Ending the sale of new, non-zero emission buses, coaches and minibuses

This is a joint response to the consultation on behalf of the Campaign for Better Transport (CfBT) and UK100. Submission from Dr. Karen Barrass, Research and Policy Manager at UK100, on behalf of UK100 and CfBT 21/05/22.

Consultation questions

We are interested in views on such an approach being applied to buses. What vehicles would be included in the end of new non-zero emission bus sales?

Firstly, there is a need to place the climate emergency as the priority objective - the Government needs to set the most ambitious target possible for zero emission buses - they have a 15 year lifetime so will be running 15 years later than the phase out date set for new buses. From the local authority perspective, it is important to consider this lifespan and where new buses move onto when being replaced. The bus industry outside London has been in a managed decline, local authorities and bus providers across the country will not be in a position to invest in new, expensive zero emission vehicles unless given significant funding to do so. The recent allocation of funds for zero emission buses left many local authorities unable to invest in their plans for the roll out of vehicles because their bids were not accepted in the competitive funding round. This is a significant gap and consideration that needs addressing in the context of a sale end date.

The price differential between diesel and zero emission buses will come down as the market evolves and even once the phase out for diesel buses date is brought in - they will only have to replace 6-7% of the fleet per year as buses last for 15 years. The Government could implement a 2025 target, other countries are doing this, for example New Zealand, Denmark and the Netherlands have set requirements that new buses entering service from 2025 onward must be zero-emission. Local leaders are leading the way on this - Barcelona, Cape Town, Milan, Madrid, Heidelberg, Vancouver and Seattle and London all require 100% of new buses to be zero emission from 2025. The UK Government just needs to provide funding to enable this target to be met on a national scale. Government funding for pilots has not to date lead to wider scaling or learnings that can be

disseminated - there are significant gaps to fill in order for an early target to be successfully implemented.

A fundamentally important point to note is that the older, non-zero emission buses are likely to be retained in more rural fleets - in rural areas where profits are currently low, there is less demand and smaller operators face challenges, but need access to zero emission vehicles as much as urban areas. Therefore, rural areas will need more support. Capacity to bid for funding should not be the enabler for allocation of a zero emission fleet. Government must ensure it enables the viability of zero emission buses across the country and this is an important consideration for the Government's future of rural transport strategy.

Operators have suggested that the approach for buses should be the same as for cars and vans - 2030 for petrol and diesel and 2035 for hybrids (more below).

We welcome views on the Government's proposal, outlined above, to end the sale of new non zero-emission buses on a specific date between 2025-2032.

Bus operators recognise that the future of road transport is zero emission vehicles, as evidenced in CPT's 2019 bus strategy *Moving Forward Together*, which set out an industry commitment to only buying ultra-low or zero emission vehicles from 2025, with Government support. Operators remain committed to transitioning their fleets. But significant operational and commercial challenges remain:

a) Passenger numbers

The pandemic has significantly affected passenger numbers and, with that, operators' profitability and ability to invest in new zero emission vehicles. If patronage levels remain at the current levels, it would be hard to justify the significant investment required for early ZEB deployment. Therefore, to make the transition a success, regulatory measures need to go hand in hand with wider measures to boost bus use.Greater promotion of buses to change the public perception of buses – in partnership between industry and government – is likely to be critical in achieving this.

b) Cost

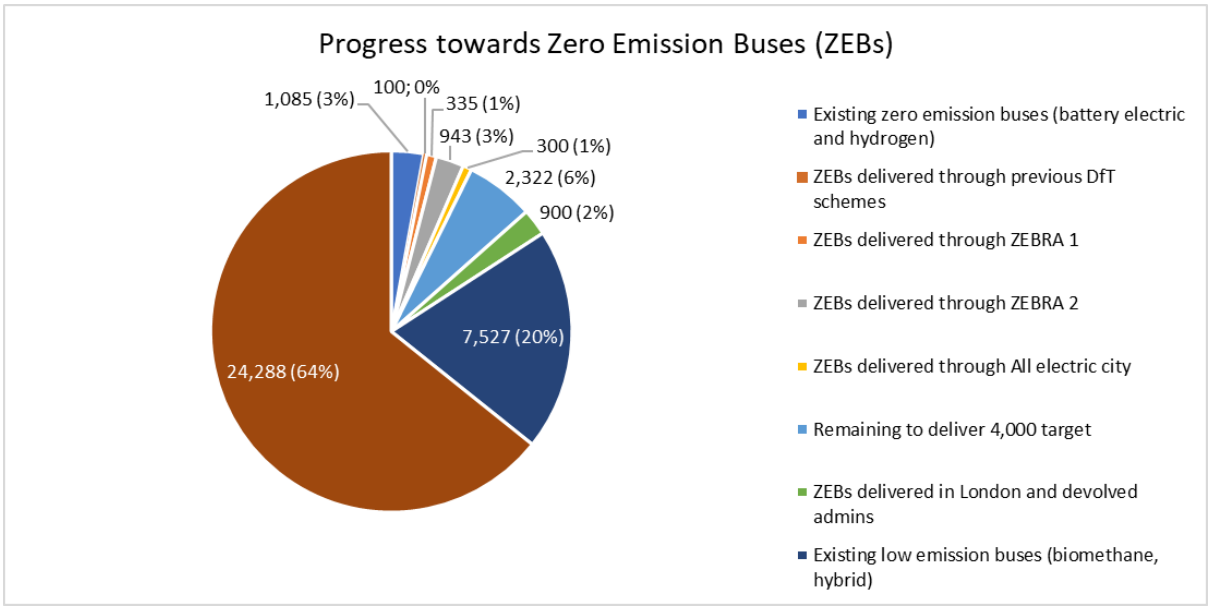
Electric and hydrogen buses remain significantly more expensive than their diesel counterparts. Price parity is unlikely to be achieved soon so achieving the phase-out early will require some amount of continued subsidy to overcome the current price disparity.

c) Charging infrastructure

Significant investment requirements for upgrading grid capacity across the country, installing charging infrastructure at depots, recognising the increased space and longer charging times that ZEBs require. The depot sites that have been chosen for ZEB deployment so far have tended to be more straightforward sites. Yet there will be many other sites that will be much more challenging, either because of lack of power available or space constraints requiring a depot move, or sites dominated by rural routes where vehicle range will be problematic. Therefore early deployments should not be taken as a measure for the potential speed of future roll-out and the infrastructure considerations should be factored in. Support for upgrading the power network and support for upgrading depots to make them ZEB ready should a crucial part of the Government's approach.

d) Funding

In the National Bus Strategy, the government committed to deliver 4,000 ZEBs in England by the end of this parliament. So far, approximately 1,680 have been funded through the all electric bus town and ZEBRA funds, leaving over 2,300 to reach the target. However, even when this target is achieved, with a fleet of c.37,800 buses, approximately two thirds of the fleet would be left to convert, highlighting the scale of the challenge that needs to be overcome.



Given the higher costs of zero emission buses and infrastructure outlined above, unless they come down significantly over the next few years to make the business case stack up, continued government support will be required. While there is some funding remaining for allocation through the ZEBRA, there is no certainty what will follow it.

Many authorities also intended to fund ZEBs and the necessary infrastructure through their Bus Service Improvement Plans, however only 40% of all authorities

received any transformation funding. Even those that did receive some funding, only a proportion of what they asked for was funded. Therefore, it is likely that ZEBs will not be a priority for many partnerships.

The Treasury needs to develop a long-term sustainable funding approach to give certainty to operators to invest and to manufacturers with visibility of orders to scale up production. In the absence of government, alternative financing models, such as leasing or separating vehicle ownership from operation, could be considered. However, these approaches may not represent the best value for money for the taxpayer and passenger in the long term.

The structure of funding is also important. The majority of authorities that have been funded through ZEBRA 1 and 2 have been of urban character. Yet ZEBs need to work for rural contexts too. Focusing on urban authorities and the competitive allocation also risks focusing ZEB delivery on specific locations. This means that operators in those locations would then pass on existing diesel vehicles to other locations where they operate, creating a two-tier system where improved air quality can be enjoyed in parts of the country that have been successful for funding, while others lag behind.

e) Capacity and skills

A Campaign for Better Transport research found that many authorities, particularly smaller ones with small transport teams are unsure of how they can best support the transition to ZEBs. While areas with franchising arrangements can directly specify particular minimum standards for fleets in the contracts, those with enhanced partnerships are unclear how a minimum ZEB fleet requirement could be delivered or enforced.

The transition to zero emission vehicles will be significantly more difficult for SME operators. Rural areas also more acutely experience challenges such as the limited range of electric buses, recharging time, hilly terrains, charging infrastructure and grid upgrades requirements, and the relative lagging behind in hydrogen technology.

Operators also face skills challenges, needing to train and upskill the existing workforce and to attract a new generation of people to highly skilled, green jobs in the bus industry.

While the range 2025-2032 is outlined above we also welcome views on your preferred specific end date with reasons why you feel it is appropriate.

Considering the challenges above, we recommend an end date of the sale of new diesel buses of 2030, in line with the phase-out date for petrol and diesel cars, with ultra-low emission hybrid options being available after this date. This will

provide an opportunity for passenger numbers to recover and for the impacts of the investment from the National Bus Strategy to begin bearing fruit in terms of attracting more people onto buses overall. The transition time will also be required for the industry to adapt their business models and upgrade their depots and infrastructure to accommodate new electric and hydrogen buses.

However, given the greater capacity and investment challenges faced by smaller operators and rural authorities, hybrid models may need to be available for purchase beyond 2032 until issues around range, reliability and infrastructure have been worked through. This is something that should be kept under review as we approach the end of the decade. An end date for the sale of new hybrid vehicles of 2035 would align with the end date for hybrid cars.

We welcome further views on the challenges arising from charging and refuelling infrastructure in ending the sale of new non zero-emission buses and what more might be needed to address these challenges?

Covered above.

Against this background we want to use this opportunity to obtain evidence and views to understand:
• the challenges to transitioning to a zero-emission coach fleet;
• what might be a realistic date to end the sale of new non zero-emission coaches;
• what would need to be true/in place to make the phase out of non zero-emission coaches happen; and
• what might Government do to accelerate the transition.

It is worth noting that coach is the greenest mode of travel per passenger km, even lower in CO_2 than rail.

Do you have views/evidence on any potential impact that investment in zero emission buses over the period 2025-2032 might have on patronage and fares?

A Stagecoach report on passenger expectations of the transition to zero emission buses found that shifting to cleaner buses could increase patronage. According to the research, between 1.03m and 1.7m current non-users could be attracted to buses if ZEBs replaced diesel. But for this to materialise, fares and frequency must remain the same. Conversely, current bus users are not willing to pay higher fares for greener buses. The report found between 12.4 million and 14.3 million people would use the bus less if fares rose by 10%. This underlines the importance of continued government support for the transition to ZEBs.