



Department  
for Transport

# Zero Emission Bus Regional Areas Scheme – 2021 to 2022 Application Form

## Call for Expressions of Interest

### Applicant Information

**Local transport authority: North Yorkshire County Council**

**(For joint bids only) Which local transport authority is the lead bidder:**

**Area within authority covered by bid: Harrogate**

**Bid Manager Name and position: Cathy Knight, Commercial Sector Service Development Manager**

**Contact telephone number: 01609 535134**

**Email address: [cathy.knight@northyorks.gov.uk](mailto:cathy.knight@northyorks.gov.uk)**

**Postal address: County Hall, Northallerton, North Yorkshire DL7 8AD**

### Submission of proposals:

Applications to the Scheme will be assessed against the criteria set out here and in the guidance document. Please adhere to word limits. We will not accept any additional information unless specifically requested.

Proposals must be received no later than 17:00 on the following days.

- **Fast track process** - 5pm on 21<sup>st</sup> May 2021
- **Standard process** – 5pm on 25<sup>th</sup> June 2021.

You will receive confirmation that we have received your proposal within 1 working day.

An electronic copy only of the bid including any supporting material should be submitted to [buses@dft.gov.uk](mailto:buses@dft.gov.uk).

Please include “**ZEBRA (Fast track Process) Local Transport Authority name**” in the subject line of the email if you are applying under the fast track process.

Please include “**ZEBRA (Standard Process) Local Transport Authority name**” in the subject line of the email if you are applying under the standard process.

Enquiries about the Fund may be directed to [buses@dft.gov.uk](mailto:buses@dft.gov.uk).

## **Transparency and privacy**

Please refer to the guidance for this scheme before completing the application form to understand how DfT will manage your data.

## SECTION A: Mandatory Questions

Areas must satisfactorily answer all of the questions in this section to be eligible to progress to Phase 2 of the scheme. If you would like further information, please contact the Department for Transport at [buses@dft.gov.uk](mailto:buses@dft.gov.uk).

Areas must provide the information requested in questions A1-A5.

### A1. In total, how many new zero emission buses will your proposal deliver?

39 new zero emission buses would be delivered in Harrogate over three years. With eight introduced in 2018 this would fully convert the Harrogate Bus Company (part of Transdev) service network to electric operation.

### A2. Total DfT funding sought (£m)

*While there is no minimum or maximum size for bids the department is interested in supporting at least three areas across the ZEBRA scheme as a whole, so we expect to see schemes that are approximately £25m – £35m. This is designed to encourage a wide range of bidding areas to come forward and to ensure DfT are able to fund at least three areas across the whole scheme.*

£8,396,250

- Detail redacted due to commercial sensitivity

### A3. Third party funding contributions (£m)

All vehicles to be specified to high standard with next stop announcements (AV), USB power and free wifi. Two of the three routes are interurban operations including Transdev's high specification flagship 36 from Ripon through Harrogate to Leeds.

Transdev will commit to £11.31mn capex over three years for the vehicles and £218,750 towards infrastructure assuming 75% the premium price for the vehicles and 75% of the infrastructure cost is grant funded.

### A4. Funding from other government schemes (£m)

*Please set out any funding from other government schemes that is intended to be used alongside funding from the ZEBRA scheme.*

None.

### **A5. Total cost of the proposal (£m):**

*This should include DfT funding as specified in A2, any third party contributions as specified in A3 and any funding from other government schemes as specified in A4.*

£19,925,000

**Areas must be able to answer yes to question A6-A12 to be able to progress to Phase 2.**

### **A6. If your bid is successful, are you able to invest DfT funding within the time outlined by your scheme?**

Yes.

### **A7. If your bid is successful, are you able to capitalise DfT grant funding?**

Yes

### **A8. Have you considered whether additional zero emission buses are needed to replace existing buses?**

*Evidence suggests that replacing diesel buses with zero emission buses can require additional zero emission buses to provide the same level service as provided by diesel buses. Areas should set out how many additional zero emission buses are needed to replace existing buses. If areas are of the view that additional zero emission buses are not required please set out why.*

Yes. No additional buses would be required. Transdev have undertaken modelling with their suppliers on the routes and tested vehicles. Full day bus workings will need some supplementary charging and Transdev will specify opportunity charging capability to enable 'top up' charge during the day. There is also flexibility to amend bus workings to rotate buses across the evening when frequencies are lower. Transdev are also working with North Yorkshire County Council and West Yorkshire Combined Authority on parallel infrastructure projects which may reduce vehicle requirement, or deliver extra frequency if journey times can be reduced.

### **A9. Have you provided a breakdown of infrastructure costs for your proposal?**

*Infrastructure costs could include (but are not limited to): cost of charging unit or refuelling stations electrical or other power components; civil engineering works, labour costs (for installation); hardware costs; capital costs of developing associated software systems; surveys at the point of procuring the infrastructure provided they can be capitalised; upgrades to the energy grid to cater for increased energy demand.*

Yes. Transdev have engaged suppliers and consultants to identify the infrastructure requirements. A 2MVA connection is required. The grid has capacity for 1MVA so additional capacity is required to cover the later phases.

- Detail redacted due to commercial sensitivity

## **A10. Does your proposal have the support of bus operator(s) in the area?**

*The proposal requires the support of at least one bus operator operating in the area who will operate the zero emission buses. The bid does not, however, need the support of all bus operators operating in the area. If local transport authorities are not able to provide this evidence of support from operators they **must** explain why.*

Yes. Transdev, trading as The Harrogate Bus Company, is the largest bus operator in Harrogate operating over 90% of the network. Since 2016 they have adopted a low emission bus town strategy and in 2018 started the move towards a zero emission bus town. New Euro 6 double deckers were purchased in 2016 for the 36; refreshed single deckers had CVRAS compliant exhaust treatment in 2016 and 2019 and new electric buses converted the entire Harrogate town network in 2018. This project will convert the three remaining corridors to electric operation in three stages:

- 2021/2 – the high frequency 1 between Harrogate and Knaresborough using 10 single deck buses
- 2022/3 – the interurban 7 between Harrogate, Wetherby and Leeds and the rural 24 Harrogate to Pateley Bridge using 10 single deck buses
- 2023/4 – the high quality high frequency interurban 36 from Ripon through Harrogate to Leeds using 19 double deck buses.

## **A11. Have you spoken with any energy companies when preparing your proposal?**

*Energy companies could include Distribution Network Operators, Independent Distribution Network Operators, energy supplier, energy storage companies, smart charging providers or hydrogen fuel providers.*

Yes. Transdev has engaged SSE as an IDNO and also engaged Zenobe with both modelling the site requirements for us. Pascon Ltd has been engaged to obtain Point of Connection information from the National Grid and a proposal has been received.

## **A12. Does your proposal comply with the accessibility requirements set out in the scheme guidance?**

*The scheme guidance sets out a number of accessibility requirements including: requiring buses to incorporate equipment to identify the route, each upcoming stop, and the beginning and end of diversions; providing an induction loop to aid direct communication between drivers and passengers who use a hearing aid and providing an additional flexible space in addition to the mandatory wheelchair space, suitable for a second wheelchair user and/or at least two unfolded pushchairs or prams.*

Yes. Transdev have adopted these features as standard.

## SECTION B. Defining the place

This section will seek a definition of the area to be covered by the Zero Emission Bus Regional Area. Areas should:

- Include information setting out the extent of the area to be covered by the proposal – the **defined area**. If the defined area is different to the area covered by the local transport authority please make this clear. Please provide maps if required.
- Provide details on the bus sector including naming **all** operators who operate services in the defined area, their market share and fleet sizes. This should include both operators who are supporting your proposal and will be operating the zero emission buses and other bus operators in the defined b area.
- Clarify what proportion of bus services in the defined area will be operated using zero emission buses.

*Please limit your response to 500 words. Please provide maps as annex documents if required.*

**North Yorkshire** is the largest non-metropolitan county and lieutenancy area in England, covering an area of 8,654 square kilometres (3,341 sq mi). Around 40% of the county is covered by national parks, including most of the Yorkshire Dales and the North York Moors.

The defined area is the towns of Harrogate and Knaresborough in Harrogate borough. The services within the scheme will also operate to West Yorkshire (Wetherby and Leeds) and to Ripon.

**Harrogate** is a spa town in North Yorkshire, England. The town is a tourist destination and its visitor attractions include its spa waters and RHS Harlow Carr gardens. 13 miles (21 km) away from the town centre is the Yorkshire Dales National Park and the Nidderdale AONB.

**Knaresborough** is a market and spa town and civil parish in the Borough of Harrogate, North Yorkshire, England, on the River Nidd 3 miles (4.8 km) east of Harrogate.

**Harrogate Borough Council** has declared four air quality management areas (AQMA's) for breaches of the annual mean objective for nitrogen dioxide (NO<sub>2</sub>). These were declared at Bond End, Knaresborough and Low and High Skellgate, Ripon in 2010, and York Place, Knaresborough and Wetherby Road, Harrogate in 2017.

Transdev, trading as the Harrogate Bus Company, is the main bus operator in the defined area with over 90% of the market and operating 47 vehicles. Funding received through this bid will enable 39 new zero emission buses would be delivered in Harrogate over three years. With eight introduced in 2018 this would fully convert the Harrogate Bus Company (part of Transdev) service network to electric operation.

Four services would be in scope for conversion to ZEBs:

- The 1 between Harrogate and Knaresborough estates
- The 7 between Harrogate, Wetherby and Leeds
- The 24 between Harrogate and Pateley Bridge
- The 36 between Ripon, Harrogate and Leeds

Five further services already use ZEBs:

- The 2A between Harrogate and Bilton
- The 2B between Harrogate and Bilton
- The 3 between Harrogate and Jennyfield
- The 6 between Harrogate and Pannal
- The X6 between Harrogate and Beckwith Knowle

Three rural off peak services and the local school bus network would remain using diesel buses.

Connexions Buses is a small independent operator based near Harrogate, with services in Harrogate and to Knaresborough York, Otley and Ilkley. The company has a fleet of 40 buses and a PVR of 36. Connexions are not currently in a position to transition to ZEBs due to the rural location of their operating depot and grid capacity constraints.

## SECTION C: Ambition

This section will seek evidence of the level of ambition from the local transport authority to decarbonise their bus fleets, support bus services and decarbonise transport.

### C1. Public transport ambitions

Areas should:

- Provide clear explanation of your ambition to decarbonise the bus fleet in the defined area and how this proposal will support this ambition. If the defined area is different to the local transport authority area please explain your ambitions to decarbonise the bus fleet in your local transport authority area and how this proposal will support this ambition.
- Provide evidence of existing plans to support the provision and operation of local bus services in the area. This could include existing partnership working between the local transport authority and bus operators, bus priority measures, improvements to information about bus services.
- Include complementary policies to decarbonise transport in the area.
- Explain how the proposal supports wider ambitions to increase public transport use and active travel in the area.

*Please limit your response to 500 words.*

North Yorkshire County Council and Transdev work in partnership on a voluntary basis to deliver a high quality bus network for Harrogate. This will evolve into an Enhanced Partnership in 2022 and we are collaborating on an ambitious Bus Service Improvement Plan which builds on the programme of investment made by The Harrogate Bus Company since 2016. The full fleet has been renewed or refurbished as new; contactless payments including a pioneering tap on, tap off capping scheme and a comprehensive marketing campaign. NYCC has developed the Harrogate Transport Improvement Plan which will do much to improve journey times and reliability on the 1 and 36. The Leeds City Region Transforming Cities Fund will develop further bus priority and active travel measures in Harrogate town centre.

West Yorkshire Combined Authority also welcome this bid, with the 7 and 36 operating into Leeds City Council area. Both routes also benefit from investment schemes in the Leeds Transport Improvement Plan.

North Yorkshire County Council is developing an Electric Vehicle Infrastructure Rollout Strategy for the County, considering the recommendations from the Electric Vehicle Charge Point (EVCP) Deployment Study, carried out by WSP in 2020, which recommended that NYCC should deliver 615 publically available electric vehicle charge points by 2030 to accommodate the uptake and use of EVs in North Yorkshire. This sits alongside the council's Zero Emission Bus Deployment study.

The proposal aligns with and supports local policy across the County Council's seven districts and the two National Parks. This includes supporting all Local Plans, Climate Emergency Plans and Harrogate's [Ultra-Low Emission Vehicle Strategy 2019 – 2024](#) (2019). The proposal supports the [Local Industrial Strategy](#) (2020) which sets out a vision for York and North Yorkshire to become England's first carbon negative region. In the [Local Energy Strategy](#) (2020). One objective of the [North Yorkshire Local Transport Plan](#) (2016) is protecting the environment and preventing climate change. The Plan highlights how NYCC supports measures to promote environmentally friendly forms of transport, including supporting and making provision for the use of ULEVs. This aligns to the [North Yorkshire Draft Air Quality Strategy](#) (2020) which is currently under consultation; one of the key objectives of the Air Quality Strategy is to support the use of ULEVs in North Yorkshire.

## C2. Community benefits

Please highlight any community benefits from your proposal. This could include economic development in the area or the creation and/or retention of jobs and apprenticeships related to the maintenance of zero emission vehicles, including batteries and fuel cells, and supporting infrastructure.

*Please limit your response to 500 words.*

### Environmental

This funding could help accelerate the benefits of decarbonisation and improved air quality, as provision of EV charging points could help encourage faster uptake of the technology than might otherwise occur.

Improved local air quality, as EVs emit fewer harmful particulates than conventional petrol and diesel vehicles, and zero tail pipe emissions in the case of BEVs. This proposal will deliver air quality benefits, benefiting the environment and the general health of the North Yorkshire population – in alignment with the [North Yorkshire Draft Air Quality Strategy \(2020\)](#).

The environmental benefits above all help deliver the LEPs vision for York and North Yorkshire to become England's first carbon negative region

### Social

Transdev has an established apprentice scheme which will now include training on electric vehicle maintenance. The project will also considering making charging equipment available commercially to other businesses while not required for charging buses.

## C3. Support for your proposal and wider vision

Provide evidence of support for your proposal and wider vision, such as letters of support or evidence of engagement, from partners.

This **must** include evidence of support from the bus operator(s) who will operate the zero emission buses. You **do not** need to include evidence of support from all bus operators within the area, only the operator(s) who will be operating the zero emission buses. This evidence must be a signed letter by both the CEO/equivalent level of the company and the local MD, committing to investing in the buses and operating them in the defined area e for a minimum of 5 years.

Local transport authorities that have not included this evidence must clearly set out the reasons for this.

You **must** also include evidence of engagement with an energy company. Energy companies could include Distribution Network Operators, Independent Distribution Network Operators, energy supplier, energy storage companies, smart charging providers or hydrogen fuel providers.

Areas may also wish to include evidence of support from other relevant bodies, depending on the proposal, for example:

- Other tiers of local government
- Local Enterprise Partnerships
- Local Energy Hub
- Leasing companies

- Finance companies

*Please limit your response to 1000 words. Evidence of support, such as letter of support, can be included as annex.*

Transdev are strong supporters of this Expression of Interest. A letter of support is attached from the company Chief Executive Officer. Funding from this application will enable 100% of the Harrogate depot fleet to convert to ZEBs and 90% of the Harrogate network.

West Yorkshire Combined Authority also welcome this bid, with the 7 and 36 operating into Leeds City Council area. Both routes also benefit from investment schemes in the Leeds Transport Improvement Plan. Direct replacement of 11 Euro 5 Optare buses with SCRT treatment to CVRAS standard, and 2 Euro 6 Optare buses – these will cascade onto other services in West Yorkshire.

Supporting information is also attached from Northern Powergrid confirming high voltage connection to the distribution system for the Transdev Harrogate depot.

SSE Enterprise, a leading generator of renewable electricity in the UK and Ireland and one of the largest electricity network companies in the UK also support the application. Supporting information is attached.

The proposal supports the [Local Industrial Strategy](#) (2020) which sets out a vision for York and North Yorkshire to become England's first carbon negative region. In the [Local Energy Strategy](#) (2020), EVs are identified as an opportunity for reduced energy expenditure. Increasing the uptake of EVs and designing infrastructure with circular principles is one of the key strategic opportunities that has been identified within [Creating a competitive, carbon-neutral, circular economy in York and North Yorkshire](#) (2019).

## SECTION D: Air Quality

This section will seek evidence of the air quality challenges in the area and how your plans tackle air quality in the area. Areas should:

- Set out the air quality challenge in the area, such as whether the area is identified in the national assessment as exceeding statutory limits.
- Set out how the proposal would address the local air problem.
- Provide evidence of existing transport plans to tackle air quality and greenhouse gas emissions.

*Please limit your response to 500 words.*

**We will not accept bids covering places that cannot show that they have air quality issues.**

**Harrogate Borough Council** has declared four air quality management areas (AQMA's) for breaches of the annual mean objective for nitrogen dioxide (NO<sub>2</sub>). These were declared at Bond End, Knaresborough and Low and High Skellgate, Ripon in 2010, and York Place, Knaresborough and Wetherby Road, Harrogate in 2017. All four AQMA's are served by bus routes in this scheme where the vehicles will be operated by ZEBs, two in Knaresborough (the 1), one on Wetherby Road (the 7) and one in Ripon (the 36).

This proposal will deliver air quality benefits, benefiting the environment and the general health of the North Yorkshire population – in alignment with the [North Yorkshire Draft Air Quality Strategy](#) (2020).

## SECTION E: Value for Money

This section will seek evidence how you meet the Value for Money criteria, as set out in the guidance. Areas are also required to submit a separate value for money proforma that has been published alongside the application form. This spreadsheet requests basic information about the proposed investment to enable the value for money to be assessed using the Department's "**Greener bus model**".

The information in a completed pro forma, enables the model to estimate the greenhouse gases (GHG) emissions savings, other environmental & social impacts such as reduction in particulate matter (PM) and nitrogen oxide (NoX) emissions and savings & costs in the public and private sectors. By quantifying the key impacts of a proposed investment, this model helps provide decision-makers with as full a view as possible, about impacts on the environment, society, transport operators and the government finances.

The model provides a measure of the 'Value for Money', in the form of a benefit cost ratio (BCR) alongside other metrics such as the total estimated GHG savings and a cost effectiveness indicator estimating the net cost per tonne of carbon saved. These outputs will be used to score bids based on value for money.

The model does not capture every possible impact from a proposed investment, such as impacts from any resulting increases in patronage, improvement to the quality of journeys, or increased reliability. Where wider impacts (positive or negative) from investment are expected these should be stated, in the pro forma, as non-monetised impacts. These will be considered when making a value for money judgement, as set out in the Department value for money framework.

Competitiveness of the bid. Bus costs and delivery timetables were obtained directly from the vehicle manufacturer. Infrastructure costs were obtained by Transdev direct from Northern Powergrid and SSE. Transport has considerable experience of installing EV infrastructure in Harrogate.

Detail of buses to be replaced:

As a result of the Keighley intake:

- Direct replacement of 15 Euro 3 single deck Volvo buses – all modified with SCRT treatment for cascade to operations in Lancashire
- Ultimate withdrawal of 15 Euro 2 or Euro 3 single deck buses in Blackburn and Burnley delivering complementary air quality improvements there

As a result of the Idle intake

- Direct replacement of 11 Euro 5 Optare buses with SCRT treatment to CVRAS standard, and 2 Euro 6 Optare buses – these will cascade onto other services in West Yorkshire
- Ultimate replacement of 13 Euro 3 or Euro 4 single deckers in Bradford, Calderdale or Kirklees districts.

## SECTION F: Deliverability

This section will seek evidence of how the Zero Emission Bus Regional Area will be delivered, and demonstrate that plans are credible and deliverable.

### F1. Method of delivery and timescale for implementation

Establish the method of delivery, to cover:

- How you will work with local bus operators and other partners to deliver the proposal
- Any public consultation or third-party permission that will be required (e.g. for infrastructure)
- Explain any mitigations put in place for SMEs.
- Timescales for implementation, including when orders will be placed for zero emission buses and when supporting infrastructure will be delivered.
- Please demonstrate how your plans are credible and deliverable in the time proposed, and that any risks have been understood and mitigated

*Please limit your response to 1,000 words.*

The project will be overseen by North Yorkshire County Council, with Transdev as key delivery partner. Transdev has a proven track record of installing electric vehicle recharging infrastructure having installed chargers in Harrogate bus station. Preparation for this final stage of converting Transdev's Harrogate fleet to 100% ZEB has been part of their fleet replacement plan. Early engagement with Northern Powergrid and SSE Enterprise provides evidence of a planned approach to ZEB deployment.

A high-level project plan for the delivery and installation of the buses and associated recharging infrastructure will be prepared in conjunction with Transdev and a risk register for the project will also be prepared.

Public consultation is not required. Infrastructure will be installed at Transdev's Harrogate depot, which is owned and maintained by Transdev.

Timescales for implementation:

- 2022:
  - Infrastructure:
    - Point of connection for 2VA
    - Power cable at depot site 2MVA capacity
    - Vehicle chargers for 40 vehicles
    - Additional pantograph chargers at Harrogate Bus Station
  - Phase 1: 10 Alexander Dennis BYD Enviro 200 single deckers with oppcharge capability
- 2023:
  - Phase 2: 10 Alexander Dennis BYD Enviro 200 single deckers with oppcharge capability
- 2024:

- Phase 3: 19 Alexander Dennis BYD Enviro 400 double deckers with oppcharge capability

## F2. Monitoring and evaluation

Please provide indicative details of how monitoring and evaluation will be used to ensure learning about the project and inform future schemes. A detailed monitoring and evaluation plan is not required at this stage but should explain how the approach to delivering services will ensure that future learning is maximised.

We recognise the importance of effective monitoring and evaluation to capture learnings, informing the design and delivery of future schemes.

Monitoring and evaluation will capture:

1. Short-term impacts.
2. Longer-term impacts and outcomes.
3. Process learning, to capture lessons learned on how the project was managed and implemented.
4. Dissemination, through open sharing of data, insights and learning to inform policy and business cases elsewhere.

We will use modern techniques and build the evaluation into the pilot design to ensure we capture the triumphs and learning from favourable and less favourable outcomes from the process. A full plan will be developed in conjunction with Transdev including objectives for evaluation, recording of assumptions etc. An indicative plan is as follows:

1. Stage 1: A high-level desktop monitoring and evaluation exercise.
2. Stage 2: A comprehensive evaluation to update the Stage 1 findings with the addition of new data.
3. Stage 3: Post implementation evaluation together with lessons learnt.
3. Dissemination: We will actively disseminate findings to maximise learning for future schemes by publishing findings and participating in any relevant knowledge sharing initiatives

## F3. Procurement, State Aid and subsidy rules

Please confirm you have received advice on legal requirements in relation to procurement, subsidy control and state aid.

Please also demonstrate how you will abide by legal requirements in relation to procurement, subsidy control and state aid, including an explanation, together with supporting evidence, of how you will comply with the principles under the UK-EU Trade and Cooperation Agreement.

*Please limit your response to 500 words.*

Consideration has been given to how this proposals will deliver in line with subsidy control (or State Aid for aid in scope of the in Northern Ireland Protocol) as per UK Government guidance:

<https://www.gov.uk/government/publications/complying-with-the-uks-international-obligations-on-subsidy-control-guidance-for-public-authorities>

The proposal is a subsidy of more than 325,000 Special Drawing Rights (approx. £350,000) given to a single beneficiary over 3 years, but meets the principles of which such subsidies should meet.