

Transport and the Environment Board

16 December 2021

ZEBRA Business Case

Is the paper exempt from the press and public?	No
Purpose of this report:	Discussion
Is this a Key Decision?	No
Has it been included on the Forward Plan?	Yes

Director Approving Submission of the Report:
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Executive Summary

SYMCA submitted an Expression of Interest (EoI) to DfT on 2 July 2021, as part of DfT's Zero Emission Bus Regional Area (ZEBRA) fund. The South Yorkshire proposal detailed plans for the first Zero Emission Bus (ZEB) roll out across the whole of South Yorkshire.

On 27 July, DfT notified SYMCA that we had been successful with our EoI and that our submission could progress to Phase 2 – Full Business Case (FBC). SYMCA is currently progressing the development of our FBC with a deadline for final submission to DfT of 31 January 2022.

What does this mean for businesses, people and places in South Yorkshire?

This project will provide a boost to the local economy, with the first phase of a transition to Zero Emission buses in South Yorkshire. The introduction of electric buses will contribute to improving local air quality across the region and as such, the project will deliver health benefits through the replacement of diesel buses with electric, improving the lives of commuters, residents and workers along the proposed corridors for the ZEBs. The proposal would deliver improvements across south Yorkshire with electric buses proposed for all four local authority areas. This will directly contribute to the aims of the Clean Air Zone (CAZ) in Sheffield and Air Quality Management Areas (AQMAs) across the region.

Recommendations

This paper recommends that TEB:

- Notes the latest ZEBRA proposals
- Endorses the continued development of the ZEBRA business case based on the information provided in this report
- Notes that approval to submit the final business case to DfT will be sought through the January 2022 Mayoral Combined Authority (MCA) meeting

Consideration by any other Board, Committee, Assurance or Advisory Panel

None

1. Background

- 1.1 SYMCA submitted an Expression of Interest EoI to DfT on the 2 July 2021, as part of the Zero Emission Bus Regional Area ZEBRA fund. The South Yorkshire proposal detailed plans for the first Zero Emission Bus (ZEB) roll out across the whole of South Yorkshire. More specifically, the electrification of Stagecoach's 22x (Rotherham to Barnsley) and 221 (Rotherham to Doncaster) bus services, along with a new electric city centre shuttle bus service in Sheffield.
- 1.2 On the 27 July, DfT notified SYMCA that we had been successful with our EoI and decided to take our submission through to Phase 2 – Full Business Case FBC. SYMCA is currently progressing the FBC with a deadline for final submission to DfT on the 31 January 2022.

2. Key Issues

- 2.1 The Government has made available up to £270 million of funding, as part of the ZEBRA scheme. The funding will support the Government's commitment to decarbonisation, help to deliver the 4,000 ZEBs the Government committed to in February 2020, as well as support partnership working between transport authorities, bus operators, and other key stakeholders.
- 2.2 Almost £71 million of the total funding pot has now been allocated, as part of the fast track process, leaving around £199m of funding available for allocation to the standard process, before the end of March 2022.
- 2.3 SYMCA is one of 17 local / Combined Authorities in the standard process that are bidding for a proportion of the £199m available funding.

Under the ZEBRA scheme, DfT will:

- Contribute up to 75% of the **cost difference** between a ZEB and a standard conventional diesel bus equivalent of the same total passenger capacity.
- Contribute up to 75% of the **capital expenditure** incurred for infrastructure as a result of its purchase and installation.

The ZEBRA fund will therefore provide a contribution to the total capital costs involved in rolling out an electric bus project. The project therefore won't provide

the full capital costs of our electric bus proposal and won't contribute any revenue costs to the scheme. SYMCA will need to cover costs such as marketing as well as the scheme monitoring requirements from DfT.

- 2.4 As part of the EoI process, all operators were asked whether they wanted to collaborate with SYMCA on a ZEBRA proposal for our region. From these discussions it was clear that only Stagecoach were prepared to work alongside the MCA on the development of a ZEBRA application.
- 2.5 A workshop was held with all four local authorities and Stagecoach, to discuss options for the ZEB routes for the South Yorkshire proposal. The preferred scheme to emerge from these discussions was to electrify Stagecoach's 221 and 22x bus services. We are working up options with Stagecoach in terms of the purchase of the vehicles and infrastructure. These options could include Stagecoach buying the vehicles with a subsidy from the MCA to cover the extra net cost of purchasing electric buses or the MCA purchasing the vehicles and leasing them to Stagecoach at a rate that reflects the market rate for non-electric vehicles. The most likely and simplest option is Stagecoach purchasing, owning and operating the electric buses. With this option there is a likely requirement for an MCA contribution of 25% of the electric bus premium. This is subject to commercial negotiation with Stagecoach and is subject to compliance with state aid rules.
- 2.6 In addition to Stagecoach's 221 and 22x services (which covers Rotherham, Barnsley and Doncaster) the MCA are working up a ZEBRA proposal in Sheffield. The Sheffield project involves the introduction of a new electric city centre shuttle bus, which would support the imminent creation of the city centre Clean Air Zone (CAZ). The proposed Sheffield City Centre shuttle bus service will require up to £400k per annum revenue support and Sheffield City Council (SCC) is currently working to identify a future source of this funding.
- 2.7 In total, 23 electric single decker buses are proposed for the 221 and 22x routes, all of which will run out of the Rawmarsh depot. For the Sheffield project, a total of 4 electric single decker buses are proposed to cover the operation of the electric city centre shuttle bus service. For the 22x and 221 services, Stagecoach would cover the electricity costs to run the electric buses. For the city centre shuttle bus service, the electricity costs would be covered by the appointed bus operator.

SYMCA will bid for up to £6.80m of DfT ZEBRA funding. A further £6.95m of funding is provisionally allocated from the City Regional Sustainable Transport Settlement (CRSTS). Currently the total project cost, including inflation, is therefore £13.75m. Project costs will be refined through a market engagement process before final business case submission.

3. Options Considered and Recommended Proposal

3.1 Option 1

The Do Minimum option – deciding not to proceed with developing and submitting the ZEBRA business case on the 31 January 2022

- 3.2 This option does not align with the SYMCA's CRSTS and Bus Service Improvement Plan (BSIP) submissions, which both include the delivery of a zero-emission bus project. This decision would also go against the findings of the South Yorkshire bus review (finding 3 – climate change) which stated that buses needed to play a bigger role in reducing transport emissions and tackling climate change.
- 3.3 This option does not support the SYMCA in meeting its Energy Strategy target of a fully zero emission public transport fleet by 2035. It will also become harder to meet the Transport Strategy target of a fully zero emission transport fleet by 2040.

3.4 **Option 1 Risks and Mitigations**

There is a risk we would be unable to meet our zero emission and net zero targets. We would also be reliant upon operators investing in ZEBs as per their own renewal programmes. To mitigate this risk, the SYMCA could help speed up the transition to zero emission buses by using capital funding such as CRSTS to help fund or part fund the electric buses and charging infrastructure. This approach would be less cost effective than using our own funding sources in combination with a specific fund such as ZEBRA.

3.5 **Option 2 – Endorse the development of the ZEBRA business case, and note that approval to submit the FBC will be requested through the MCA meeting in January 2022.**

This option supports the continued development of the business case based on the information provided in this report. It is understood that approval will be needed through the MCA meeting in January 2022 to submit the business case on the 31 January 2022.

3.8 **Option 2 Risks and Mitigations**

There is a risk presented by the inclusion of the city centre shuttle bus project within the ZEBRA proposal, as revenue support would need to be sought and guaranteed for a minimum of 5 years. There is also a risk that if our bid to DfT is unsuccessful, we will struggle to deliver against our targets for a zero-emission bus fleet set out in our CRSTS bid and BSIP.

To mitigate these risks, Work is ongoing regarding the commercial model for bus and charger purchasing and ownership. Discussions have been held with both MCA legal and finance, to discuss the proposed approach to the ZEBRA scheme. In addition, external legal advice has been obtained to ensure compliance with state aid / bus subsidy rules.

Options for a FBC submission that allows flexibility in the event revenue funding cannot be secured are being discussed with DfT. SCC is currently investigating sources of revenue funding for the shuttle bus project.

If we are unsuccessful with our ZEBRA bid, the work in progressing the business case will not be wasted. We will be in a far better position to move quickly when another funding opportunity arises, with a FBC ready to be refined as appropriate.

There is a risk that we might not be able to agree on the commercial model with regards to Stagecoach's 22x and 221 services. The most likely commercial model

is Stagecoach buying the buses, with contributions from ZEBRA (DfT) and the MCA. However, there is a fallback leasing commercial model if agreement can't be reached on the operator purchasing option.

3.9 **Recommended Option**

Option 2 – endorse the continued development of the business case and note that approval to submit the final business case will be requested through the MCA meeting in January 2022.

4. **Consultation on Proposal**

4.1 Consultation has taken place with:

- South Yorkshire bus operators;
- The four local authorities in South Yorkshire;

5. **Timetable and Accountability for Implementing this Decision**

5.1 The proposed timetable for the ZEBRA scheme is as follows:

1. Working draft FBC issued to DfT on 19 Nov 2021
2. TEB to discuss the ZEBRA proposal - Dec 2021
3. Supplier engagement (bus / charger manufacturers) – Dec 2021
4. Updated draft FBC issued to DfT - 10 Jan 2021
5. Decision by the MCA to submit the FBC to DfT – 24 Jan 2022.
- 6. FBC (final version) submitted to DfT on 31st Jan 2022**
7. DfT to review submissions during February 2022
8. DfT to announce ZEBRA winners during March 2022
9. Successful authorities to commence delivery of schemes during April 2022
10. Full scheme delivery within two years of funding award (by March/April 2024).

Note: The current programme is for the South Yorkshire scheme, subject to a successful FBC bid, is delivery by around October 2023.

6. **Financial and Procurement Implications and Advice**

6.1 **Procurement:**

The authority has a duty to ensure that all of its procurement is based on value for money principles, achieving the optimum mix of quality and effectiveness for the least outlay. In addition to this duty and the overarching Public Contracting Regulations 2015, relating to transparency and equality of treatment, the value of the services in scope is likely to be above the current WTO GPA threshold and so would require a number of specific procedural steps to be followed. In undertaking a compliant tender process the authority will ensure compliance with the necessary legal and regulatory provisions relating to procurement, whilst encouraging innovation and competition from the market and allowing the authority to choose the optimum solution for requirements based on a balance of quality and price. The authority is committed to ensuring a high standard of ethical practice across our supply chain.

6.2 Finance:

Overall Scheme Cost Summary

The ZEBRA scheme costs will be finalised for the January DfT submission, based on market engagement with suppliers, which is taking place during December 2021, and a decision on the commercial model for the 221/22x services – whether Stagecoach buys and owns the buses, or whether the MCA buys the buses and leases them to Stagecoach. If SYMCA is successful with the ZEBRA bid, we would need to accept financial responsibility for delivering ZEBRA, noting that any risk of increased costs will not be met by DfT.

Whichever commercial model is progressed by SYMCA with Stagecoach, the DfT contribution is the same. DfT will fund 75% of the infrastructure cost and 75% of the premium for the electric vehicles. The remaining costs will be covered by SYMCA and Stagecoach. If Stagecoach purchase the vehicles the MCA is likely to be asked to fund 25% of the premium for these vehicles. In this option, Stagecoach would fund 25% of their depot charging infrastructure costs with DfT funding the remaining 75%. In the alternative option of the MCA owning the vehicles, SYMCA would fund the diesel equivalent bus cost, plus the 25% of the vehicle premium, plus 25% of the depot infrastructure costs, with DfT providing 25% of the vehicle premium and 75% of depot infrastructure costs. With this option Stagecoach would lease the vehicles generating a financial return to the MCA. At this stage the likely return is not known.

Other infrastructure costs for the MCA include pantograph chargers at Rotherham Interchange. In either commercial model, DfT would fund 75% of these costs and the MCA would fund the remaining 25%.

The MCA would also need to cover the costs of the diesel equivalent plus 25% of the electric bus premium for the four city centre shuttle buses, which it would own. The MCA would fund 25% of the infrastructure costs at Sheffield Interchange, with DfT funding the remaining 75%.

To summarise, based on the costs included in the Expression of Interest (to be refined during the December market engagement), DfT will fund up to £6.8m and the MCA would fund up to £6.95m.

Financial risk is being managed through:

- Early market engagement to obtain robust quotations for vehicles and infrastructure products [December 2021].
- Quotations from the Distribution Network Operator (DNO) for required works to upgrade the power network.
- Application of a contingency allowance through an Optimism Bias rate that is aligned with WebTAG.

If the MCA is successful with the ZEBRA bid, we would need to accept financial responsibility for delivering ZEBRA and accept that cost increases will not be met by an increased grant from DfT.

Revenue Costs / Savings

For the 221 and 22x services, Stagecoach would cover the electricity costs to run the electric buses. For the city centre shuttle bus service, the electricity cost would be covered by the appointed operator of the tendered service.

All electric bus services generate an annual saving in vehicle operating costs compared to the diesel operation. For the 221 and 22x services, this saving will ensure long term financial viability. The city centre shuttle bus would have a saving in operating costs compared to the diesel operation; however, this service is not currently in operation and therefore long term financial viability of the service requires committed revenue funding to fund the maintenance and operating costs of the new service, as well as costs to run the service e.g. operator driver costs. It is estimated that the city centre shuttle bus service would require around £400,000 per year of revenue support, over a minimum of five years, to cover the cost of an operator to run the electric city centre shuttle bus service. This cost would vary depending on whether the public need to pay for using the service.

SCC is working to find revenue funding, over a minimum of five years.

Capital Implications on SYMCA

The SYMCA match funding (£6.95m) is proposed to be funded through the CRSTS settlement. Finalisation of that settlement is not expected until the new year. . This contribution value will be reduced significantly if we proceed with the commercial option of Stagecoach purchasing and owning the electric buses through the ZEBRA scheme, however lease income will be foregone. In the option of Stagecoach owning the vehicles on the 221/22x, there would still need to be a contribution by the MCA of 25% of the premium for the electric vehicles. MCA funding would also need to cover:

- 25% of the infrastructure costs at Rotherham Interchange (pantograph chargers for the 221/22x)
- 25% of the infrastructure costs at Sheffield Interchange (charging infrastructure for the city centre shuttle buses)
- The city centre shuttle buses would be owned by the MCA. As such, MCA costs would cover the diesel equivalent plus 25% of the premium for these vehicles.

Options around 221/22x Commercial Model

Discussions are ongoing with Stagecoach with regards to the commercial model for the 221/221 services. SYMCA could purchase and own the electric buses and lease them to Stagecoach on a no better no worse lease rate agreement. The more likely option is that Stagecoach will purchase the vehicles. This approach is Stagecoach's preferred commercial model and the most likely way forward for ZEBRA. The implications of the Stagecoach purchasing the vehicles through the ZEBRA fund are as follows:

- No revenue income or risk for SYMCA, which would be the case through a lease agreement option with Stagecoach. The MCA's assumption during development of the expression of interest was for the operator to buy the electric buses. The leasing option was a fall-back position during following initial discussions where all operators were expressing uncertainty over their long term capital investment plans in South Yorkshire.

- Lower SYMCA match funding capital investment (compared to the purchase and leasing option), with private contributions being made from Stagecoach (buses and infrastructure).

7. Legal Implications and Advice

- 7.1 A final subsidy control opinion will be taken for the scheme that is submitted in January 2022 in order to confirm compliance. If the funding bid is successful appropriate legal agreements will be entered into with the operators and other suppliers.

8. Human Resources Implications and Advice

- 8.1 It is not considered that the project will have implications on HR.

9. Equality and Diversity Implications and Advice

- 9.1 An Equality Impact Assessment (EIA) of the scheme is being undertaken by Arup, which will form part of the FBC.

10. Climate Change Implications and Advice

- 10.1 The introduction of 27 ZEBs will help with the transition to a zero-carbon economy. The ZEBRA proposals would lead to an annual reduction in CO2 emissions by around 1070 tonnes on the 221 bus service, and by around 1000 tonnes on the 22x service. This is through the replacement of diesel buses with electric. The electric city centre shuttle bus won't be replacing existing diesel buses, so there can't be a similar direct comparison.

11. Information and Communication Technology Implications and Advice

- 11.1 The roll out of the electric buses and charging infrastructure would necessitate a back-office system to manage the electricity usage of the electric buses and charging infrastructure. The costs associated with the back office system would be incorporated into the ZEBRA submission.

There will be a requirement for monitoring data to be provided to DfT every quarter for a five-year period. Such data will include aspects such as average daily energy consumption and average daily mileage, battery information etc. Most of the vehicle-based data can be collected automatically via telematics, which would form part of the bus specification in the procurement process.

12. Communications and Marketing Implications and Advice

- 12.1 The ZEBRA proposals provide positive opportunities to highlight the difference the MCA's investments will make to people and passengers, businesses and places across South Yorkshire and how Members are taking action to support the region to meet its Energy Strategy target of a fully zero emission public transport fleet by 2035.

At present, there is no funding identified to deliver the marketing and communications plan which has been developed for the Outline Business Case

(OBC). An 'option B' approach has been developed to identify suggested activity that can be reasonably covered from the Marketing and Communications Team's Business as Usual (BAU) budget and existing resource.

Both options will need further discussion with Stagecoach to understand their full marketing and communications plans around this project. If we are successful in securing funding to deliver ZEBRA, we need to ensure either:

- Funding is identified by the project team to deliver the 'Option A' marketing and communications plan, or
- Budget and resource allocation is provisioned in the FY23 / 24 business plan to cover the 'Option B' marketing and communications plan.

It should also be noted that this work, should our bid be successful, is currently scheduled to take place at the same time as significant planned, concurrent marketing and communications activity. There is likely to be pressure on Marketing and Communications Team resource during this time, and therefore allocating adequate resources is paramount.

List of Appendices Included

None

Background Papers

None