

Heavy goods vehicles: ending the sale of new non-zero emission models

RoSPA's response to Department for Transport's consultation

August 2021



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

Introduction

This is the response of The Royal Society for the Prevention of Accidents (RoSPA) to the Department for Transport's consultation on ending the sale of new non-zero emission heavy goods vehicles. It has been produced following consultation with RoSPA's National Road Safety Committee. We have no objection to our response being reproduced or attributed.

The consultation seeks views on when to end the sale of new non-zero emission heavy goods vehicles (HGVs) in the UK and whether to increase the maximum permissible weights for zero emission and alternatively fuelled HGVs completing domestic journeys.



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

Your details

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Are you responding as an individual or on behalf of an organisation?

On behalf of an organisation.

Organisation details

Name of your organisation:

The Royal Society for the Prevention of Accidents (RoSPA).

You are responding as:

An accident prevention charity.



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

Consultation questions

Do you agree or disagree that introducing a phase out date for the sale of new non-zero emission HGVs will help us meet our legally binding net zero target?

RoSPA response

RoSPA strongly agrees that introducing a phase out date for the sale of new non-zero emission HGVs will play a vital part in supporting the Government to meet the legally binding net zero target. Putting end dates for the sale of new non-zero emission HGVs into legislation will significantly reduce greenhouse gas emissions from HGVs, as it will drive operators and individuals to adopt zero emission technology faster. Phase out dates will also incentivise vehicle manufacturers to direct investment towards zero emission technologies, further pushing down prices.

As the paper states, transport is the largest contributor to domestic UK greenhouse gas emissions, accounting for 27% of emissions in 2019. While other sectors have reduced their emissions significantly since 1990, transport emissions have only fallen by around 5%. Within transport, HGVs are second only to cars and vans in terms of total greenhouse gas emissions, producing 16% of the UK's transport emissions, despite making up just 1% of vehicles. This means that zero-emission HGVs have a vital role to play in reducing greenhouse gas emissions.

Although current plans and legislation outside of the proposals as part of this consultation will deliver emissions savings and support the development of low and zero emission vehicles, this will not deliver road freight's necessary contribution to net zero emissions, meaning a phase out of non-zero emission vehicles will be required. Only fully zero emission technologies will adequately address greenhouse gas emissions, air quality and other tailpipe pollutants from HGVs.

Do you agree or disagree with our approach to split the phase out dates for new non-zero emission HGVs into two weight categories?

RoSPA response

It is not possible for all new HGVs to be zero emission at the same time due to the limitations of existing zero emission technology. Given that it seems it will take slightly longer for zero emission models for heavier vehicles (26 tonnes and over) to come to market, it seems sensible to split the phase out dates into two weight categories, allowing lighter new non-zero emission vehicles to be phased out earlier than heavier vehicles to deliver carbon emissions savings. The longer typical lifespan of smaller vehicles also means that it would be logical to phase out newer non-zero emission versions of these vehicles sooner than larger vehicles.



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

Do you agree or disagree that 26 tonnes and under and more than 26 tonnes are the right categories?

RoSPA response

RoSPA agrees that 26 tonnes and under and more than 26 tonnes are the right categories. As the paper states, HGVs conventionally fall into two distinct categories in the UK: 3.5 to 26 tonnes, which are predominantly rigid, and above 26 to 44 tonnes, which are predominantly articulated.

Do you agree or disagree with our proposal to end the sale of new non-zero emission HGVs, for vehicles weighing from 3.5 up to and including 26 tonnes, by 2035?

RoSPA response

RoSPA believes that this is a sensible timescale, given that the government is investing £20m this year in planning zero emission road freight trials, which will support UK industry to develop cost-effective, zero emission HGVs and their refuelling infrastructure in the UK, allowing for the commercial roll out of new zero emission technology before the end of the decade. It also makes sense to set an earlier deadline to phase out non-zero emission models of lighter vehicles, given that there are already a few 12 to 26 tonne zero emission models available, or due to come to market over the next few years. These vehicles also have a longer life span than heavier vehicles.

As the paper states, these dates align with the recommended phase-out dates from organisations including the Climate Change Committee and the National Infrastructure Commission.

What do you consider the main challenges and barriers to meeting this target for HGVs 26 tonnes and under? How can these barriers be addressed?

RoSPA response

Although RoSPA is not a HGV operator, we would imagine that one of the main challenges to meeting the target is the cost to operators. However, we believe that the plug-in truck grant, should it continue beyond 2022-23, may go some way to address this challenge. However, if these vehicles are significantly more costly than those with non-zero emission technologies, and a grant is not available, an unintended consequence could be that operators choose to keep their petrol and diesel trucks for longer, which would be counterproductive. Therefore, we believe that plug in truck grants will need to continue, particularly in the short term. This may also encourage operators to switch to plug in vehicles earlier than the proposed deadline. Continued investment and research in this area is also likely to drive down the cost of these vehicles.

The amount of time a vehicle takes to charge, range between recharges and the amount of charging infrastructure available may also be a barrier to take up of plug in vehicles at present. It will be important that any vehicles developed can be sufficiently charged during a driver's usual rest hours, or operators may be reluctant to



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

adopt this technology earlier than the planned phase out. There must also be sufficient charging infrastructure available for these vehicles. Vehicles will need to have enough range that drivers can continue to drive for several hours before needing to recharge, or these vehicles will be likely to be seen as inefficient from a business point of view.

Do you agree or disagree with our proposal to end the sale of new non-zero emission HGVs, for vehicles weighing more than 26 tonnes, by 2040? What evidence do you have for or against?

RoSPA response

RoSPA believes that this is a sensible timescale, given that the very first zero emission HGVs above 26 tonnes are arriving on the UK market, designed for specific, short range use cases, meaning it would not make sense to implement a 2035 phase out of non-zero emission vehicles, as is being proposed for lighter vehicles. It is more also more difficult to apply zero emission technology to heavier HGVs, justifying a later phase out date. This is because these new technologies take up considerably more of the vehicle's size and weight allowances.

As the paper states, these dates align with the recommended phase-out dates from organisations including the Climate Change Committee and the National Infrastructure Commission.

What do you consider the main challenges and barriers to meeting this target for HGVs 26 tonnes and over? How can these barriers be addressed?

RoSPA response

Our points about cost, which we raised in response to the HGVs under 26 tonnes, are also likely to apply to heavier vehicles. Again, the continuation of the plug in truck grant could go some way to addressing this barrier for operators. Costs will need to fall to make these HGVs an attractive investment, even once reduced operating costs are factored in.

As is the case for vehicles weighing less than 26 tonnes, the amount of taken to charge a vehicle, battery range and the amount of chargepoints available could be a barrier to take-up of these vehicles. It is also not yet clear whether high-powered chargers at driver rest stops will be available at scale in sufficient time to meet emissions targets. Battery range is likely to be more of an issue for larger vehicles, as heavier vehicles run just under 400 kilometres on an average day, in comparison to 150 kilometres for vehicles weighing less than 26 tonnes.

The other key challenge with heavier vehicles is that it is much more difficult to apply zero emission technologies. As these technologies are heavier, this takes up a considerable amount of the vehicle space and weight in comparison to diesel models. Currently, this means that vehicles would be unable to carry the heaviest loads over longer distances. The Department's proposals to increase the weight allowance for these vehicles could offset this challenge.



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

Do you agree or disagree that these phase out dates should be extended to all non-zero emission HGVs, including those using low carbon fuels, in their respective weight categories?

RoSPA response

Once zero emission technologies such as electrification and green hydrogen are commercially viable and readily available, the use of low carbon fuels in HGVs will remain vitally important for minimising emissions from the remaining non-zero emission fleet while they remain in operation and will contribute to meeting UK carbon budgets.

However, given the UK's legally binding agreement to achieve net zero emissions by 2050, RoSPA believes that it would be sensible to extend these phase out dates to all non-zero emission HGVs. Although low carbon fuels contribute a significant proportion of transport emissions savings under current carbon budgets and can be net zero over their whole lifecycle, when used in internal combustion engines they offer limited air quality benefits, making them less suitable for urban areas. Only fully zero emission technologies will adequately address greenhouse gas emissions, air quality and other tailpipe pollutants from HGVs.

Do you agree or disagree that maximum permissible weights for certain zero emission vehicles (mainly HGVs) on both international and domestic journeys should increase by up to 2 tonnes (without exceeding 44 tonnes)?

RoSPA response

RoSPA agrees that maximum permissible weights for certain zero emission vehicles on both international and domestic journeys should increase by up to two tonnes, without exceeding 44 tonnes, provided that weight limit increases only offset any additional weight due to alternatively fuelled or zero emissions technology. Our understanding is that to compensate for the additional weight from alternative fuel and zero emission technology, the UK-EU Trade and Cooperation Agreement obliges the UK to permit EU vehicles with weights that are "increased by the additional weight of the alternative fuel or zero-emission technology with a maximum of 1 tonne and 2 tonnes respectively".

We would agree with this change because technologies such as batteries take up more of the vehicle's size and weight allowances. As the paper states, the increased weight of zero emission technologies and the resulting impact on the size of the load that can be carried could make adopting zero emission HGVs less attractive to operators. Increasing the maximum permissible weights for zero emission HGVs would alleviate this issue and increase their uptake. Should the batteries for these vehicles become lighter over time, this weight increase may no longer be required. RoSPA expects that any possible impacts on safety will be considered and an impact assessment conducted.



Response to Department for Transport's consultation: Heavy goods vehicles: ending the sale of new non-zero emission models

Do you agree or disagree that weight limits should increase by up to a maximum of 1 tonne for certain alternatively fuelled HGVs on both international and domestic journeys (without exceeding 44 tonnes)?

RoSPA response

RoSPA agrees that maximum permissible weights for certain zero emission vehicles on both international and domestic journeys should increase by up to a tonne, without exceeding 44 tonnes, provided that weight limit increases only offset any additional weight due to alternatively fuelled or zero emissions technology. Our understanding is that the Government have already committed to permitting extra weight for these vehicles on international journeys under the terms of the UK-EU Trade and Cooperation Agreement.

We would agree with this change because these new technologies take up considerably more of the vehicle's size and weight allowances.

Do you agree or disagree that weight limit increases should only offset any additional weight due to the alternatively fuelled or zero emissions technology?

RoSPA response

RoSPA agrees that weight limit increases should only offset any additional weight due to the alternatively fuelled or zero emissions technology.

Any other comments?

RoSPA response

RoSPA has no further comments to make on the consultation process, other than to thank Department for Transport for the opportunity to comment. We have no objection to our response being reproduced or attributed.

