



Department for Transport

To the Baroness Vere and the Baroness Finlay
House of Lords
London
SW1A 0PW

Lord Hendy of Richmond Hill
Minister for Rail

Great Minster House
33 Horseferry Road
London
SW1P 4DR

Tel: 0300 330 3000
E-Mail: lord.hendy@dft.gov.uk

Web site: www.gov.uk/dft

27 November 2024

Dear Baroness Vere and Baroness Finlay,

Thank you for your contributions to the Oral Question Debate on Zero Emission Bus Programmes on 12 November 2024. I am writing in response to your questions on the costs and safety regulations surrounding zero emission buses (ZEBs). I am responding on behalf of the Department for Transport.

Baroness Vere

Regarding your question of the total cost of ownership of ZEBs compared to diesel buses, a major part of the decision to purchase a commercial vehicle depends on the expected total cost of ownership (TCO) over the vehicle's lifetime. This includes: the capital cost of the vehicle, including taxes and incentives; the cost of borrowing the capital to make the purchase; the residual value it is likely to retain for resale on the second-hand market; and the cost of refuelling and maintenance.

TCO of diesel and zero-emission buses will vary depending on a range of scheme-specific and exogenous factors. Scheme-specific factors include the use case of the bus (distance and energy-intensity), make and model and infrastructure requirement. Exogenous factors include diesel/electricity cost forecasts and change in battery prices.

Internal TCO analysis shows that in the national average central scenario, diesel and zero-emission buses will likely reach cost parity in 2032. This analysis is highly sensitive to the above assumptions. The TCO will differ on a case-by-case/operator basis depending on factors such as where the ZEBs are delivered, the type of route they are delivered on and when. For example, the 2032 date assumes the standard discount rate recommended by Transport Appraisal Guidance (TAG - <https://assets.publishing.service.gov.uk/media/659d13ddd7737c000df335ac/tag-unit-a1.1-cost-benefit-analysis.pdf>). This is estimated to be lower than

many private bus operators' own discount rates. However, in some use cases TCO parity has already been reached. For example, we know of one operator who has recently invested in electric buses without direct government subsidy, which is a very promising development.

Baroness Finlay

In your contribution to the debate, you asked about guidance issued to bus operators to help them monitor carbon monoxide leaks. The Driver and Vehicle Standards Agency (DVSA) inspects annually and on a targeted basis all types of bus and coach to make sure they comply with the correct standards. The standards applied at annual test (MOT) are published online at [MOT inspection manual: public service vehicles \(PSVs\) - GOV.UK](#). These include failures where fumes are entering the passenger compartment. The DVSA also published more general guidance on keeping heavy vehicles (including buses) roadworthy – and these are published at [Keeping commercial vehicles safe to drive \(roadworthy\) - GOV.UK](#). Included within it is general guidance on maintenance systems required for these types of vehicles and the checks that should be conducted before a vehicle is used, which includes checks that fumes are not entering the passenger compartment. Metered checks are not prescribed. The DVSA also publishes guidance stating that where vehicle operators identify design or manufacturing defects that can cause a danger, which would include fumes entering the passenger compartment, then these can be reported and DVSA will investigate. This could result in a recall.

I have copied this letter to all the Noble Lords who spoke in this discussion and will place a copy of this letter in the Library of the House.

Yours sincerely,



Peter, Lord Hendy of Richmond Hill
MINISTER OF STATE FOR RAIL