COMMERCIAL CASE

New Generation Transport

28. Procurement Strategy

Introduction

28.1. The purpose of the Commercial Case is to demonstrate a sound Procurement Strategy and a rigorous approach to any private sector involvement.

28.2. A key aspect of the work leading up to the presentation of this MSBC has been the appraisal of options for the method of procurement of NGT. The choice of procurement option could materially influence the ability of the Promoters to deliver the project in a way that meets the strategic objectives of the project whilst securing value for money. These procurement options could be used either on their own, or in combination, in order to most effectively deliver the various aspects of NGT as a trolleybus scheme (e.g. infrastructure, vehicles and operations).

28.3. In the UK, trolleybus vehicles were last procured over forty years ago. Since that time, the regulatory structure for the procurement of transport projects has changed significantly. There are therefore no relevant precedents that can be used when determining the most appropriate procurement route.

28.4. Trolleybuses are a distinct mode from bus-based systems and consequently they have a distinct set of design, maintenance and operating requirements. The OHLE for instance requires particular attention. Unlike many light rail systems, NGT is not anticipated to run predominantly on its own segregated track/road. Whilst NGT will be separated from general traffic for around two-thirds of the network (in a combination of NGT-only and shared bus/NGT lanes), in some places this will involve using the existing highway. As a result, the Promoters would not be able to fully control the entire infrastructure that NGT requires, in the way that they could for a light rail system (due to the interface with the general highway). For the same reasons, the maintenance of the infrastructure is considerably different from a light rail scheme.

28.5. The available legislative frameworks for procuring schemes with public service vehicles affect the range of procurement options for the operation of NGT. Due to the nature of the vehicles, the procurement options for a trolleybus system can potentially make use of a range of legislative frameworks that are available for use with road vehicles such as buses. The combination of powers available to the Promoters and the proposed operating strategy, have a bearing on what options are available for procuring other key elements (e.g. infrastructure) of the NGT scheme.

28.6. Some elements of the Procurement Strategy will be refined following the more detailed development of designs and when there will be an opportunity to market test contractual structures, to ascertain which deliver best value.

Approach

28.7. The following approach has been adopted to assess the preferred procurement route:

- Procurement Objectives agreed by the NGT Project Board;
- Identification of the legislative frameworks and procurement options that are potentially available for delivering NGT;
- Analysis and appraisal of these options to determine how they would meet the Procurement Objectives; and
- Selection of preferred legislative framework and procurement options and development of these to ensure that they are best able to deliver the Procurement Objectives for NGT.

Procurement Objectives

28.8. To provide a basis for the appraisal of procurement options, six key Procurement Objectives have been identified for NGT:

Maximise the deliverability of the procurement approach

There are significant commercial and legal constraints (including competition, state aid and procurement) that need to be considered when developing the procurement strategy for NGT. The procurement approach should take these into account and maximise the likelihood of the timely and affordable delivery of the scheme.

Secure a level of investment that optimises the fulfilment of the overall NGT Scheme Objectives

The procurement approach should seek to optimise the level of investment in NGT whether from public or private sources.

Ensure the long-term affordability of NGT for the Promoters

Revenues from passengers and any grants/subsidies from Promoters should be able to pay for all the operating and maintenance costs of NGT over the life of the scheme.

Maximise the Value for Money of NGT within the affordability envelope

The procurement should be structured so as to provide best value to the Promoters.

Lock-in delivery of the NGT Scheme Benefits

The procurement approach should ensure the envisaged benefits of NGT are secured and delivered for all stakeholders over the life of the scheme.

Ensure the scalability of NGT

Subject to affordability and value for money, the procurement approach should preserve flexibility for NGT to be extended (or reduced) as the Promoters may require in due course.

28.9. These six objectives have been used as the basis against which to appraise the advantages and disadvantages of the different procurement options.

Legislative Frameworks and Procurement Options

28.10. The legislative framework selected for delivering the NGT system impacts on all aspects of the procurement of the system and in particular the operational solution within which the services will be delivered. The available legislative frameworks were therefore analysed in order to inform on the assessment of the procurement options.

28.11. There are a number of frameworks that are available for bus-based systems (including trolleybus vehicles). The legislative frameworks reviewed are:

- Voluntary Partnership Agreement (VPA);
- Statutory Quality Partnership Scheme (QPS);
- Quality Contract Scheme (QC); and
- Transport & Works Act Order (TWAO).

28.12. These frameworks can either be used on their own or in combination. For example, a QPS or QC could be used in conjunction with a TWAO authorising the infrastructure, and overall scheme delivery could be enhanced by the use of a VPA with operators. A summary of these frameworks and their appraisal is provided in Appendix 55. A more detailed description of the legislative options, their benefits and their limitations are provided as Appendix 15.

Procurement Options

28.13. For purposes of the procurement options appraisal, the requirements of NGT were split into the following three key elements:

- Infrastructure;
- Vehicles; and
- Operations.

28.14. A long list of procurement options was initially identified. A high level appraisal was then carried out to produce a shortlist of options for more detailed appraisal. The shortlisted procurement options are shown below for each key element. A more detailed summary is provided in Appendix 15.

Infrastructure

28.15. For purposes of the Procurement Strategy, the requisite infrastructure assets were considered as follows:

- Assets for which the Promoters currently have responsibility and which are on the highways (or directly related): e.g. road surface, kerbside guidance, shelters, lighting, signalling;
- Assets that the Promoters have responsibility for, but which are not directly related to highways: e.g. Park & Ride sites;
- Assets that the Promoters have no responsibility for, which are not related to highways but are necessary for NGT operations: e.g. Depot and control room; and
- Assets that the Promoters have no responsibility for, but would be linked to the highways: e.g. OHLE.

28.16. The shortlisted procurement options that were assessed in detail are:

- Separate Design, Build and Maintenance Contracts;
- Build (B) or Design & Build (D&B) Contract with separate Maintenance Contract; and
- Design, Build and Maintain (DBM) Contract.

Vehicles

28.17. There are a number of options available for the procurement of trolleybus vehicles, which could be procured either by the Promoters or by the operator(s), as a requirement of their operating agreement (or otherwise). The flexibility and options would be compatible with the TWAO method of authorising the system.

28.18. For the detailed appraisal, the following options were considered for procuring vehicles, assuming that these are to be procured by the Promoters:

- Build (B) or Design and Build (D&B) with separate Maintenance Contract; and
- Design, Build and Maintain (DBM).

Operations

28.19. A number of operational scenarios were considered. Where the operation of the system was to be contractually let, rather than regulated through a QPS, the following two procurement options were considered:

- Operations Contract; and
- Operations and Maintenance (O&M) Contract.

Appraisal

28.20. In order to assess the merits of the legislative frameworks and the three components of the NGT system (infrastructure, vehicles and operations), an appraisal was undertaken for each identified procurement option to assess their advantages and disadvantages. The detailed appraisal for each of these is shown in Appendix 15.

Preferred Procurement Route and Contract Structures

28.21. Following a high-level appraisal based on current understanding and assumptions of NGT, it has been determined that a conventional procurement of most parts of NGT will offer better value for money and deliverability than combining these into a standard PFI. That said, PFI could prove to be the most appropriate approach for some elements of the NGT scheme (e.g. vehicles, depot, other) if market conditions change. (Further detail on the qualitative assessment of PFI can be found in Appendix 56).

28.22. The preferred procurement route for NGT is for a TWAO to be used to gain the necessary powers to operate the scheme and to enable an operating concession to be let. The Promoters do however intend to further test the suitability of this model (and alternative approaches) as the scheme design is developed and following private sector feedback.

28.23. Further details regarding the preferred approach are set out below:

Legislative Framework: Transport and Works Act Order (TWAO)

28.24. Following the detailed consideration of potential legislative frameworks, TWAO powers appear to offer the process best suited to the promotion of a trolleybus based NGT scheme. Used alone or in combination with other legal powers, the TWAO would provide the Promoters with the powers to build and operate NGT.

28.25. Within this legislative framework the preferred procurement contracts would be either Build (B) or Design & Build (D&B) for the majority of infrastructure assets, and D&B contract(s) for the vehicles. The TWAO would give the Promoters the powers to operate the system or allow others to operate the system on their behalf. Whilst a Voluntary Agreement (VA), VPA or QPS could be used to control operation of the system built using a TWAO, the constraints identified for these procurement routes would typically still apply. As such there are considerable benefits in the operations being procured through a tendered Operating and Maintenance (O&M) concession.

28.26. TWAO is expected to give the Promoters the greatest potential to ensure that the necessary inputs to deliver NGT are provided and to ultimately ensure that expected scheme benefits are realised. For example, under powers achieved through TWAO, the Promoters would have greater scope to

influence the output specification for the vehicles and infrastructure, priority given, and road/infrastructure use, than through any other deliverable options.

28.27. Using a TWAO, the Promoters are also potentially better able to influence the key outputs during operations (e.g. by being able to specify the service requirements such as reliability, accessibility and integration of NGT and through greater enforcement powers) than with other deliverable options.

28.28. The ability to ensure that the inputs and the output requirements for NGT meet the Promoters' expectations means that TWAO powers maximise the potential for NGT to deliver the overall scheme objectives, as well as maximising the deliverability of the procurement approach itself. NGT authorised through TWAO also allows for NGT to be secured over a much longer period.

28.29. This has a direct impact on stakeholder support for NGT up front as well as contributing to the sustainability of NGT over the long term.

Infrastructure: Design and Build (D&B) with Maintenance (M) retained in-house

28.30. As outlined above, the NGT infrastructure assets have been grouped into four categories. These are discussed in more detail below:

Assets that Promoters currently have responsibility for and are on the highways (or directly related)

28.31. These assets include:

- Road surface;
- Kerb guidance;
- Shelters;
- Lighting; and
- Signalling.

28.32. The above infrastructure assets would be procured under Build (B) or D&B contracts. Most of the civil works and subsequent maintenance are not complex and so should be deliverable under this approach. D&B contracts would also provide the Promoters with sufficient confidence that outputs will be provided to the appropriate specification to meet the scheme objectives.

28.33. For the most part, infrastructure maintenance would be included in existing Promoters' contracts, such as existing highway maintenance arrangements. This would avoid a third party NGT contractor establishing maintenance regimes duplicating those that the Promoters already have in place and reduce interface risks between NGT contractors and existing Promoter contractors. This should result in lower overall maintenance costs (as

efficiencies can be achieved by including small and sometimes infrequent maintenance with much larger existing or future maintenance regimes, and by avoiding risk premium being priced-in by contractors for estimating upfront usage for which it has less control and/or visibility).

Assets that Promoters have responsibility for but are not directly related to highways:

28.34. These assets include:

- Park & Ride sites.

28.35. A D&B contract would be used in combination with an O&M contract for the Park & Ride site; or the operations of the site could be sub-contracted out whilst the maintenance could be incorporated into existing contracts. The Promoters have experience of managing both types of contracts.

28.36. If Park & Ride sites were transferred to the Operator(s), it is likely that operation and maintenance of these could be subcontracted, since management of such sites is not necessarily core business for an Operator. The Operator(s) would price in administration fees to oversee such contract(s).

28.37. The Promoters already have responsibility for a number of Park & Ride sites and are well placed to take over responsibilities for NGT sites as well. By retaining control of sites, the Promoters can ensure pricing and usage of them meets the scheme objectives and delivers optimum value for money

Assets that Promoters have no responsibility for, which are not related to highways, but are necessary for NGT operations:

28.38. These assets are as follows:

- Depot; and
- Control Room.

28.39. The depot and control room are intrinsically linked to vehicles and services. If the Promoters were to own the vehicles (as proposed under the Preferred Option) they would have a number of procurement options available. These include a DBM contract or a D&B contract with the maintenance separated out. The maintenance could be included with an operating contract.

28.40. If vehicles are not owned by the Promoters, it may not prove to be best value for the Promoters to own the depot or the control room and therefore a DBM could sit with a third party.

28.41. The depot is a critical element for the successful operation of the NGT system. The options appraisal for the depot is ongoing and will be determined after market testing is conducted to determine what option delivers best value.

Assets that Promoters have no responsibility for but would be linked to highways:

28.42. The key asset involved is as follows:

- Overhead Electrical Wires (OHLE)

28.43. Since this is an infrastructure asset for which the Promoters have neither responsibility nor direct experience, a D&B contract could be used to deliver the infrastructure and the maintenance could be transferred to the Operator through an O&M contract. Alternatively it could also be transferred to a specialist contractor, either as a DBM contract or through separate D&B and M contracts.

28.44. The OHLE is a critical element of the NGT system. The options appraisal is ongoing and will be determined after detailed designs are available. Market testing is conducted to determine which option delivers best value.

Vehicles: Design and Build (D&B) with separate Maintenance (M) or Design, Build and Maintain (DBM)

28.45. The vehicles would be procured through a D&B or a DBM contract. In both cases, the Promoters could specify the characteristics of the vehicle that meet NGT's requirements.

28.46. Like the OHLE, the Promoters currently do not maintain vehicles. Therefore, the maintenance of NGT vehicles would either be combined with the operating contract or have a separate specialist contract (if the maintenance is not part of the original contract). Operators are often experienced in managing vehicle maintenance. Manufacturers also have experience in entering DBM contracts and providing specialist maintenance support.

28.47. Key issues such as Intellectual Property Rights in relation to securing spares supply over the long term will have an impact on the overall assessment. Any initial maintenance contract will need to be structured to ensure that there is an open and competitive environment during the re-tendering of any contract (i.e. the existing contract will need to ensure it does not inadvertently prejudice in favour of an operator or incumbent).

28.48. It is also intended to undertake market testing to determine which procurement route delivers best value, once designs for NGT are sufficiently advanced.

Operations: Operations and Maintenance (O&M) Contract

28.49. The TWAO option would give the Promoters the necessary powers to operate the system. Operation could potentially be procured through a VPA, QC or a QPS covering the system. However, based on current assumptions,

there are considerable benefits in the operations being procured through a tendered Operating and Maintenance (O&M) contract.

28.50. An O&M contract would be awarded for the operation of the NGT system and for the maintenance of certain assets such as the vehicles, the depot and possibly the OHLE. The exact level of maintenance responsibility would depend on the risk and value assessment for each class of asset when further analysis is completed.

28.51. The O&M contract would have a number of performance measures (such as reliability and punctuality targets) and transferring maintenance responsibilities for vehicle and OHLE to an operator(s) would reduce the scope for disputes relating to any underperformance resulting from vehicle or OHLE failures. A combined O&M contract should also reduce the interfaces which the Promoters have to manage.

28.52. Although a simple Operating contract would have the benefits of providing the Promoters with more flexibility in defining contract terms and of being more straightforward in re-tendering, it could result in the Promoters potentially having to adjudicate between the Operator and Maintenance Contractor in the event of each party blaming the other for a failure.

Early Contractor Involvement

28.53. In further developing the Procurement Strategy, it will be necessary to consider whether any benefits will flow from any form of early contractor involvement, to assist in finalising the design or implementation of the NGT scheme. Various forms of early contractor involvement have been used on recent light rail schemes in the UK, including appointment of delivery partners to assist in the final scheme design, integration and procurement, and the early appointment of operators, to allow for their assistance in procurement of vehicles and the final system. These approaches have provided benefits to those schemes, by ensuring that additional risk of integration and/or performance can be passed to those parties, rather than retained by the public sector.

28.54. However, depending upon the risk being passed to the party, they can also lead to additional costs (through design work having to be verified by delivery partners prior to them adopting risks). There is also potential for risk to be passed back to the public sector where a delivery partner or operator believes, following verification of the risk, that they cannot fully bear that risk.

28.55. Depending upon the role of such a delivery partner, there is also likely to be residual risk, as they will typically only be liable to the public sector up to the level of any Professional Indemnity ('PI') cover that they have in place, leading to the public sector paying for such PI cover and taking residual risk. Many of these risks can therefore also be covered off by employment of

competent consultants by the public authority, and then robust design and build agreements. This is particularly the case on a project such as NGT where the interface risks are typically simpler than those encountered under a light rail scheme, and since the public authority has already carried out significant design work.

28.56. There may however, be some benefits to a staged approach to the procurement of contractors within the context of D&B and operating agreements, in order to minimise both the procurement and interface risks. For example, there may be benefit to selection of the Operator(s) of the scheme (whichever procurement methodology is adopted for operating the scheme) so that they can be involved in the final evaluation of vehicle designs, to ensure that the final selected vehicle has characteristics which will allow the operator to perform to the appropriate standard.

28.57. Similarly, consideration may be required as to the order of procurement of the vehicle and OHLE suppliers, to ensure that one or other party takes responsibility for the integration risk between the vehicle and the OHLE. Whilst this is not always the case, early contractor involvement may allow for mitigation of some key risks, whilst continuing to give the Promoters some flexibility in the development of their final procurement strategy.