



## Low Emission Bus Scheme Application Form

Guidance on the application process is available on the DfT website<sup>1</sup>.

### **Applicant Information**

Are you a (Tick which of the following applies):

Local Authority   
Bus Operator

**Local authority or bus operator name(s):**

South Gloucestershire Council (lead)  
Bath and North East Somerset Council  
Bristol City Council  
North Somerset Council  
First Bristol Limited

**(For joint bids only) Who is the lead bidder?**

South Gloucestershire Council

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<sup>1</sup> <https://www.gov.uk/government/publications/low-emission-bus-scheme>

**Bid Manager name and position:**

John Seddon  
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South Gloucestershire Council

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**Website address for published bid (if applicable):**

[www.southglos.gov.uk/](http://www.southglos.gov.uk/)

## **SECTION A - Bid description and funding profile**

### **A1. Headline description:**

This bid seeks to achieve a step change in the local bus fleet operating services within the West of England, focussing on routes passing through Air Quality Management Areas (AQMAs).

The funding secured will enable First Bristol Limited (FBL) to introduce 110 new gas-powered buses to their fleet, as well as the fuelling infrastructure to accommodate another 40 gas-powered buses. The buses will operate using Compressed Natural Gas (CNG) technology, achieving significant reductions in emissions compared to the 80 diesel (Euro 3) buses being replaced through this investment. The remaining 30 buses will be additional to the existing FBL fleet and will be used to operate new services on the MetroBus network.

The project will result in over 40% of FBL's bus fleet being low emission, with attendant benefits to local communities in Bristol, Kingswood, Staple Hill, and Keynsham, all of which contain designated AQMAs. The buses will operate on routes where the maximum air quality benefits will be gained.

The bid will also develop fuel supply infrastructure to ensure that the buses can be efficiently re-fuelled with minimal dead mileage. The fuelling equipment will be located at FBL's Lawrence Hill depot, the base for the buses operating these services. The equipment will have sufficient capacity to fuel a further 25 CNG-powered buses that FBL propose to procure to operate additional MetroBus services once the scheme fully commences.

The fuelling station would be open to other bus operators, road hauliers and public sector fleets to re-fuel their CNG-powered vehicles at Lawrence Hill between 8 am and 5 pm on weekdays, thereby removing a potential barrier to those considering CNG as a fuel for LEVs in the West of England by providing a local fuelling station.

In total, £4.4 million is sought, which will unlock investment of £26 million by FBL.

**A2. Geographical area:**

The area covered by the bid is located within the West of England, comprising the local authorities of Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire.

The specific local bus services operated by 80 of the buses procured through this bid serve communities in North and East Bristol, comprising parts of the Unitary Local Authorities of Bristol City Council, South Gloucestershire Council and Bath and North East Somerset Council.

Appendices 1 to 4 contain maps illustrating these routes, including the Air Quality Management Areas that they pass through.

The bid also includes the procurement of 30 new CNG-powered buses that will operate on the North Fringe to Hengrove part of the MetroBus network, which is illustrated in Appendix 5. These buses will operate on this part of the network as the other routes on the MetroBus network require guided buses, and will therefore require modified vehicles.

However, the fuelling infrastructure that forms part of this bid will facilitate the purchase, by FBL, of an additional 25 CNG-powered buses that will be capable of operating on the remaining MetroBus network serving communities within Bristol, North Somerset and South Gloucestershire.

Therefore, the project in its entirety will have benefits for the full West of England area.

**A3. Total DfT funding sought (£m):**

2016/17	2017/18	2018/19	Total
2.950175	0.744780	0.744780	4.439735

**A4. Total DfT funding sought for second, scaled down, bid, if applicable (£m):**

Not applicable.

**A5. Total cost of your proposal (This should include DfT funding as specified in A3 + any 3rd party contributions) (£m):**

	2016/17	2017/18	2018/19	Total
DfT	2.950175	0.744780	0.744780	<b>4.439735</b>
FBL	12.219725	6.990060	6.990060	<b>26.199845</b>

**A6. Total cost of your proposal for second, scaled down, bid, if applicable (This should include DfT funding as specified in section A4 + any 3rd party contributions) (£m):**

Not applicable

**A7. Joint bids:**

The West of England area is relatively compact with numerous local journeys being made across local authority boundaries. This includes bus services operating between Bristol city centre and the eastern suburbs of the city, including Kingswood and Staple Hill, with some of these services extending through to communities within Bath and North East Somerset.

The West of England authorities already work closely together on the planning of bus services across the area, and there is close liaison between the four authorities and local bus operators in the delivery of these bus services as well as on other transport projects such as the MetroBus bus rapid transit scheme that is currently under construction. Around a third of the buses that would be procured through this bid will operate services on the MetroBus network.

There are well established processes in place between the four authorities and the West of England Partnership to facilitate joint working on transport projects and programmes, including:

- Local Transport Board (local authorities plus Local Enterprise Partnership)
- Joint Transport Executive Committee (local authorities)
- Heads of Transport (local authorities)
- Project Boards (specific project delivery partners)

Current joint projects and programmes being successfully delivered by the West of England authorities include the following:

- Travel West Local Sustainable Transport Fund programme
- Greater Bristol Bus Network
- MetroBus Bus Rapid Transit Network
- MetroWest rail schemes

This project would build on the experience gained by the partners in jointly delivering these successful projects and programmes.

The implementation of this project would be led by First Bristol Limited, who would be responsible for the procurement of the buses and for the installation of the re-fuelling equipment at the Lawrence Hill Depot. This work, and the operation of the bus services using these vehicles, would be overseen by the local authorities through established partnership arrangements with the bus company, with regular meetings to discuss bus service issues across the West of England.

## **SECTION B – Evidence against the assessment criteria**

### **B1. Ambition**

#### **Transition of the Bus Fleet**

FBL is the largest operator of bus services within the West of England, possessing a fleet of 387 vehicles based at 3 depots across Bristol. This bid focuses on the transition of the bus fleet operating out of the Lawrence Hill Depot to Compressed Natural Gas (CNG) technology. The bid would result in 80 existing buses, powered by Euro 3 diesel engines, being replaced with low emission vehicles powered by CNG, and an additional 30 CNG-powered buses being procured to commence the first phase of MetroBus operations. The impact of this would be that 44% of the FBL fleet would comprise low emission buses through the direct investment that will be released through this bid building upon previous investment by FBL in Low Emission Buses and that already committed by FBL in their current investment plans.

This first phase would significantly accelerate the transition of the FBL fleet to low emission vehicles. Work is underway on the construction of an extensive network of bus priority lanes across the West of England area, with completion programmed for 2017 (further details on the MetroBus project can be viewed at <http://travelwest.info/metrobust>).

The West of England authorities will soon be seeking bids from bus operators seeking access to this £200 million MetroBus network, with criteria including a commitment to operate low emission buses (minimum standard of Euro 6) on the services using the network.

FBL intends to invest in a total of 55 CNG-powered buses as part of their offer to the West of England authorities for MetroBus services, 30 of which are included within this bid and the remaining 25 being procured separately by FBL. This investment, allied to that proposed through the Low Emission Bus Scheme bid, would see a total of 135 CNG-powered buses introduced to the West of England bus network by 2020. The outcome would be that around half of the FBL fleet would comprise low emission buses by 2020.

Whilst these two phases will see a major change in the composition of the FBL fleet operating from the Lawrence Hill depot, it forms just the start of FBL's intended transformation programme. Future phases of investment will focus upon First's depots serving Bath and North Somerset. The transition of these fleets to low emission buses will build upon the lessons learnt from the early procurement of CNG-powered vehicles at Lawrence Hill, and will draw upon that experience to secure best value for money from that future investment.

By targeting the largest local bus fleet in this way, the aim is to ensure the maximum initial impact in de-carbonising bus services in the West of England. The approach of targeting vehicles operating out of the Lawrence Hill depot will result in the services operating within those areas of poorest air quality within the West of England being operated by low emission buses, thereby maximising the air quality benefits of the fleet transformation.

The services that will be operated using these low emission buses are illustrated in the appended map, and summarised in the following table.

<b>Services</b>	<b>Routes</b>	<b>Number of Vehicles</b>
6/7	Bristol – Kingswood / Staple Hill	13
17	Southmead – Kingswood - Keynsham	8
42/43/44/45	Bristol – Kingswood – Bitton / Bristol – St. George / Cadbury Heath	25
48/49	Bristol – Downend / Staple Hill – Emerson’s Green	26
Float	Spare buses to provide cover for those undergoing maintenance	8
MetroBus	First tranche of buses procured to operate MetroBus services	30
<b>Total</b>		<b>110</b>

### **Fuelling Infrastructure**

The CNG fuelling infrastructure to be installed at the Lawrence Hill depot will provide capacity to handle the re-fuelling needs of 150 buses per day, thereby providing sufficient capacity to handle the re-fuelling needs of the 135 CNG-powered buses that are to be procured through this bid and through FBL’s proposals for MetroBus services.

These fuelling needs will typically be required during the morning, and fuelling capacity will therefore be freed up in the remainder of the day for a further 150 vehicles to re-fuel. In total, up to a further 150 additional vehicles could be re-fuelled using this equipment, with the total daily capacity of the fuelling station being 300 vehicles. This provides the capability for other bus operators, public sector fleets (local authorities, NHS), other private sector companies operating CNG-powered vehicles (such as hauliers), and taxi operators could all potentially utilise the fuelling station.

By supporting the installation of the fuelling infrastructure, this project would therefore provide a supply chain capable of supporting a major expansion in low emission vehicles across the West of England.

## B2. Deliverability

It is recognised that there can be significant lead-in times for the procurement of new buses, and for the installation of new infrastructure. The proposed delivery plan for this project reflects these lead-in times, and also the need to ensure that the right vehicles are in place at the right time to operate the identified bus services to the required standard expected by the passengers.

A three year delivery and procurement plan has been identified, as summarised in the following table and appended to the bid.

Activity	2016/17	2017/18	2018/19	Total
Procurement of CNG-powered buses (LEBS)	50	30	30	110
Procurement of CNG-powered buses (FBL for MetroBus)	25			25
Installation of fuelling infrastructure at Lawrence Hill depot	Capacity – 150 buses			150 buses

FBL will be responsible for the procurement of the buses. As part of an international bus company that procures hundreds of new vehicles each year, the company has well established procurement processes and buying power that will ensure that risks associated with the procurement process are limited.

FBL has developed a strong relationship with the bus manufacturer, Scania, and the double decker variant of the CNG-powered bus is expected to become available for purchase in 2016/17. Assuming a successful bid, FBL would place the order for the first tranche of buses in March 2016, with delivery expected to take around 6 months. Scania have the capacity to meet this timescale at their UK plants in Falkirk and Leyland.

FBL has worked closely with the Gas Bus Alliance to develop the options for the procurement of the fuelling infrastructure. This makes sense as they will be hosting the fuelling station on their land, and will be the main (but not necessarily the sole) user. FBL will also be responsible for completing any statutory procedures associated with the installation of the infrastructure, including compliance with all Health and Safety requirements associated with such infrastructure. FBL has confirmed that planning approval will not be required for the installation of this equipment.



A risk register has been prepared outlining the key risks to the project. The key risks are summarised below.

Risk	Mitigation Measures	Level
Vehicle Manufacturer unable to deliver the vehicles to time	Alternative supplier to be identified as a contingency. Alternative arrangements such as transferring suitable vehicles from elsewhere within First	Low
Double Decker variant fails necessary tests	Alternative procurement approach focussing on single deck vehicles Seek alternative supplier of double deck option	Medium
Fail to secure statutory approvals for the fuelling infrastructure	Procure mobile fuelling option in partnership with fuel supplier	Medium

### B3. Air Quality

There are seven Air Quality Management Areas across the West of England, including the centre of Bristol, central Bath, Keynsham, Kingswood and Staple Hill. The maps included in Appendices 1 to 4 show the relationship between the local bus services that will be operated using the new Low Emission Buses and these AQMAs.

The local bus services that will be operated using the Low Emission Buses that will be procured through this bid are focussed on the northern and eastern areas of Bristol, and will pass through the AQMAs in central Bristol, Kingswood and Staple Hill. Some of the services extend to Keynsham and pass through the AQMA there.

It is estimated that 44.39% of the route mileage operated by these vehicles will be within designated AQMAs, as set out in the following table.

Route	Total Route length per annum (km)	Total Route length per annum within AQMA (km)	Number of vehicles	Route length per vehicle per annum (km)	Route length per vehicle per annum within AQMA (km)
6,7	1,151,340	492,488	15	76,756	32,833
17, 17a	469,472	77,730	10	46,947	7,773
42,43,44,45	1,924,093	946,948	27	71,263	35,072
48,49	1,131,619	558,834	28	40,415	19,958
Total	4,676,523	2,076,000	80		

Therefore, by replacing the existing Euro3 diesel powered vehicles that operate these routes with CNG-powered vehicles, a significant difference will be made within these local communities through the reduction in emissions, and especially those of particulates. The scale of this difference is set out below:

Gas	Euro 3 Diesel Bus	Euro 6 CNG Bus	%age reduction
CO	5.45 g/kwh	0.27 g/kwh	95
NMHC	0.78 g/kwh	0.02 g/kwh	97
Methane	1.6 g/kwh	0.22 g/kwh	86
NOx	5 g/kwh	0.3 g/kwh	94
PM	0.16 g/kwh	0.002 g/kwh	99

This demonstrates that across the full range of emissions, the new buses that will be procured through this bid will significantly reduce the impact of bus service operations upon the local air quality along these routes.

The Air Quality Action Plans in place to improve the air quality within these areas all specify measures relating to the reduction in emissions from buses. This is particularly crucial in areas such as the Old Market in Bristol, and the town centres in Kingswood and Staple Hill, where bus stops, to provide good accessibility, are inevitably located within busy shopping streets with high concentrations of pedestrians.

This scheme will result in the majority of buses operating FBL services through the AQMAs becoming cleaner in terms of emissions, and whilst any single measure in isolation will not fully resolve the air quality issues within these areas it is clear that a significant contribution will be made through the introduction of these buses onto these routes.

In relation to the 30 Low Emission Buses being purchased for MetroBus services, these will operate along the 35 kilometre network being constructed as part of the North Fringe to Hengrove Package. Around 7 kilometres of this network, or a fifth of the total, lies within the Bristol city centre AQMA. Whilst the precise service pattern for these bus is yet to be finalised, due to the ongoing status of the MetroBus procurement process, it is reasonable to conclude that at least 20% of the route mileage incurred by these vehicles on MetroBus services will be within the AQMA.

#### **B4. Value for Money**

This bid offers full value for money for the OLEV investment sought by providing a step change in the composition of the bus fleet operating within the West of England, and through the installation of fuelling infrastructure that can sustain further expansion of the Low Emission Bus fleet in future years.

In total, for every £1 being sought in OLEV grant, £5.90 will be invested by FBL and its partners in new buses and the supporting fuelling infrastructure. The OLEV grant comprises 14.5% of the full project costs. The leverage of this significant amount of private sector funding into the public transport offer within the West of England represents a major return for this public sector investment.

In particular, the inclusion of the fuelling infrastructure will support the procurement of 55 CNG-powered buses for the MetroBus services in addition to the 80 new buses included as part of this bid. The bulk of the investment in these vehicles and the supporting infrastructure will be met by FBL.

If the OLEV funding were not available, then the planned investment from FBL alone would facilitate the purchase of around 99 Gas-powered buses. The OLEV grant therefore would enable a further 11 buses to be procured, which significantly expands the reach of the project across the West of England area. In addition, the provision of this public sector investment will unlock the private sector investment, and without this commitment then the pace of investment in new Low Emission Buses is unlikely to be as quick as it would be through this bid.

With regard to the fuelling infrastructure, three options were considered. These were:

Option	Benefits	Disbenefits
Install fixed infrastructure at Lawrence Hill Depot	Easy access to re-fuel buses at operating base. Eliminates “dead mileage” whilst re-fuelling. Ability to re-fuel at any time of day to fit with bus operations for individual vehicles.	Allocation of space within depot for fuelling equipment. Open access for others to fuelling station needs to be managed within the constraint of an operating depot.
Use of fixed fuelling stations elsewhere	Makes use of existing fuelling infrastructure.	Significant “dead mileage” associated with accessing fuelling stations resulting in increased operational costs and reduced operating facilities. Difficulty in incorporating fuelling activity at reasonable time of day to suit bus operations. Unnecessary journeys on the network adding to congestion within the West of England.
Use of mobile fuelling stations	Eliminates need to install infrastructure on site – reduces planning and environmental risks	Difficulty in incorporating fuelling activity at reasonable time of day to suit bus operations.

	associated with permanent infrastructure.	Transport of fuel across urban areas rather than taking fuel from a piped supply – additional risk. Limited capacity to meet fuelling needs at times of peak demand.
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By installing the fuelling infrastructure at the Lawrence Hill depot, it will be easier to convert the full bus fleet operating from the depot to gas operation. This will ensure that all bus services being operated by those vehicles will be using low emission buses, and that all staff working at the depot become trained in the safe use of the re-fuelling equipment.

The 80 CNG-powered buses being procured through this scheme for the local bus services will replace 80 existing diesel buses with Euro 3 standard engines. The composition of the fleet to be replaced is as follows:

Model	Type	Total
Volvo B7TL	Double Deck	52
ADL Dart SLF	Midi	22
Volvo B7L	Single	6

With respect to the carbon savings that are likely to be generated, it is estimated that the 80 CNG-powered vehicles would have the following impact, based on a GCO<sub>2</sub> saving of 1,002 g/km from using the Low Emission Buses:

Route	Total Route length per annum (km)	Number of vehicles	GCO <sub>2</sub> savings (g/km)
6,7	1,151,340	15	1,153.6 m
17, 17a	469,472	10	470.4 m
42,43,44,45	1,924,093	27	1,927.9 m
48,49	1,131,619	28	1,133.9 m
Total	4,676,523	80	4,685.8 m

Therefore, this investment, for the local buses alone, would result in a carbon saving of over 4,685 million g/km.

This vehicle replacement programme would result in the following savings in the emission of nitrogen oxide and particulates:

Gas	Euro 6 Diesel Bus	Euro 6 CNG Bus	Saving
NO <sub>x</sub>	1.228 g/km	0.779 g/km	0.449 g/km
PM	0.0062 g/km	0.000 g/km	0.0062 g/km

For the local bus services that would be operated by the 80 Low Emission Buses, the forecast emission savings can be summarised as follows:

Route	Total Route length per annum (km)	Number of vehicles	NOx savings (g/km)	PM savings (g/km)
6,7	1,151,340	15	516,952	7,138
17, 17a	469,472	10	210,793	2,911
42,43,44,45	1,924,093	27	863,918	11,929
48,49	1,131,619	28	508,097	7,016
<b>Total</b>	<b>4,676,523</b>	<b>80</b>	<b>2,099,759</b>	<b>28,994</b>

This equates to an annual saving of 2,099 kilogrammes of NOx and 29 kg of PM for the 80 Low Emission Buses. Appendix 7 contains the spreadsheet containing the detailed calculations.

A precise calculation of the carbon, NOx and PM savings for the MetroBus services cannot be made at this stage, as the precise routes upon which these services will operate cannot currently be finalised at this stage of the MetroBus procurement process. However, it is clear that with 30 buses operating services of a 10 to 20 minute frequency upon a 35 kilometre network, the NOx and PM savings are likely to be commensurate with those identified above for the local bus journeys.

It should be noted that as the Scania CNG-powered double decker bus has not yet been subject to the full range of emission testing, and therefore the LEB certification for this vehicle is not currently available. It is anticipated that this testing will be undertaken during early 2016, and that full certification will be available at the time of the procurement of the first tranche of vehicles.

Accordingly, the calculations above, and in the appended spreadsheet, have been undertaken using the certified LEB figures for the single deck variant of the Scania CNG-powered bus, which is already in operation and which uses essentially the same power unit as the prototype double decker variant.

In summary, it can be seen that the CNG-powered double decker buses will offer significant carbon and emission savings over the Euro 6 diesel equivalent, with attendant benefits to local communities.

### **Fuel Source**

The fuel will be sourced from three primary producers of biomethane through the Gas Alliance Group. These are summarised in the following table and within Appendix 8:

<b>Location of Processing Plant</b>	<b>Source Materials</b>	<b>Volume of Biomethane produced annually for injection to the grid</b>
Sussex	Cow manure Waste silage Waste bedding Waste maize	9.6 million Kgs

Swindon	Poultry manure Cow manure Waste maize	2.7 million Kgs
South West	Agricultural waste	15 million Kgs
East of England	Agricultural waste	20 million Kgs

In addition, FBL will investigate the option of sourcing biomethane more locally from the Avonmouth biomethane production facility owned by Geneco. Currently this does not supply biomethane into the national gas grid, but if Geneco elect to do so in future then FBL would be open to entering into a commercial arrangement with them.

#### **B5. The bid – supplementary information**

The investment outlined within this bid would fully complement the transport strategy in place for the West of England, and the aspirations to improve the public transport infrastructure and services across the Bristol area. More information on the Joint Local Transport Plan and supporting policies, strategies and projects can be viewed on the Travelwest website at [www.travelwest.info](http://www.travelwest.info).

The four West of England local authorities all support this bid, with the aim of maximising public and private sector investment on the improvement of the fleet of vehicles operating bus services within the West of England.

Similarly, the bid is supported by North Bristol SusCom, an organisation with membership representing 30,000 students and 40,000 employees with the objective of promoting sustainable travel within The North Fringe area of Bristol. This area will be served by many of the local bus services included within this bid, as well as by the proposed MetroBus services. A letter of support from SusCom is appended.

## **SECTION C – Funding**

<b>C1. The Buses</b>	
In total, how many new low carbon buses are you bidding for?	110
In total, how much grant are you seeking?	£2,730,860
<p>For each separate <u>bus type</u>, please provide the following. The calculator will give you the “Base grant”, “Top-up grant” and “Total grant eligibility”: If needed, please copy and paste more tables below. All rows are mandatory.</p> <p>Note – You <b>must</b> submit your completed ‘calculator’ alongside this bid.</p>	
Manufacturer's name <sup>2</sup>	Scania
Make and model of bus	Double decker
Low Emission Bus Technology (e.g. hybrid, plug-in electric, gas etc.)	Gas
Number of buses in bid	110
Anticipated date of order	03/2016 (first tranche)
Anticipated date of entry into service	10/2016 (first tranche)
Cost per low emission bus <sup>3</sup>	£257,828
Cost per bus of diesel equivalent	£224,727
Base grant per bus (as per the calculator)	£24,826
Top-up grant per bus (as per the calculator)	£nil
Total grant eligibility <sup>4</sup> per bus (as per the calculator)	£24,826
Total grant being sought per bus	£24,826

<sup>2</sup> In exceptional cases where this may be unknown, for example where a local authority is yet to go out to tender, it is sufficient to state the type of technology sought (e.g. hybrid, plug-in electric, gas).

<sup>3</sup> In the case where local authorities are yet to go out to tender, an average cost can be given

<sup>4</sup> This is the total maximum grant you are eligible for as set out in your calculator (base grant + top-up grant, subject to any imposed caps)

## C2. The Infrastructure

Funding is sought for the construction of new gas fuelling infrastructure at the Lawrence Hill depot to enable the 110 CNG-powered buses that would be purchased under this scheme, and the 25 CNG-powered buses being separately acquired by FBL to operate MetroBus services, to be re-fuelled at their base depot without having to incur unnecessary dead mileage in travelling elsewhere to fuel. The nearest alternative fuelling stations would be in Avonmouth (return trip from Lawrence Hill depot = 34 kilometres) or Bridgwater in Somerset (return trip = 152 kilometres).

The fuelling station would be connected to the national gas grid, and would contain 6 pumps capable of fuelling 150 buses per day. The following table summarises the elements of the fuelling station:

Element	Items
Gas and Electric Utilities	Groundworks Gas and Electricity connections Fencing Concrete bases Gas meter 750 kva electricity supply sub-station and housing
Gas Station	2 x Containerised Gas Compressor system 3 x single sided, single hose dispenser (200 bar fill pressure) 3 x single sided, single hose dispenser (250 bar fill pressure) 3 x Storage modules 3 x Jigsaw fuel management systems (one per pair of dispensers) Telemetry to allow remote monitoring of station performance
Training	Training for all staff including health and safety
Ancillaries	Lighting Building ventilation systems

Jigsaw is a remote gas monitoring system that monitors each vehicle's CNG usage and distance travelled by Route. This information allows the following to be recorded to provide input to the Monitoring and Evaluation Plan:

- Fuel Economy - by vehicle and route
- CO<sub>2</sub>, NO<sub>x</sub> and Particulate savings can be developed as fuel consumption and distances travelled by Bus can be recorded.
- Vehicle Utilisation.
- Third Party use - in conjunction with 1 above - environmental savings can be monitored.



In total, how much grant are you seeking for infrastructure?	£1,708,875
For each type of infrastructure <sup>5</sup> , please provide the following. If needed, please copy and paste more tables below. All rows are mandatory.	
Manufacturer's name <sup>6</sup>	Wartsila / Gas Bus Alliance
Type of infrastructure	Compressed Natural Gas fuelling station
Anticipated date of order	03/2016
Anticipated date of installation <sup>7</sup>	12/2016
Total cost	£2,278,500
Total eligible amount <sup>8</sup>	£1,708,875
Total grant sought	£1,708,875

<b>C3. Funding Profile</b>				
Please complete the following tables. <b>Figures should be entered in £000s</b> (i.e. £10,000 = 10).				
£000s	2016-17	2017-18	2018 – 19	Total
<b>Buses</b>				
Number of buses in bid	50	30	30	110
Total grant eligibility (as per your calculator)	1,241.3	744.78	744.78	2,730.86
<b>Total grant being sought</b>	<b>1,241.3</b>	<b>744.78</b>	<b>744.78</b>	<b>2,730.86</b>
<b>Infrastructure</b>				
Total cost	2,278.5			2,278.5
Total eligible amount (i.e. 75%)	1,708.875			1,708.875
<b>Total grant sought</b>	<b>1,708.825</b>			<b>1,708.825</b>
<b>TOTAL grant sought (Bus and infrastructure)</b>	<b>2,950.175</b>	<b>744.78</b>	<b>744.78</b>	<b>4,439.735</b>
<b>Match funding (if any)<sup>9</sup></b>	<b>12,219.725</b>	<b>6,990.06</b>	<b>6,990.06</b>	<b>26,199.845</b>

<sup>5</sup> Please refer to paragraphs 1.7 and 1.8 in the guidance

<sup>6</sup> Where a local authority is yet to go out to tender, the name may not be known. The remaining rows should be filled in however.

<sup>7</sup> This is the date after which buses will be refuelled using the infrastructure

<sup>8</sup> This will be 75% of the cost of your infrastructure

<sup>9</sup> This should include any 3<sup>rd</sup> party contributions that have been secured

Match funding is being provided from FBL and is split as follows:

Element	Gross Cost	OLEV grant sought	FBL contribution
Bus Purchase – 110 vehicles	£28,361,000	£2,730,860	£25,630,220
Fuelling infrastructure	£2,278,500	£1,708,875	£569,625
<b>Total</b>	<b>£30,639,500</b>	<b>£4,439,735</b>	<b>£26,199,845</b>

The profile for the match funding given above reflects the up-front costs of installing the fuelling infrastructure in 2016/17, and the procurement of the new buses in a phased programme over the three years of the bid.

In total, FBL’s commitment will meet 85.5% of the total costs of the project, or £5.90 of private sector investment for every £1 of DfT grant.

FBL and its infrastructure partner, Gas Bus Alliance, have confirmed that they will be responsible for all project costs over and above any grant awarded by the DfT. This includes responsibility for meeting any costs over and above the DfT contribution, including potential cost overruns, and costs associated with ongoing revenue and capital requirements in relation to the scheme.

A letter from the Gas Bus Alliance to this effect is appended.

## **SECTION D – Funding (bid 2 – scaled-down)**

### **D1. The Buses (bid 2)**

In total, how many new low carbon buses are you bidding for?

In total, how much grant are you seeking?

For each separate bus type, please provide the following. The calculator will give you the “Base grant”, “Top-up grant” and “Total grant eligibility”: If needed, please copy and paste more tables below. All rows are mandatory.

Note – You must submit your completed ‘calculator’ alongside this bid.

Manufacturer's name	
Make and model of bus	
Low Emission Bus Technology (e.g. hybrid, plug-in electric, gas etc.)	
Number of buses in bid	
Anticipated date of order	MM/YYYY
Anticipated date of entry into service	MM/YYYY
Cost per low emission bus	£
Cost per bus of diesel equivalent	£
Base grant per bus (as per the calculator)	£
Top-up grant per bus (as per the calculator)	£
Total grant eligibility <sup>10</sup> per bus (as per the calculator)	£
Total grant being sought per bus	£
<p>Please give a description of how this scaled down bid still meets the objectives of the fund as set out in the guidance and helps deliver your longer term vision.</p>	

<p><b>D2. The infrastructure (bid 2)</b></p> <p><i>Please give a description of any infrastructure funding being sought over the period of funding (i.e. 2016-2019):</i></p>	
<p>In total, how much grant are you seeking?</p>	
<p>For each type of infrastructure<sup>11</sup>, please provide the following. If needed, please copy and paste more tables below.</p>	

<sup>10</sup> This is the total maximum grant you are eligible for as set out in your calculator (base grant + top-up grant, subject to any imposed caps)

<sup>11</sup> Examples of the infrastructure most likely to be bid for under this fund are: standard, fast and inductive charging equipment, gas (this includes portable or fixed) and hydrogen re-fuelling systems.

Manufacturer's name	
Type of infrastructure	
Anticipated date of order	MM/YYYY
Anticipated date of installation	MM/YYYY
Total cost	£
Total eligible amount (i.e. 75%)	£
Total grant sought	£
Please give a description of how this scaled down bid still meets the objectives of the fund as set out in the guidance and helps deliver your longer term vision.	

### D3. Funding profile (bid 2)

*Please use the information in sections D1 and D2 to complete the following summary funding table:*

Please complete the following tables. **Figures should be entered in £000s** (i.e. £10,000 = 10).

£000s		2016-17	2017-18	2018 – 19			Total
<b>Buses</b>							
Number of buses in bid							
Total grant eligibility							
Total grant being sought							
<b>Infrastructure</b>							
Total cost							
Total eligible amount (i.e. 75%)							
Total grant sought							
<b>TOTAL grant sought</b>							

<b>(Bus and infrastructure)</b>							
Match funding (if any) <sup>12</sup>							

*Please provide more information below on any match funding, notably:*

- 1. What it will buy;*
- 2. When it will be bought; and*
- 3. The source(s).*

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<sup>12</sup> This should include any 3<sup>rd</sup> party contributions that have been secured

## **SECTION E – Monitoring and evaluation**

### **E1. Monitoring and Evaluation (optional)**

Routine monitoring of air quality is undertaken by all four partner authorities, and annual reporting on the designated AQMAs is also undertaken. Action Plans are in place for all of the designated AQMAs that will be affected by this bid, and monitoring takes place along all routes upon which the Low Emission Buses will be operating.

The regular reporting on air quality within the AQMAs will provide the opportunity to assess the impact that the transition to Low Emission Buses has upon local air quality, recognising that numerous other factors will come into play in delivering air quality improvements within these areas. These factors include the take up of other low emission vehicles (such as electric cars and vans) by the public, fleets operated by both public and private sector organisations, and taxi operators. Other factors include traffic management measures, and achieving modal shift through the promotion of sustainable travel modes through Travel Plans.

FBL will also be able to provide data on the operational performance of each of the CNG-powered buses using the Jigsaw monitoring system referred to above.

## **SECTION F - Declarations**

### **F1. Section 151 Officer Declaration (for local authorities)**

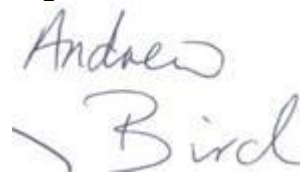
As Deputy Section 151 Officer for South Gloucestershire Council, I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that the match funders for the bid, FBL and the Gas Bus Alliance have confirmed to the Council that they:

- have allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution;
- accept responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties;
- accept responsibility for meeting any ongoing revenue and capital requirements in relation to the scheme;
- accept that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided after 2018/19;
- confirm that they has the necessary governance / assurance arrangements in place and can provide, if required, evidence of this.

Name:

**Andrew Birch**  
Deputy S151 Officer  
South Gloucestershire Council

Signed:



*\*This is only required from the lead authority in joint bids*

## **Submission of Bids**

The deadline for bids is 5pm, **31 October 2015**

An electronic copy should be submitted to [lebs@dft.gsi.gov.uk](mailto:lebs@dft.gsi.gov.uk)

Please also include the supporting documentation specified either within the guidance document or in this proforma. This should include, but is not limited to: a PSV licence (operators only) and quotes from the manufacturer(s) for the low emission bus and its' diesel equivalent. We also require evidence of the calculation of your base grant, top-up grant and total eligible grant. This will be given by the calculator as specified in the guidance. Where match-funding has been secured, evidence of this will strengthen a bid. Please also provide evidence that the LEB has been certified as such.

If, for any reason, you need to send hard copies of papers to DfT, please provide 3 copies to:

Low Emission Bus Scheme  
Buses & Taxis Division  
Department for Transport  
Great Minster House  
33 Horseferry Road  
London  
SW1P 4DR