

Scottish Green Bus Fund 8 – 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 having in place 50% low emissions buses by 2032. 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. The LCEB standard has now been superseded by Low Emission Bus (LEB) and Ultra-Low Emission Bus accreditation schemes. The SGBF will be providing the same funding support for both LEBs and ULEBs.
2. Seven previous rounds of the SGBF have seen the Scottish Government award grant support totalling some £16.1 million resulting in a total of 361 new LCEBs within the Scottish bus fleet.
3. Following on the success of previous years, an eighth round of the SGBF is being run in 2018-19, with a budget of around £1.7 million, from which bus companies, local authorities in Scotland and Regional Transport Partnerships (RTPs) can apply 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 LEB is a bus that is capable of achieving the LEB target for greenhouse gas (GHG) emissions which is equivalent to a 15% reduction in its GHG emissions compared to the average Euro V diesel bus of the same total passenger capacity. LEBs also need to meet Euro VI or better air emissions standards. An Ultra-Low Emission Bus is a bus capable of achieving a 30% reduction in greenhouse gas emissions compared to a Euro VI diesel bus of equivalent passenger capacity. More information on the accreditation schemes and certified bus models are available on the LowCVP website here: <https://www.lowcvp.org.uk/Hubs/leb/scheme.htm>
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 LEBs and ULEBs 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_{2e} or 4% of total Scottish transport CO_{2e} emissions. Cars account for the greatest proportion (40%) 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 in 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 LEB/ULEB 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 8 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 LEB/ULEB 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 the target to cut greenhouse gas emissions by 80% reduction 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 February 2018, sets out our intention for decarbonisation of road transport by 2050, with 50% of the bus fleet to be a low emission bus by 2032. The Green Bus Fund, by providing financial support for the purchase and operation of low carbon buses, is one measure to help the Government meet its aims.

One of the measures to accelerate the development and uptake of LEB/ULEBs is through increasing bus patronage by giving the travelling public more reliable, efficient and cost effective bus services.

13. In addition the Scottish Government also wants bus services to contribute to delivering wider Scottish Government policies, and can positively impact across the five Strategic Objectives contained within the National Performance Framework:

- Wealthier & Fairer;
- Smarter;
- Healthier;



- Safer & Stronger; and
- Greener

14. Buses have a significant role to play in delivering these goals, by reducing climate change and other environmental objectives (in particular NOx and particulates emissions), reducing congestion through modal shift to buses, and enhance social inclusion with accessible buses and bus services, particularly for vulnerable groups.

15. On 15th 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 CO2 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 CO2 emissions increased. Indeed the BSOG data suggests that average CO2 emissions per passenger kilometre are now higher for bus than for car, and without changes this may get worse given the improvements in CO2 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 CO2 emissions.

16. At the same time there are significant air quality issues in many large urban areas, from NOx 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 provides additional assistance to support uptake of low carbon buses through the low carbon (green) incentive of the Bus Service Operators Grant (BSOG). This is currently being revised and updated to take into account changing and new technologies.

19. SGBF 8 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 8 will work according to the following key principles.

Grant provision



21. Some £1.7 million is available to support the additional costs of buying low carbon buses in 2018-19.
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 8 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 LEB/ULEBs by the closing date of the application period. No grant will be paid out in respect of orders placed after this.
29. All buses must come into service by **31 March 2020**.
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 LEB/ULEBs. In such cases, buses must normally 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 8 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 8 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 LEB/ULEB 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.

41. Bus companies must note and bear in mind that if SGBF 8 bids are received exceeding the total funding available, that they may not receive all of the funding they are applying for.

How can the bid be made?

42. Bids must be made on the SGBF 8 Bidding pro-forma – available on the Scottish Government website at:

<https://www.transport.gov.scot/public-transport/buses/scottish-green-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:

Scottish.Green.Bus.Fund@transport.gov.scot.

For assessment purposes, please also send **three hard copies** of the pro-forma and all supporting material to:

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

CLOSING DATE FOR APPLICATIONS

45. Bids and supporting material **must reach the Scottish Government by MIDNIGHT SUNDAY 15 JULY 2018**



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 end September 2018**. 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, the **grant will be paid as soon as a successful bidder has placed an order with the relevant bus manufacturer and provided the Scottish Government with evidence of this. Orders must be placed by mid November 2018 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 LEB/ULEB 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 LEB/ULEB 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 8 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 8 competition it should tell bus operators tendering for their services that they wish them to include an option for a LEB/ULEB 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 LEB/ULEB. 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 8 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 in place for SGBF 8.

Enquiries

59. If you have any questions about how to bid for grant from the SGBF 8 please email:

Scottish.Green.Bus.Fund@transport.gov.scot

or call Glynis Brown 0131 244 7760 / Trish McCotter 0131 244 0537





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 LEB/ULEB 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 emission bus (LEB) or ULEB 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 LEB/ULEB (as set out in Annex B). Guidance on how the test should be conducted are included at Annex D.
8. Biomethane fuelled gas buses are not automatically eligible for funding, as was the case for the previous LCEB accreditation scheme. All gas buses running in Scotland must run on 100% biomethane, to ensure they achieve the desired



greenhouse gas reduction performance required for LEB status. Further guidance on LEB testing of gas buses is available at:

<https://www.lowcvp.org.uk/Hubs/leb/scheme.htm>

9. Where LEB/ULEBs 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.

10. 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

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.
- the amount of grant sought.

12. 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.

13. 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).

14. 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.

15. 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

16. In addition to considering the upfront capital costs of the low carbon 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
- Any other costs/savings taken into account (to be specified)

17. 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.

18. 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 1.072 = £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

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

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

21. For the latest pro-forma (SGBF 8) 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

22. 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 **mid November 2018**.

23. 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

24. Bidders must say when they intend to start using the buses bought under the fund, which **must be no later than 31 March 2020**. 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.

25. 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 LEB/ULEBs

26. 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

27. 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

28. 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.

29. 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

30. 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).

Additionally

31. 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

32. 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.



ASSESSMENT OF BIDS

Introduction

1. This Annex describes how the Scottish Government will assess bids for grant towards the purchase of low carbon buses under the SGBF 8.

2. A Low Emission Bus (LEB) is a bus that produces at least 15% fewer Greenhouse Gas Emissions than a current Euro V equivalent diesel bus of the same total passenger capacity. An Ultra Low Emission Bus (ULEB) is a bus that produces at least 30% fewer Greenhouse Gas Emissions than a current Euro 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: **Midnight 15 July 2018**
- 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 LEB/ULEB (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 **mid November 2018** – this does not, however, apply where a public sector body intends to tender for a service;



- do not have all buses in service by **31 March 2020** 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 8 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 on-going 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

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 8, specific State aid approval is in place to be able to pay grant of up to 80%, SGBF 8 is also subject to certain conditions, if:

- the rate of grant is less than 35% rising to 55% for small companies¹ if 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
- the 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.

5. Bidders are encouraged to consider the State aid implications in preparing their bid.

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

<https://www.transport.gov.scot/public-transport/buses/scottish-green-bus-fund/>

¹ 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



Certification Of A Low Emission Bus or Ultra Low Emission Bus

Introduction

1. A Low Emission Bus (LEB) 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. An Ultra Low Emission Bus (ULEB) is a bus that is able to achieve at least a 30% reduction in its well-to-wheel greenhouse gas emissions compared to an equivalent Euro VI diesel bus of the same total passenger capacity and achieves the Euro VI emission standard.
3. A vehicle will **not** qualify as a LEB or ULEB simply by using a fuel type which allows it to achieve a 15% reduction in its greenhouse gas emissions. E.g. biodiesel.
4. In order to prove that a particular vehicle is a LEB/ULEB, the vehicle's manufacturer will need to issue a certificate, certifying the vehicle as a LEB/ULEB based upon an independently witnessed vehicle emission test of that vehicle.

Definition of a LEB / ULEB

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.
6. The full definition of an ULEB is as follows:
"An Ultra-Low Emission Bus produces at least 30% fewer well-to-wheel greenhouse gas emissions than a Euro VI diesel bus of equivalent passenger capacity and has a Euro VI certified engine or equivalent". The greenhouse gas (GHG) emissions will be expressed in grams of carbon dioxide equivalent measured over a standard test.

How to demonstrate compliance with the LEB/ULEB criteria

7. To determine whether a bus is a LEB /ULEB, 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 greenhouse gas target line (set out below) to determine whether the bus meets the target criteria.



8. The LEB and ULEB emission target is expressed as a function of total passenger capacity and is calculated as:

LEB minimum greenhouse gas target: $WTW CO_2e = 408 + 8.00 \times \text{Total Number of Passengers (seating + standing)}$

ULEB minimum greenhouse gas target: $WTW CO_2e = 336 + 6.59 \times \text{Total Number of Passengers (seating + standing)}$

9. The greenhouse gases (GHG) of interest are carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O). The relative “global warming potentials” for these 3 gases are 1:25:298 respectively. These emissions will be expressed in CO₂ equivalent using the global warming potential to weight the emissions of each gas.

10. **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 centre using the LUB (LowCVP UK Bus) cycle. For further guidance:

<https://www.lowcvp.org.uk/Hubs/leb/TestingandAccreditation.htm>

The whole vehicle test will additionally measure NO_x and PM exhaust emissions in order to determine compliance with the Euro VI emission standard.

11. **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. For certification of LEBs and ULEBs, the test house will use a set of default average WTT GHG emission factors that have been sourced from DBEIS UK Government emission conversion factors for greenhouse gas company reporting. Available to download here :

<https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

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

12. 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).

13. **Well-to-wheel GHG emissions:** The WTW emissions are the sum of Tank-to-Wheel (TTW) and the Well-to-Tank (WTT) performance with CO₂ equivalent emissions expressed as CO₂ equivalent grams per kilometre.

Accreditation

14. In order to be accredited as a LEB or ULEB, vehicles must have CO₂ equivalent emissions either on the target line, or below that determined for their passenger carrying capacity. Buses found to have CO₂ equivalent emissions higher than that corresponding to its passenger capacity will not be afforded LEB or ULEB status.



How to demonstrate compliance with the LEB for city coaches

15. The well to wheel procedure described above should be adopted for city coaches. However the LEB 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 CO₂ eq g/km.

16. In order to be accredited as Low 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.

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

Full Details

18. Full details on the method of accreditation and testing procedures for low carbon emission buses are available from the Low Carbon Vehicle Partnership <https://www.lowcvp.org.uk/Hubs/leb/TestingandAccreditation.htm>

