

# Green Bus Fund 3: Guidance for Bidders

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# Foreword



What pushes the technological boundaries of today invariably becomes tomorrow's new frontier.

All the great pioneers share the foresight to spot and develop groundbreaking innovations before they burst onto the scene. When John Greenwood took the decision to introduce the horse drawn omnibus in the early 19th century he was onto a winner.

By the turn of the next century there were well over three and a half thousand on the streets of the capital.

The same goes for Eastbourne Buses – arguably the first to invest in the motor bus. Within a decade the horse was put out to pasture as four wheels replaced four legs. And I have no doubt that those who support the green bus will have made a similarly prescient decision.

How can I be so sure? Mainly because we can already discern the contours of what's to come through the decisions we've already taken.

Most notably our commitment to reducing greenhouse gas emissions by 50 per cent from 1990 levels between 2023 to 2027. That's equivalent to almost 2 billion tonnes of carbon dioxide and it means tomorrow's world will have a low carbon centre. In this new era the green bus will be in its element.

Between 1990 and 2009 there was a 38 per cent increase in total greenhouse gas emissions from buses and coaches in the UK.

Yet what sets the green bus apart is the fact it is capable, not simply of reducing its emissions by 30 per cent compared to the average diesel, but potentially cutting even further by running on sustainable biofuel or electric.

So this is the bus rebooted for the 21st century. Yet a bus that still retains the two inexhaustible qualities that have ensured its survival over the past two centuries – accessibility and affordability.

Whether you live in a rural area or a city, it is the bus that connects you to the services you need and the job opportunities you're after. And it is the bus that links you to the local community and the wider transport system.

That is why the green bus has the potential to be not merely the poster child of the sustainable age but a guardian of future growth.

And that is why the Government has put money into a Green Bus Fund. Allowing bus companies and local authorities – working separately or in partnership – to compete for investment to buy low carbon buses.

Thanks to the first two rounds, the Fund is already helping deliver around 540 new low carbon emission buses to towns and cities in England.

More than 300 of these buses are now in operation – with the rest due to enter service by April 2012.

But at present these buses only represent around one per cent of this country's total bus fleet. So it's clear we have to do more. And that's why we've made a further £20m available to encourage more investment.

Whether you're an operator or a local authority, this is another opportunity for you to get on board.

The Green Bus is the most significant moment in the evolution of buses since their adoption of the internal combustion engine.

Those who support the Green Bus are not only backing the sustainable transport revolution, but, like their pioneering predecessors, securing the future of the bus itself for many years to come.

A handwritten signature in dark ink, reading "Norman Baker". The signature is fluid and cursive, with the first name "Norman" and the last name "Baker" clearly distinguishable.

**Norman Baker MP, Minister for Local Transport**

# 1. Introduction

## Aim and objectives of fund

- 1.1** In 2009 and 2010, two rounds of the Green Bus Fund competition were run with combined budgets of around £47m. This funding is now helping to deliver some 540 new low carbon emission buses to many towns and cities in England. Following on the success of this, a third round is being run in 2011/12 with a budget of £20m. As with the earlier rounds, this third round is subject to receiving State aid approval from the European Commission.
- 1.2** The Green Bus Fund allows bus companies and local authorities in England to compete for funds to help them buy new low carbon emission buses – both double decker and single decker buses, including midibuses (but not minibuses). As with the earlier rounds, the Fund's main purpose is to further support the wider roll-out of low carbon emission buses across England.
- 1.3** A Low Carbon Emission Bus (LCEB) is a bus that is capable of achieving the LCEB target for greenhouse gas (GHG) emissions, which is equivalent to a 30% reduction in its GHG emissions compared to the average Euro III diesel bus of the same total passenger capacity. LCEBs also need to meet Euro V or better emissions standards. Further advice on the definition of a LCEB is attached at Section 6.
- 1.4** Between 1990 and 2009 there was a 38 per cent increase in total greenhouse gas emissions from buses and coaches in the UK. Although LCEBs emit around a third less GHG emissions than comparable diesel buses, at present they only represent around 1 per cent of buses operating in England.
- 1.5** The main difference between this third round and the earlier rounds is that the maximum grant we will pay is 80% of the difference in cost between a low carbon emission bus and its diesel equivalent.
- 1.6** This document sets out the conditions for the third round, explains how you can submit a bid and how we will assess that bid.

## 2. Key principles of the Green Bus Fund 3

- 2.1** The Green Bus Fund round 3 will work according to the rules outlined below.

### Grant provision

- 2.2** £20 million is available to support the additional costs of buying low carbon emission buses in 2011-12.
- 2.3** The key assessment criteria is the amount of grant requested per bus. The lower the grant per bus, the higher chance bidders have of being successful (providing the bid is compliant in all respects).
- 2.4** The maximum grant per bus is 80% of the difference between the cost of the low carbon emission bus and the cost of its standard diesel equivalent as set out in the bid. The Department will not pay any higher amount than sought in the bid even if the cost increases after a bid has been successful.
- 2.5** No more than £5 million will be paid to any one bidder in this current round.

### Eligibility

- 2.6** The competition is open to bus operators (including Community Transport operators), local authorities in England, Passenger Transport Executives (PTEs), Transport for London (TfL), and companies leasing/renting buses to these bodies.
- 2.7** Buses must be used on routes in England. Bids relating to routes which cross the boundary into Wales and Scotland will be considered, provided they start or finish in England and operate substantially in England.
- 2.8** Buses must be used on one or more local bus services. A local bus service is one which is available to members of the general public, has scheduled stopping places and which members of the public can find out about (including where and when they can catch the bus). Community



Transport operators of services which don't exactly meet this definition should explain in their bids how their services operate. If in doubt, they should contact the Department to check whether they are eligible.

- 2.9** Bids for grant to assist in the purchase of coaches and minibuses will not be accepted. 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.

## Timing

- 2.10** Subject to paragraph 2.12, successful bidders will need to place orders with manufacturers for low carbon emission buses by the end of March 2012 at the latest. No grant will be paid out in respect of orders placed after 31st March 2012.
- 2.11** Subject to paragraph 2.12, all buses must come into service by 31st March 2013.
- 2.12** In the case of public sector bodies intending to tender for services after submitting a bid, where such bids are successful, the public sector body will be required to transfer the grant to the winning tenderer as soon as they have placed the order for the low carbon emission buses. In such cases, buses must come into service within 12 months of placing the order.

## Data

- 2.13** Bidders will be required to share with the Department data on fuel savings achieved and other performance data relating to the new buses.
- 2.14** The Department recognises that, in submitting bids, some commercially sensitive information may be provided. Bidders should clearly identify which information is commercially sensitive.
- 2.15** Section 3 explains in more detail what information bidders are expected to provide. Section 4 sets out how bids will be assessed.

## Who can apply?

- 2.16** Bids can be received from:
- operators of bus services in England (including Community Transport operators);
  - English Local Transport Authorities (LTAs);
  - English Passenger Transport Executives (PTEs);

- Transport for London (TfL); or
- companies that lease/rent buses to any of the above.

- 2.17** Bids may be received from bidders who were successful in earlier rounds. However, such bidders will need to confirm that the buses for which they are seeking grant in round 3 are additional to the buses they are buying under earlier rounds.
- 2.18** Bidders may submit joint bids (e.g. two or more local authorities, two or more bus companies, a joint local authority/operator bid). However, they will need to make clear how they would work together if their bid was accepted. The Department will consider the applicant to be the lead bidder. Separate bidding proforma will need to be completed for each partner, though where the information is the same as for the lead bidder, it can simply cross refer to that return.
- 2.19** Bids may be received from businesses which lease or rent buses to bus operators or local authorities in England. However, such organisations will need to consider how they can meet the assessment criteria. Their bid is likely to be stronger, for example, if they have a particular customer lined up to lease or rent the buses once purchased.
- 2.20** The fund is not open to bids from bus manufacturers. However, bidders will need to have discussed their proposals with bus manufacturers as they will be required to include written information from the manufacturers as set out in Section 3 of this bidding document.

## What can the funding be used for?

- 2.21** Funding from the Green Bus Fund round 3 can only be used to help meet the upfront cost of buying one or more new low carbon emission buses. It cannot be used to meet outstanding payments for buses already ordered or bought. But it can be used to turn an existing order for standard buses into an order for low carbon emission buses.

## Will large bids be accepted?

- 2.22** Bids for a large number of buses are likely to benefit from economies of scale. The Department therefore encourages bidders to consider joining with others to put in a larger bid. However, the Department is keen to promote competition amongst a number of different bidders. We will therefore restrict each bidder to a maximum total grant of £5 million.
- 2.23** Bidders should not, therefore, submit bids seeking grant of more than £5 million for any one bidder. Where joint bids are received, each bidder will be treated separately for the purpose of the £5m limit (so a joint bid could be submitted for more than £5m). However, bus companies should bear

in mind that the £5m maximum applies collectively across all their subsidiary companies.

## How can bids be made?

- 2.24** Bids must be made on the Green Bus Fund round 3 bidding proforma - available on the DfT website at: <http://www.dft.gov.uk/publications/green-bus-fund-round-3/>.
- 2.25** Section 3 explains what we expect to see in bids in order for us to assess the bid. Bids should also include required supporting material as set out in Section 3.
- 2.26** The proforma should be sent **electronically** by email to: [greenbusfund@dft.gsi.gov.uk](mailto:greenbusfund@dft.gsi.gov.uk). For assessment purposes, please also send two hard copies of the proforma and all supporting material to:
- Green Bus Fund Round 3  
c/o Matt Sowter  
Buses and Taxis Division  
Department for Transport  
Zone 2/14  
Great Minster House  
33 Horseferry Road  
London SW1P 4DR.
- 2.27** Bids and supporting material must reach the Department by 17.00 on 10th February 2012.

## What will happen next?

- 2.28** The Department will assess the bids as set out in Section 4 of this document. We aim to announce the competition winners by early March 2012. Feedback on unsuccessful bids will be available on request.
- 2.29** The Department is keen to identify and disseminate the benefits of using low carbon emission buses. This is why we have asked bidders to provide a commitment to share performance information with the Department. We intend to gather this data from all successful bidders and publish a summary of the results. We might also ask successful bidders to be involved in any promotional work relating to the fund and supporting low carbon emission buses in England more generally.

## When will grant be paid?

- 2.30** Subject to paragraph 2.31, all grant must be paid by 31st March 2012. The Department intends to pay grant as soon as a successful bidder has placed an order with the relevant bus manufacturer. The successful bidder will be required to pay the grant to the manufacturer within 28 days of receiving it from the Department. Further grant condition details will be included in letters to successful bidders.
- 2.31** Where grant has been paid to a public sector body for a tendered service it must be paid to the winning tenderer once they have placed an order for the low carbon emission buses. The winning tenderer must then pay the grant to the manufacturer within 28 days of receiving it.
- 2.32** The Department may require all grant to be repaid if a bus is subsequently not bought, or a bus is bought but does not operate in the way set out in a bid for at least three years following the date of coming into service (as set out in the bid). However, there may be circumstances where the Department considers that the grant may be retained (for example, if a bus operator's services have changed and the low carbon emission bus will now be used on a different service which has similar environmental benefits). The Department will consider every case on its merits.
- 2.33** The Department may also require a repayment of all or some grant if a low carbon emission bus supported by the fund is sold within three years of its purchase.

## Local authorities intending to tender for services

- 2.34** Where public sector bodies intend to tender for services after their bid has been submitted, they can not know in advance which bus company will win the tender. If they were successful in their bid to the Green Bus Fund, we would pay the grant to the bidding local authority in the first instance. The local authority would then transfer the grant to the winning tenderer once they had placed the low carbon bus order. In turn, the winning tenderer would then be required to pay the grant to the bus manufacturer within 28 days of receipt.
- 2.35** In order to determine how much grant would be required, and respond to other assessment criteria, local authority bidders who fall into this category should contact a number of bus manufacturers and provide indicative costs based on the average of these costs. When doing so, they should indicate to the manufacturers that such contacts are "without prejudice and without commitment" with regard to any possible future

purchase, as they are subject to the bus operator which is offered the tendered service subsequently choosing their buses.

- 2.36** Bids to the Green Bus Fund which fall into this category will be assessed at the same time as other bids and will be told at the same time whether or not they are successful. Under such circumstances, grant will initially be paid to the winning local authority.
- 2.37** The Department will use the figures included within the bid to fix the maximum grant payable. However, when the bus type has been chosen by the bus operator to whom the tendered service has been let, the Department will pay on the basis of the percentage being sought within the bid. For example, (and using illustrative figures only), if the average bus costs are, say £100,000 for a standard bus and £150,000 for a low carbon emission bus, and the bidder seeks 75% funding (i.e. £37,500), the Department will use this figure as the maximum amount available. When the actual costs come in after procurement, the Department will pay 75% of the actual difference, up to the £37,500 cap.
- 2.38** If a local authority is successful in the Green Bus Fund round 3 competition it should tell bus operators tendering for their services that they wish them to include an option for a low carbon emission bus and should tell them that a capital upfront grant of up to £x (i.e. the fixed maximum grant as approved by the Department) will be available if they buy a low carbon emission bus. It will be up to the bus operator to decide which manufacturer's bus to buy. The bus operator will be liable for all the conditions relating to the use of the Green Bus Fund round 3 grant in the same way as if it had submitted the bid for funding itself.

## Legal and State aid implications

- 2.39** Section 5 sets out the legal and State aid implications of this scheme.
- 2.40** Bidders should particularly note that State aid approval is needed for the Green Bus Fund round 3. An application for State aid clearance is being submitted in parallel with running the competition, with a view to obtaining a response from the European Commission before the end of the bidding period. Bidders should check the Department's website for the latest information at:

<http://www.dft.gov.uk/topics/public-transport/buses/green-bus-fund/>

## Enquiries

- 2.41** If you have any questions about how to bid for grant from the Green Bus Fund round 3 then please email [greenbusfund@dft.gsi.gov.uk](mailto:greenbusfund@dft.gsi.gov.uk).

## 3. Completing a bidding proforma

- 3.1** Bidders should complete all sections of the bidding proforma. They should provide as much information as possible to allow the Department to assess the bid. However, they should avoid providing superfluous information and should focus their response on answering the question.
- 3.2** Each partner in a joint bid should complete a separate proforma. However, where the information in response to a particular assessment criteria is the same for all partners, it need only be included in the lead bidder's proforma. The other proforma should simply cross refer to this.
- 3.3** A separate proforma is available for, and should be used by, local authority bidders who intend to put in a bid in respect of bus services which will subsequently be tendered.
- 3.4** The remainder of this section sets out what we expect to see in each section of the bidding proforma.

### Number of buses and passenger capacity

- 3.5** Bidders must say how many buses they wish to buy under the scheme, including how many of these are single decker and how many are double decker and how many passengers each can carry.

### Type of buses and environmental performance

- 3.6** Bidders must provide details of each separate type of low carbon emission bus they intend to buy with fund money. They must include, for each bus type already in production, a certificate signed by the manufacturer certifying the vehicle as a Low Carbon Emission Bus based on an independently witnessed emissions test of a vehicle of the same type. This certificate records the anticipated greenhouse gas emissions for each bus type and confirms that the bus can at least meet the definition of a Low Carbon Emission Bus (as set out in paragraph 1.3 of this bidding document). Mock up certificates and guidance on how the test should be conducted are included at Section 6.
- 3.7** Electric buses do not need to undergo the testing procedure set out in Section 6. Bidders should, instead, simply include confirmation from the bus manufacturer that the bus will be powered entirely by electricity.

- 3.8** Gas buses may be eligible for funding. Where a bus will be operated using 100% biomethane, it would be automatically eligible. Where a gas bus will be operated using conventional methane or a combination of methane and biomethane, it may be eligible, but will be required to undergo full LCEB testing if the bus will operate on less than 50% biomethane. Further guidance on LCEB testing of gas buses is available at: <http://www.dft.gov.uk/topics/public-transport/buses/green-bus-fund/>
- 3.9** Where low carbon emission buses are very close to production, but not yet at a stage where they can be tested as set out in Section 6, the Department will consider bids, provided the manufacturer sets out how and when the bus is expected to be tested. In such a case, the Department may make an offer of grant (subject to its wider assessment), but no grant will be paid out until the certificate has been sent to the Department. This would have to occur before 31st March 2012.
- 3.10** Bids from public sector bodies who to tender for services must include a certificate, or details of how the bus is to be certified, from each manufacturer of the buses they have considered as part of their bid.

## Grant required per bus

- 3.11** Bidders must provide (separately for each different bus type) details of:
- the cost of each bus they intend to buy;
  - the cost of the equivalent new diesel bus of the same total passenger capacity; and
  - the amount of grant sought.
- 3.12** Bidders must provide written confirmation from the relevant bus manufacturer as to the costs of the bus they intend to buy and its diesel equivalent. These must be the actual price at which the manufacturer intends to sell the specified number of low carbon emission buses to the bidder and the actual price at which they would sell the same number of diesel equivalents (i.e. both costs must include any discounts offered).
- 3.13** Bids from public sector bodies who intend to tender for services must include a range of indicative costs, based on the buses they have considered. They must set out the maximum grant sought and say what percentage they are seeking of the additional costs of a low carbon emission bus over an equivalent new diesel bus.
- 3.14** Bidders seeking a lower amount of grant per bus are more likely to be more successful than those seeking more (provided their bid is compliant in all respects).



## Calculation of grant required per bus

**3.15** In addition to considering the upfront capital costs of the low carbon emission bus against its comparative Euro V bus, bidders will also need to make an assessment of the comparative operating costs, maintenance costs and anticipated fuel savings in deciding what grant to seek per bus. Bidders must therefore explain how they calculated the amount of grant required by providing their assumptions for:

- potential fuel savings over the first five years of operation;
- additional operating costs over this period;
- additional maintenance costs over this period; and
- any other costs/savings taken into account (to be specified).

**3.16** Under the last bullet, bidders should include the potential value of any manufacturer commitments as set out in response to the assessment criteria listed below.

**3.17** Bidders should provide an explanation of how these figures were reached. All figures should be presented at today's price, using a 7% per year discount rate. For example, if the anticipated fuel savings equate to £10,000 per year for each of the next five years, their present value would be calculated as follows:

Year 1 = £10,000  
Year 2 = £10,000 divided by 1.07 = £9,346  
Year 3 = £10,000 divided by 1.072 = £8,734  
Year 4 = £10,000 divided by 1.073 = £8,163  
Year 5 = £10,000 divided by 1.074 = £7,629  
Total = £43,872.

**3.18** Bids from public sector bodies who intend to tender for services must include these figures for each of the buses they have considered.

## Timing of bus orders

**3.19** Bidders must say when they intend to place their order for the buses set out in their bid.

**3.20** Bidders must include written confirmation from the relevant bus manufacturer that they can accept orders by the dates given. Bids from public sector bodies who intend to tender for services must include such confirmation from each manufacturer of the buses they have considered.



## Timing of entry into service

- 3.21** Bidders must say when they intend to start using the buses bought under the fund, which must be no later than 31st March 2013. They must include written confirmation from the bus manufacturers that the buses can be delivered ready to enter into service on the dates set out.
- 3.22** Bids from public sector bodies who intend to tender for services must include such confirmation from each manufacturer of the buses they have considered. Such bidders should provide an indication of when they expect the buses to enter into service. This should be no longer than 12 months from the time the order is placed by the successful tenderer.

## Plans for the use of the low carbon emission buses

- 3.23** Bidders must say how and where they intend to use the buses in order to achieve the greatest environmental benefits, including air quality objectives. This might include, for example, whether the buses will run on rural, urban or combined routes, how many kilometres the buses will run on average each month etc. Bidders should give details of how these buses will fit into wider environmental plans and strategies, such as Air Quality Action Plans. They should also include any longer term plans (i.e. after the first three years of operation) for the use of the low carbon emission buses purchased under this fund, and whether they have plans to buy more low carbon emission buses in the future.

## Replacement of existing buses

- 3.24** Bidders must say whether or not each bus purchased under the fund will be used to replace existing buses in their fleet. Where the bus is intended to replace an existing bus, bidders should give details of the Euro emission standards of the bus which is to be replaced and should say what they intend to do with that replaced bus.

## Details of any manufacturer's commitments

- 3.25** Bidders should include details of any additional commitments made by bus manufacturers. For example, this might include a commitment from the manufacturer to guarantee batteries for a number of years after the bus goes into service – or to run a battery leasing service. Where additional commitments are given, these should be confirmed in writing by the relevant manufacturer.

- 3.26** Bids from public sector bodies who intend to tender for services should include such information from each manufacturer of the buses they have considered.

## Data sharing

- 3.27** Bidders must include a commitment to share with the Department data and information on a three monthly basis for at least three years after the low carbon emission bus starts operating. This might include:
- details of the type of routes on which the bus has been operating (including: whether the service is rural or urban; whether the route is heavily congested; whether the route is flat or hilly; whether the route is part of an Air Quality Management Area etc);
  - the actual fuel savings achieved by the new low carbon emission buses;
  - any information relating to operational performance and running costs (e.g., are they more or less expensive than comparable buses, any problems in terms of life of the batteries etc);
  - any other information reasonably requested by the Department (for example air quality data).

## Additionality

- 3.28** Bidders must confirm that the new low carbon emission buses are additional to any existing low carbon emission bus procurement programmes. This confirmation must be signed by the Chief Executive or other senior Board member (e.g. Finance Director) of the bidding organisation. Where a joint bid is submitted, separate confirmations, signed at the appropriate level, must be included by each partner organisation. Bidders must also provide details of how the new buses complement any existing programme for buying such buses. Where there is no existing programme, bidders should make this clear.

## Supporting information

- 3.29** There are a number of areas where we are interested in having material for monitoring and evaluation, although this will not be part of the assessment criteria and this information is not required for a successful bid. In particular we would be interested in information on how the purchase of new low carbon emission buses will help to support and develop the low carbon bus market and green technology in the EU. This could include information (e.g. from the manufacturer) on how many jobs in the bus manufacturing and subsidiary industries are likely to be created, how this will help stimulate the industry and whether (and if so how) this will augment the use of apprentices.

## 4. Assessment of bids

### Introduction

- 4.1** This section describes how the Department will assess bids for grant towards the purchase of low carbon emission buses under the Green Bus Fund round 3.

### Non-compliant Bids

- 4.2** Bids will be considered non-compliant, and may not be assessed, if they do not meet the competition's eligibility criteria. Bids will be non-compliant if they:
- are not returned on the official proforma;
  - are received after the advertised deadline: 17:00 on 10th February 2012;
  - do not comply with all of the eligibility requirements set out in this bidding document (and summarised in the key principles in Section 2);
  - do not include all the information needed to assess the bid (as set out in Section 3 of this bidding document);
  - do not include, for each bus type included within a bid, either :
    - i. a certificate from the bus manufacturer relating to an independently witnessed emissions test confirming that the bus type can at least meet the definition of a Low Carbon Emission Bus (as set out in Section 6), or
    - ii. a detailed plan from the manufacturer of how they intend to get their bus certified (in this case, grant will not be paid until the Department has received a copy of the necessary certificate);
  - do not include information from the relevant bus manufacturer confirming the cost of the low carbon emission bus and its diesel equivalent;
  - seek grant which is more than 80% of the difference between the cost of a low carbon emission bus and its diesel equivalent;
  - do not provide information on how the grant has been calculated, or the information provided does not justify the amount of grant sought;
  - do not include a commitment to place orders for all the low carbon emission buses included in the bid before 31st March 2012 - this

does not, however, apply where a public sector body intends to tender for a service;

- do not have all buses in service by 31st March 2013 at the latest - public sector bodies intending to tender for a service must ensure the buses enter into service within 12 months of the successful tenderer placing the bus order;
- do not include confirmation from the relevant manufacturer(s) that they can meet these dates;
- do not include a commitment to share with the Department data on the actual fuel savings and performance achieved by each bus purchased with support from the fund; and
- do not include appropriately signed confirmation that the new low carbon emission buses are additional to any existing low carbon bus procurement programmes (including any being bought with funding from previous rounds of the Green Bus Fund).

## Assessment criteria

**4.3** The main purpose of the competition is to support the wider roll-out of low carbon emission buses in England. The Department wishes to support the maximum number of low carbon emission buses possible. To do this, the key assessment criteria will be the amount of grant sought per bus, providing the bid is compliant.

**4.4** Where bids are received requesting the same amount of grant per bus, they will be assessed according to the following secondary criteria:

- plans for using the new low carbon emission buses to ensure that the greatest environmental benefits are achieved, including air quality objectives;
- plans to replace older existing buses;
- details of any additional manufacturer's commitments (e.g. relating to ongoing support towards the replacement of batteries and operational performance etc).

## Ranking of bids

**4.5** The following section explains how bids will be ranked.

### *Stage 1 – split the bid*

**4.6** Where a bidder includes more than one bus type, each bus type will be separately assessed. For example a bidder might include:

- 2 single decker buses from manufacturer A
- 3 single decker and 8 double decker buses from manufacturer B
- 6 single decker and 5 double decker buses from manufacturer C
- 2 double decker buses from manufacturer D

- 4.7** This bid would be assessed as four separate bids. Each bid should, however, be listed under the name of bidder – e.g. “Happy Buses A”, “Happy Buses B”, “Happy Buses C”, “Happy Buses D”.
- 4.8** It is unlikely that any one manufacturer would have more than one type of single decker and one type of double decker low carbon emission bus within a bid. But if it did, these would have to be sub-divided further. For example, if manufacturer B above had two different low carbon emission double decker buses, the bid would be assessed as five separate bids (including “Happy Buses E”).
- 4.9** Note – this split should not be done for public sector bidders who intend to tender for services or conduct procurement after the competition. In their case, the information on different bus types is simply being used to come up with the average cost for the purpose of calculating the maximum grant sought per bus.

#### *Stage 2 – relative value*

- 4.10** Because single decker low carbon emission buses are likely to be less expensive than double decker low carbon emission buses, we would expect that grant sought per bus for a single decker bus will be lower than that sought for a double decker bus. In order, therefore, not to give an advantage for single decker buses, a relative value will be calculated to assess what the grant sought for the single decker would have been if it had been a double decker.
- 4.11** To do this, it will first be necessary to work out the average amount of grant sought per double decker bus and the average amount of grant sought per single decker bus. This will be done by:
- adding up the grant sought for all double decker low carbon emission buses contained in bids which are acceptable, strong or very strong, and dividing by the number of these buses (result 1);
  - adding up the grant sought for all single decker low carbon emission buses contained in bids which are acceptable, strong or very strong, and dividing by the number of these buses (result 2).
- 4.12** The additional factor to be applied to each single decker bus to bring its relative value up to the relative value of a double decker bus will be “result 1” divided by “result 2”.
- 4.13** To illustrate, if the average grant sought for a double decker bus was £62,000, and the average grant sought for a single decker bus was £53,000, the factor to be applied to all single decker buses would be calculated as follows:  $62,000/53,000 = 1.1698$ . The grant sought for every single decker low carbon emission bus would, in this example, be multiplied by 1.1698 to give its relative grant value.

### Stage 3 – secondary criteria assessment

**4.14** In order to rank bids where the amount of grant required per bus is equal, the secondary criteria will be assessed as follows:

Assessment Criteria	Very Strong	Strong	Acceptable
1. Plans for the use of the low carbon emission buses.	Use of new low carbon emission buses contributes to clear environmental plans and strategies, including air quality plans.	Use of the new low carbon emission buses contributes to clear carbon reduction plans, but does not contribute to wider environmental and air quality plans.	Use of new low carbon emission buses is not directly linked to environmental plans and strategies.
2. Replacement of existing buses.	For every new low carbon emission bus, one or more bus meeting Euro I emission standards or lower is replaced and scrapped.	Not applicable.	No plans to directly replace existing buses.
3. Details of any manufacturer's commitments.	Commitments relating to maintenance, replacement or leasing of batteries for first five years of operation.	Commitments relating to maintenance, replacement or leasing of batteries for less than five years of operation.	No additional manufacturer commitments.
Overall Secondary Assessment.	At least one category scores higher than "Strong".	At least one category scores higher than "Acceptable".	All categories score "Acceptable".

*Stage 4 – rank by relative value of grant per bus*

- 4.15** Bids will then be ranked according to the relative value of grant per bus that the bidder is seeking. Where more than one bid has the same relative value, the secondary assessment will be used to rank them within that relative value. This could give a table looking something like this:

	Relative value of grant per bus	Secondary assessment
Rank 1	£40,000	Strong
Rank 2	£40,000	Strong
Rank 3	£40,000	Acceptable
Rank 4	£40,000	Acceptable
Rank 5	£45,000	Very strong
Rank 6	£45,000	Strong
Rank 7	£45,000	Strong
Rank 8	£45,000	Acceptable
Rank 9	£45,000	Acceptable
Rank 10	£45,000	Acceptable
Rank 11	£50,000	Strong
Rank 12	£50,000	Acceptable
Rank 13	£50,000	Acceptable
Rank 14	£50,000	Acceptable

### Stage 5 – identifying the cut off point for winning bids

- 4.16** Once all bids have been ranked, the ranking will be used to calculate which bids will be supported. This will be done by multiplying the actual grant per bus (i.e. not the relative value) by the number of buses included within a bid, in order of ranking. This could give a table looking something like this:

	Bus type	Grant per bus £	Number of buses	Grant required £	Running total £
Rank 1	Single	35,000	13	455,000	455,000
	Double	40,000	23	920,000	1,375,000
Rank 2	Single	-	-		1,375,000
	Double	40,000	50	2,000,000	3,375,000
Rank 3	Single	38,000	5	190,000	3,565,000
	Double	40,000	40	1,600,000	5,165,000
Rank 4	Single	38,000	60	2,280,000	7,445,000
	Double	-	-		7,445,000
Rank 5	Single	38,000	20	760,000	8,205,000
	Double	45,000	100	4,500,000	12,705,000
Rank 6	Single	-	-		12,705,000
	Double	45,000	50	2,250,000	14,955,000
Rank 7	Single	-	-		14,955,000
	Double	45,000	60	2,700,000	17,655,000
Rank 8	Single	38,000	30	1,140,000	18,795,000
	Double	45,000	30	1,350,000	20,145,000
Rank 9	Single	38,000	60	2,280,000	22,425,000
	Double	45,000	25	1,125,000	23,550,000
Rank 10	Single	-	-		23,550,000
	Double	45,000	23	1,035,000	24,585,000

- 4.17** Before finalising the winners, a check will be made to ensure that no one bidder would receive more than £5 million grant in total.



### *Stage 6 – dealing with bids after the cut off point*

- 4.18** In the above example, the cut off point of £20m falls within the band of bids seeking £45,000 per bus (relative value). There is therefore no need to rank any bids seeking relative value grant higher than £45,000 (at this stage – but see Stage 7 below). However, as there are six bids within the £45,000 grant band there is a need to decide how to allocate the remaining grant to these.
- 4.19** Those with a higher secondary assessment will be supported first. In the example, rank 5's secondary criteria were assessed as "very strong". This bid will therefore receive funding for all 120 buses in its bid.
- 4.20** The two bids ranked 6 and 7 were assessed as having "strong" secondary criteria. These bids would therefore receive funding for their respective 50 and 60 buses.
- 4.21** This leaves £2,345,000. This will be divided between the three bids ranked 8, 9 and 10 which were assessed as having "acceptable" secondary criteria. Ranks 11-14 were assessed as "acceptable" and so would not be funded at this stage (but see paragraphs 4.22 and 4.23).
- 4.22** The remaining £2,345,000 will be divided between the three bids with "acceptable" secondary criteria in proportion to the number of buses sought by each bidder as follows:
- In the above example, there were a total of 168 buses in three bids.
  - The bid ranked at 8 included 60 buses (35.7% of the total number) so the bidder would be offered up to 35.7% of the remaining grant = £837,165.
  - The bid ranked at 9 included 85 buses (50.6% of the total number) so the bidder would be offered up to 50.6% of the remaining grant = £1,186,570.
  - The bid ranked at 10 included 23 buses (13.7% of the total number) so the bidder would be offered up to 13.7% of the remaining grant = £321,265.
- 4.23** If either of these bidders did not wish to support a partial bid, their allocated funds would be offered first to the other bidders. If those bidders did not want the funds, the funds would then be offered to the bidder ranked at 11.

### *Stage 7 – after winners have been announced*

- 4.24** If any of the winning bidders subsequently chose not to, or were unable to, buy their total allocation of low carbon emission buses, the "spare" grant may be offered to bids which were initially below the cut off point. First choice would go to any bidders who were offered grant for fewer buses than they bid for as a result of the Stage 6 calculation.

## 5. Legal and State aid implications

### Powers to pay grant

- 5.1** Grant will be paid under the powers conferred on the Secretary of State under Section 5 of the Science and Technology Act 1965.

### State aid implications

- 5.2** Section 87(1) of the EC Treaty says that: "Save as otherwise provided in this Treaty, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market." This is commonly referred to as State aid.
- 5.3** State aid is likely to apply to public transport subsidies, other than those awarded by competitive tender. Where it does apply, it will usually be necessary to notify the Commission to seek their approval that the aid is compatible with the Treaty. However, there are some existing Community measures (Regulations and Directives etc) which set out conditions under which State aid is authorised, and where the Commission do not, therefore, need to be notified (provided the relevant conditions are fully met).
- 5.4** In respect of the Green Bus Fund round 3, specific State aid approval is not needed, subject to certain conditions, if:
- the rate of grant is less than 35% (rising to 55% for small companies<sup>1</sup>) of the difference between the cost of a standard bus and the cost of a low carbon emission bus; or
  - the total amount of grant paid to any one undertaking does not exceed 0.5 million Euros over a three year period; or
  - grant is paid to another public authority, such as a local authority, PTE or TfL, provided the Department is satisfied that the public body

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<sup>1</sup> In this context, a small company is one which employs fewer than 50 persons and whose annual turnover/annual balance sheet does not exceed EUR 10m

intends to lease the vehicles purchased to operators in a way that does not constitute either economic activity or State aid.

- 5.5** In order to have wider powers to pay grant under the Green Bus Fund round 3, the Department considers that it is necessary to make a formal State aid application to the Commission. We are doing this in parallel with running the Green Bus Fund competition.
- 5.6** Bidders are encouraged to consider the State aid implications in preparing their bid. If they can submit a bid which fits into one of the categories set out in paragraph 5.4 above, they need not worry about the outcome of the Department's application to the Commission.
- 5.7** However, if they cannot make a bid within these categories, bidders are encouraged to work up a bid in anticipation that the Department's application to the Commission is successful. No bidder should need to enter into any binding agreements with bus manufacturers in advance of the outcome of the application to the Commission.
- 5.8** Bidders should check the Department's website for the latest information on State aid implications at:

<http://www.dft.gov.uk/topics/public-transport/buses/green-bus-fund/>

## 6. Certification of a Low Carbon Emission Bus

### Introduction

- 6.1** A Low Carbon Emission Bus (LCEB) is a bus that is able to achieve the LCEB target for greenhouse gas emissions, which is equivalent to a 30% reduction in its greenhouse gas emissions compared to the average Euro III diesel bus of the same total passenger capacity.
- 6.2** A vehicle will not qualify as a LCEB simply by using a fuel type which allows it to achieve a 30% reduction in its greenhouse gas emissions, unless the fuel it uses is a biogas.
- 6.3** In order to prove that a particular vehicle is a LCEB, the vehicle's manufacturer will need to issue a certificate, certifying the vehicle as a LCEB based upon an independently witnessed emission test of a vehicle of the same type.
- 6.4** A mock up of a certificate is attached at the end of this section. It sets out what must be included in the certificate issued by bus manufacturers. Bus manufacturers are free to create their own certificate based on the mock up, providing it includes all the details required. A certificate must be provided for every type of bus included within a bid.

### Definition of a Low Carbon Emission Bus

- 6.5** The full definition of a LCEB is as follows:

“A Low Carbon Emission Bus produces at least 30% fewer greenhouse gas emissions than the average Euro III equivalent diesel bus of the same total passenger capacity. The greenhouse gas (GHG) emissions will be expressed in grams of carbon dioxide equivalent measured over a standard test, and will cover “Well-to-Wheel” (WTW) performance, thereby taking into account both the production of the fuel and its consumption on board”.

- 6.6** The LCEB emission target is expressed as a function of total passenger capacity and is shown as:

$$\text{CO}_2 \text{ (Well-To-Wheel)} = 6.28 \times \text{total number of passengers} + 502$$

- 6.7** The greenhouse gases (GHG) of interest are carbon dioxide (CO<sub>2</sub>) methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O). The relative “global warming potentials” for these 3 gases are 1:21:310 respectively. These emissions will be expressed in CO<sub>2</sub> equivalent using the global warming potential to weight the emissions of each gas.

## How to carry out the emissions test

- 6.8** To determine whether a bus is a LCEB, a two step procedure is used. Firstly, a whole vehicle test is undertaken to measure the tank-to-wheel emissions and energy consumption. Secondly, the results of the whole vehicle test will be used to calculate the Well-to-Wheel (WTW) emissions. This will then be used to compare with the target line (set out below) to determine whether the bus meets the criteria of a LCEB.

### Whole vehicle test

- 6.9** The whole vehicle test, which measures Tank-to-Wheel (TTW) emissions, may be carried out at any competent and independent emission test centre. The test must use either the Millbrook London Transport Bus (MLTB) test cycle, based on Route 159 in London, or an equivalent alternative test cycle. If an alternative test cycle is used, it must be based on a similar average speed as the MLTB test and have similar number of stops per kilometre. Any non-MLTB test must be approved in advance by the Department for Transport.
- 6.10** The gas values of methane and nitrous oxide, if measured, will be converted to carbon dioxide equivalent by applying the weightings given above and added to the carbon dioxide emissions to provide a CO<sub>2</sub> equivalent g/km figure.

### Well-to-wheel emissions

- 6.11** The results of the whole vehicle test, or TTW emissions, will be used to calculate the CO<sub>2</sub> equivalent emissions performance of the vehicle on a WTW basis appropriate to the fuel as used in the approval test and as used in service. In the case of biodiesel the fuel pathway used will be that of diesel to avoid BSOG providing an incentive over and above the incentive provided by the Renewable Transport Fuel Obligation (RTFO).

- 6.12** The WTW emissions are the sum of Tank-to-Wheel (TTW) and the Well-to-Tank (WTT) performance with CO<sub>2</sub> equivalent emissions expressed as CO<sub>2</sub> equivalent grams per kilometre, this is then assessed against maximum passenger carrying capacity.
- 6.13** The Well-to-Tank (WTT) emissions and energy consumption will be determined using an appropriate analysis such as those carried out by CONCAWE or by L-B-Systemtechnik GmbH or similar body, subject to approval by the Department for Transport. The results are expressed in grams of carbon dioxide equivalent per MJ of fuel delivered. Knowing the fuel consumption of a vehicle in MJ/km, the WTT CO<sub>2</sub> equivalent figure can be expressed in g/km.

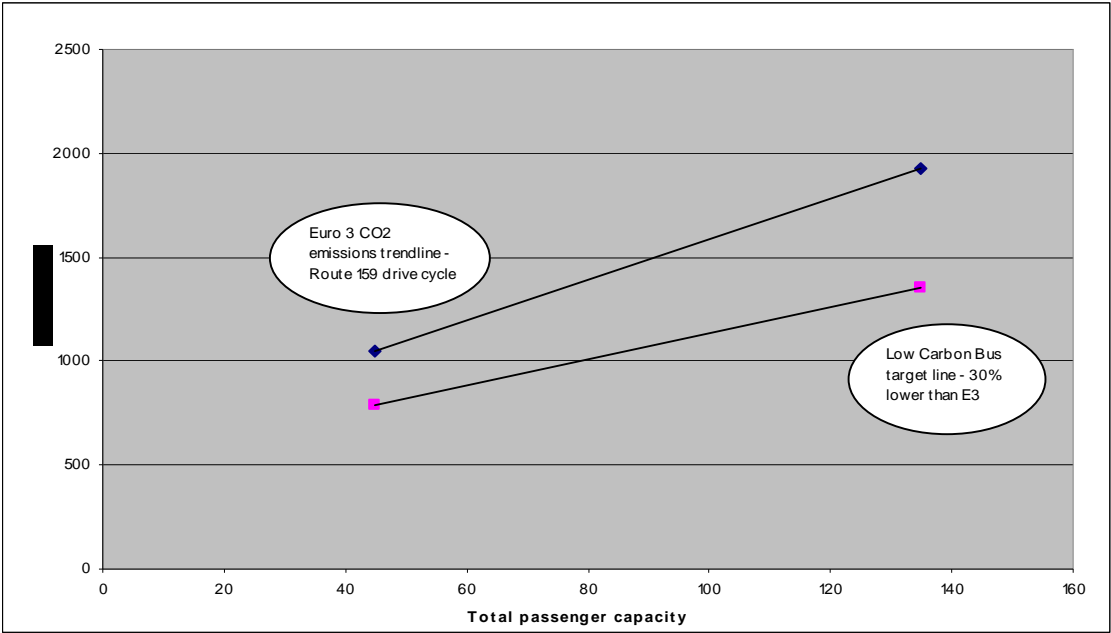
## Accreditation

- 6.14** In order to be accredited as a Low Carbon Emission Bus, vehicles must have CO<sub>2</sub> equivalent emissions either on or below the target line determined for their passenger carrying capacity. Buses found to have CO<sub>2</sub> equivalent emissions higher than that corresponding to its passenger capacity will not be afforded Low Carbon Emission Bus status.
- 6.15** The whole vehicle emissions when tested, on an appropriate chassis dynamometer to LowCVP Low Carbon Emission Bus test requirements, must be reported.
- 6.16** Low Carbon Emission Bus status will be conferred on all vehicles similar to those presented for test, as long as the vehicles use similar fuels and energy management strategies.

## Full Details

- 6.17** Full details on the method of accreditation and testing procedures for low carbon emission buses are available from the Low Carbon Vehicle Partnership on request to [LCEB@lowcvp.org.uk](mailto:LCEB@lowcvp.org.uk) or can be downloaded from the Low Carbon Vehicle Partnership's website [www.lowcvp.org.uk/LCEB](http://www.lowcvp.org.uk/LCEB).

# Low Carbon Emission Bus Target Line



# Certificate for a Low Carbon Emission Bus

## Certificate for a Low Carbon Emission Bus

This is to certify that:

Bus Type	<input type="text"/>
Bus Chassis Number	<input type="text"/>
Registration Number	<input type="text"/>

is able to achieve the Department for Transport's Low Carbon Emission Bus (LCEB) target for Greenhouse Gas Emissions.

A vehicle of the same type as the bus described above underwent an independently witnessed emission test as follows:

Date of test	<input type="text"/>
Name of test centre	<input type="text"/>
Maximum passenger capacity for the vehicle	<input type="text"/>
Type of fuel used during test	<input type="text"/>
Emission test results for:	
CO <sub>2</sub> (g/km)	<input type="text"/>
CH <sub>4</sub> (g/km)	<input type="text"/>
N <sub>2</sub> O (g/km)	<input type="text"/>
Calculation of the Tank-to-Wheel Greenhouse Gas Emissions	<input type="text"/>
Calculation of the Well-to-Wheel Greenhouse Gas Emissions	<input type="text"/>
Well-to-Wheel Greenhouse Gas emissions for a comparable diesel Euro III bus of the same passenger capacity.	<input type="text"/>

## Details of person issuing certificate

Name	<input type="text"/>	Name of company	<input type="text"/>
Signature	<input type="text"/>	Phone Number	<input type="text"/>