

# **Scottish Green Bus Fund 7 – The Bidding Document**

## **AIM AND OBJECTIVES OF FUND**

### **Introduction**

1. The Scottish Government is committed to public transport in Scotland and to our ambitious climate change target of reducing carbon emissions by 42% by 2020. The Scottish Green Bus Fund (SGBF) was launched in 2010 with the aim of incentivising the purchase of Low Carbon Emission Buses (LCEBs) to improve air quality, accessibility and to encourage modal shift .

2. Six previous rounds of the SGBF have seen the Scottish Government award grant support totalling some £14.76 million that will result in a total of 315 new LCEBs within the Scottish bus fleet.

3. Following on the success of previous years, a seventh round of the SGBF is being run in 2017/18, with a budget of around £3 million, from which bus companies, local authorities in Scotland and Regional Transport Partnerships (RTPs) can compete for funds to help them buy new low carbon buses – both double decker and single decker buses, including midibuses (but not minibuses). Its main purpose is to build on the success of the Fund and to continue to support and hasten the uptake of LCEBs across Scotland.

4. A LCEB is a bus that is capable of achieving the LCEB target for greenhouse gas (GHG) emissions which is equivalent to a 15% reduction in its GHG emissions compared to the average Euro V/VI diesel bus of the same total passenger capacity. LCEBs also need to meet Euro V or better emissions standards.

5. In the bidding document, the definition of a low carbon bus should be taken to include very low and zero emission vehicles, such as electric vehicles. More information on the definition of an LCEB is set out in Annex D.

### **Background**

6. Between 1990 and 2007 there was an increase of 45% in the level of GHG emissions from buses and coaches in Scotland. Since then emissions have fallen back slightly so that in 2011, buses and coaches produced around 0.5 MtCO<sub>2e</sub> or 4% of total Scottish transport CO<sub>2e</sub> emissions. At 40% cars account for the greatest proportion of the Scottish total, International Aviation and shipping 19% Heavy Goods Vehicles (HGVs) 16%, Light Goods Vehicles (LGVs) 10% and domestic shipping and aviation 8%. A number of other small categories, including motorbikes accounts for the remainder.

7. Transport related emissions of pollutants are by some way the largest contributor to poor air quality in Scotland and the rest of the UK. In many urban areas, emissions from older buses make up a significant proportion of the total and the SGBF has an important role to play in reducing air pollution in such areas. Poor air

quality can have a serious impact on human health, particularly the very young and old, and those with underlying cardiovascular and respiratory conditions.

8. A Low carbon bus can reduce GHG emissions by nearly a third compared to a standard diesel bus, and meet the latest European air quality standards. Continuing support under SGBF 6 aims to play a major part in shifting the bus market towards low carbon buses and build on the success of earlier rounds.

9. As well as seeking to tackle emissions the Scottish Government is also committed to managing noise from transportation sources in line with meeting our obligations under the terms of the Environmental Noise Directive. A new LCEB can be quieter than older diesel equivalents consequently resulting in an improved noise climate.

10. We would therefore particularly encourage applications to the fund for “very low” and zero emission vehicles, such as electric vehicles. We are also encouraging bids which cover the demonstration of such buses in regular use.

## **Wider Scottish & UK Government Objectives**

11. The Climate Change (Scotland) Act 2009 sets a world-leading level of ambition including an interim target to cut greenhouse gas emissions by at least 42 % by 2020, and an 80% reduction target by 2050. Transport accounts for approximately 25% of emissions in Scotland, and of those, 70% are emitted by road transport.

12. The Scottish Government’s Climate Change Plan, published in June 2009, sets out our intention for decarbonisation of road transport by 2050, with significant progress by 2030 through the wholesale adoption of low carbon emission buss, such as electric cars and vans. One of the measures to accelerate the development and uptake of LCEBs is through increasing bus patronage by giving the travelling public more reliable, efficient and cost effective bus services.

13. In addition to increasing bus patronage, the Scottish Government also wants bus services that contribute to wider Scottish Government policies. In particular the five Strategic Objectives contained within its National Performance Framework:

- Wealthier & Fairer;
- Smarter;
- Healthier;
- Safer & Stronger; and
- Greener

14. Buses have a significant role to play in delivering these goals - they can have an important role to play in reducing climate change and other environmental objectives (in particular NOx and particulates emissions), in reducing congestion where they lead to modal shift and in contributing to social inclusion by delivering accessibility, particularly for vulnerable groups.

15. On 15<sup>th</sup> July 2009 the DfT published *Low Carbon Transport: A Greener Future* which sets out the UK Government’s broader policies and aims for climate change.

While buses have been a relatively small element of overall transport CO<sub>2</sub> emissions, the Bus Service Operators Grant (BSOG) data shows that buses fuel efficiency has got a lot worse over the previous decade and consequently their CO<sub>2</sub> emissions increased. Indeed the BSOG data suggests that average CO<sub>2</sub> emissions per passenger kilometre are now higher for bus than for car, and without changes this may get worse given the improvements in CO<sub>2</sub> emissions from cars. This outcome does though depend on average load factors and car occupancies. Either way, for buses to play their full part in meeting the climate challenge we need to see significant improvements in fuel efficiency and reductions in CO<sub>2</sub> emissions.

16. At the same time there are significant air quality issues in many large urban areas, from NO<sub>x</sub> and particulate pollution. There have been significant reductions in pollution from buses as a result of more stringent emission standards and the use of cleaner fuels, but further action is needed for many local air quality management areas.

17. The Scottish Government is required to meet limit values and standards for a range of air pollutants of concern for human health set out in Directive 2008/50/EC on ambient air quality. In addition local authorities have responsibilities under the Environment Act 1995 and associated regulations to work towards air quality objectives for a similar range of pollutants, which are set out in the Air Quality Strategy for England, Scotland, Wales and Northern Ireland.

18. The Scottish Government has already introduced additional incentives to support a move to reduced carbon buses. With effect from 1 April 2010, all Low carbon emission buss (LCEBs) receive an enhanced rate of BSOG payment.

19. SGBF 7 builds on these measures and seeks to encourage the replacement of older buses with new low carbon buses.

## **KEY PRINCIPLES OF THE SCOTTISH GREEN BUS FUND**

20. The SGBF 7 will work according to the following key principles.

### **Grant provision**

21. Some £3 million is available to support the additional costs of buying low carbon buses in 2017-2018. No more than £1.5 m will be paid to any one bidder.

22. The key assessment criteria will be 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).

23. The maximum grant per bus is 80% of the difference between the cost of the low carbon bus and the cost of its standard diesel equivalent as set out in the bid. The Scottish Government will not pay any higher amount than sought in the bid even if the cost increases after the bid has been successful.

### **Eligibility**

24. The Scottish Green Bus Fund 7 competition is open to bus operators (incl. community transport operators), local authorities, RTPs and companies leasing/renting buses to these bodies in Scotland.

25. Buses must be used on routes in Scotland. Bids relating to routes which cross the boundary into England will be considered, provided they start or finish in Scotland and operate substantially in Scotland.

26. 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 Scottish Government to check whether they are eligible.

27. 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. Bids for midi-buses will be accepted.

### **Timing**

28. Subject to paragraph 27, successful bidders will need to place orders with manufacturers for low carbon emission buses by 25 August 2017. No grant will be paid out in respect of orders placed after 4 December 2015.

29. All buses must come into service by 29 July 2018.

30. 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 buss. In such cases, buses must come into service within 12 months of placing the order.

## **Data**

31. Bidders will be required to share with the Scottish Government data on fuel savings achieved and other performance data relating to the new buses.

32. The Scottish Government recognises that, in submitting bids, some commercially sensitive information may be provided. Bidders should clearly identify in any documents submitted any information that should be treated as commercially sensitive.

33. Annex A explains in more detail what information bidders are expected to provide. Annex B to this document sets out the criteria by which bids will be assessed.

## **Who can apply?**

34. Bids can be received from:

- Operators of bus services in Scotland (including Community Transport operators)
- Local Authorities (LAs)
- Regional Transport Partnerships (RTPs)
- Companies that lease/rent buses to any of the above.

35. Bids may be received from bidders who were successful in previous rounds of the Scottish Green Bus Fund. However, such bidders will be required to confirm that the buses for which they are seeking grant in Round 7 are in addition to any buses for which they received funding in previous rounds.

36. 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 Scottish Government will consider the applicant to be the lead bidder. A separate bidding pro forma 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.

37. Bids may be received from businesses which lease or rent buses to bus operators or local authorities in Scotland. 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.

38. 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 Annex A of this bidding document.

## **What can the funding be used for?**

39. Funding from the SGBF 7 can only be used to help meet the upfront cost of buying one or more new low carbon 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 LCEB buses.

## **Will large bids be accepted?**

40. Bids for a large number of buses are likely to benefit from economies of scale. The Scottish Government therefore encourages bidders to consider joining with others to put in a larger bid. However, the Scottish Government is keen to promote competition amongst a number of different bidders. We will therefore restrict each bidder to a maximum total grant of £1.5m.

41. Bidders should not, therefore, submit bids seeking grant of more than £1.5m for any one bidder. Where joint bids are received, each bidder will be treated separately for the purpose of the £1.5m limit (so a joint bid could be submitted for more than £1m). However, bus companies should bear in mind that the £1.5m maximum applies collectively across all their subsidiary companies.

## **How can bid be made?**

42. Bids must be made on the SGBF 7 Bidding pro-forma – available on the Scottish Government website at:

<http://www.transportscotland.gov.uk/public-transport/Buses/Bus-Fund>

43. Annex A 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 Annex B.

44. The pro-forma should be sent electronically to: [scottishgreenbusfund@transportscotland.gsi.gov.uk](mailto:scottishgreenbusfund@transportscotland.gsi.gov.uk). For assessment purposes, please also send three hard copies of the pro-forma and all supporting material to:

Glynis Brown/Marie Garvie  
Scottish Green Bus Fund  
Transport Scotland  
Bus & Local Transport Policy  
Area 2-D (North)  
Victoria Quay  
Edinburgh  
EH6 6QQ

45. Bids and supporting material **must reach the Scottish Government by 17.00 on Friday 30 June 2017.**

## What will happen next?

46. The Scottish Government will assess the bids as set out in Annex B of this document. We aim to announce the successful applicants by late February/early March 2016. Feedback on unsuccessful bids will be available on request.

47. The Scottish Government is keen to identify and disseminate the benefits of using low carbon buses. This is why we have asked bidders to provide a commitment to share performance information with the Scottish Government. 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 buses in Scotland more generally.

## When will grant be paid?

48. Subject to paragraph 49 below , **grant will be paid as soon as a successful bidder has placed an order with the relevant bus manufacturer. Orders must be placed by 25 August 2017 at the latest.** The successful bidder will be required to pay the grant to the manufacturer within 28 days of receiving it from the Scottish Government. Further details of the grant conditions will be included in letters to successful bidders.

49. 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 buses. The winning tenderer must then pay the grant to the manufacturer within 28 days of receiving it.

50. The Scottish Government 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 Scottish Government considers that the grant may be retained (for example, if a bus operator's services have changed and the LCEB bus will now be used on a different service which has similar environmental benefits). The Scottish Government will consider every case on its merits.

51. The Scottish Government may also require repayment of all or some of the grant if an LCEB supported by the fund is sold within three years of its purchase.

## Local Authorities intending to tender for services

52. Where local authorities intend to tender for services, after their bid has been submitted, they cannot know in advance which bus company will win the tender. If they were successful in their bid to the SGBF 7 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.

53. In order to say 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.

54. Bids which fall into this category will be assessed at the same time as other bids and bidders will be informed at the same time whether or not they are successful. Under such circumstances, grant will initially be paid to the winning local authority.

55. The Scottish Government 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 Scottish Government 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 £100k for a standard bus and £150k for a low carbon bus, and the bidder seeks 75% funding (i.e. £37.5k), the Scottish Government will use this figure as the maximum amount available. When the actual costs come in after procurement, the Scottish Government will pay 75% of the actual difference, up to the £37.5k cap.

56. If a local authority is successful in the SGBF 7 competition it should tell bus operators tendering for their services that they wish them to include an option for a LCEB and should tell them that a capital up front grant of up to £x (i.e. the fixed maximum grant as approved by the Scottish Government) will be available if they buy an LCEB. 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 SGBF 7 grant in the same way as if it had submitted the bid for funding itself.

## **Legal and State Aid implications**

57. Annex C sets out the Legal and State Aid implications of this scheme.

58. Bidders should particularly note that State aid approval is needed for the SGBF 7.

## **Enquiries**

59. If you have any questions about how to bid for grant from the SGBF 7 please email:

[scottishgreenbusfund@transportscotland.gsi.gov.uk](mailto:scottishgreenbusfund@transportscotland.gsi.gov.uk)

or call Glynis Brown/Marie Garvie on 0131 244 7760/0866.

## **Annex A**

### **Completing a bidding pro-forma**

1. All bidders should complete all sections of the *SGBF sheet* in the bidding pro-forma. They should provide as much information as possible to allow the Scottish



Government to assess the bid. However, they should avoid providing superfluous information and should focus their response on answering the question. If the bid is for more than one make or model of bus the information and facts on these buses should be set out in the *Additional Buses* sheet.

2. The *calculation sheet* does not need to be completed and is completely locked. It is simply there to show how the discount rate calculation is completed automatically based on the responses in the first two sheets.

3. Each partner in a joint bid should complete a separate pro-forma. However, where the information in response to particular assessment criteria is the same for all partners, it need only be included in the lead bidder's pro-forma. The other pro-forma should simply cross refer to this.

4. A separate pro-forma 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.

5. This annex sets out what we expect to see in each section of the bidding pro-forma.

## **Number of buses and passenger capacity**

6. 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**

7. Bidders must provide details of each separate type of LCEB 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 (LCEB) 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 LCEB (as set out in Annex B). Mock up certificates and guidance on how the test should be conducted are included at Annex D.

8. Electric buses do not need to undergo the testing procedure set out at Annex D. Bidders should, instead, simply include confirmation from the bus manufacturer that the bus will be powered entirely by electricity.

9. Biomethane fuelled gas buses are automatically eligible for funding. 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.transportscotland.gov.uk/publictransport/Buses/Bus-Fund>

10. Where LCEBs are very close to production, but not yet at a stage where they can be tested as set out in Annex D, the Scottish Government will consider bids, provided the manufacturer sets out how and when the bus is expected to be tested. In such a case, the Scottish Government 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 Scottish Government.

11. Bids from public sector bodies who intend 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**

12. 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.
- the amount of grant sought.

13. Bids will be non-compliant if the amount of grant sought is more than 80% of the difference between the cost of the low carbon bus and the cost of its diesel equivalent.

14. 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 cost at which the manufacturer intends to sell the specified number of low carbon buses to the bidder, and the actual costs that they would sell the same number of diesel equivalents (i.e. both costs must include any discounts offered).

15. 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 bus over an equivalent new diesel bus.

16. Bidders seeking a lower amount of grant per bus will be more successful than those seeking more (providing their bid is compliant in all respects).

## **Calculation of grant required per bus**

17. In addition to considering the upfront capital costs of the low carbon bus against its comparative Euro V/VI 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

- Any other costs/savings taken into account (to be specified)

18. 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.

19. Bidders should provide figures for each and an explanation of how these figures were reached. All figures should be present 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  $1.07^2$  = £8,734

Year 4 - £10,000 divided by  $1.07^3$  = £8,163

Year 5 - £10,000 divided by  $1.07^4$  = £7,629

Total = £43,872

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

21. Bidders must include the savings identified when detailing the grant required for each bus in their bid.

22. For the latest pro-forma (SGBF 7) the discount calculations are already included in the sheet and will be automatically calculated once relevant savings and cost data is entered.

## Timing of bus orders

23. Bidders must say when they intend to place their order for the buses set out in their bid. This should not, however, be later than 25 August 2017.

24. 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 subsequently to tender for services must include such confirmation from each manufacturer of the buses they have considered.

## Timing of entry into service

25. Bidders must say when they intend to start using the buses bought under the fund, which **must be no later than 29 July 2018**. 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.

26. Bids from public sector bodies who intend to tender for services must include such information from each manufacturer of the buses they have considered. Such bidders should provide an indication of when they expect the buses to enter in 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 buss (LCEBs)**

27. 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 buses under this fund and whether they have plans to buy more low carbon buses in the future.

## **Replacement of existing buses**

28. 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**

29. 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.

30. 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**

31. Bidders must include a commitment to share with the Scottish Government data and information on a six monthly basis for at least three years after the low carbon bus starts operating. This should 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 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 Scottish Government (this might, for example, include air quality data).

## **Additionality**

32. Bidders are asked whether the new low carbon emission buses are additional to the fleet or are being purchased as an alternative to purchasing a new diesel bus. Bidders must also provide details of how the new buses complement any existing programme for buying low carbon buses. Where there is no existing programme, bidders should make this clear.

## **Supporting information**

33. 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 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.

### Introduction

1. This Annex describes how the Scottish Government will assess bids for grant towards the purchase of low carbon buses under the SGBF 7.

2. A Low Carbon Emission Bus (LCEB) is a bus that produces at least 15% fewer Greenhouse Gas Emissions than a current Euro V/VI equivalent diesel bus of the same total passenger capacity. The greenhouse gas emissions will be expressed in grams of carbon dioxide equivalent measured over a standard test, and will cover 'Well-to-Wheel' performance, thereby taking into account both the production of the fuel and its consumption on board. In this document, the definition of a low carbon bus should be taken to include very low and zero emission vehicles, such as electric vehicles.

### Non-Compliant Bids

3. Bids will be considered non-compliant, and will 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 pro-forma;
- are received after the advertised deadline: **17.00 on Friday 30 June.**
- do not comply with all of the eligibility requirements set out in this bidding document (and summarised in the key principles from paragraph's 20-59);
- do not include all the information needed to assess the bid (as set out in Annex A of this bidding document);
- do not include, for each bus type included within a bid, either:
  - 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 LCEB (as set out in paragraph 2 above), or
  - 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 Scottish Government has received a copy of the necessary certificate).
- do not include information from the relevant bus manufacturer confirming the cost of the low carbon bus and its diesel equivalent;
- seek grant which is more than 80% of the difference between the cost of a low carbon 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 an order for all the low carbon buses included in the bid by 25 August 2017 – this does not, however, apply where a public sector body intends to tender for a service;
- do not have all buses in service by 29 July 2018 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 written confirmation from manufacturers that they can meet these dates;
- do not include a commitment to share with the Scottish Government 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 buses to be purchased under the SGBF 7 are additional to any existing low carbon bus procurement programmes (including any being bought with funding from previous rounds of the SGBF).

## **Assessment criteria**

4. The main purpose of the competition is to support the wider roll-out of low carbon buses in Scotland. The Scottish Government wishes to support the maximum number of low carbon buses possible. To do this, it will give priority to bids which require the lowest amount of grant per vehicle, providing the other criteria are met.

5. 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 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 replacement of batteries and operational performance etc).

## **Ranking of bids**

6. The following section explains how bids will be ranked

### **Stage 1 – split the bid**

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

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”).

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 double decker buses, the bid would be assessed as five separate bids (including “Happy Buses E”).

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**

Because single decker low carbon buses are likely to be less expensive than double decker low carbon 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.

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 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 buses contained in bids which are acceptable, strong or very strong, and dividing by the number of these buses (result 2).

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”.

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 bus would, in this example, be multiplied by 1.1698 to give its relative grant value.



### Stage 3 – secondary criteria assessment

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 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	All 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

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:

Rank	Relative value of grant per bus	Assessment
1	£100,000	Very Strong
2	£100,000	Strong
3	£103,363	Strong
4	£105,000	Very strong
5	£105,000	Acceptable
6	£120,000	Very Strong
7	£120,000	Acceptable
8	£125,000	Strong

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

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:

Rank	Bus type	Grant per bus £	Number of buses	Grant required £	Running total £
1	Double Decker	100,000	8	800,000	800,000
2	Double Decker	100,000	8	800,000	1,600,000
3	Single Decker	50,000	5	250,000	1,850,000
4	Double Decker	105,000	5	525,000	2,375,000
5	Double Decker	105,000	3	315,000	2,690,000
6	Single Decker	55,000	4	220,000	2,910,000
7	Single Decker	55,000	6	330,000	3,240,000
8	Double Decker	125,000	1	125,000	3,365,000

Before finalising the winners, a check will be made to ensure that no one bidder would receive more than £1.5m grant in total.

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

In the above example, the cut-off point of £2.0 m falls within the band of bids seeking £105,000 per bus (relative value). There is, therefore, no need to rank any bids seeking relative value grant higher than that (at this stage – but see Stage 7). However, as there are two bids within the £105,000 grant band there is a need to decide how to allocate the remaining grant to these.

Bids with a higher secondary assessment will be supported first. In the above example, rank 6's secondary criteria were assessed as "very strong" whilst rank 7 was assessed as "acceptable". The bid ranked 6 will, therefore, receive funding for all buses included within that bid.

This leaves £125,000 to be offered to the bid ranked 7 (sufficient for 1 of the 3 vehicles bid for).

If there were more than two bids in the band, then the remaining funds would be divided in proportion to the number of buses sought by each bidder as follows:

- Add up the number of buses bid for in the band.
- Calculate the proportion of that total contained within each bid.

The bidders would be offered up to that share of the remaining grant. The figure would be rounded down to the nearest "whole bus".

If any of the bidders do not wish to support a partial bid, their allocated funds could be reallocated to others within the same band.

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

If any of the winning bidders subsequently chose not to, or were unable to, buy their total allocation of low carbon 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.

### Legal and State Aid Implications

#### Powers to pay grant

1. Grant will be paid under the powers conferred on Scottish Ministers under Section 70 of the Transport (Scotland) Act 2001.

#### State Aid implications

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.

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).

4. In respect of the SGBF 7, specific State aid approval is needed and in order to be able to pay grant of up to 80%, the Scottish Government is seeking approval for the scheme as a state aid from the European Commission. Confirmation of grants will be subject to this approval being received. SGBF 7 is also 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 bus; or
- the total amount of grant paid to any one undertaking does not exceed €0.5 million over a three year period; or
- grant is paid to another public authority, such as a local authority or RTP provided the Scottish Government is satisfied that the public body intends to lease the vehicles purchased to operators in a way that does not constitute either economic activity or State aid.

<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 €10m

5. In order to have wider powers to pay grant under the SGBF 7, the Scottish Government considers that it is necessary to make a formal State aid application to the Commission. We are doing this in parallel with running the SGBF 7 competition.

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 4 above, they need not worry about the outcome of the Scottish Government's application to the Commission.

7. However, if they cannot make a bid within these categories, bidders are encouraged to work up a bid in anticipation that the Scottish Government'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.

8. Bidders should check the Scottish Government's website for the latest information on State aid implications at:

<http://www.transportscotland.gov.uk/public-transport/Buses/Bus-Fund>

### Certification Of A Low Carbon Emission Bus (LCEB)

#### 1. Introduction

1. A Low Carbon Emission Bus (LCEB) is a bus that is able to achieve at least a 15% reduction in its well-to-wheel greenhouse gas emissions compared to an equivalent Euro V diesel bus of the same total passenger capacity and achieves the Euro VI emission standard.

2. A vehicle will **not** qualify as a LCEB simply by using a fuel type which allows it to achieve a 15% reduction in its greenhouse gas emissions.

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 vehicle emission test of that vehicle.

4. A mock up of a certificate is attached at the end of this Annex. 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.

#### 2. Definition of a Low Carbon Emission Bus

5. The full definition of a LCEB is as follows:

"A Low Carbon Emission Bus produces at least 15% fewer well-to-wheel greenhouse gas emissions than the average Euro V equivalent diesel bus of the same total passenger capacity and which can achieve the Euro VI emission standard. The greenhouse gas (GHG) emissions will be expressed in grams of carbon dioxide equivalent measured over a standard test.

#### 3. How to demonstrate compliance with the LCEB criteria

6. 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 taking into account well-to-tank emissions. This will then be used to compare with the LCEB target line (set out below) to determine whether the bus meets the criteria of a LCEB.

7. The LCEB emission target is expressed as a function of total passenger capacity and is shown as:

## **LCEB target line $WTW\ CO_2 = 408 + 8.00 \times \text{Number of Passengers}$**

8. 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 1:25:298 respectively. These emissions will be expressed in CO<sub>2</sub> equivalent using the global warming potential to weight the emissions of each gas.

9. **Tank-to-wheel GHG emissions:** A whole vehicle test must be undertaken to determine tank-to-Wheel (TTW) greenhouse gas emissions. This must be carried out a competent and independent vehicle emission test center using the LUB (LowCVP UK Bus) cycle. For further guidance:

<http://www.lowcvp.org.uk/initiatives/leb/TestingandAccreditation/TestingAccreditationProcedures.htm>

The whole vehicle test will additionally measure NO<sub>x</sub> and PM exhaust emissions in order to determine compliance with the Euro VI emission standard.

10. **Well-to-Tank GHG emissions:** A Well-to-Tank emissions factor is the average of all the greenhouse gas emissions released into the atmosphere from the production of a fuel or energy vector. Bus manufacturers can supply their own WTT factor when seeking LCEB status for a bus. Where a Well-to-Tank (WTT) factor is not provided, the LUB test cycle will use a set of default average WTT GHG emission factors that have been sourced from Defra’s UK GHG emission inventory ([DEFRA](#)) and the European Commission [JEC report](#)

<http://www.lowcvp.org.uk/initiatives/leb/TestingandAccreditation/WTTFactors.htm>

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).

11. **Well-to-wheel GHG emissions:** 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.

## **4. Accreditation**

12. In order to be accredited as a Low Carbon Emission Bus, vehicles must have CO<sub>2</sub> equivalent emissions either on the target line, or below that 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.

## **5. How to demonstrate compliance with the LCEB for city coaches**

The well to wheel procedure described in Section 3 above should be adopted for city coaches. However the LCEB target line will not be appropriate for these vehicles. Instead a diesel Euro V city coach of the same build and passenger capacity shall be

used as the baseline vehicle to determine compliance with the LCEB criteria. This vehicle shall undergo whole vehicle emission testing and WTW greenhouse gas emissions determined; reported in CO<sub>2</sub> eq g/km.

In order to be accredited as Low Carbon Emission Bus the city coach must achieve at least a 15% improvement in well to wheel greenhouse gas emissions compared to the baseline diesel Euro V city coach, and meet the Euro VI emission standard.

The vehicle manufacturer shall provide vehicle test data for both buses.

## 5. Full Details

12. Full details on the method of accreditation and testing procedures for low carbon emission buses are available from the Low carbon emission bus Partnership <http://www.lowcvp.org.uk/initiatives/leb/TestingandAccreditation.htm>

### Certificate for a Low carbon emission bus (LCEB)

This is to certify that the bus type  a Low carbon emission bus (LCEB).

Bus Chassis Number

Registration Number

Is able to achieve the Scottish Government'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

Name of test centre

Maximum passenger capacity  
for the vehicle

Type of fuel used during test

Emission test results for:



**CO<sub>2</sub> (g/km)**

**CH<sub>4</sub> (g/km)**

**N<sub>2</sub>O (g/km)**

**Calculation of the Tank-to-Wheel Greenhouse Gas Emissions**

**Calculation of the Well-to-Wheel Greenhouse Gas Emissions\***

**Well-to-Wheel Greenhouse Gas Emissions for a Comparable diesel Euro III bus of the same Passenger capacity**

Details of person issuing certificate

**Name**

**Name of company**

**Signature**

**Phone Number**