



Office for  
Low Emission  
Vehicles

# Ultra-Low Emission Bus Scheme

## Guidance for participants

March 2018

The Office for Low Emission Vehicles (OLEV) is a cross Government, industry-endorsed team combining policy and funding streams to simplify policy development and delivery for ultra-low emission vehicles. OLEV currently comprises people and funding from the Departments for Transport (DfT), Business, Energy and Industrial Strategy (BEIS). Its core purpose is to support the early market for electric and other ultra-low emission vehicles (ULEVs). OLEV is based in the Department for Transport and this document is published by the Department for Transport.

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Office for Low Emission Vehicles  
Department for Transport  
Great Minster House  
33 Horseferry Road  
London SW1P 4DR  
Telephone 0300 330 3000  
Website [www.gov.uk/olev](http://www.gov.uk/olev)

General email enquiries: [olev.enquiries@olev.gsi.gov.uk](mailto:olev.enquiries@olev.gsi.gov.uk)

Domestic recharging grant enquiries: [chargepoint.grants@olev.gsi.gov.uk](mailto:chargepoint.grants@olev.gsi.gov.uk)

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# Introduction

The way we power our vehicles is constantly evolving, presenting both challenges and hugely significant opportunities for the UK to improve our environment and air quality, grow the economy, and deliver to people the independence and mobility they want.

The Government is committed to grasping this opportunity. Our vision is that by 2050 almost every vehicle in the UK will be a low or ultra-low emission vehicle (U/LEV). Our aim is to ensure the UK is at the forefront of their design, development and manufacture, making us one of the most attractive locations for U/LEV-related investment in the world. The Ultra-Low Emission Bus Scheme is tangible proof of this commitment.

In July 2016, the Department for Transport (DfT) and the Office for Low Emission Vehicles (OLEV)<sup>1</sup> announced the distribution of funds under the Low Emission Bus Scheme (LEBS1). Thirteen organisations, mostly bus operators and local councils, received £30.4 million between them to help buy low emission buses and the infrastructure needed to support them. This will deliver over 300 new low emission buses onto roads in England and Wales.

In November 2016, the Government announced another £100 million of funding for the period 2017/18 to 2020/21 to further support low emission buses. £60 million will be used to buy new buses, and £40m has been distributed via the Clean Bus Technology Fund to support local authorities' retrofitting programmes for existing buses.

On 25 August 2017 the Government announced £11.1m of the £60m would be used to fund the best of the bids for LEBS1 which narrowly missed out in July 2016. As such, six more local councils and bus operators will now put another 150 new low emission buses on the road. The remaining £48m for new buses will be used to run a more ambitious Ultra-Low Emission Bus Scheme. As before, this is an OLEV funded scheme which will be administered by DfT.

The Ultra-Low Emission Bus Scheme's two main aims are to:

- increase the uptake of ultra-low emission buses (ULEB), speeding up the full transition to a LEB and ULEB fleet in England and Wales, reducing the need for subsidy support; and
- support the improvement of local air quality. Buses can be a significant contributor to the UK's air quality problems on some of its most polluted roads.

This guidance provides more detail on bidding for funding, eligible vehicles and the assessment criteria. We will support robust, ambitious and forward thinking proposals for vehicle operations and infrastructure. As with LEBS, the Department will assess bids against the following

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<sup>1</sup> <https://www.gov.uk/government/organisations/office-for-low-emission-vehicles>

criteria: ambition, deliverability, emissions (air quality and greenhouse gas), and value for money.

# Funding and eligibility

## **Overview**

- 1.1 £48m of ULEBS funding is available for the purchase of ULEBs and the infrastructure to support them between 2018/19 and 2020/21.
- 1.2 Our intention is to support a sustainable market in ultra-low emission buses in the long term, therefore we are expecting competitive bids, and will particularly reward those demonstrating a reducing need for Government subsidy over the period of the scheme and beyond.

## **Rules of the scheme**

### **Who is eligible?**

- 1.3 Any English or Welsh Local Authority, Combined Authority or Bus Operator can apply for funding.
- 1.4 Bidders may submit joint bids (e.g. two or more local authorities or bus operators). However, they will need to make clear who the lead bidder is and how they would work together if their bid was accepted.
- 1.5 Combined Authorities may bid, or coordinate a bid from the areas they cover. Local Authorities may still apply as a separate entity if the combined authority which covers them is bidding.

### **What is eligible?**

- 1.6 All new ultra-low emission buses and related infrastructure will be eligible for funding, as long as they meet the rules set out in this guidance. However, as with LEBS, the most ambitious plans for transforming fleets will be most likely to succeed in securing funding. Thus, models with higher GHG and AQ savings as per ULEB certificates, will be favoured.
- 1.7 For LEBS, low emission buses had to produce at least 15% less greenhouse gas emissions (GHG) than a conventional Euro V diesel bus and meet Euro VI engine regulations.
- 1.8 To qualify as an ultra-low emission bus, buses must produce at least 30% less GHG emissions than a conventional Euro VI bus and meet Euro VI engine regulations.

Buses will continue to have their GHG emissions assessed on a Well-to-Wheel basis, but using a grid average for all fuels i.e. the most recent UK grid annual average of electricity, diesel or methane, and will not be allowed to count the savings achieved by using renewable fuels.

- 1.9 As there is not currently a grid average for hydrogen, bids will be assessed on a case by case basis, with the need for infrastructure to clearly demonstrate renewably sourced hydrogen.

- 1.10 ULEBS is a scheme designed to support ultra-low emission buses themselves. Separate funding structures such as the BSOG LCEB incentive and the RTFO reward the use of renewable fuels.
- 1.11 Bids will only be accepted for new ULEBs. Bids for coaches or minibuses<sup>2</sup> will not be accepted; nor will bids for buses which are retro-fitted with technology to reduce their greenhouse gas emissions.
- 1.12 The LowCVP have developed a new ULEB definition and test process. The procedure is now even more representative of real world conditions (e.g. lower temperature and ancillary loads) and remains in line with changes being made by TfL to their Bus test procedure. This ensures there is one test for the industry to conduct and test data remains comparable.
- 1.13 The LowCVP have adjusted the test phase order and warm up cycle which had been identified as potentially giving artificially low NOx emissions in the outer and inner London phases due to high speeds of the rural phase. The Outer London phase is now used for the warm up (previously rural) and the high speed rural phase is performed last (previously first) in the test phase order.
- 1.14 For more information on the variety of technologies potentially eligible for funding please look at the Low Carbon Vehicle Partnership's Low Emission Bus Guide <http://www.lowcvp.org.uk/projects/bus-working-group/lowemissionbusguide.htm>
- 1.15 Buses must be used on one or more local bus services<sup>3</sup>.
- 1.16 A 3 year minimum warranty will be required on all vehicles with an option to extend this to 5 yrs. Warranties for infrastructure will also be viewed favourably, especially where bidders fund this themselves. In some instances, i.e. operating buses requiring gas refuelling systems, a warranty can provide reassurance where problems occur, minimise disruption and help maintain an efficient service to passengers.
- 1.17 A 3 year minimum warranty will be required on the battery and electric drive train, with the option to extend the warranty for an extra 2 years. Or extra evidence of battery performance to show reasonable performance after three years of use.
- 1.18 Infrastructure only bids are also eligible for funding. Organisations submitting such bids will need to demonstrate how this infrastructure will enable the purchase and operation of low emission buses in the short to medium term.
- 1.19 Bids must demonstrate planning for data collection to prove GHG emissions reduction and AQ improvement. Please see section 2.2 for details.

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<sup>2</sup> A minibus is a motor vehicle constructed or adapted to carry more than 8, but not more than 16, seated passengers in addition to the driver.

<sup>3</sup> A local bus service is one which is available to members of the general public, has scheduled stopping places and a clear, easily accessible timetable and route map.

## How much is available?

- 1.20 The £48m of funding for ULEBS is available in the following years:
- 2018-19 £11m
  - 2019-20 £19.5m
  - 2020-21 £17.5m
- 1.21 Organisations can submit bids for up to three years of funding, indicating how much funding will be required in each of these financial years (i.e. you can bid for funding across two, three or just a single year).
- 1.22 We recognise there are limitations on accurately anticipate in year spend over a three year period. We will therefore offer bidders the opportunity as appropriate to review their bids annually, to take account of any changing circumstances. We anticipate this will take place at the same time for all bidders, provisionally in December-February with the first review point taking place in early 2019.
- 1.23 There is no minimum size for bids and organisations may submit more than one bid if they wish; however, if the bid is over £7m, they must submit a separate bid demonstrating that the project can be scaled back to £7m. This is designed to encourage a wide range of bidders to come forward and to ensure DfT are able to fund as many bids as possible.
- 1.24 We want to ensure we support the maximum number of bids and spread ULEBS funding across the country in order to have the greatest possible impact on reducing CO2 emissions and improving Air Quality. As such, bids should demonstrate whether they can be scaled back (for instance reducing the number of buses bid for) in the event that the government was to offer them less funding than they initially bid for.
- 1.25 DfT will contribute up to 50% (or up to 75% where the bus can operate in zero emission mode) of the cost difference between the ULEB and the standard conventional diesel equivalent of the same total passenger capacity. However, bids which request less funding will be favoured – see details of the value for money scoring criteria.
- 1.26 For infrastructure, we will contribute up to 75% of the capital expenditure incurred as a result of its purchase and installation, and will reward bids asking for less funding. The capital cost can include surveys at the point of procuring the infrastructure provided that these are capitalised. The eligible expenditure also includes (but is not limited to):
- cost of charging unit or refueling station;
  - electrical or other power components;
  - civil engineering works;
  - labour costs (for installation);
  - hardware costs;
  - capital costs of developing associated software systems.

- 1.27 Examples of the infrastructure most likely to be bid for under this fund are: standard, fast, rapid conductive and inductive charging equipment, gas (portable or fixed) and hydrogen re-fuelling systems.
- 1.28 DfT encourage applicants to work internally and externally with project partners to see how upgrades to infrastructure can draw from other funding streams to support uptake of other low carbon vehicle types e.g. access to gas refuelling for HGVs, publicly available charging points for cars, taxis, vans. This should in no way affect the efficient and effective operation of any buses and must meet official OLEV guidelines.

### ***When is the funding available?***

- 1.29 The window for grant funding will be open for three financial years, 2018/2019, 2019/2020, 2020/2021.
- 1.30 Grants will only be paid once an order for a bus and/or supporting piece of infrastructure has been made. Bidders should indicate when they expect to do this and when buses are expected to come into service. Buses should come into service no later than 12 months from the order date. In theory the last buses would come into service no later than 31 March 2022.
- 1.31 All bids for funding under ULEBS should be submitted to the Department by 30th June. We will aim to let bidders know whether their bids have been successful by the end of September 2018. The exact timing of the announcement will depend upon European Commission clearance under the EU state aid rules for the Government to start to make payments under ULEBS.

### ***Calculating Grants***

- 1.32 In order to qualify as a ULEB under the new LowCVP testing criteria, buses must achieve a 30% GHG saving in comparison to a standard Euro VI diesel bus and meet Euro VI engine regulations.
- 1.33 Grant funding will only be awarded subject to proof of a ULEB certificate.
- 1.34 This means that the manufactures of all vehicles that win funding in ULEBS, will need to test the winning vehicle models through the new ULEB testing procedure.
- 1.35 We recognise that due to time constraints, it may not be possible for buses to have been tested on the new ULEB test cycle before bids are submitted. In recognition of this, the Department will consider bids based on vehicles currently certified as LEB, if they have manufacturer assurance that the vehicles are likely to pass the new ULEB testing procedure.
- 1.36 Similarly, where buses are very close to production, but not yet at a stage where they can be tested, the Department will consider bids based on manufacturer predicted performance, provided the manufacturer sets

out how and when the bus is expected to be tested and verify that it meets the requirements.

- 1.37 In both cases, the Department may make an offer of grant (subject to its wider assessment), but no grant will be paid out until the certificate of compliance with the new ULEB testing procedure has been sent to the Department.
- 1.38 The funding model for the grant will use a sliding scale based on a fixed value (the “efficiency value”) per gram of Well-To-Wheel carbon dioxide equivalent per kilometre (£ per gCO<sub>2</sub>e/km) saved (the “base grant”).
- 1.39 Under this model, bids will be awarded £150 per gram CO<sub>2</sub> equivalent saved against the baseline. There will also be a ‘top-up’ amount available for bidders that wish to purchase buses capable of running on zero emission (ZE) only mode<sup>3</sup> (the “top-up” grant). This equates to £500 per kilometre in zero emission mode with a cap of 100km.
- 1.40 The Department will be capping the “base grant” at 50% of the cost difference of the ULEB and the cost of the standard diesel equivalent. In addition, the Department will also be capping the “top-up” grant. Crucially, no bidder will be able to receive a grant (base grant + top up grant) that exceeds 75% of the incremental cost of the ULEB over a standard diesel equivalent bus.
- 1.41 Alongside this guidance, the Department has published a calculator to help potential bidders calculate the maximum amount that they are eligible to bid for, per bus. Bidders will be required to submit a completed calculator as part of their bidding proforma, together with evidence of costs for ULEB and conventional diesel equivalent. The calculator will also provide a value for money score (VfM) to bidders based on the information they have provided. This VfM component will then be incorporated into the scores for the other criteria to arrive at an overall final score for the bid.
- 1.42 The test certificate is proof that the bus is classed as a ULEB – only these are eligible for funding under this scheme.
- 1.43 Bidders should be aware that bids for micro-hybrid (“efficient diesel”) buses are unlikely to be awarded funding. We believe that that cost difference between these vehicles and equivalent conventional diesels is sufficiently small that the Government does not need to make funding available to support their purchase.
- 1.44 This is a technology – neutral outcomes focussed programme and so gas buses are eligible if they meet the tougher assessment criteria.
- 1.45 A full list of the documents that bidders must provide as part of their application is listed in the proforma. The proforma is being published alongside this guidance.

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<sup>3</sup> Buses must be able to complete the entire Inner London Phase of the test cycle with zero tailpipe emissions (carbon and regulated pollutants) in order to qualify as ZE capable. The top-up grant funding will be awarded for ZE capability in excess of this minimum requirement.

**Checklist:**

To qualify for ULEBS funding, bids must be:

- From an English or Welsh local authority or bus operator
- For new ULEBs accredited by the LowCVP Accreditation scheme
- For ULEBs running on one or more local bus services
- For ULEBs coming into service no later than 31<sup>st</sup> March 2022
- For infrastructure needed to run ULEBs
- For a maximum of 50% of the cost difference between an ULEB and diesel equivalent, or up to 75% if the ULEB has zero emissions capability(75% for infrastructure).

# Further information

- 2.1** Responsibility for estimating and controlling all costs lies entirely with the bidder. The Department's agreed contribution will be the maximum that the bidder will receive. The Department will not be able to provide any funding beyond March 2022 nor will it consider any contribution to cost increases that may arise. Bidders must take on any risk to costs and factor that into their bid from the start.

## ***Monitoring and Evaluation***

- 2.2** Bids will need to demonstrate that sufficient consideration has been given to how GHG and air quality pollutant emissions will be monitored and evaluated, in keeping with the Department for Transport's Monitoring and Evaluation Strategy. This could include any existing monitoring arrangements in place on the route(s) set out in the bid. Unless the route is bus-only, there can be difficulties in monitoring specific emission levels. As such, we may monitor and evaluate air quality through other parameters, such as the degree of zero emission running on the route.

- 2.3** One of the stipulations of receiving ULEBS funding is that operators will be required to submit data as part of a longer term data monitoring project run by the department. This data will facilitate further research by the department and could encourage further take up of ULEBS in the industry. Below we have highlighted some of the key considerations for operators when collecting and processing data as required by DfT under the following headings:

- Data to be collected
- Methods to collect data
- Data format
- Staff time and resources required

All winners of LEBS participated in data collection and have had to make a small investment in data management and fuelling infrastructure and log in systems to comply. DfT will not be providing funding towards these, however the costs are relatively small. We discuss the details of these in an annex at the end of this guidance and recommend operators take these into consideration when implementing their data collection.

- 2.4** For Further details, please see Annex A.

## ***Certification***

- 2.5** Bidders will need to approach manufacturers to get the relevant certificates for the buses they are bidding for. The LowCVP host an information portal on their website with details of the certified ULEBS and

corresponding certificates, as these become available. See <https://www.lowcyp.org.uk/Hubs/leb/Home.htm>

- 2.6 In recognition that LowCVP are launching a new ULEB standard, the Department will consider bids based on vehicles currently certified as a LEB, but which are likely to qualify as a ULEB once tested. This will require manufacturer assurance that the vehicles are likely to pass the new ULEB testing procedure.
- 2.7 Where buses are very close to production, but not yet at a stage where they can be tested, DfT will consider bids based on manufacturer-predicted performance, provided the manufacturer sets out how and when the bus is expected to be tested and verify that it meets the requirements of ULEBS.
- 2.8 In both cases, the Department may make an offer of grant, but no grant will be paid out until the certificate has been sent to the Department.
- 2.9 The Department's agreed grant contribution will be the maximum the bidder will receive (i.e. the grant will not increase if certified performance is better than estimated). If the certified performance is worse than the predicted performance, then the agreed contribution may be reduced, depending upon the circumstances.

### ***Calculating Grants - Costs***

- 2.10 You will need to approach manufacturers to obtain cost details for individual bus models.
- 2.11 As explained elsewhere, your bid will need to identify the conventional diesel equivalent to the buses you are bidding for. The conventional diesel equivalent is determined by the average performance of a range of conventional diesel buses. Data from existing vehicles has been evaluated by the LowCVP and final figures have been incorporated into all LEB certificates published.

### ***Bus Service Operators Grant (BSOG) low carbon incentive (LCEB).***

- 2.12 “DfT supports bus services through the Bus Service Operators Grant (BSOG) system – worth £250m a year. As part of the system, operators using low carbon emission buses (LCEB) to run their services receive an extra 6 pence per kilometre. These vehicles would need to produce at least 30% fewer greenhouse gas emissions than an equivalent Euro III diesel bus. We remain committed to reforming BSOG, to bring it up to date.
- 2.13 The current rules can be found here: <https://www.gov.uk/government/collections/bus-services-grants-and-funding>

## ***Role of manufacturers***

**2.14** We recommend that, as part of their discussions with vehicle manufacturers, bidders emphasise the significant opportunity this scheme offers to increase the size of the market in ultra-low emission buses. In turn, we strongly urge manufacturers to respond positively to this opportunity in their pricing and marketing of vehicles eligible for ULEBS funding. By pitching their prices at a reasonable level, they can help ensure that the funding available results in as many orders as possible for new vehicles during the lifetime of the scheme. Moreover, this will help create a permanent, long term, healthy and growing market for these buses. Bidders should include details of any commitments made by bus manufacturers, for example to reduce the up-front cost incrementally over the funding period and beyond. Where they exist, copies of written agreements should be included in the bid.

## ***State aid***

**2.15** Successful bidders must ensure the way they fund their project is compatible with EU state aid rules, especially if they are receiving funding through more than one (public) scheme. The rules against cumulating aid relate to the same eligible costs (e.g. the cost of a bus). Where aid is received from more than one source for the same eligible costs then care must be taken, with respect to ULEBS, to ensure the total amount of aid which the bidder is receiving does not exceed:

- a. (i) 50% of the difference between the cost of the ULEB and its conventional diesel equivalent (or 75% of the cost difference where the ULEB will operate in zero emission mode), or
- b. (ii) 75% of the overall cost of supporting infrastructure.

**2.16** The maximum grant level per bus represents the maximum level of UK Government funding which is compatible with the aid levels which we have notified to the EU Commission. If the bidder chooses to request a lower sum through the OLEV bus scheme and fund the remainder itself up to the maximum grant ceiling, which could be made up from alternative sources of Government aid. But, the state aid rules would be breached if the additional funding, when added to the funding under ULEBS, went above that ceiling.

**2.17** Bidders must confirm they are not currently the subject of a recovery order following a Commission decision declaring any aid illegal and incompatible with the internal market. Should the bidder become subject to a recovery order during the period of the grant they must notify the Secretary of State immediately and no further aid under this Grant Offer Letter will be made whilst the recovery order is in force.

## ***Match funding***

**2.18** Please note that no other forms of OLEV funding can be used towards the cost of buying the same vehicles (however, see the next answer

below as regards infrastructure). All bids for ULEBS should make clear the source of any additional funds which the bidder wishes to use for match funding.

- 2.19** Match funding is that which a bidder is prepared to contribute towards the cost of ultra-low emission buses and/or supporting infrastructure, separately from funding they obtain through ULEBS. That funding can cover all or a proportion of the remaining cost not covered by ULEBS (though where the source of the funding is other Government aid, see the previous paragraph for limitations relating to the rules on state aid). Bidders will need to satisfy themselves that any other public funding they receive can be used for this scheme. Using two sources of Government funding e.g. a combination of Clean Air Fund and Implementation Fund funding to subsidise infrastructure costs would not constitute match funding.

# Assessment Criteria

- 3.1** The Scheme is expected to support a range of bids which form part of a long term strategy to increase the uptake of ultra-low emission buses into fleets and tackle poor air quality. The Department will assess bids in line with the following criteria: Ambition, Deliverability, Air Quality and Value for Money.
- 3.2** Bids should be concise, with the relevant information clearly set out.

## ***Ambition***

- 3.3** A clear explanation of the scale of the bidder's ambitions to replace conventional diesel buses with ultra-low emission alternatives should be given over the period of the grant and beyond. If these form part of a wider strategy to tackle air quality, please make this clear. The following considerations will be used to assess each bid:
- level of greenhouse and air quality savings potential of vehicles, compared to a conventional Euro VI diesel bus. Vehicles with greater greenhouse gas and air quality savings, as evidenced by manufacturer testing, will be favoured.
  - evidence of ambitious fleet replacement or preservation of an already predominantly low/ultra-low emission bus fleet. Your bid must be supported by quantitative evidence where applicable.
  - scalability towards future projects to replace conventional diesel buses with ultra-low emission alternatives over the period of the grant and beyond
  - innovation of technology coupled with some track record of being tried and tested
  - potential for efficient operation of buses - e.g. idle/charging time minimised; bus used on a popular route; buses rotated efficiently to ensure they make a difference to the fleet. One example of this could be the positioning of infrastructure to use the buses most efficiently.
  - assessment of ambition will take into account the size of the local authority or bus operator submitting the bid. We would expect that the larger the bidder, the more ambitious the bid, i.e. we understand that for a small operator, the acquisition of one or two ultra-low emission buses would pose a similar risk to a bigger operator acquiring twenty. A proven track record of acquiring low/ultra-low emission buses (either with or without Government support) is not required, however, we will favour

bids with a long term view, which demonstrate an ambition to purchase further ultra-low emission buses after the lifetime of the grant.

- 3.4 Innovation:** An underlying objective of the scheme is to understand how measures used effectively on some routes can be rolled out more widely. Setting precedents and thinking about how measures might transfer in the future are important factors and attempts to innovate within this area will be looked upon favourably.

### ***Deliverability***

- 3.5** Bidders are expected to provide as much evidence as possible to demonstrate plans are credible and deliverable. Bidders should, however, apply the principles of proportionality in doing so; higher value, more complex bids are expected to provide more evidence. For example, a bid for a large number of rapid chargers and electric buses would necessitate more evidence than a bid for a discrete number of hybrid buses. Proposals must demonstrate they have a sound strategy for delivery, including identification of potential risks and subsequent risk management. Supporting evidence of a bidder's case may include, but not be limited to, some or all of the following:

- **Thorough project planning, indicating timescales, milestones and dependencies**<sup>4</sup>. Public consultation can cause delays, thus bids showing this is manageable, or assessing the extent to which this may be an issue for overall deliverability, are likely to be stronger. We expect consultation may only be required for more complex infrastructure bids. Equally, where third-party permission may be required, for example in the acquisition of land, bids should give careful consideration of how this affects your bid;
- **Clearly structured project management roles and responsibilities**. This will clearly identify the roles, responsibilities and the level of involvement of any partnership bodies and stakeholders in the delivery process;
- **Evidence of effective interaction with 3rd parties e.g. planning authorities, match-fund partners**. Bidders are encouraged to outline how they intend to fund their ambitions for fleet conversion. Match funding is encouraged and any evidence of this provided, for example through agreed contracts or letters of intent, will strengthen a bid. The Department defines match funding as that which a bidder is prepared to contribute towards the purchase of ultra-low emission buses and/or supporting infrastructure separately from any funding they receive through this scheme.

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<sup>4</sup> This could include a brief description of how the bid may fit into a wider initiative, for example a bid may be seeking to install a number of electric induction charging points as part of wider plans for a low-emission zone in a particular area. In this case, please describe briefly the current status (e.g. is it established or in development).

## ***Air Quality***

- 3.6** Over recent decades, UK air quality has improved significantly thanks to concerted action at all levels but there is more to do. The most immediate air quality challenge is tackling the problem of nitrogen dioxide (NO<sub>2</sub>) concentrations around roads - the only statutory air quality limit that the UK is currently failing to meet.
- 3.7** Poor air quality is the largest environmental risk to public health in the UK and investing in cleaner air and doing even more to tackle air pollution are priorities for the UK government. Therefore bidders must be able to clearly explain the air quality challenge the bid is addressing. Those bidders who are clearly able to demonstrate how their bid will help to bring local NO<sub>2</sub> concentrations within statutory limits within the shortest possible time will be favoured. Furthermore, proposals which integrate ultra-low emission buses into a coordinated approach to tackling poor air quality, for example through other modes of transport are welcomed.
- 3.8** The strongest bids will demonstrate that new buses will operate regularly on roads suffering from poor air quality i.e. on a route covering roads in regular exceedance of statutory limits of NO<sub>2</sub>. Bidders may also wish to consider whether using the bus on other roads can indirectly achieve air quality improvements, for example by adding services to a new or existing park & ride scheme.
- 3.9** Bids which aim to replace the most polluting buses in the fleet will be favoured.
- 3.10** In addition, stronger bids will indicate a greater use of zero-emission running in these areas.

## ***Value for Money***

- 3.11** We want to ensure that the £48m delivers the maximum number of low emission buses on the road and therefore the maximum GHG and air pollutant saving during the funding period of the scheme and in the longer term. The following considerations will therefore be used to assess value for money in each bid:
- **Amount of grant sought:** bidders seeking a lower amount of grant per bus and/or infrastructure than is available will score more highly.
  - **Resulting reduction in GHG/Air pollutant emissions:** higher reductions in CO<sub>2</sub> receive a higher score as does a longer range of zero emissions capability.

Bidders are also required to submit a separate GHG and air quality improvement spreadsheet which will be published alongside the guidance. This spreadsheet will contain information relating to the number of buses bid for, the planned routes for these buses as well as average annual mileage expected for these buses. The full set of information and further details are located within the spreadsheet.

**Infrastructure:** the bidder should fully justify the value for money of the infrastructure. They should indicate why the chosen infrastructure has been selected as the most appropriate. If there is scope for the infrastructure to be used by other vehicles, without impacting the operation of the ULEBs, this should be indicated. The strongest bids for infrastructure will demonstrate how they will enable the purchase of more ultra-low emission buses and facilitate a faster uptake of low emission buses both within the funding window and beyond. Finally careful consideration of its location in order to contribute to tackling air quality issues as highlighted in the bid will be favourably viewed; The do minimum' scenario in your calculations as well as any assumptions underlying the calculations should be made clear. In order for the DfT to understand how these impacts have been estimated, the bidder must illustrate the state of the bus fleet, the effect of replacing older buses and how this has been considered in your calculations.

## Assessment of bids

**3.12** The bids will be given a mark of nought to four against the core scheme criteria. Each mark out of four will be then be weighted according to the percentages in the table. The bids will primarily be assessed relative to one another, but should none of them reach a basic standard we reserve the right not to award any funds.

<b>Ambition</b> 30%	<ul style="list-style-type: none"><li>• 4 – Comprehensive measures</li><li>• 3 – Comprehensive measures but with some issues</li><li>• 2 – Some good ideas but room for improvement</li><li>• 1 – Major issues</li><li>• 0 – No consideration</li></ul>
<b>Deliverability</b> 10%	<ul style="list-style-type: none"><li>• 4 – Comprehensive measures</li><li>• 3 – Comprehensive measures but with some issues</li><li>• 2 – Some good ideas but room for improvement</li><li>• 1 – Major issues</li><li>• 0 – No consideration</li></ul>
<b>Air Quality</b> 30%	<ul style="list-style-type: none"><li>• 4 – Comprehensive measures</li><li>• 3 – Comprehensive measures but with some issues</li><li>• 2 – Some good ideas but room for improvement</li><li>• 1 – Major issues</li><li>• 0 – No consideration</li></ul>
<b>Value for Money</b> 30%	<ul style="list-style-type: none"><li>• 4 – Comprehensive measures</li><li>• 3 – Comprehensive measures but with some issues</li><li>• 2 – Some good ideas but room for improvement</li><li>• 1 – Major issues</li><li>• 0 – No consideration</li></ul>

# Application Process

- 4.1** If you would like to apply to the scheme, please fill out the application form on the Gov.UK website at <https://www.gov.uk/government/publications/low-emission-bus-scheme>. Applicants should complete all sections as explained on the form and this should be accompanied by any necessary supporting material/evidence.
- 4.2** All applications to the scheme will be assessed against the criteria set out above.

## ***Submission of Bids***

- 4.3** Bids need to be submitted by June 30<sup>th</sup> 2018. We hope to announce the winners by the end of September 2018, subject to us receiving state aid clearance from the EU Commission by that time.
- 4.4** You must express your interest in bidding by emailing [ulebs@dft.gsi.gov.uk](mailto:ulebs@dft.gsi.gov.uk) by 30<sup>th</sup> April 2018.
- 4.5** An electronic copy of the bid should be sent to [ulebs@dft.gsi.gov.uk](mailto:ulebs@dft.gsi.gov.uk).
- 4.6** You must provide the following alongside your bid application form:
- (if you are an operator of bus services) a signed declaration that you hold a current PSV licence and operate local registered bus services;
  - quotes from the manufacturer(s) for the cost of the low emission bus(es) and its conventional diesel equivalent;
  - a certificate from the manufacturer proving the vehicle is a ULEB;
  - the filled-in ULEB calculator form, with your calculation of base grant, top-up grant and total grant eligibility.
- 4.7** • (where your bid is based on manufacturer-predicted performance) evidence from the manufacturer setting out how and when the bus is expected to be tested, and verifying it meets the requirements of an ULEB.

## ***Enquiries***

- 4.8** If you have any questions about this guidance, including clarification on the information and appraisal requirements for bids to the scheme, please email [ulebs@dft.gsi.gov.uk](mailto:ulebs@dft.gsi.gov.uk).
- 4.9** To help organisations who are thinking of bidding, DfT will be hosting a ULEBS workshop at Great Minister House, London SW1P 4DR in May. Please contact us at [ulebs@dft.gsi.gov.uk](mailto:ulebs@dft.gsi.gov.uk) by 15<sup>th</sup> April if you would like to come to the workshop.

# Annex A: ULEBS Data Collection

## Introduction

Information provided below is based on experience from ULEBS monitoring and evaluation project to date.

## Data to be collected

The data to be collected from the ULEBS monitoring programme mainly relate to the daily operation of the bus. Much of this data can be automatically collected using telematics systems which are a cost effective data collection solution and can be easily incorporated into daily running services. The following data should be included, this list is not exhaustive:

- Daily distance travelled by each vehicle
- Battery State of Charge (SoC) – start of day for each vehicle (if applicable)
- Battery State of Charge (SoC) – end of day for each vehicle (if applicable)
- Vehicle maintenance cost
- Route operated each day
- Baseline data for bus fuel consumption and distance driven from same route (or similar routes)
- Attitudinal and perception information from drivers and other bus operator staff

## Methods of data collection

Various methods are possible and most operators already use some or all of these methods in the business-as-usual operations. In order to ensure most robust, reliable and cost effective data collection, the following methods should be considered:

- For non-electric fuel consumption, data from fuel dispensing systems should be used. This will capture amount of fuel dispensed, vehicle mileage and the time and date of each event.
- For electricity usage, each charge event should be captured by the charging system and stored along with corresponding vehicle ID and timestamp. It should include bus battery SoC at start and end of charge event, as well as total amount of energy supplied.
- All other vehicle-based data such as, distance, operational time, Battery SoC, zero-emission mode operation, duty cycle start and end, etc...should be captured via a telematics system. Telematics allow for the automated collection of information for many on-vehicle and charging measurements

- and there may be an option to add this to any vehicle either from new or as a retrofit. Telematics is the optimal data collection method for such data, as it can be less prone to errors or simply forgetting to collect the data.
- Data relating to items such as reliability (hours out of service etc) and other maintenance or operational data are often collected manually, and stored electronically for each vehicle.

## Data format

For ease of processing, all data should be reported in an electronic format, using a common format as CSV or Microsoft Excel.

## Staff time and resource requirements

Much of the data can be collected automatically via telematics or fuel dispensing systems. Telematics systems are relatively cheap to install and are available either directly from the bus manufacturers as factory fitted options or, as an after-market fit from third parties. We would recommend engaging with bus manufacturers early in the procurement process to agree on how telematics can be provided.

Ensuring all data is captured and stored electronically should not require a lot of time or person effort on an ongoing basis. For automated systems such as, fuel dispensing systems or telematics, this can be achieved by setting up reports that can be run on a regular basis from the database or software tools provided. Manual data collection can be built into existing roles (such as fuelling, or maintenance) as this is data which is often already collected. The key is to formalise the collection electronically (which may mean copying written paper notes into a spreadsheet. This not likely to require more than a few minutes per vehicle per day. It is also important to check the data being collected on regular basis to make sure it is correct and consistent.

Depending on the sources of data, the processing required and analysis to be undertaken on the data, it is possible to use existing staff capable of data manipulation and analysis or, to engage with a suitably experienced third party.