We recommend that more detailed assessments are conducted on all these factors before making a decision:

- Will sufficient **charging infrastructure** be available at depot and motorway locations to support the proposed levels?
- Will **vehicles be available** that can carry the full range of load weights, so that a suitable vehicle is available for all purposes?
- Will businesses be able to purchase and operate electric HGVs at a **cost** reasonably comparable to the current running costs of diesel HGVs (also taking into account downtime and payload losses)?
- Is support available to **upskill** the workforce for operation and maintenance of BEV HGVs?

We recognise the government's published ambition for ICE phase-out dates in 2035 and 2040, depending on the weight class, and note that any change to those dates could undermine investor confidence and be seen as inconsistent with delivering carbon budgets. However, the existence of commitments and carbon budgets does not necessarily render the change deliverable, and a collapse in logistics industry economics would have a very negative impact on consumers as well as the industry itself.

In addition, the timings are tight between now and the intended phase-out dates. This consultation closes in March 2026, and does not offer specific technical details. It will therefore need to be followed by a more detailed consultation, after which relevant legislation will need to be approved by Parliament, and industry will need to be given enough notice to gear up for delivery. On this basis, it seems unlikely that a mandate could reasonably be

[10] Industry Facts and Stats
[11] Aldersgate-Group_Zemo-Partnership-cross-economy-workshop-Faster-decarbonisation-of-heavy-road-freight.pdf

introduced before 2029, at which point delivering a 2035 phase-out would require rapid progress in addressing practical barriers to change.

As a potential compromise option, we would encourage the government to consider implementing a ratchet mechanism. Under this approach, the trajectory would initially be set at a level (and with an end date) which is supported by clear evidence of practicability, and is considered credible by industry users. This might mean setting a slightly later end date initially, while emphasising that the aim remains for the dates to be brought forward 2035 and 2040 if costs fall sufficiently and the supporting infrastructure is in place.

Progress against the trajectory would be closely monitored on an annual basis. If it was being met easily, a consultation could be issued on whether to speed up the trajectory. The relevant legislation could specify that the trajectory could only be made *more* ambitious (not less), and set out the factors which would influence a decision to tighten it up, thus offering maximum transparency to industry. It could also require a minimum of a year's notice of any change to be given to participants. Such a mechanism would only work with those checks and balances in place – i.e. both an assurance that it could only be made more ambitious, and a high degree of certainty and lead time for industry about any changes.

An experiment with this kind of mechanism was made with changes to the solar Feed-in Tariffs in 2011/12 to allow for tariff degression. This was not universally successful, largely because degression was set in advance and did not significantly factor in real-world changes, but lessons could be learned from that approach in setting a mandate ratchet.[12][13]

27. If a ZEV mandate is your preferred option, should a CO_2 improvement target also be set for the non-ZE HGV fleet? If so, please elaborate.

No.

[12] FITs_Factsheet--RPI_link-Export_Tariffs-2_Month_Degression.pdf
[13] DECC report