

Scheme summary

Name of scheme:	Ultra-Low Emissions Bus (ULEB) Scheme
PMO scheme code:	DFT-ULEB-001
Lead organisation:	West Yorkshire Combined Authority
Senior responsible officer:	Helen Ellerton
Lead promoter contact:	Roseanna Brett-Davis
Case officer:	Ian McNichol
Applicable funding stream(s) – grant or loan:	Leeds Public Transport Investment Fund (LPTIP) and Department for Transport Ultra-Low Emissions Bus (ULEB) scheme.
Approvals to date:	Decision point 2 LPTIP (Investment Committee 16 th June 2017 and Combined Authority 29 th June 2017) DfT ULEB scheme bid (CA S151 Officer 9 th July 2018)
Forecasted full approval date (decision point 5):	January 2020
Forecasted completion date (decision point 6):	December 2020
Total scheme cost (£):	£2.7 million
Combined Authority funding (£):	£1.033 million (LPTIP)
Total other public sector investment (£):	£617,000 DfT ULEB scheme
Total other private sector investment (£):	£1.050 million (Stourton Park and Ride operator)
Is this a standalone project?	Yes
Is this a programme?	No
Is this project part of an agreed programme?	Yes, LPTIP (Bus Delivery package)

Current assurance process activity:



Scheme description:

This scheme will provide seven, electric, double-deck buses to be used on the route between the new Stourton Park and Ride site and Leeds Bus Station as well as the installation of two 100kw rapid charging units located at Leeds Bus Station.

The addition of the ultra-low emission double-deck buses will enhance the £23 million 'low-energy' Stourton Park and Ride site in south Leeds being delivered by Leeds City Council as part of the Connecting Leeds Programme. The buses will achieve a minimum 30% reduction in 'well-to-wheel' carbon dioxide emissions compared with Euro 6, with potential for greater efficiency by using 1MW of solar energy produced on-site at the park and ride.

Business case summary:

Strategic case

The key objectives of the scheme are to:

- Delivery of 7 ultra-low emission double-decker buses to serve the Stourton Park and Ride site to Leeds bus station route.
- Installation of 2 x 100kw rapid charging units at Leeds Bus Station
- Procurement of an operator for the park and ride bus service
- Removal of 344kg of Nitrogen Dioxide (NOx) emissions and 6kg of particulate matter (PM) over five years (in comparison to the operation of Euro 6 buses).
- Removal of 617 tonnes of carbon dioxide equivalent (CO2eq) greenhouse gas emissions over five years compared with diesel variants.

The scheme is in line with Priority 3 'Clean Energy and Environmental Resilience' of the Leeds City Region's Strategic Economic Plan. The West Yorkshire Transport Strategy, which supports delivery of the Strategic Economic Plan objectives, include a commitment to provide a comprehensive electric vehicle (EV) charging network and work with bus operators to move to a near-to-zero emissions bus fleet.

The adopted West Yorkshire Low Emission Strategy sets out recommendations to significantly improve local air quality including investment in bus retrofit and zero-emission technology to create cleaner, healthier environments.

Buses are currently responsible for 42% of nitrogen oxide (NOx) emissions within central Leeds. This investment in zero-emission buses is an important step in supporting Leeds to achieve nitrogen dioxide (NO2) compliance quickly and improving the quality of place within inner and central city areas. Leeds City Council has proposed a range of actions to address annual NO2 legal limit exceedances including a proposed 'Class B' Clean Air Zone for 2020 which encompasses inner Leeds including the

	Stourton Park and Ride bus route.
Commercial case	<p>Research by Public Health England undertaken as part of the West Yorkshire Low Emission Strategy has identified that almost 1,000 premature deaths each year are as a result of air pollution in the region, with a significant source being road transport that is accountable for over 60% of local roadside emissions. Local monitoring has identified localised NO2 exceedances on the route operated by the proposed ULEB funded Stourton park and ride service.</p> <p>The DEFRA 'UK Plan for Tackling Roadside Nitrogen Dioxide Concentrations' (July 2017) requires Leeds City Council to mitigate forecast NO2 exceedances by 2020. The seven EV double-deck buses are forecast to remove 344kg of NOx emissions and 6kg of PM from the local environment compared to the operation of Euro 6 diesel buses. This is critical for reducing emissions along the A61 Hunslet Road corridor to within legal limits.</p> <p>The OJEU procurement of an operator to run the Stourton park and ride service will ensure a competitive process that will deliver value for money in a fair and state-aid-compliant manner. The tender will specify vehicle criteria to ensure the Combined Authority delivers the ULEB scheme requirements.</p>
Economic case	<p>This scheme contributes to the Strategic Economic Plan priorities as follows:</p> <ul style="list-style-type: none"> • Growing Business – The use of ULEB from the park and ride site provides improved access to businesses in Leeds via a sustainable travel mode and helps reduce congestion in Leeds city centre. • Skilled People, Better Jobs – The park and ride will give wider access to the higher skilled jobs and educational opportunities in Leeds city centre and beyond. The use of ULEB will also give local companies the opportunity to gain experience using EV technology in a rapidly expanding market sector. • Clean Energy and Environmental Resilience –the scheme will make a significant contribution to efforts to reduce emissions on an important transport corridor and in Leeds city centre. Additionally, monitoring activities will allow performance data to be assessed informing future approaches in this field. • Infrastructure for Growth – the installation of charging infrastructure will support future adoption of electric buses and encourage uptake by addressing bus operator's anxiety about battery range. Increasing the proportion of electric buses operating in the region will help to address the need for air quality improvements and carbon emission reductions. <p>This bid will enhance the 'Connecting Leeds' programme which is improving public transport travel and complements delivery of the Combined Authority's £4.2 million Clean Bus Technology Fund through which retrofitted technology is removing NO2 emissions from buses serving areas of Leeds, including the city's worst exceedance areas.</p> <p>The rapid charging infrastructure will support wider operator electric bus fleet roll out, reducing the high level of operator capital investment required to support electric bus operation. Ultimately this investment will lead to zero emission operation for services accessing Leeds Bus Station where</p>

	<p>currently NO2 concentrations are significantly higher than limits. The scheme will also look to encourage wider uptake of ULEV buses by providing operational data for use in future project development.</p> <p>The Ultra-Low Emission Bus Scheme is a specific government fund to improve the uptake of ULEBs. Options regarding potential solutions are therefore limited, but the funding bid did include evaluation of the type of ULEB vehicle that would be required to serve the park and ride site, plus evaluation of the duty cycle and charging requirements. A comparison was carried out with the emissions performance of a conventional Euro 6 vehicle.</p>
Financial case	<p>The programme has been developed to ensure maximum value for money through engagement with different manufacturers to ensure costs are competitive and realistic.</p> <p>The totally scheme costs will be £2.7 million with the following funding breakdown:</p> <ul style="list-style-type: none"> • DfT Ultra-Low Emission Bus (ULEB) funding - The scheme is supported by a successful Ultra-Low Emission Bus (ULEB) Scheme bid, with a confirmed grant award of £617,000. This funding is capital support for vehicle and charging point delivery. The funding covers seven vehicles needed to serve the site, contributing towards technological cost difference of the electric buses compared to the diesel equivalent. • Connecting Leeds Programme (LPTIP) – Funding of £556,886 has been allocated from the Connecting Leeds Programme towards match funding the technological cost difference of the five buses in the ULEB bid and £380,000 towards the electric bus technological cost difference of the additional two vehicles needed to serve the site. This is alongside £96,000 towards charging units and installation costs. There is also a 30% risk allocation from this funding source as a contingency on charging unit costs. • Appointed Park and Ride Operator - The appointed operator will be required to provide match funding in the form of the baseline vehicle costs (i.e. diesel equivalent). This will be in the region of £1,050,000. <p>The successful ULEB bid also complements the £6.4 million application by Leeds City Council to the European Structural Investment Fund (ESIF) for solar photovoltaic (PV) canopy, energy storage and 150kW bus charging infrastructure works that will benefit EV bus operation at the park and ride site through use of 925kW of renewable energy.</p> <p>All project spend is anticipated to be in the 2020/21 financial year. Construction of the park and ride site is expected to be completed in December 2020, with the new buses and charging infrastructure in place.</p>
Management case	<p>The Combined Authority is the scheme promoter and will be leading on its overall project management. The Combined Authority will be delivery lead for OJEU procurement of a bus operator serving the park and ride site (including ‘passporting’ of ULEB bus grant), and delivery lead for charge point installation at Leeds Bus Station. All delivery related to the ‘Connecting Leeds’ programme, including ULEB, is subject to the established Combined Authority approval and assurance process under the adopted Assurance Framework.</p> <p>Leeds City Council is the delivery lead for the Connecting Leeds</p>

programme, including the Stourton park and ride site. Leeds City Council will be the financial accountable body and delivery lead for elements delivered by ESIF match funding including installation of PV solar canopy, energy storage unit and 150kW park and ride bus charge point.

The Connecting Leeds Programme has a programme board with joint SRO leadership from West Yorkshire Combined Authority and Leeds City Council. Below this there are several project delivery boards with representation from both authorities. ULEB delivery and finance would be managed through the Connecting Leeds Bus Infrastructure Board.

A full OJEU procurement process by the Combined Authority is scheduled for 2019, to contractually appoint a bus operator to run the Stourton park and ride service for a minimum five-year contract from site opening. The OJEU procurement process will be the mechanism to secure operator match and distribution of ULEB grant, ensuring state-aid compliance. The operator will be required to adhere to the DfT grant conditions and specification of this application. Procurement of the vehicles will be the responsibility of the bus operator. There is minimal risk associated with this approach as the Combined Authority has previously tendered park and ride operations successfully.