

# Ending UK sales of new, non-zero emission buses and calls for evidence on coaches and minibuses

Consultation



Department for Transport Great Minster House 33 Horseferry Road London SW1P 4DR



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# Contents

Foreword	4
Introduction	6
How to respond	19
Freedom of Information	20
What will happen next	21
Annex A: Impact assessment	22
Annex B: Consultation principles	23

## **Foreword**

The UK demonstrated its global leadership on climate change as President and host of the 26th Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) in Glasgow, last year. This unique opportunity to work with global stakeholders and leaders built real momentum towards a net zero future.

We have made significant progress in decarbonising the economy, but we need to go much further to achieve net zero. This must be a collective effort. Only by delivering our commitments will we bring about the benefits for the nation as a whole.

Buses are one way to achieve that goal. The Prime Minister set out his bold and transformative ten-point plan for a Green Industrial Revolution, for the country to build back better, support green jobs, and accelerate our path to net zero. Buses were a key feature of that announcement and due to the integral role they play in the public transport network will be one of the pillars of the decarbonisation effort.

That is why, as part of the National Bus Strategy, we committed to set a legal end date for the sale of new diesel buses; the scale of the challenge before us means that we have expanded this to cover all non-zero emission powertrains. The Government remains technology neutral, but we are not outcome neutral – to achieve legally binding carbon and air quality targets, and reduce our contribution to climate change, the bus sector must transition to zero emission vehicles.

The Transport Decarbonisation Plan set out the ambitious actions needed to decarbonise the entire transport system. This affirmed the crucial role that buses have to play in transport, achieving net zero and driving the green transformation. But it also recognised the challenges beyond buses, including driving the decarbonisation of coaches and other passenger transport modes.

To support these ambitions, we are also therefore launching calls for evidence on ending the sale of new non-zero emission coaches and minibuses. These will allow us to gather evidence on the challenges to moving to a zero-emission fleet, what an appropriate end of sales date might be, and the extent to which government intervention is necessary to accelerate the transition.

This Government is committed to harness and channel the ingenuity of industry, central, devolved and local government, and others to deliver the system wide transformation we

need to see. The move to zero emission buses will deliver fundamentally better transport, for everyone, every day. This consultation is an essential step in achieving that vision.

#### **Baroness Vere of Norbiton**

Minister for Roads, Buses and Places

## Introduction

#### Addressing the net zero challenge

The Government is committed to going further and faster to tackle climate change, and to limit the increase in global temperature. In June 2019, the UK became the first major economy to legislate to end its contribution to climate change by 2050, committing to net zero greenhouse gas emissions (GHG).

Transport is the largest contributor to UK domestic GHG emissions, responsible for 27% in 2019. We must deliver a step change in the breadth and scale of our ambition on transport emissions to reach net zero.

In October 2021, the UK Government published a Net Zero Strategy covering all sectors of the economy. It set out the Government's vision for transitioning to a net zero economy, making the most of new green growth and employment opportunities right across the UK.

The Government's 10-point plan, published in late 2020, set out key actions for a green industrial revolution to build back better following COVID-19. As the world goes green, we will seek to put the UK at the forefront of global markets for clean technology. The 10-point plan contained commitments on accelerating the shift to zero-emission vehicles. It noted that "over the next year we will work with industry to devise further sectoral plans and meet our carbon budgets and target of net zero by 2050."

#### **Tackling emissions from transport**

The UK's transport network connects people and places, boosting economic growth and opportunity. However, it contributed over a quarter of the UK's GHG emissions in 2019 (the UK's buses and coaches contribute around 3% of these emissions). Net zero requires all sectors of the UK economy, including transport, to play their part and deliver substantial emissions reductions to meet our economy wide net zero commitment.

While other sectors have reduced their emissions significantly, since 1990, transport emissions had only fallen by 5%, by 2019. We know we need to go much further, and much faster to decarbonise this sector, and this forms the basis for the Transport Decarbonisation Plan (TDP) which was published in July last year. The TDP sets out a holistic, bold and ambitious pathway for transport to deliver its contribution to net zero and commits to consulting on phasing out the sale of all new non-zero emission road vehicles by 2040.

#### **Tackling emissions from buses**

In March 2021, the Government published its national bus strategy (NBS), Bus Back Better' for England, which set out a vision for the future of buses across the country. One of the key elements of this strategy is decarbonising local bus fleets. To facilitate the transition to a fully zero emission bus (ZEB) fleet the NBS contains a commitment to achieve:

"an all zero-emission bus fleet in the future and [we] will set a legal end date for the sale of new diesel buses and set an expectation for when the entire bus fleet will be zero emission. We will consult on potential dates this year."

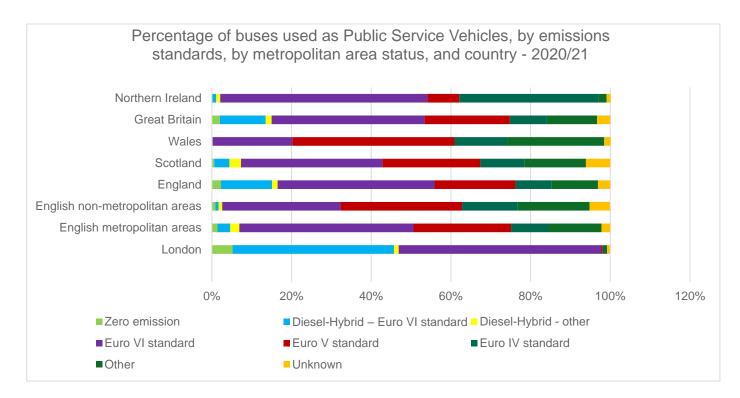
An initial consultation was held in spring 2021 (see below) and this consultation contributes further to delivering this commitment across the UK.

This consultation is being published following the Government's Green Paper on the New Road Vehicle CO2 Emissions Regulatory Framework. This sought views on a potential legal framework to enact the end of sales dates for non-zero emission cars and vans but also considered how this framework might be used for ending the sale of other vehicles, including new buses and coaches.

- Buses and coaches account for 3% of UK domestic transport emissions.
- While bus miles have reduced by 20% between 1990 and 2018, bus emissions reduced by 40% during that same period.
- There are around 38,200 buses in Britain: 2% are zero-emission, with over 800 on the road.

Some bus operators have already begun to invest in new, green electric and hydrogen buses, supported in the main by government initiatives such as the Green Bus Fund and the Low and Ultra-Low Emission bus schemes in England and the Scottish Ultra-Low Emission Bus scheme. Many local transport authorities have also begun to move to, or plan for, zero-emission fleets, for example in England through the current Zero Emission Bus Regional Areas (ZEBRA) scheme and the Government's All Electric Bus City scheme - where Coventry is becoming the UK's first all-electric bus city. However, there is much more to do. Only 2% of Britain's local bus fleet is zero-emission today – so it is vital that we go further and faster.

Bus operators, manufacturers and local transport authorities share our ambitions to achieve a zero-emission bus fleet. Several have already committed to purchase only ultralow or zero-emission buses from 2025.



The Government recognises the nascent nature of the ZEBs market, and has, therefore, committed to a number of actions to support the transition to ZEBs in the NBS, including for example in England, through the ZEBRA scheme, and reforming the Bus Services Operators Grant (BSOG) – an increase to 22p/km from April 2022 for ZEBs was announced in July 2021. Such actions will support the reduction in cost of vehicles and their running costs.

# Delivering the commitment to end the sale of new, non-zero emission buses

During March and April 2021, the Government carried out an initial, informal consultation on ending the sale of new diesel buses. This consultation sought views on:

- the definition of what should be phased out
- when the sale of diesel buses should end
- what the impact of ending the sale of new diesel buses might be
- what the necessary conditions for a successful transition to a full green bus fleet are
- what the barriers to achieving the proposals are
- the impact these ambitions might have on different sectors of industry and society
- what measures are required by government and others to support any phase-out.

Broadly the responses were supportive of ending new diesel bus sales and the responses received have been used to formulate the proposals in this consultation and the supporting Impact Assessment (Annex A).

This consultation document sets out an overview of the responses received with regard to the above questions and sets out the Government's proposals on how it intends to progress the end of sales proposals. The consultation also launches a call for evidence on coaches and minibuses.

# Views from the initial consultation and Government response What should be phased out?

While respondents were broadly supportive of ending the sales of all buses powered by an internal combustion engine, views differed on the inclusion of hybrid vehicles, where some felt that there should be a separate end of sales date. Views also differed on whether vehicles should be phased out in urban areas first rather than across the whole country as rural services might be affected.

Responses also sought clarity on the types of vehicles to be included in the proposed end of sales and questioned whether the scope would include vehicles such as coaches or minibuses. These issues are addressed below.

#### When the sale of new diesel buses should end?

Many responses highlighted that setting an end of sale date would provide the certainty required to accelerate the transition of the UK's bus network to ZEBs. It would act as a catalyst for the decarbonisation of fleets.

The impacts of COVID-19 on the industry and operators was a prominent theme in responses, particularly the impact on the financial position of operators and their ability to invest in new zero-emission bus technology. The importance of government support featured heavily in responses.

Overall, the dates with the broadest support for ending sale of new diesel buses were from 2025 to 2030.

#### Impact on ending the sale of new diesel buses

Responses were mixed depending on which sector they represented. Generally, all respondents recognised and supported the positive effects that ending the sale of new diesel buses would have on the environment and air quality. Others felt that ending sale of new hybrids would also contribute significantly to these.

Another common theme was that certainty on the end of sales date would stimulate innovation and investment in alternative approaches and encourage local authorities and bus operators to plan together to achieve the outcome.

However, impacts on the investment required given the current cost differentials between zero-emission models (including charging infrastructure costs) and diesel vehicles was noted. Potential unintended outcomes if the end of sales date was set too early were also noted, including extending the life span of existing diesel vehicles, particularly in lower demand areas, and the potential for fares increases to off-set the required investment.

#### Conditions for a successful transition to a full green bus fleet

The top three conditions raised were the need for clear and consistent national policy, long term assurance over revenue to support the transition, and the need for more high-speed electrical connections to provide charging infrastructure, particularly in more remote areas of the country. Other conditions attracting comment were government funding to support purchase/infrastructure in the early phase and technological advancement to reduce costs and improve range/battery capacity.

Many operators saw a favourable BSOG regime for ZEBs as a means to dramatically change the whole life cost comparison between zero-emission and the latest diesel technology, accelerating the move to ZEBs. As noted above a new 22p/km BSOG rate for ZEBs from April 2022 was announced for England in July 2021.

There was a view that local authorities had a large role to play in using their powers to accelerate the transition – with Traffic Regulation Conditions identified as a good local lever.

#### Barriers to achieving the proposals

The upfront cost of vehicles and the need for comprehensive charging infrastructure, be that electricity or hydrogen facilities, were the key barriers raised. A few respondents also identified constraints caused by vehicle weight allowances for ZEBs where batteries added to vehicle weight.

#### Impact these ambitions might have on different sectors of industry and society

The issues raised ranged from changes in fuel supply with opportunities for kickstarting the hydrogen economy, to opportunities in private finance models to support the bus sector. One common issue was the impact on rural and remote parts of the country given potential battery range and infrastructure issues.

#### Measures required by government and others to support any phase-out

All bus manufacturers and operators felt that government support would be most valuable, reiterating the point about the cost differential between ZEBs and internal combustion engine (ICE) models. They also noted the additional financial burden of installing dedicated charging/refuelling infrastructure, particularly expensive grid connections. Investment in a nationwide network of hydrogen refuelling stations to develop the growth of the fuel cell powered buses' market was also raised.

The planned reform of BSOG to benefit ZEBs featured highly in comments on actions to support the end of sales. Other respondents advocated the introduction of incentives that would act as penalties on ICE vehicles. Some manufacturers argued that there should be a national scrappage scheme to provide additional incentives to encourage those driving older more polluting buses to purchase ZEBs.

Others also made the point that the commitments in the NBS, specifically enhanced partnerships and franchising, would give local areas greater power to influence local operators to shift to ZEBs.

# The Government's proposals to end the sale of new, non-zero emission buses

The responses from this initial consultation, and ongoing dialogue with operators, manufacturers and others, has enabled the refinement of proposals for progressing the end of sales of new non-zero emission buses and helped to develop a draft Impact Assessment to support them.

The Government is, therefore, now seeking views on setting a specific date between 2025-2032 for ending the sale of new non-zero emission (at the tailpipe) buses.

This would mean that, from 2032 at the very latest, the sale of all new buses, powered either in part, or totally, by an internal combustion engine would cease to be allowed. Any new buses sold from that date would need to be fully zero-emission at the tail pipe. The end of sales would apply across the UK and apply regardless of where a bus operates.

This consultation is therefore on a prospective date for the ending of sales between 2025 and 2032 and, subject to the views expressed, an end date will then be set by Ministers. This will signal a clear direction for bus manufacturers, local transport authorities and bus operators to factor into future plans. The Government's view is that the end of sale date, and other actions set out in the NBS, for example ongoing government funding and the proposed reform of BSOG in England, will stimulate innovation, investment, and demand and incentivise the market for ZEBs.

Importantly, and a strong theme in the initial consultation, the ending of sales of new non-zero emission buses (including hybrid models) would deliver significant environmental and air quality benefits contributing to the UK meeting its net-zero GHG emissions target by 2050.

The final agreed end of sales date for new non-zero emission buses could be enabled by regulation laid out in proposals for a future UK CO2 Regulatory regime for road transport vehicles. A green paper on this was published alongside the TDP on 14 July 2021 and a UK ZEV mandate for cars and vans was announced as part of the Net Zero Strategy on 19 October.

#### 1 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?

As noted above, responses to the initial consultation sought clarity on the types of vehicles to be included in the proposed end of new sales e.g. respondents queried whether the scope would include vehicles such as coaches or minibuses. In developing proposals, we have taken into account the current state of technology and how to define the intended vehicles to be included.

The NBS stated the intent to 'set an expectation for when the entire bus fleet will be zero emission'. We need to achieve this as soon as possible. Given the average life span of an existing diesel bus, on public service routes, is around 15 years, setting a date between 2025 - 2032 means some non-zero emissions buses could potentially continue to operate into the mid-2040s. The proposals in this consultation aim to enable a market for ZEBs to make them the default economic choice for operators to transition sooner.

In defining the type of bus/vehicle subject to the end of sales date, and therefore any proposed future enforcement regime, the most simple and clear way would be to link to existing type approval regulation. It is therefore proposed that the end of new sales date would apply to Class I and II, M2 and M3 buses, i.e. those with a capacity exceeding 22 passengers, in addition to the driver.

This has the key advantage of being set out in existing guidance and is already familiar to the bus industry. A type approval approach is also consistent with the approach proposed for ending the sale of new petrol and diesel cars, vans and HGVs. We recognise that buses are used in many different ways and operating environments. An alternative approach for consideration could be to look at an approach based on where and how buses are used, for example, only those buses providing local bus services. However, our view is that this would be less clear and more difficult to define. For these reasons the Government's proposed approach is therefore to define a bus subject to the end of new sales date being based on type approval categories.

With regard to coaches, we recognise the nascent state of the zero-emission market and that a longer time period may be required to end the sale of diesel coaches. We are therefore launching a call for evidence for coaches.

While the zero emission minibuses' market is more mature than coaches, we also recognise that minibuses are used and operate in many different ways e.g. with strong support to community sectors, and we are trialling innovative, demand led minibus services through the Rural Mobility Fund. We therefore also want to better understand more about the minibus market before setting a phase out date for non-zero emission models. We are therefore launching a call for evidence for minibuses.

- 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.
- 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.
- 4 We also welcome views on the proposal to use an approach based on type approval categories.

#### **Charging and refuelling infrastructure**

The availability and installation of charging and refuelling infrastructure is a key factor for consideration in setting the end of sales date and this was a strong theme that came through in responses to the initial consultation. Though this current consultation focuses on vehicles, we recognise the importance of the challenges in delivering appropriate charging or refuelling infrastructure for ZEBs. This section therefore responds to issues from the initial consultation and summarises activities, across government and the private sector, which seek to address some of these challenges.

Charging and refuelling infrastructure for buses presents a different challenge to that for light duty vehicles. For example, buses are typically depot-based, returning after each shift, and typically need to refuel once a day. This is in part due to the operational complexity public refuelling might entail, for example potential health and safety challenges of refuelling high volumes of buses at public locations.

While, especially in the long term, the majority of refuelling may well continue to take place in-depot, charging/refuelling strategies to address these challenges will vary depending on the bus technology used, the locality and route, the number of buses operating from a particular depot and the available existing or any new energy supply that might be required.

There can be significant cost barriers to installing large numbers of chargepoints for fleets/depots and connecting to the electricity network. Furthermore, costs will vary

depending on the capacity on the network available in the location in question, e.g. constraints can be present in locations that might otherwise be optimal for light duty fleets. While some depots can consider relocating to reduce costs, others may have limited flexibility to do so.

Government is committed to supporting the transition to ZEBs. To date funding has been used to address infrastructure challenges through for example the current ZEBRA scheme in England which is providing funding towards new ZEBs and related infrastructure in local areas. We will also work closely with Coventry City Council to learn from its experience of establishing the UK's first all-electric bus city. We will seek to establish and share good practice models from all of this work, for example best practice guidance on working with Distribution Network Operators (DNOs) and supporting depots/sites with energy storage options.

There is also existing good practice guidance on Connecting Fleets produced by Energy UK, the trade association for the energy industry, which can be found <a href="https://example.com/here.">here.</a> While this is aimed at cars and van fleets, and based on the process in Greater London, it contains generic information on the process for engaging with a DNO and potential actions to reduce electricity demand with the aim of maximising existing energy supplies and minimising/potentially avoiding costs of new connections.

The Department for Transport continues to work with the Department for Business, Energy and Industrial Strategy and Ofgem on the latter's Access and Forward-Looking Charges Review. Under the review, Ofgem is currently considering how the costs of new and upgraded connections are recovered from connecting customers and electricity bill payers more generally through socialising some of these costs. It published proposals which were consulted on between June and October 2021.

The energy white paper, published in December 2020, builds on the Prime Minister's Tenpoint plan for a green industrial revolution. The white paper addresses the transformation of our energy system, promoting high-skilled jobs and clean, resilient economic growth as we deliver net zero emissions by 2050. The white paper includes measures to support the transition to zero-emission vehicles, for example through investment in innovative technology development and development of sustainable supply chains.

The development of energy storage and smart charging technologies can also mitigate the need for expensive grid connections, both in rural and urban areas. The ZEBRA scheme encourages bids to consider innovative energy solutions, ensuring that areas with poor connectivity are still able to benefit without the need for prohibitively expensive grid reinforcement.

With vehicle-to-grid (V2G) technology, battery electric buses have the potential to perform as energy aggregators, acting as virtual power plants and helping to balance the local distribution network. This can potentially present significant benefits for operators and across the entire energy system, particularly as it continues to decarbonise and the need for flexibility becomes ever more important.

It is worth noting that in January 2018, the then Office for Low Emission Vehicles (OLEV) and the Department for Business, Energy and Industrial Strategy awarded almost £30 million, through an Innovate UK vehicle-to-grid programme, where battery electric buses provided flexibility services, serving electricity to the grid at times of high energy demand.

The project was a UK first of a kind – a large scale, multi-megawatt, demonstration of V2G technology in bus depots.

Low carbon hydrogen will be vital for meeting our legally binding commitment to achieving net zero by 2050, with potential to help decarbonise vital UK industry sectors and provide flexible deployment across heat, power and transport. Hydrogen is expected to play a key role in transport decarbonisation and is likely to be most effective in the areas 'that batteries cannot currently reach', where energy density requirements or duty cycles and refuelling times make it the most suitable low carbon energy source.

Bus depots with hydrogen refuelling infrastructure can also deliver co-benefits in helping to provide a source of fuel to decarbonise other modes of heavy transport such as coaches, HGVs and special purpose vehicles. Third party EV charging could also take place at/near bus depots for other vehicles, while buses are out in service, providing such co-benefits which could generate additional revenue and significantly improve the business case for infrastructure.

The Energy Network Association (ENA), who represent UK gas and electricity transmission and distribution operators, is seeking to introduce a GB wide 'heat map' of capacity on the network, allowing DNOs and their customers greater visibility of locations where connections may be cheaper and more convenient. The Zemo Partnership is also looking at a project to identify the locations of bus depots and to overlap this with information on the network.

5 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?

# Ending the sale of new, non-zero emission coaches - call for evidence

The Transport Decarbonisation Plan commits to consulting on phasing out the sale of all new non zero-emission road vehicles by 2040. As outlined above, the proposals in this consultation document currently exclude coaches. We recognise that the coach industry faces different challenges to decarbonisation to those of the bus industry, not least in the current availability of zero-emission models and infrastructure. We want to understand these challenges as well as the opportunities arising from decarbonising the coaches.

While it is recognised that for longer distance travel coaches offer a greener alternative to private cars, there are only a handful of electric coaches currently in operation in the UK from around 27,500 coaches in service. Indications are that an ultra-low or zero-emission coach currently costs around 75% more than the latest Euro VI diesel coach with additional costs related to the required charging infrastructure.

In March 2021 the Confederation of Passenger Transport (CPT) published 'Backing Britain's Coaches - A Coach Strategy for Britain'. This welcomed the Government's commitment to work with all sectors of industry to accelerate the roll out of zero-emission vehicles. On zero-emission coaches the strategy specifically set out an ambition for an ultra-low or zero-emission coach fleet across Britain by 2040 and called for government support to ensure the continued development of adequate technology and the increased

purchase cost and associated infrastructure. To support this, we note the establishment of a Coach Decarbonisation Taskforce by CPT to consider the transition to zero emission vehicles.

# 6 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 zeroemission coaches happen; and
- what might Government do to accelerate the transition.

# Ending the sale of new, non-zero emission minibuses - call for evidence

The Transport Decarbonisation Plan commits to consulting on phasing out the sale of all new non zero-emission road vehicles by 2040. As outlined above, the proposals in this consultation document currently exclude minibuses. We recognise the nascent position of the zero-emission minibus market and the particular uses that these vehicles tend to play, for example there is a growing demand for smaller passenger vehicles particularly around demand response and rural services.

Our best estimate is that there are around 85,000 minibuses in the UK fleet with an average age of the vehicles of around 8 or 9 years, with the largest sector of the fleet being for educational establishments. These vehicles tend to have different refuelling/recharging needs, generally operating outside a central depot arrangement.

In the main, minibuses also utilise diesel, with a limited number of available zero-emission options currently. They therefore face challenges with regard to upfront purchase costs and infrastructure challenges. We want to understand these challenges, as well as the opportunities arising from decarbonising minibuses.

# 7 Against this background we want to use this opportunity to obtain evidence and views to understand:

- the challenges to transitioning to a zero-emission minibus fleet;
- what might be a realistic date to end the sale of new non zero-emission minibuses:
- what would need to be true/in place to make the phase out of non zeroemission minibuses happen; and
- what might Government do to accelerate the transition.

# The costs and benefits of ending the sale of new, non-zero emission buses - Consultation Impact Assessment

A consultation Impact Assessment (IA) has been prepared and published alongside this consultation, as a separate document.

This IA sets out key developments and considerations which need to be taken into account in assessing when the sale of new non zero-emission buses should end, it indicates that this would have a net positive impact on society.

It is not yet possible for all these considerations to be explored in developing the quantitative analysis, hence the inclusion of qualitative analysis within the IA. The aim is for this consultation to obtain more data from respondents to inform this analysis further for a final assessment to be developed.

The IA also considers the direct, and indirect, impacts of the policy on rural areas, small and micro businesses, international trade, market competition, innovation, and, in accordance with the Equality Act 2010, protected groups.

The IA analyses the policy to include phase out dates out to 2035, however, the latter three years are presented for respondents' information, and are not considered tangible policy options.

**Further questions for the consultation** (please feel free to comment on some or all of these questions):

- 8 Do you consider the estimated impacts presented in the IA to be reasonable? If not, please specify the changes you would make, noting which assumptions and uncertainties you believe to be incorrect.
- 9 How do you expect the upfront cost of:
- a. Battery electric buses
- b. Hydrogen fuel-cell buses
- c. Battery replacements
- d. Fuel-cell replacements
- e. Electric powertrains

to change over the period 2025 to 2032. Please provide, or cite, any evidence you may have, or which informed your understanding.

- 10 In the absence of any policy/regulation, what would you expect the uptake of zero emission buses to be over the period 2025 to 2032.
- 11 Do you believe that changes proposed through Ofgem's Access and Forward-looking Charges Significant Code Review: Consultation will contribute to reducing the cost of obtaining sufficiently large electrical connections at bus depots?

- Do you have any evidence to indicate that additional zero emission buses might be needed on routes, given current and expected technological developments, and if so to what extent?
- 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?
- 14 Providing any evidence, how would you expect zero emission and conventional powertrain purchases to vary in the years prior to the implementation of the end of sales date?
- 15 How might you expect the end of sales to effect bus sector and related exports?
- 16 Providing evidence, if possible, what do you understand the operating lifespan of the following types of vehicles to be?
  - a. Diesel buses
  - b. Battery electric buses
  - c. Hydrogen fuel cell buses
- 17 Please explain your understanding, providing evidence where appropriate, of the costs and barriers relating to the provision of infrastructure for zero emission buses (both hydrogen and battery electric).
- 18 What impact might the proposed policy have on different population demographics and social groups, particularly those with defined protected characteristics under the Equality Act 2010?
- 19 Please outline your understanding, providing evidence if possible, of the future apportioning of the bus fleet between hydrogen fuel cell and battery electric buses.
- 20 Do you believe that ending the sale of new, non-zero emission buses might cause operators to stretch the operational life of existing non-zero emission buses? If yes, please outline the extent to which you believe this might occur.
- In relation to powertrains, how do you expect purchasing decisions to vary in the period preceding any end of sales?
- 22 Please outline your understanding of the need, and costs relating to mid-life component replacements for battery electric and hydrogen fuel cell buses.
- 23 Based on the Impact Assessment, what payback time, in years, would be economical for battery electric technology to be utilised in a given bus fleet?
- 24 Based on the Impact Assessment, what payback time, in years, would be economical for hydrogen fuel cell electric technology to be utilised in a given bus fleet?

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## 25 Any other comments?

## How to respond

The consultation period began on 26 March 2022 and will run until 21 May 2022. Please ensure that your response reaches us before the closing date. If you would like further copies of this consultation document, it can be found at <a href="https://www.gov.uk/dft#consultations">https://www.gov.uk/dft#consultations</a> or you can contact <a href="mailto:buses@dft.gov.uk">buses@dft.gov.uk</a> if you need alternative formats (Braille, audio CD, etc.).

Please send consultation responses to:

Bus, coach and minibus phase out consultation

Zero Emission Bus and Coach Policy

3rd floor

**Great Minster House** 

33 Horseferry Road

London

SW1P 4DR

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of a larger organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled.

There will be alternative consultation events following publication. If you would be interested in attending these events, please contact buses@dft.gov.uk

If you have any suggestions of others who may wish to be involved in this process, please contact us.

#### **Freedom of Information**

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the Freedom of Information Act 2000 (FOIA) or the Environmental Information Regulations 2004.

If you want information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information, we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data in accordance with the Data Protection Act (DPA) and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

#### **Data Protection**

The Department for Transport (DfT) is carrying out this consultation to gather evidence on the ending of sale of non-zero emission buses in the UK. This consultation and the processing of personal data that it entails is necessary for the exercise of our functions as a government department. If your answers contain any information that allows you to be identified, DfT will, under data protection law, be the Controller for this information.

As part of this consultation we're asking for your name and email address. This is in case we need to ask you follow-up questions about any of your responses. You do not have to give us this personal information. If you do provide it, we will use it only for the purpose of asking follow-up questions.

## What will happen next

A summary of responses, including the next steps, will be published within three months of the consultation closing on gov.uk. Paper copies will be available on request.

If you have questions about this consultation please contact:

Zero Emission Bus and Coach Policy

3rd floor

**Great Minster House** 

33 Horseferry Road

London

SW1P 4DR

Further background information can be found at <a href="https://www.gov.uk/government/consultations/ending-the-sale-of-new-diesel-buses">https://www.gov.uk/government/consultations/ending-the-sale-of-new-diesel-buses</a>

## Annex A: Impact assessment

- A.1 When responding to the consultation, please comment on the analysis of costs and benefits, giving supporting evidence wherever possible.
- A.2 Please also suggest any alternative methods for reaching the objective and highlight any possible unintended consequences of the policy, and practical enforcement or implementation issues.

The Impact Assessment is published as a separate document, alongside this consultation.

## Annex B: Consultation principles

The consultation is being conducted in line with the Government's key consultation principles which are listed below. Further information is available at <a href="https://www.gov.uk/government/publications/consultation-principles-guidance">https://www.gov.uk/government/publications/consultation-principles-guidance</a>

If you have any comments about the consultation process please contact:

Consultation Co-ordinator Department for Transport Zone 1/29 Great Minster House London SW1P 4DR Email consultation@dft.gov.uk