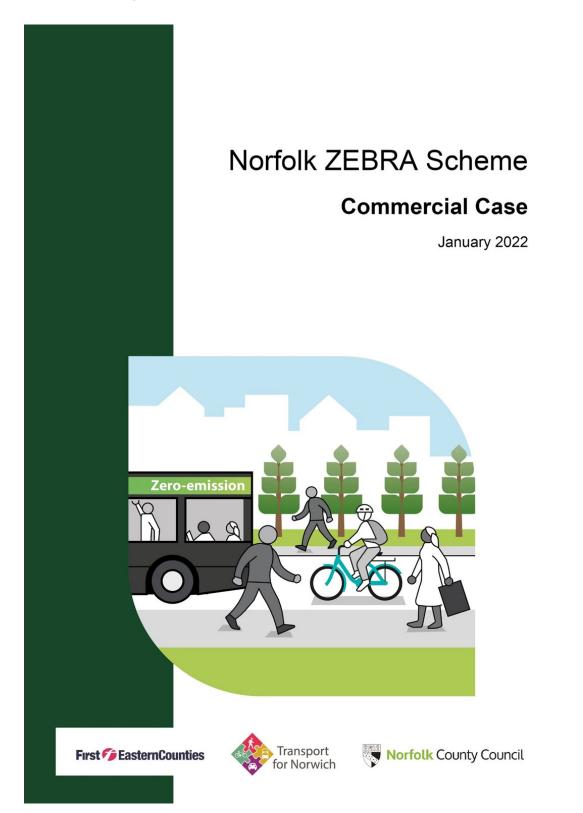


Norfolk ZEBRA Scheme Commercial Case January 2022





COMMERCIAL CASE

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Pictures courtesy of Visit Norwich





1 Overview / Executive Summary

1.1.1 A summary of the commercial and procurement strategies is provided in this section, followed by a summary of market engagement to date.

Summary of the commercial strategy

- 1.1.2 Norfolk County Council (NCC) will receive the ZEBRA grant from the Department for Transport (DfT) and administer grant payments to First Bus at agreed project milestones, who will own, operate and maintain all the assets which form part of the project (electric buses and charging infrastructure). This is based on legal advice we have received, which is outlined in this case.
- 1.1.3 Because of the arrangement outlined in 1.1.2, First Bus will also procure each element of the project: the zero emission buses and the civils work and power upgrade (which will be housed on First Bus bus depot). NCCs involvement in the procurement exercise will be to ensure that the required quantities, technical specifications, costs and milestones outlined within the contracts (and output specification) are delivered. This management will occur through the Transport for Norwich Project Board and via the draw-down payments to First Bus, with NCC's Section 151 Officer responsible for payment release.

Outline of the procurement strategy including the preferred option

1.1.4 As First Bus will be procuring all the elements of the project, the procurement strategy has been developed by First Bus, in line with their own procurement policy. Given First Bus have undertaken a similar, successful procurement exercise recently (for the Glasgow Caledonia electric bus project), which involved an open tender process, First Bus intend to use suppliers from that project on this ZEBRA bus project. The Caledonia contracts allow for such extensions using the same terms and conditions. NCC are satisfied with the commercial process undertaken by First Bus.



Summary of the market engagement taken place and to take place

- 1.1.5 REDACTED
- 1.1.6 REDACTED

2 Specification

- 2.1.1 The specification for the project, aligned with the project scope, is split into three components and includes:
 - The purchase of 15 single-decker electric buses, replacing 15 existing single-decker Euro 3 diesel buses, built to the highest passenger comfort, accessibility and quality standards,
 - A power upgrade of the local electrical supply network at the First Bus depot, Norwich,
 - Installation of electric bus charging infrastructure at the First Bus Depot.
- 2.1.2 The specification for each component is provided below.

Bus specification

- 2.1.3 The buses procured as part of the project will meet the following specification (this summary list is not exhaustive):
 - 15 single-decker, electric buses to replace existing single-deck diesel buses,
 - A seat capacity of 35,
 - On-board and outboard CCTV (for enhanced passenger security),
 - Wheelchair accessible (x 2 number of wheelchair bays),
 - Vehicle length (12m) to align with current fleet (and on road infrastructure constraints),
 - Climate control / air conditioning,



• Average vehicle / battery pack range >200miles.

2.1.4 REDACTED

2.1.5 The electric buses need to be delivered within the ZEBRA bus fund timetable. Estimated delivery dates are between October 2023 – January 2024.

Infrastructure / depot upgrade

- 2.1.6 The specification for the infrastructure / bus depot upgrade is to undertake all design and civil engineering work to accommodate the proposed electric charging infrastructure within the First Bus depot, which includes charging points for 15 vehicles, and the installation of 2 additional chargers to be sited within the workshop area.
- 2.1.7 The charging infrastructure needs to be in place prior to bus deployment (February 2024), and to enable all safety checks and staff training (both bus operation and charging infrastructure maintenance and operation training) to occur prior to that date. The target programme dates for the infrastructure upgrade is between April 2022- April 2023.
- 2.1.8 REDACTED.

Electricity chargers

- 2.1.9 The specification for the electricity chargers was for:
 - 9 x high power (150kW) fast chargers¹,
 - 1 x 40kW mobile charger²,
 - 10m electric cabling,

¹ Each of the 9 chargers can charge 2 electric buses concurrently

² The mobile charger is required for situations where the electric buses need to be charged away from the bus depot, for example if they have been stranded and or have run out of charge and cannot travel back to the depot without assistance. It also allows for buses to be charged at different locations around the depot, say for example if the static chargers are already fully being utilised charging other vehicles.



- Supply to accommodate DC charging.
- REDACTED.

3 Commercial Strategy

Commercial model

- 3.1.1 The commercial model that will be adopted to deliver the project will be as follows:
 - The ZEBRA grant funding (from DfT) will be received by NCC, who will administer payments to First Bus when pre-determined and agreed contract milestones are met. These milestones are a signed contract and order placed with the bus supplier for the purchase of the buses, an order placed with the Distribution Network Operator (DNO), completion of civil engineering works and completion of installation of fast-charging infrastructure. A small final payment will be withheld by NCC at the end of the project once buses and charging infrastructure have been delivered to cover any rectification or remedial works that may be needed to equipment or buses. This withholding of final payment is based on experience of other projects where grant payments are initially received by NCC before payment is administered to First Bus. The funding values will align with the project costs set out within the Financial Case. NCC's Section 151 Officer will be responsible for signing-off each grant payment element as part of the financial governance process described within the Management Case. Payments will only be signed off when pre-agreed output-based specification / quality standards, costs and agreed timeframes are met. This model has been used successfully previously by NCC to administer payments to First Bus in the Clean Bus Technology Fund project (2015).
 - First Bus will be responsible for the procurement of the zero emission buses as the electric buses will be owned, operated and maintained by First Bus. NCC will have no direct involvement in the



procurement process other than to administer the grant funding to First Bus when payment milestones are met, as described above. NCC has a strong relationship with First Bus, which is demonstrated through this partnership on this ZEBRA project, as well as close working on the Transforming Cities Fund (TCF) programme described within the Strategic Case. The interaction with First Bus in terms of delivery for this project is described in more detail within the governance arrangements as described in Section 2 of the Management Case, where First Bus are represented on the TfN Project Board.

- First Bus will be responsible for securing a contract with the DNO to supply power to the depot (Norwich).
- First Bus will be responsible for procuring the civil engineers to deliver the infrastructure required for the power upgrade and vehicle charging infrastructure at the depot (Norwich).
- First Bus will be responsible for the purchase and ongoing maintenance of the fast vehicle chargers at the depot (Norwich).
- First Bus are responsible for procuring all professional services required to support the delivery of the project (including taking the power upgrade through planning and all legal fees).

Future ownership of assets

- 3.1.2 As the proposed infrastructure upgrade will be undertaken on assets (at the bus depot) already owned by First Bus, all electric vehicle charging infrastructure and associated power upgrade will be owned by First Bus.
- 3.1.3 First Bus will also own the zero emission buses.

Pattern / flow of payments

3.1.4 NCC will retain the grant funding until First Bus has demonstrated that buses, infrastructure or services have been procured in accordance with achieving best value, and that payment milestones and agreed outputs



have been met. This approach has previously been adopted by NCC on the Clean Bus Technology Fund.

- 3.1.5 Payment milestones include:
 - Signed contract and order placed for zero emission buses,
 - Order placed with DNO,
 - Completion of civil engineering works,
 - Completion of installation of fast-charging infrastructure,
 - Final payment for rectification / remedial works.

4 **Outline Procurement Strategy**

Procurement routes for the project's key outputs

- 4.1.1 As First Bus will be procuring all elements of the project, and will own all the assets, the entire procurement process will be undertaken in accordance with First's procurement policy.
- 4.1.2 The procurement routes for each project element are summarised below for:
 - The zero emission buses,
 - The energy supply from the DNO,
 - The civil engineering work for the power supply upgrade,
 - Professional services.

Outline of procurement strategy for electric bus purchase element of the project

- 4.1.3 The procurement strategy for the selection of the zero emission bus supplier comprised of 3 key phases:
 - "Soft" market testing of the suppliers,



- A formal Pre-Qualification process for all potential.
- A final Invitation To Tender (ITT) process conducted through the First Bus Procurement Process.
- 4.1.4 REDACTED.
- 4.1.5 Progress on that strategy is outlined below in **Table 1**.

TABLE 1:PROGRESS ON PROCUREMENT

Number	Process Step	Comments
1	REDACTED	Complete.
2	REDACTED	Complete.
3	REDACTED	Complete.
4	REDACTED	Complete.
5	REDACTED	REDACTED
6	REDACTED	REDACTED
7	REDACTED	REDACTED
8	REDACTED	REDACTED

Additional steps for this project

- 4.1.6 REDACTED.
- 4.1.7 REDACTED.
- 4.1.8 REDACTED.
- 4.2 Sourcing options

Sourcing options for buses

- 4.2.1 REDACTED.
- 4.2.2 REDACTED.
- 4.2.3 REDACTED.



- 4.2.4 REDACTED.
- 4.2.5 REDACTED.
- 4.2.6 REDACTED.

Sourcing options for infrastructure

- 4.2.7 REDACTED..
- 4.2.8 REDACTED

Sourcing options for electricity supply

4.2.9 REDACTED.

Sourcing options for legal services

4.2.10 REDACTED are providing all legal services for the project. This legal firm has been used for previous First Bus electrification and property projects and is also First Bus's preferred supplier for all property and construction-related transactions.

Rationale for financing

- 4.2.11 First Bus utilise both lease and buy options for vehicles within its UK business with each investment reviewed on its own merits.
- 4.2.12 REDACTED.

Procurement Plan

4.2.13 An outline of the key procurement dates from the Project plan are as follows for the infrastructure electricity supply upgrade:

TABLE 2: PROCUREMENT DATES

Task	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Electricity	Apr-22	Not	Not	Not	Not
Order Placed		applicable	applicable	applicable	applicable



Task	Apr-22	May-22	Jun-22	Jul-22	Aug-22
Cabling/ Civils	Not	Not	Not	Not	Aug-22
Order Placed	applicable	applicable	applicable	applicable	
Chargers	Not	Not	Jun-22	Not	Not
Ordered	applicable	applicable		applicable	applicable

4.2.14 Key dates for the procurement of the zero emission buses are provided below:

TABLE 3: KEY DATES FOR PROCUREMENT

Task	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22
REDACTED	Feb-22	Mar-22	Apr-22	May-22	Not applicable	Not applicable
REDACTED	Not applicable	Not applicable	Apr-22	May-22	Jun-22	Not applicable
REDACTED	Not applicable	Mar-22	Not applicable	Not applicable	Not applicable	Not applicable
REDACTED	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22

Risk allocation

4.2.15 As First Bus are procuring all elements of the project, because they will own all the future assets, and because both NCC and First Bus acknowledge any cost increases will not be borne by DfT (via an increase in ZEBRA grant funding), all the monetised risks outlined within the Management Case will reside with First Bus.

Contract and implementation timescales

4.2.16 First Bus have confidence that the contract and implementation timescales specified within the Project Plan are realistic and deliverable. This confidence is based on the results of other similar procurement activities – i.e. the procurement and deployment of battery electric vehicles in a number of locations within the UK, including York, Leeds and Glasgow, which are described within the Evidence of Similar Projects section of the Management Case.

Capability and skills



4.2.17 First Bus's procurement team have all the relevant skills and capabilities required to deliver this procurement. This is because they have a proven track record in delivering similar zero emission bus projects.

Output milestones

- 4.2.18 The following output milestones will be measured to monitor progress:
 - Date that the zero emission bus order is placed,
 - Number of zero emission buses manufactured,
 - Number of zero emission buses delivered,
 - Date planning approval is secured,
 - Date electrical infrastructure is delivered,
 - Date electric charging infrastructure installed,
 - Date charging system becomes operational.

5 Market Engagement

5.1.1 Details of the market engagement activity have been covered above.

6 Marketing Strategy

- 6.1.1 The marketing strategy will be focused on a substantial pre-launch event. This will be organised to raise public awareness and build support and excitement about the electric buses prior to deployment on the streets of Norwich. This will allow stakeholders and the wider public to not only view, but also experience the vehicles prior to operation. The event would be publicised well in advance of the event via First Bus and NCC's social media / marketing channels. This will also be co-ordinated with other stakeholders and partnering organisations such as Norwich BID, Archant and Norwich City Council. The event would be held at The Forum (a venue successfully used for previous public transport launch events).
- 6.1.2 For the pre-event launch event, three buses would be displayed outside the building along with staff to engage with visitors. A range of information



displays would also be provided for attendees to interact with, and marketing material, which includes bus features and environmental credentials, will be provided for the public to take home. The buses would be available to allow attendees the opportunity to experience travel on the buses (via free shuttle rides) between the First Bus depot and The Forum. Once at the bus depot, passengers will also be allowed the opportunity to view the bus charging facilities. Whereas most bus launches wouldn't offer opportunities for bus rides, with electric buses being so very different in terms of ride quality and experience, it is important that this activity provides a clear demonstration that these are not just 'any old bus'.

- 6.1.3 Additional buses will be 'posed' at the depot with their 'panels open' allowing people to see the technology behind the vehicle. The bus manufacturer will have staff on hand to answer questions from the public / stakeholders.
- 6.1.4 After the event we would use social and news media to promote the arrival of the vehicles, and build up to, and beyond, their entry into service.

7 Procurement subsidy, control and Trade Co-operation Agreement (TCA) compliance

7.1.1 A note from our lawyers has been produced to consider whether the grant will be applied in accordance with relevant subsidy control measures. This is attached as an annex to this report. It shows that there are strong arguments that any potential subsidy offered to First Bus would satisfy the principles set out in the EU-UK Trade and Cooperation Agreement and therefore it would be a lawful award.

8 Annex

- 8.1.1 All Appendices can be found in a separate Appendices Document.
- 8.1.2 Zebra Subsidy Advice, below.

Legal Advice



Zero Emission Bus Regional Area (ZEBRA) Electric Bus Funding

Norfolk County Council ("the Council") is preparing an application to the Department for Transport (DfT) in respect of their ZEBRA Electric Bus Funding. The bid would be used to assist in the purchase of 15 zero emission electric buses which will be owned and supported by investment from First Bus. In addition, this bid would be used to assist in the purchase of electric charging points for the buses to plug into and an upgrade to the electrical power supply. The Council would not invest any of its own capital in these buses, nor will they be used for non-commercial routes ("the Bid").

nplaw has been asked to consider the subsidy control rules for the purposes of the Bid, and it is understood that this note will form part of the Council's application.

Background

The Council is keen to see bus service improvements within its administrative area, not only to improve the user experience, but also but also to assist with meeting its own environmental policies and clean air strategy. This Bid, if successful, will assist with those short, medium and long-term objectives.

The Council is aware that the grant funding conditions are that DfT would pay 75% of the difference between the diesel and electric bus prices and 75% of the total cost of any associated charging infrastructure, including ancillary works in relation to the power upgrade and civils. For this Bid, the other 25% will be invested directly by First Bus.

The electric buses will replace diesel buses that are already in operation on a likefor-like basis. Whilst there may be savings in bus fleet operational costs in the long term for First Bus, this does represent a significant up-front investment.

The Council is required to make the Bid, with support from relevant bus operators. Prior to choosing to progress with First Bus as its sole partner, the Council contacted all bus operators to gauge appetite for the project. Only First Bus were interested on the basis that they could afford the financial investment that would be required, and therefore they were the only ones included in the Bid. Had other bus operators been in a position to be included in the Bid, a bigger application to accommodate all would have been put forward.

First Bus will procure all the goods, works and services it requires to get and keep the electric buses into circulation, and fulfil its obligations in the Bid and any grant agreement to be agreed between it and the Council.



Legal Framework

Following the end of the Brexit transition, from 1 January 2021, a new subsidy control framework replaced the EU State Aid regime that previously applied in the UK. This takes into account the UK's obligations under free trade agreements, the Northern Irish Protocol, the UK's WTO membership and the EU-UK Trade and Cooperation Agreement ("the TCA"). The latter being relevant to, and the focus of, this note.

The TCA sets out a test for whether a subsidy exists by reference to four limbs:

*it arises from the resources of the parties [to the TCA];

*it confers an economic advantage on one or more economic actors;

*it is specific insofar as it benefits, certain economic actors over others in relation to the production of certain goods or services; and

*it has, or could have, an effect on trade or investment between the parties [to the TCA].

Where a subsidy is granted, it can still progress if it satisfies the six principles set out in Article 3.4 of the TCA ("the Principles"). If the Principles are not met, the subsidy may be challenged by any interested party, which would include competitors to an aided party. The Principles are as follows:

*the subsidy pursues a specific public policy objective to remedy an identified market failure or to address an equity rationale such as social difficulties or distributional concerns ("the objective");

*the subsidy is proportionate and limited to what is necessary to achieve the objective;

*the subsidy is designed to bring about a change of economic behaviour of the beneficiary that is conducive to achieving the objective and that would not be achieved in the absence of subsidies being provided;

*the subsidy should not normally compensate for the costs the beneficiary would have funded in the absence of any subsidy;

*the subsidy is an appropriate policy instrument to achieve a public policy objective and that objective cannot be achieved through other less distortive means; and

*the subsidy's positive contributions to achieving the objective outweigh any negative effects, in particular the negative effects on trade or investment between the parties [to the TCA].

In applying the Principles, as they reflect the balancing tests used by the European Commission in assessing notified transactions and for the purposes of the State Aid exemptions under the EU regime, then it remains open to the Council to consider whether such a subsidy would have been compliant with one of the State Aid exemptions or would have been approved upon notification to the EU, as on that basis it is likely to be compliant with the Principles and therefore not vulnerable to a



successful challenge. However, it is also possible to simply apply the Principles, as there is not a requirement that there needs to be direct compliance with an existing EU exemption.

It is expected that the UK Government will introduce a more express subsidy control regime in compliance with the TCA in due course, and therefore where more specific rules are introduced, it may be necessary for the Council to revisit this advice to ensure that there is compliance with that regime, as it evolves.

Application to the Bid

It is necessary to consider all potential beneficiaries of the funding, whether directly or indirectly, to ascertain whether a subsidy is being given. From the papers provided, they are:

- (a) The Council;
- (b) First Bus;
- (c) Any contractor employed by First Bus; and
- (d) End users.

Taking each in turn:

(a) The Council

The Council does not satisfy the test because it is not acting as an economic operator and it is receiving no advantage. It is simply a facilitator in the Bid and is in receipt of no subsidy itself.

(b) First Bus

It is recognised that funding will be provided by the Council, a public sector body, and is therefore ultimately derived from state resources.

Although First Bus will need to make significant investment itself, it may be argued that they also obtain an economic advantage as the funding will reduce the costs that they incur in purchasing zero emission buses and it will



support the infrastructure and civils required for zero emission buses to operate.

Whilst the Council has engaged on some level with all bus operators in order to determine whether they wish to apply as part of the Bid, and therefore there is an opportunity for all operators to access this funding on an equivalent basis, there is still an argument that First Bus is materially benefitting over others.

Whilst there is no substantive guidance on what "effect on trade or investment between the parties" means, the equivalent limb of the EU State Aid regime was always assumed to potentially apply in such circumstances, the threshold being very low. It therefore cannot be ruled out that this limb is either satisfied or could be satisfied.

On the basis that the subsidy test could be met for the award to First Bus, we turn to consider the Principles. Full details and the Council's audit trail are attached at schedule 1 of this note. On the basis of the explanation provided, there is a strong argument that the Principles should be satisfied, making the subsidy consistent with the TCA.

(c) Contractors employed by First Bus

First Bus have advised the Council that they will competitively procure all contracts required to get and keep the electric buses into circulation, and fulfil its obligations in the Bid and any grant agreement (to be agreed between it and the Council). This includes any infrastructure and civil work.

Following on from paragraph 1 of (b) above, although any payment to those companies will have arisen (in whole or in part) from the resources of the Council, they will have received no economic advantage over their competitors due to the procurement conducted. As such, the test is not met and no subsidy is being given to this group.



(d) End Users

Limited benefits will be received by the end user, on a pass-through basis. However, the test is not satisfied as they are not acting as economic operators. No subsidy is therefore received by end users.

23 January 2022 Dispute Resolution and Governance Team, nplaw

Schedule 1

Principles

Principle 1

The subsidy pursues a specific public policy objective to remedy an identified market failure or to address an equity rationale such as social difficulties or distributional concerns ("the objective").

The Council has an environmental policy that sets out the areas that it sees as key to protecting and maintaining the health of Norfolk's distinctive environment and its occupants. An important goal that frames this policy is the provision of "clean air for the population" through the policy aim of supporting alternatives to car travel, including promoting sustainable public transport (all together "the Environmental Policy").

Furthermore, the Council has recently reviewed its Local Transport Plan ("the LTP"), which outlines the Council's strategy and policy framework for transport and is used as a guide for investment priorities. The LTP covers the period 2020-2036 and was adopted in November 2021. It includes a commitment to carbon reduction in line with the adopted targets in the Environmental Policy as well as air quality improvements. The strategy is that these objectives will be achieved through measures including reducing the need for people to travel, a shift towards active travel and public transport, and through a shift towards cleaner fuels such as electric vehicles.

The Council has also recently reviewed its Transport for Norwich Strategy and an update to this was adopted in December 2021. This sets out long-term policy commitments to tackle decarbonisation, air quality, promoting active travel and supporting planned growth.

This Bid is therefore fully consistent with the delivery of the Council's stated public policy objectives.

Principle 2

The subsidy is proportionate and limited to what is necessary to achieve the objective.



The subsidy is directly aimed at supporting the local public policy objectives described against principle 1, including providing clean air, reducing carbon and encouraging a shift towards greater use of public transport.

The subsidy is considered to be proportionate and limited to what is necessary to achieve the objective because the level of investment is insufficient to enable all buses to be zero emission, but will provide a springboard for further investment in the future.

Principle 3

The subsidy is designed to bring about a change of economic behaviour of the beneficiary that is conducive to achieving the objective and that would not be achieved in the absence of subsidies being provided.

The subsidy enables First Bus to invest in 15 zero emission vehicles and supporting infrastructure. Without the subsidy, investment from the beneficiary would only enable a small number of vehicles to be supported and a poor return on investment, which would likely result in no investment being made at all.

An absence of subsidy would lead to the local policy objectives not being met as no impact would be made on reducing carbon emissions, improving air quality or encouraging greater use of public transport.

Principle 4

The subsidy should not normally compensate for the costs the beneficiary would have funded in the absence of any subsidy.

In the absence of any subsidy, no funding from First Bus would have come forward.

Principle 5

The subsidy is an appropriate policy instrument to achieve a public policy objective and that objective cannot be achieved through other less distortive means.

To achieve the public policy objectives of reducing carbon, improving air quality and encouraging greater use of public transport, investment is needed in the public transport fleet in Norwich to bring in higher-quality, zero emission buses. Buses are operated commercially by private bus operators (with no local authority service contracts) and subsidy support is needed, in conjunction with private bus operator investment, to meet the high, upfront costs of buying zero emission buses. Without this, the required vehicles will not be obtained and operated in Norwich and local public policy objectives would not be achieved. Buses are operated commercially by private bus operators (with no local authority service contracts) and subsidy support is needed, in conjunction with private bus operator investment, to meet the high, upfront costs of buying zero emission buses. Without this, the required vehicles will not be obtained and operated in Norwich and local public policy objectives would not be achieved. Buses are operated commercially by private bus operators (with no local authority service contracts) and subsidy support is needed, in conjunction with private bus operator investment, to meet the high, upfront costs of buying zero emission buses. Without this, the required vehicles will not be obtained and operated in Norwich and local public policy objectives would not be achieved.



Principle 6

The subsidy's positive contributions to achieving the objective outweigh any negative effects, in particular the negative effects on trade or investment between the parties [to the TCA].

The levels of subsidy investment outlined in this Bid are not significant and all bus operators have been encouraged to participate. The negative effects on the parties to the TCA are a potential at best and therefore the Council considers that the positive contributions to achieving the objective, which will have a real-term effect, do outweigh them.



9 Glossary of Abbreviations and Defined Terms

•	AQAP -	Air Quality Action Plan
•	AQMA -	Air Quality Management Area
•	BCR -	Benefit Cost Ratio
•	BEV -	Battery Electric vehicle
•	BID -	Business Improvement District
•	BSIP -	Bus Service Improvement Plan
•	BSOG -	Bus Service Operator Grant
•	CO2 -	Carbon Dioxide
•	CSS -	Combined Charging System
•	CYC -	City of York Council
•	DEFRA -	Department for Environment, Food and Rural Affairs
•	DfT -	Department for Transport
•	DNO -	Distribution Network Operator
•	EOI -	Expression of Interest
•	EQIA -	Equality Impact Assessment
•	EV -	Electric Vehicle
•	GBT -	Greener Bus Tool
•	GDP -	Gross Domestic Product
•	GJT -	Generalised Journey Time
•	GNR -	Greater Norwich Region
•	ICE -	Internal Combustion Engine

• ITT - Invitation to Tender



- JCS Joint Core Strategy
- LED Light-Emitting Diode
- LEP Local Enterprise Partnership
- LEZ Low Emission Zone
- LTA Local Transport Authority
- LTP Local Transport Plan
- M&E Monitoring and Evaluation
- NBS National Bus Strategy
- NCC Norfolk County Council
- NNUH Norfolk and Norwich University Hospital
- NO2 Nitrogen Dioxide
- **NOx** Oxides of Nitrogen
- NRP Norwich Research Park
- NSIDP Norfolk Strategic Infrastructure Delivery Plan
- **OEM** Original Equipment Manufacturer
- OfGEM Office of Gas and Electricity Markets
- **ONS** Office of National Statistics
- **PIPs** Punctuality Improvement Partnerships
- **PM10** Particulate Matter
- **PM2.5** Particulate Matter to 2.5 microns
- **PSVAR** Public Service Vehicles Accessibility Regulations
- **PVB** Present Value of Benefits
- **PVR** Peak Vehicle Requirement



- **R&D** Research and Development
- SCRT Selective Catalytic Reduction Technology
- SLA Service Level Agreement
- SRO Senior Responsible Owner
- **SSE** Scottish and Southern Elect
- **TAG** Transport Analysis Guidance
- TCA Trade Cooperation Agreement
- TCF Transforming Cities Fund
- TfN Transport for Norwich
- ToR- Terms of Reference
- UEA University of East Anglia
- UKPN UK Power Networks
- VfM Value for Money
- VQP Voluntary Quality Partnership
- WHO World Health Organisation
- **ZEB** Zero Emission Bus
- **ZEBs** Zero Emission Buses