

SUMMARY CASE

31. Summary of Appraised Options

Introduction

- 31.1. This LTP Major Scheme Business Case has set out the justification of the use of public funding for the implementation of the proposed Leeds New Generation Transport trolleybus network. It has also set out similar assessments for the Next Best (hybrid diesel-electric vehicle) and Lower Cost (upgraded diesel bus) alternative options and demonstrated that neither could deliver an equivalent or proportionally better outcome for less capital investment.
- 31.2. The options considered were selected from a long list of corridor, mode and alignment options using a structured filtering process. The modes considered included different technologies and concluded that only trolleybus and high specification bus were appropriate for, and affordable within the Leeds context. Trolleybus offered a much stronger match with the Promoters' objectives and was selected as the Preferred Option. The required Next Best and Lower Cost Alternatives were based on high specification bus vehicles.
- 31.3. All options were developed to address the problems and opportunities identified in the three corridors where a 'rapid transit' solution was demonstrated to be appropriate. The three options taken through full appraisal in this business case were specified with the intention of delivering a significant contribution towards meeting the scheme objectives (Table 3.7). All three have been demonstrated to be in line with wider policy strategy and objectives at a local (Section 8) and regional (Section 9) level.

Preferred Scheme

- 31.4. The Preferred Option is a 14 km trolleybus network with radial lines to Stourton (South Line), St James's Hospital (East Line) and Bodington (North Line), each of which connects to a city centre loop (City Hub). The Preferred Option is described in more detail in Section 6.
- 31.5. To ensure that the scheme as delivered meets the Promoters' objectives in the way intended and in order that the economic benefits of the scheme are delivered to the extent that underpins the funding case, the Promoters have identified the need to be able to limit the use of the Preferred Option's infrastructure, to specified NGT vehicles. This is to allow journey time and reliability benefits to be delivered as intended. Furthermore, the benefit case is maximised by (and presumes), a step change in the quality of public transport in the corridors served by NGT.
- 31.6. An Order under the Transport & Works Act 1992 (TWA0) is the preferred approach for the trolleybus option since it offers a single application process

for all the powers which the Promoters will need to construct the system. It also offers the option for the Promoters to take powers to let an operating concession.

- 31.7. Funding for the £276.4 million (outturn) project has been prioritised within the most recent Regional Funding Allocation (90%) with the balance being funded locally by the Promoters, particularly through the transfer of Council land to the project.
- 31.8. The proposals put forward have a high ‘Value for Money’ case; the economic appraisal of the scheme demonstrates a robust Benefit to Cost ratio of 2.6:1 and a Net Present Value of £341 million. While the proposals will have some adverse impacts on Heritage of Historic Resources and Biodiversity, these result from specific effects on short sections of the scheme; in the Promoters’ view the other benefits of the scheme more than outweigh these impacts.
- 31.9. The proposals for management and governance of the project are well developed and there is a clear and detailed implementation programme. The project plan is driving the need to obtain Programme Entry at this time, in order to allow sufficient time to gain powers and to take advantage of the allocation of regional funding.
- 31.10. Key stakeholders have been consulted and are being involved in the project. Two phases of public consultation have been completed and have demonstrated strong support for the proposals.
- 31.11. Overall the proposed trolleybus network is a robust project at an advanced level of development and the Promoters are in a position to advance the project to the next stage, through making a TWAO application, immediately on gaining Programme Entry.

Next Best Alternative

- 31.12. The Next Best Alternative comprises leased high specification diesel-electric hybrid articulated buses running across the same three corridors as the Preferred Option, but with sections of off-highway busway removed from the specification. Upgraded bus routes would provide the service on the north and east routes and a tendered Park & Ride service would be procured on the south route.
- 31.13. Unlike trolleybuses, the high specification bus mode considered is not specifically named in the Transport and Works Act. A Transport and Works Act Order is only available for guided bus-based projects and only then for the guided section and associated ancillary works. If the technology is not trolleybus then the maximum degree of possible system segregation (and hence also the maximum degree to which the system could be guided) is unlikely to be sufficient to warrant a whole system TWAO.

- 31.14. The infrastructure for a hybrid/diesel vehicle option can only be implemented using a bundle of processes. The Promoters would have to proceed with utilising planning and Compulsory Purchase Order (CPO) powers to build the system, and then procure operations at a later date. The planning and CPO powers may constrain the procurement approach which could be put in place.
- 31.15. The Promoters have identified that a QPS is the only viable procurement option at this time. Under a QPS the use of new infrastructure, including off-highway busways would be available to any operator that met the defined quality threshold. The Promoters could not set the quality threshold for services so high that this introduced a disproportionate barrier to entry into the market for new operators, or otherwise disproportionately affected existing competition. The Promoters therefore have had to plan on the basis that the infrastructure would be available to a volume of vehicles akin to the current flows. This means that the Promoters could not provide the same level of priority at junctions as they can for the Preferred Option.
- 31.16. Although the cheaper (£129.6 million outturn) proposals put forward do perform comparably well against many of Central Government’s NATA objectives, the economic appraisal of the scheme results in a negative Net Present Value and would not be justified as a use of public sector funding.
- 31.17. Delivery proposals for the Next Best Alternative would broadly follow the same pattern developed for the preferred NGT scheme. However the proposals do not have the same level of stakeholder support as it makes a lesser contribution to Scheme Objectives and satisfies less well the public’s aspirations for a new public transport mode highlighted through the public consultation undertaken for the Preferred Option.

Lower Cost Alternative

- 31.18. The Lower Cost Alternative comprises bus priority measures implemented across the same three corridors as the Preferred Option, served by upgraded existing diesel bus services and a tendered Park & Ride service procured for the south route. These measures are largely on-highway. The procurement constraints for the Lower Cost Alternative are identical to those for the Next Best Alternative.
- 31.19. The proposals are estimated to cost £47.0 million (outturn) and although they result in some benefit against Central Government Objectives, they have a Benefit to Cost ratio of less than 1:1. They would therefore not be justified as an acceptable use of public sector funding. Delivery proposals would be broadly the same as for the Next Best Alternative. Stakeholder and public support for this option is limited.