Advice note for promoters considering a light rail scheme

July 2009

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Chapter 1 - Introduction

1.1 Purpose of Advice Note

This Advice Note is intended to provide practical help to promoters considering a light rail scheme and highlights strategic and detailed issues they will need to consider. The guidance provides signposting to other assistance and information which will be of interest to promoters.

This guidance is intended for promoters in England outside London. However, much of its contents may also be of interest to potential promoters of schemes in London, Scotland, Wales and Northern Ireland.

Whilst this guidance focuses on light rail schemes, much of the content will also be applicable to other rapid transit modes. This guidance includes advice on how promoters can decide which mode is the most appropriate for their particular circumstances.

Promoters should also refer to the Department for Transport's ("the Department") *Guidance to Local Authorities seeking DfT Funding for Local Transport Major Schemes*[1] which provides general guidance on the preparation and evaluation of major scheme business cases.

1.2 What is light rail?

The terms 'tramways' and 'light rail' cover a range of electrically powered and rail-guided passenger transport systems. The important considerations are that the systems are for local passenger movement and that all tramway systems have a significant element of their operation (measured either as a percentage of the system length, or as a significant economic element of the scheme) in the highway. As a system is given increasing levels of separation from, and priority over, other traffic it moves from being considered a tramway to being a light rail system. The systems can range from operations where the trams run on tracks in the highway, through systems with some street running with traffic priority, to a point where the system is segregated from other traffic. Some systems, such as the Tyne and Wear Metro and the Docklands Light Railway, may be fully segregated from the highway. All modern systems will be fully DDA-compliant, and where possible will have level boarding from platforms of appropriate height at all stops.

The flexibility of tramways and light rail allows a variety of alignments to be used. These can range from pedestrian precincts, use of parts of the public highway, newly constructed segregated routes and converted conventional heavy railways to viaducts and tunnels. Existing UK systems demonstrate all of these forms of operation.

[1] Available at http://www.dft.gov.uk/pgr/regional/ltp/major/majorschemeguide/

In this guidance, the term "light rail" should be taken to include ‘tramways’.

1.3 Current systems

Listed below are the eight light rail systems currently operating in England (including London). They vary a great deal in the way they were procured, in their specifications and in their operating environments.

For each system, details of a lead contact person are provided. These people have said that they would be happy to discuss the characteristics of their light rail systems with promoters considering whether to develop a new scheme.

Blackpool Tramway

Opened: 1885
Route length (km): 18
Passenger journeys (millions)*: 3.6
Contact: Paul Grocott, Transport Policy Section, Planning & Transportation Division, Blackpool Council, PO Box 17, Corporation Street, Blackpool, FY1 1LZ paul.grocott@blackpool.gov.uk

Croydon Tramlink

Opened: 2000
Route length (km): 28
Passenger journeys (millions)*: 24.6
Contact: Philip Hewitt, Head of London Trams, Transport for London, 4th Floor South Wing, Parnell House, 25 Wilton Road, London SW1V 1LW PhilipHewitt@tfl.gov.uk

Docklands Light Railway

Opened: 1987
Route length (km): 27
Passenger journeys (millions)*: 52.0
Contact: Richard De Cani, Dockland Light Railway Ltd, PO Box 154, Castor Lane, Poplar, London E14 0DS Richard.DeCani@dlr.tfl.gov.uk

Manchester Metrolink

Opened: 1992
Route length (km): 39
Passenger journeys (millions)*: 19.9
Contact: Tom Beamon, Greater Manchester Passenger Transport Executive, 2 Piccadilly Place, Manchester M1 3BG
tom.beamon@gmpte.gov.uk

Midland Metro

Opened: 1999
Route length (km): 20
Passenger journeys (millions)*: 5.1
Contact: Peter Adams, Centro, Centro House, 16 Summer Lane, Birmingham B19 3SD PeterAdams@centro.org.uk

Nottingham NET

Opened: 2004
Route length (km): 14
Passenger journeys (millions)*: 9.8
Contact: Chris Deas, NET Development Manager, Nottingham City Council, Lawrence House, Talbot Street, Nottingham NG1 5NT
chris.deas@nottinghamcity.gov.uk

Sheffield Supertram

Opened: 1994
Route length (km): 29
Passenger journeys (millions)*: 13.1
Contact: Head of Strategic Planning, South Yorkshire Passenger Transport Executive, P.O. Box 801, Exchange Street, Sheffield S2 5YT

Tyne and Wear Metro

Opened: 1980
Route length (km): 78
Passenger journeys (millions)*: 35.8
Contact: Ken Mackay, Nexus House, St James' Boulevard, Newcastle Upon Tyne NE1 4AX ken.mackay@nexus.org.uk

***Year at 31 March 2008**

We would also recommend that promoters should consult the Light Rail Committee of the UITP (International Public Transport Association), UK Tram and the Light Rapid Transit Forum for advice as to the most effective ways of developing local transport proposals. The American Public Transport Association (APTA) also has useful data from North America.

1.4 Structure of this Document

The remainder of this document is structured around the following key chapters:

- **Chapter 2: Strategic Case** – presenting an overview of the wider strategic issues that a promoter should consider prior to submitting a business case for a light rail scheme.

- **Chapter 3: Optimising a light rail scheme** – providing advice on how promoters should decide whether light rail is the most appropriate mode and setting out the issues that should be considered in optimising a scheme.

- **Chapter 4: Option appraisal and value for money** – summarising existing guidance on the appraisal of rapid transit schemes and highlighting some of the major considerations in the appraisal of rapid transit alternatives.

- **Chapter 5: Commercial** – providing guidance on specific aspects of light rail scheme development that promoters will need to consider in relation to commercial issues.

- **Chapter 6: Financial** – summarising the funding sources available for light rail schemes and setting out the range of costs that should be considered by scheme promoters.

- **Chapter 7: Delivery** – setting out the key factors that promoters should consider in order to ensure effective delivery of schemes.

- **Chapter 8: Approval processes** – providing an overview of the various stages of the approvals process for major rapid transit schemes.

Chapter 2 - Strategic Case

2.1 Introduction

This chapter covers the wider strategic issues a promoter will need to consider before deciding to submit a business case for a light rail scheme. It should be read in conjunction with Chapter 4 which considers how options should be appraised.

2.2 Selecting the right option

In all major scheme business cases the Government expects promoters to start by clearly identifying the problems to be addressed and the objectives that need to be met. The business case should not start from an assertion about the preferred modal solution. The Department's *Guidance to Local Authorities seeking DfT Funding for Local Transport Major Schemes*, section 1.5, gives more guidance on the development of options.

Promoters should consider the potential of all of the different forms of rapid transit solution for addressing the needs of a particular corridor including whether a bus-based or an alternative mass rapid transit system would be more appropriate. This is important because Government funding approval for any scheme will only be given if the promoter can clearly demonstrate that the chosen form of rapid transit offers the highest value for money solution to the problems and objectives that need to be addressed. The Promoter's business case should clearly set out the methodology and evidence for arriving at the preferred solution.

The particular characteristics of each scheme will need to be taken into account in determining the right solution. Details of current passenger flows each way in the peak hour will provide a helpful "sense-check" on whether light rail is likely to be the best solution (taking into account the Commission for Integrated Transport (CfiT) advice detailed below).

In order to help promoters select the most suitable, affordable and cost-effective transport solution, CfIT published, in September 2005, a guidance report on *Affordable Mass Transit*[2].

[2] Available at www.cfit.gov.uk/docs/2005/amt/index.htm

The Government will expect promoters to have worked through the advice in Phase 1 of the guidance before deciding to go forward with a light rail system.

Phase 1 of CfIT's guidance suggests an initial approach to determining what the right option might be. This comprises 3 steps:

Step 1

A qualitative assessment through identification of:

- Problems that the mass transit system is intended to address
- Policy objectives to which the mass transit is intended to contribute
- Context within which the mass transit system will be implemented and operated
- Physical opportunities and constraints that will influence the design of the system

Step 2

A high level quantitative assessment of financial performance through identification of:

- Likely levels of passenger demand
- Revenue
- Operating costs
- Capital costs

Step 3

A value for money assessment of each transport option based on the results of steps 1 and 2.

Other mass rapid transit options

There are a number of alternative mass rapid transit options. This Advice Note does not seek to name them all, as it will be for the promoter to consider the most appropriate options. However, these might include:

- Enhancement of heavy rail – which may be suitable where existing rail networks can be enhanced, or where very high demand levels are anticipated;
- Bus-based rapid transit systems;
- More innovative approaches, such as optically guided bus systems, trolleybuses;
- Wire guided bus systems, ultra light tram systems or personal rapid transit systems;
- Tram-train.

The Government will expect promoters to have considered appropriate bus-based solutions, including guided bus, with a range of levels of segregation from general traffic that meet the overall scheme objectives. Ambitious bus-based options, such as highly segregated Bus Rapid Transit (BRT) systems, may offer some of the advantages of light rail at somewhat lower capital costs.

A high quality BRT system would include superior quality vehicles accompanied by fixed physical infrastructure in terms of dedicated stops, high quality shelters, real time information and off-board ticket machines. It could operate as a complete system, with distinctive branding, priority at junctions, and significant lengths of segregated track.

A study commissioned by DfT in 2005 examined whether a Bus Rapid Transit solution in Leeds could deliver a more cost effective solution than light rail when all possible existing policy levers are used in an imaginative way. The report[3] recognised that evidence available was limited as there were no such systems in the UK. It nevertheless concluded that a BRT system could offer many of the attributes of a light rail system, at around half its cost. It did, however, note that, in a deregulated bus market, there were delivery risks that would need to be addressed. A note on potential delivery mechanisms was included as part of report. Promoters should note that this work was conducted in the context of Leeds, and they should consider how its findings relate to their own circumstances.

In considering different bus-based solutions, promoters should bear in mind the need to consider whole life costs associated with bus schemes. They should also take into account the different operating parameters and degree to which bus-based solutions can expect to influence mode split and assist in delivering the wider economic and regeneration impacts that may be associated with light rail. In making these judgements, full use should be made of all relevant evidence.

2.3 Link to wider objectives and priorities

Proposals for light rail schemes must take account of wider objectives and policies at local, regional and national level. This should include not only transport objectives and policies but also wider policies, such as those relating to regeneration, social inclusion, environment, health and climate change. Proposals should particularly take account of the policies and objectives set out in an authority's Local Transport Plan.

[3] Available at www.dft.gov.uk/stellent/groups/dft_localtrans/documents/divisionhomepage/610541.hcsp

Promoters will also need to take account of land use planning policies at both strategic and more local level. Relevant policies, with which light rail schemes might deliver mutual benefits, include: town centre car parking; pedestrianisation; clear air zones etc.

When considering objectives and policies, promoters should consider the five objectives for transport set out in the Department's New Approach to Appraisal (NATA)[4], i.e. environment, safety, economy, accessibility and integration.

[4] http://www.dft.gov.uk/WebTAG/webdocuments/1_Overview/1_Introduction_to_Transport_analysis/index.htm#1_3

Chapter 3 - Optimising a light rail scheme

3.1 Introduction

This chapter offers advice to promoters on deciding whether or not light rail is the most appropriate mode and sets out the issues that should be considered in optimising a scheme.

3.2 Scheme Optimisation

In deciding whether light rail is the most appropriate mode, promoters will need to think about how to optimise the scheme they intend to consider. Promoters should talk to those who have already developed and delivered light rail systems (see the contact list in chapter 1) and look at the measures they have taken to optimise their schemes.

Promoters should take note of the published and anticipated work of UKTram. Promoters might also like to consider the ***pteg*** (Passenger Transport Executive Group) report *What light rail can do for cities*[5] which was published in February 2005 and takes a look at existing UK operational light rails systems.

3.3 Transport integration

The National Audit Office (NAO) report *Improving Public Transport in England through Light Rail*[6] recognised (summary page 5) that:

[5] Available at http://www.pteg.net/PolicyCentre/LightRail/Whatlightrailcandoforcities.htm

[6] Available at http://www.nao.org.uk/publications/0304/improving_public_transport.aspx or in hard copy (ISBN 0-10-292787-1) from The Stationery Office at http://www.tsoshop.co.uk/bookstore.asp

> **"**Public transport systems are more likely to be regarded as attractive alternatives to the car if they operate in a joined-up, integrated way. Integration involves co-ordination between the services, physical proximity allowing ease of interchange at stations, and through ticketing and widespread availability of passenger information about routes, fares and timetables. Passengers consider the level of integration to be the least satisfactory aspect of light rail. Integration with bus services has been poor to moderate on many lines, and bus and light rail services have been in competition with one another on the same routes.**"**

The Future of Transport White Paper [7] endorsed this. It said (paragraph 4.29) that:

> **"**Authorities need to ensure that they are taking appropriate measures to attract people to use the new services. For example, schemes can be enhanced by better integration with other forms of transport – through integrated ticketing and bus Quality Contracts, and the provision of park and ride facilities and complementary parking policies. The involvement of local transport planners and practitioners in the heavy rail system will also facilitate better integration and sensible decisions on the balance of funding between different forms of transport.**"**

3.4 Park and Ride

Park and Ride facilities increase patronage. They are particularly appropriate when the objective is to reduce car trips along the main corridors leading into city centres. Experience suggests that substantial Park and Ride provision is a factor which strongly influences the success of a light rail scheme.

Promoters should therefore consider providing Park and Ride where appropriate. The Government will challenge promoters on the adequacy of their park and ride provision and will expect strong justification for not including Park and Ride provision in any light rail proposal. The NAO found that park and ride sites have sometimes been missed out or delayed to save money – thereby reducing the benefits of the scheme.

3.5 Interchange at stations

Physical integration, involving the location of light rail stations near other public transport hubs such as train, underground and bus stations, can encourage greater use of all forms of public transport. By contrast, people may be discouraged from using light rail systems if changing to other modes is confusing or involves walking some distance. The Government will expect promoters to demonstrate how they have maximised physical integration.

[7] http://www.dft.gov.uk/about/strategy/whitepapers/previous/fot/

Valuable guidance on optimising integration at stations can be obtained from reports by the Chartered Institute of Transport[8] (now the Chartered Institute of Logistics and Transport) and the Institution of Civil Engineers[9].

3.6 Integration between bus and light rail services

Integration between bus and light rail systems is not always straightforward given the deregulated bus system in England outside London. However, the Government will expect promoters to demonstrate that they have considered all practicable ways of maximising integration with local bus services.

Ideally, the proposed light rail scheme should be designed so that light rail and bus services are complementary, with light rail offering faster, more reliable journeys along a corridor and bus services offering better access to the local area. In these circumstances, local bus operators will be encouraged to provide integrated services which benefit users of both modes.

Complementary bus services can help to ensure that passengers are able to get to and from light rail stops, and to provide links to key destinations (eg employment or shopping sites) which cannot be reached directly by light rail. Promoters should consider whether their light rail scheme would benefit from the provision of complementary bus services.

The regulatory regime allows local authorities some possible options for delivering greater integration with bus services, which include:

a) a **voluntary quality partnership agreement (QPA)**, which could include an agreement with a bus operator to provide a complementary service to a minimum frequency and quality. Care is needed where two or more bus operators (or a bus and light rail operator) are involved, since generally speaking any agreement which led them to share a market could be contrary to the Competition Act 1998;

b) a **statutory quality partnership scheme (SQP)**, made by the local transport authority, which could ensure that a high quality bus service was delivered in conjunction with the light rail scheme. A SQP scheme would require bus operators to provide services to a

[8] Passenger Interchanges: report by the CILT Passenger Interchanges Working Party (Nov 1998)
[9] Passenger Interchange, ICE (2000)

certain standard in order to use the facilities provided by the local authority under the scheme. Guidance is available on the Department's website[10].

c) a **quality contracts scheme (QC),** which would give a local transport authority maximum control over the operation of buses in the scheme. It is essentially a procedure whereby, after competitive tender, an operator is given exclusive right to operate services in a specified area, such as corridors where feeder routes could serve light rail services. The authority has the right to determine the network, fares, tickets, frequencies and timings, though contracts can, if desired, allow the operator a degree of discretion over these matters. Promoters should avoid plans to reorganise bus networks to maximise patronage on light rail regardless of the preference of users (for example, by removing through bus services and replacing then with journeys requiring interchange). Guidance on quality contracts schemes is available on the Department's website[11].

Promoters should be aware of the provisions of the Local Transport Act which was given Royal Assent in November 2008. The Act will give local authorities some new powers to improve the quality of bus services in their areas. Further information about the provisions of the Local Transport Act can be found on the Department for Transport website[12], in addition a useful summary of the implications of the Act is also available on the ***pteg*** website[13]

3.7 Track sharing and conversion

Where a suitable alignment exists, promoters should consider at an early planning stage the scope for track sharing with heavy rail, as currently exists on the Tyne and Wear Metro, and, where possible, conversion of existing heavy rail lines to light rail.

Converting existing heavy rail lines to light rail can improve access to city centres, increase capacity, and provide more frequent services and stops compared to previous heavy rail services. It also allows higher speeds and therefore a more attractive service compared with an alignment on-street. Manchester Metrolink Phase 1 and Tyne and Wear Metro were both heavy rail conversions. Converting an existing line can also be cheaper than a new alignment.

Track sharing implies both light and heavy rail vehicles using the same alignment. This can take various forms, as defined in Railway Group Standard GE/GN8502:

- **Parallel running**, where light and heavy rail vehicles operate on the same alignment but on completely separate tracks, sharing facilities such as bridges and level crossings. Examples of this occur on Manchester Metrolink;

[10] http://www.dft.gov.uk/pgr/regional/buses/quality/guidance/anceonqualitypartnership3574.pdf
[11] http://www.dft.gov.uk/pgr/regional/buses/quality/qualitycontractsforbusservic3577
[12] http://www.dft.gov.uk/pgr/regional/localtransportbill/
[13] http://www.pteg.net/PolicyCentre/LocalTransportAct/

- **Exclusive running**, where light and heavy rail vehicles operate on a common section of route but at different times. The operation of the Stourbridge line by light rail vehicles on Sundays is an example;

- **Mixed running**, where light and heavy rail vehicles are interspersed on a common section of route. An example is the shared use of the Sunderland line on Tyne and Wear Metro.

In considering the scope for track sharing a number of technical and organisational issues need to be considered and promoters should engage support from heavy rail stakeholders and relevant safety bodies. Issues include impacts on capacity, vehicle gauge, preventing collisions between trains and light rail vehicles, the implications of different types of vehicle using the same platforms, communications and signalling. There is also experience to be gained from track sharing elsewhere in Europe.

In 2002, ***pteg*** formed a joint task group with the Strategic Rail Authority to conduct an initial review of track sharing. It looked at the scope and forms of track sharing and examined the technical, policy, commercial and procurement issues that need to be addressed. Further information on this work can be obtained from ***pteg*** (see contact details in Annex B).

3.8 Through-ticketing

Tickets that are easy to buy and allow passengers to move easily from one form of public transport to another can encourage people to use light rail.

In London, there is a high degree of through-ticketing where travel cards can be used on buses, trains, the underground and light rail systems. Pre-payment Oyster Cards can be used on buses, the underground and the light rail systems, but currently not on the rail network. Many heavy rail passengers buy travelcards which include travel on light rail in the price of their ticket.

Outside London, through-ticketing between services of different operators may be arranged through use of the Block Exemption for Public Transport Ticketing Schemes[14]. This makes special provisions for multi-operator through tickets and travelcards covering one or more of bus, rail, light rail and ferry services. Such tickets are not subject to the prohibition on anti-competitive agreements under the Competition Act 1998, provided they meet certain conditions. Commercial bus operators are still free to set their own single fares (and are debarred from agreeing them with competitors) and to sell their own multi-ride tickets.

In addition, under the Transport Act 2000, local transport authorities can oblige bus operators to make ticketing schemes under similar conditions. The local transport authority can act as "honest broker" for operators of all modes, but essentially the price of the product needs to be agreed between the participating operators.

[14] http://www.oft.gov.uk/shared_oft/business_leaflets/ca98_guidelines/oft439.pdf

Despite some misconceptions in the industry, it is not normally regarded as anti-competitive to issue through-tickets between connecting routes (eg one operator runs a bus between A and B and another runs one between B and C) because these are not in competition with each other. This will often also apply to a ticket combining light rail with a connecting bus service.

The Government will expect promoters, as a condition of approval, to specify the acceptance of through-ticketing in the concession agreement or operating contract.

3.9 Car restraint measures

The Department's *The Future of Transport* [15] put a new emphasis on car restraint measures as a complement to public transport improvements. The Government will expect promoters to have considered all possible ways of getting the most out of their scheme by encouraging reductions in car use. Examples include parking charges, parking restrictions, pedestrianisation and congestion charging.

3.10 Priority over road vehicles

Fast and punctual light rail services can be secured by giving priority to light rail vehicles over road vehicles at key junctions. All existing UK systems have some priority at junctions, although the amount varies depending on local circumstances. Local politics often restrict the amount of priority given to light rail over cars. The Government will expect promoters to demonstrate commitment to making their light rail proposals work by providing appropriate priority, in co-operation with the local Highway Authority.

3.11 Passenger information

In order to maximise the number of passengers, promoters should consider all possible ways of providing information on routes and timings. This can include:

- ensuring adequate information at light rail stops;
- providing information at key places served by the service, such as main line railway stations and public transport interchanges, hospitals and doctors' surgeries, educational establishments, sporting, entertainment and recreational venues, etc;
- providing web based information;
- ensuring a high level of training is given to those promoting and advising on transport options;

[15] http://www.dft.gov.uk/about/strategy/whitepapers/previous/fot/

- providing a timetable service, including light rail and bus times, directly to passengers' mobile phones;

- internet-based facilities like Transport Direct which allows passengers to plan multi-modal public transport journeys throughout Britain, and has links to ticket retailers.

The Department undertook a review of real time information (RTI) in 2005 on existing and proposed light rail systems. The report *Light Rail and Trams in England: Use of RTI*[16] evaluates the different approaches to RTI used on individual schemes at that time and provides an insight into the issues which had arisen during RTI implementation.

The Government will expect promoters to demonstrate that they have considered all practicable ways of providing travel information to passengers.

3.12 Cycling and Walking

Integrating cycling and light rail can provide additional passengers for light rail schemes and help meet other local and national targets. Cycling should be considered as a mode of access in its own right, and access routes should be planned and suitable storage facilities provided at key stops. Developing light rail schemes have a long lead-time so in order to facilitate optimal cycle integration with light rail, these facilities need to be planned for at the start of scheme development.

Walking should be similarly considered as an important mode of access (all passengers have to walk to some extent). Walking routes should be provided to stops from key locations such as bus stops and car parks. Where possible, walking routes should be on the level, under cover, well-lit at night and not involve crossing busy roads.

[16] Available at http://www.dft.gov.uk/transportdirect/research/realtimeinforesearch

Chapter 4 - Option appraisal and value for money

4.1 Introduction

This chapter offers guidance to promoters considering how to appraise rapid transit proposals.

Promoters should consider the advice set out in the following sets of guidance:

- The guidance modules on the Department for Transport's appraisal and modelling website "WebTAG"[17]
- The Department for Transport's Guidance on Value for Money
- "The Green Book" by HM Treasury (2003)[18]
- CfIT's Affordable Mass Transit Guidance[19]
- UITP Guidelines for the planning and design of a light rail scheme[20]

This chapter does not replace or replicate the above guidance. Instead it draws attention to some of the major considerations in appraisal of rapid transit alternatives.

The promoters of rapid transit systems are encouraged to discuss appraisal issues with the Department as early as possible. Appraisal issues are usually complex and scheme circumstances vary hugely, so no amount of written guidance on its own will provide advice to promoters sufficient to cover all questions that might arise.

The appraisal process is intended to help promoters to identify the right scheme, as well as enabling them to make the economic case for a particular scheme. Promoters should always begin their project development by defining the transport problems and demonstrating that the scheme relates to those problems. The Government expects promoters to show evidence of assessment of a reasonable range of solutions that may meet some or all of those objectives;

[17] Available at www.WebTAG.org.uk
[18] Available at http://www.hm-treasury.gov.uk/data_greenbook_index.htm
[19] Available at www.cfit.gov.uk/docs/2005/amt/index.htm
[20] Available at http://www.uitp.org/publications/pics/pdf/LRG123.pdf

the Department for Transport will not progress submitted business cases that do not show that this process has been undertaken.

Building a robust assessment of the benefits of schemes hinges largely on four factors:

- robust and realistic patronage forecasts;
- good estimates of the modal shift from car and the resulting benefits of reduced road congestion;
- robust estimation of wider economic and environmental benefits;
- robust and realistic estimates of the scheme costs.

The remainder of this chapter provides an overview of the process that promoters should follow in narrowing down scheme options and sets out the factors to be covered in determining overall value for money.

4.2 Initial indication of value for money

Promoters should consider the Department's value for money guidance as soon as it becomes possible to calculate the benefits and costs of a scheme and forecast user demand. It is often possible to scope potential demand for light rail on corridors before a robust set of appraisal results can be obtained.

Once early appraisal results become available, if it appears that the scheme would have low or poor value for money on the basis of monetised benefits alone, the promoter should consider whether scheme re-scoping, further appraisal work and/or the non-monetised impacts are likely to make the scheme medium or high value for money overall. If the promoter thinks that the non-monetised benefits of the light rail scheme could be large and positive overall, they should speak to the Department about how they can demonstrate their case.

4.3 Schemes already in development and refurbishment schemes

The advice in this chapter applies to the promoters of schemes that already have Conditional Approval or Programme Entry, as well as those seeking Programme Entry. It is recognised that some promoters have already developed models that may not meet all of the requirements of the latest guidance. In these instances the promoter should discuss with the Department what work it would be reasonable to undertake to update their models.

Refurbishment schemes may require a simpler demand forecasting approach. As requirements will vary by scope of the scheme it is recommended that the promoter consults with the Department on a case-by-case basis.

4.4 Assessing new light rail schemes against alternatives

The Department recognises that promoters will be offering solutions that are objective-led and that transit proposals will only arise through careful consideration of the transport and wider policy needs. Promoters should take the widest advice on system selection including: EU advice and European Commission transport policies, advice from transport authorities and professional bodies across the EU, advice set out in the Department's appraisal guidance on WebTAG and the Treasury Green Book, in conjunction with the Affordable Mass Rapid Transit Guidance by CfIT.

WebTAG unit 1.1 provides a readable overview of how promoters should use transport appraisal analysis to solve problems. WebTAG units 2.1, 2.2 and 2.3 provide promoters with general advice on how to define transport problems and objectives and work through to creating a long list of solutions.

Stage 1

Once the needs of the area are understood, the first stage of considering alternatives can begin. Stage 1 is a strategic assessment of alternatives, including different technologies and different geographical areas of coverage. A wide range of options should be considered, including those that would be difficult to implement – a way round obstacles may be found if the solution merits detailed investigation work. Options should only be discarded if they are clearly undeliverable or when there is clear evidence that they would not meet the promoter's objectives.

Promoters should consider all opportunities and constraints that might affect the ranking of potential solutions. Outline Appraisal Summary Tables (AST) can be used to show how each option performs against central government's objectives for transport on a seven-point scale from large beneficial to large adverse. WebTAG unit 3.2 provides detailed guidance on how to use the AST to compare options.

Additional multi-criterion analysis is often helpful in showing how alternatives compare in terms of meeting local policy objectives. The qualitative comparison enables the best performing options to be short-listed. Where a new mode is being considered, promoters should consider how it will fit with existing modes and its attractiveness to potential users.

At the end of Stage 1, the preferred form of rapid transit should be tested to establish how it performs under quantitative testing (Stage 2).

Stage 2

Stage 2 should be a relatively high level quantitative assessment of economic and financial performance. These include, but are not restricted to, demand, revenue, capital costs, and operating costs. WebTAG unit 1.4 should be read by all involved in the appraisal of a major scheme; it provides promoters with an overview of the main appraisal issues and provides considerable sign-posting to more detailed guidance. Promoters who require a more detailed understanding of appraisal should read WebTAG units 2.5 and 2.7.

The results of Stage 2 analysis should be compared with the conclusions drawn at Stage 1. At this stage promoters should bear in mind that all of the key variables could change as option design develops. Sensitivity testing should be carried out to show the extent to which financial and economic performance and the ranking of options is dependent on underpinning assumptions, especially on scheme scope, costs and demand. When the result of Stage 2 is known, promoters who are considering submitting a major scheme business case to the Department should share the results of their analysis with them.

At least three options should be taken forward for quantitative testing at Stage 2; these will usually be known as:

- the preferred option (the one that performed best at Stage 1);
- the next best option; and
- the lowest cost alternative.

These options should be carried through the appraisal process to Stage 3 regardless of the ranking of performance and value for money at Stages 1 and 2. Changes to cost or benefits estimates during the appraisal can mean that options that perform similarly economically can change ranking in terms of value for money. In some circumstances after Stage 2 the Department will accept a business case containing only a preferred option and a lower cost alternative, but this will need to be agreed with the Department in advance.

Stage 3

At Stage 3, as the scheme design and implementation strategy is developed, a full appraisal of the shortlisted options (including a detailed assessment of costs and both quantitative and qualitative benefits) should be undertaken. Stage 3 appraisal is needed before submission of a business case. It should build on the results of Stage 1 and 2.

Promoters should be mindful of the impact that changes to the scheme design or circumstances might have on the absolute and relative value for money of alternatives. More detailed sensitivity and scenario testing should be carried out at this stage. A quantified risk assessment (QRA) based on the scheme design should also be prepared at this stage. The QRA should consider the impact of scheme specific as well as generic risks. Allowance for Optimism Bias on

capital cost estimates should be applied throughout the appraisal process (see guidance later in this chapter and in WebTAG on applying Optimism Bias uplifts).

The Department's recommended appraisal and modelling guidance should be used to produce a detailed appraisal which the Department will review as part of the business case for Programme Entry. The Department will review the promoter's re-appraisals as changes are made at subsequent approval stages. Promoters should allow for 3-4 months for the Department's review of a light rail scheme, provided the material submitted to the Department is complete and meets the Department's appraisal guidance – the Department will review material at the earliest possible opportunity and will inform promoters whether additional data is needed. Promoters will need to be aware that incomplete business cases take longer to assess. The Department will often commission an independent audit of some aspects of the appraisal, so business cases should be written in a way that is accessible to someone unfamiliar with the scheme.

4.5 Fit with other schemes

Rapid transit schemes will be part of a wider package that includes public transport integration, demand restraint, and road pricing. In many cases it will be necessary for the modelling and appraisal framework used to be consistent with that needed to assess road pricing. Advice on modelling and appraisal of road pricing schemes can be found at WebTAG units 2.12 and 3.12.

4.6 Modelling demand and costs

Demand is central to the economic justification for transit investment. The Department requires that demand will be high enough to create revenues that exceed operating costs. Similarly, user and non-user benefits must be greater than capital and operating costs over the appraisal period. In most cases capital investment will only be justified economically or financially where it can increase public transport market share.

The economic and financial case for transport infrastructure depends crucially on demand and change to travel costs. It is therefore essential to build well-specified models that represent the key features of existing transport and that can accurately predict how people will respond to changes in circumstances and to the scheme itself. These models should demonstrate a strong linkage to real-world experience within the EU and should not rely upon theoretical constructs. It is important to consider how the rest of the existing transport system will respond to the scheme and to developments that are likely to occur and how these will affect the performance of the overall transport network.

The modular units in WebTAG provide promoters with advice on what principles need to be considered when building modelling tools. Promoters should start by referring to WebTAG units 2.4 and 3.1 – unit 2.4 in particular is accessible for promoters who wish to understand the nature of modelling work needed to assess different proposals, even if they are likely to

delegate the work itself to specialists. For experts, the sub-units of WebTAG unit 3.1, 2.9, and 3.10, and 3.11 offer detailed guidance on modelling and forecasting.

Promoters should consider the extent to which long term land use changes might result from the availability of mass transit. Corridor models used at project level are generally incapable of capturing land-use/transport interaction effects. Strategic models are often capable of picking up long term interactions between travel cost between and within zones, and changes to land use, but they often cannot represent travel patterns in sufficient spatial detail for individual schemes. Promoters should therefore use models that capture land-use transport interaction to predict the need for, and select the location of, a scheme but the scheme appraisal will usually require a more detailed model.

4.7 Patronage

If the demand models are correctly specified the promoter will be able to accurately estimate patronage. Predictions still need to be "sense-checked" and benchmarked against patronage on similar schemes elsewhere within the EU. The Department will expect promoters to provide sufficient detailed information to inform this sense-check, including projected boardings, alightings and loadings in each direction along the proposed routes.

Care should be taken to ensure that patronage estimates take account of system performance and characteristics which will have a direct bearing on patronage. Key variables that will affect patronage include: in-vehicle journey times, the level of priority that can be given to vehicles over other road users, reliability of services, ride comfort and fare regimes.

Care should also be taken not to over-estimate attractiveness of a new mode, or underestimate how long it will take people to change their travel behaviour to use the new mode. Promoters should consider what evidence is available, or could be collected, to underpin their assumptions.

Where patronage is assumed to come from an existing mode such as car or bus, promoters should think carefully about the reasons why people might not change their behaviour as readily as the modelling suggests. This might be because preferences towards a mode such as car have been underestimated. It is also worth considering the possibility that businesses that

depend on existing modes will cut prices to compete and protect their market share, e.g. bus operators may aggressively cut fares.

External factors can change in ways that the promoter did not expect and this might lead to patronage and benefits turning out significantly above or below expectations. Key variables that are largely outside the promoter's control include:

- Local economy;
- Demography;
- Congestion; and
- Competition from other transport modes.

Inevitably all forecasts contain an element of uncertainty. Promoters should sensitivity test variables that are likely to have an impact on scheme patronage and benefits, as well as sensitivity testing patronage itself. Advice on sensitivity testing is provided later in this chapter.

4.8 Fares and Revenue

The fare regime is likely to depend on the objectives of the promoter, the procurement methods, commercial incentives and the state of the market. In the short term, setting fares is usually a trade off between delivering economic benefit and raising revenue. The allocation of fares and revenue risk will have a key effect on incentives to increase patronage or meet revenue requirements and is important in predicting patronage and revenue.

4.9 Cost Benefit Analysis

This section summarises the monetised costs and benefits that promoters will need to consider. WebTAG units 3.5 and 3.9.2 set out how to use modelling output to create an appraisal of monetised costs and benefits.

Benefits arise through changes in travel behaviour that reduce the generalised cost of travel, increase transport network capacity and efficiency and through new demand for trips arising from the presence of better transport facilities or economic and demographic change. Benefits accrue to users of the scheme and non-users. In addition to the benefits that a new mode might offer to users (such as faster journey times and a more pleasant journey experience), non-users may experience reduced congestion and therefore reduced journey times and vehicle operating costs as a result of the scheme. These monetised benefits do not include all benefits arising from a scheme; promoters are reminded of the environmental and social benefits that are currently not monetised within the English cost benefit analysis; nevertheless, these benefits are real and are considered further in section 4.10 of this note.

Transport schemes can also create disbenefits to certain parties. For example, the priority accorded to transit vehicles at certain junctions or reduction in road space may delay other road users. The appraisal should take into account all of the main sources of benefit and disbenefit so that the net benefit to society is shown. These benefits should be assessed relative to a realistic 'do-minimum'.

Reliability is a key benefit of any mode that is segregated from general road traffic, or one that has priority over other traffic at junctions. Unfortunately no satisfactory method for estimating reliability benefits to public transport users exists at present, so it is suggested that an allowance for reliability be included in the mode constant the mode constant is a value which represents the attractiveness of a certain mode to the user. This is based upon a number of factors which are assumed to contribute towards the attractiveness of a mode e.g. reliability, image, journey times etc). The mode constant should be sensitivity tested to establish whether the economic case is dependent on it. The Department will work with other bodies to develop methodologies for assessing reliability benefits.

4.10 Wider benefits

Promoters should assess the wider benefits and disbenefits of all options using the methods set out in WebTAG units 3.3, 3.4, 3.5, 3.6, 3.7 and 3.8. This includes an assessment of each option's performance against central government's five objectives for transport. Wider benefits to be considered include:

Environment

The WebTAG guidance must be followed in full for all sub-objectives of environmental performance. WebTAG unit 3.3 contains detailed advice.

Social inclusion

Under the supporting analysis equity criteria (unit 3.8.3), and access to the transport system sub-objective (3.6.3) promoters should consider the extent to which the scheme will serve deprived or economically disadvantaged people, particularly in terms of serving their need for access to health, education, food, and jobs. The marginal personal benefit of accessibility improvement is likely to be higher for these groups, particularly where car ownership is low.

It is helpful if promoters provide supporting evidence for social inclusion benefits such as details of the area surrounding their proposed alignment, and illustrate how the scheme improves access to services.

Wider economic benefits

The Department is reviewing its advice to promoters on the assessment of wider economic impacts; whilst this review is taking place we suggest that promoters consider a number of research papers on this subject which are provided on the DfT website.[21].

[21] Available at: http://www.dft.gov.uk/pgr/economics/rdg/webia/

4.11 Costs, Risk and Optimism Bias

Realistic and robust cost estimates are central to the assessment of alternative solutions and the value for money analysis of the preferred scheme. To reflect the increased emphasis the Government places on the robustness of costs estimates, a new section of guidance, dedicated to advising promoters on estimating costs and risks and adjusting them for Optimism Bias, has been produced and placed on WebTAG, unit 3.5.9 (Optimism Bias is a cost which has to be added onto the overall scheme cost to reflect the fact that there is a systematic tendency for people to be over-optimistic about scheme outcomes. Optimism Bias tis therefore a means of balancing out the likelihood that benefits of the scheme may be over-estimated and negative impacts may be under-estimated).

In addition to the technical advice this unit offers on estimating costs and quantifying scheme capital cost risks, the guidance re-enforces two key messages:

- Optimism bias adjustment is required for all schemes, even where there is a quantified risk assessment. Optimism bias applies not just to the base cost but also to the risk adjusted costs and so Optimism Bias adjustment factors must be applied to the risk-adjusted costs.

- The base cost must include a sensible allowance for inflation. The economic appraisal and other parts of the scheme business case must include the projected cost of building the scheme in the years it is planned to be built. Inflation assumptions should be evidence based, and the timescales for construction should be realistic, allowing for reasonably expected delays, so that costs are estimated for the correct year. The Department is happy to discuss this issue with promoters, but they may particularly wish to note the following advice from WebTAG unit 3.5.9:

> "The inflation rates relevant to the delivery of transport schemes are currently (Summer 2006) higher than general inflation rates across the economy. Major costs that are increasing faster than general inflation include wages, power, and many raw materials. This has a bearing on operating and investment costs, and higher costs also have a knock-on impact on value for money. It is difficult to generalise and suggest inflation rates applicable to all schemes. However, recent experience suggests that wage rate inflation is in the region of 4% and construction cost inflation often ranges between 5% and 7%. Most forecasts suggest that inflation rates in construction industries and wage settlements will continue to outstrip general inflation rate across the economy (RPI for example) for the next five years."

4.12 Sensitivity and Scenario Tests

The promoter should show the results of sensitivity tests of key downside risks on the benefits and costs, such as:

- patronage shortfalls relative to expectations;
- level of patronage at which scheme net benefits would be zero;
- poor system performance (eg extended journey times, reduced frequency, lower mode constant);
- higher operating costs;
- higher capital costs;
- lower non-user benefits due to higher than expected induced traffic;
- lower time savings;
- reduced scheme scope; and
- competitive response from other transport modes.

Promoters should also provide the results of scenario tests combining changes to system performance with changes to external factors, e.g. poor system performance and reduced growth in employment trips.

4.13 Summary

This chapter has offered an overview of appraisal issues that are important in assessing the case for light rail. The table below sets out places where promoters can seek additional guidance on each topic.

Topic	Sources of guidance
Assessment against alternatives	WebTAG units 2.1, 2.2, and 2.3, 1.4 and 3.9 CfIT Affordable Mass Transit guidance
Modelling demand	WebTAG units 2.4, 3.1, 2.9*, 2.10, 3.10, 3.11
Road pricing	WebTAG units 2.12* and 3.12*
General appraisal advice	WebTAG unit 3.2
Cost benefit analysis	WebTAG units 3.5 and 3.9.2 HM Treasury Green Book 2003
Wider benefits	"Transport, Wider Economic Benefits and GDP" by DfT
Patronage and revenue	WebTAG unit 3.9.2
Estimating costs, risks and adjustment for Optimism Bias	Primarily WebTAG unit 3.5.9, but unit 1.4 and the HM Treasury Green Book are also useful
Sensitivity and scenario testing	WebTAG units 3.9.2 3.11.4

* Currently at consultation stage

Chapter 5 - Commercial

5.1 Introduction

As with all major projects, the commercial approach to the delivery of a light rail scheme is a fundamental part of the planning of the scheme and all scheme promoters must give early and robust consideration to how any proposed scheme will be implemented.

This chapter seeks to build on the *Guidance to Local Authorities seeking DfT Funding for Local Transport Major Schemes* and provide guidance on specific aspects of light rail scheme development that promoters will need to consider.

Given the range of different circumstances that may relate to specific scheme proposals, the Government does not consider it appropriate to set out a mandated or preferred commercial model for light rail scheme development. However there are a number of areas that the Government requires promoters to give full consideration to as part of the scheme development and these will be assessed by the Department, as part of the overall business case, in the light of experience, best practice and scheme context.

The nature of light rail schemes is such that the capital values are typically higher than other local transport major projects and their nature brings significant technical risks such as systems integration that need to be considered carefully at scheme inception.

It should be noted that UKTram has prioritised work on procurement models for tram systems and the early findings of this are available on the UKTram website[22].

[22] www.uktram.co.uk

5.2 Procurement Strategy

The core of the proposed commercial strategy for a scheme will be the proposed procurement strategy. For light rail schemes this will need to cover both the construction and operational phases of the system.

In the UK a number of different models have been adopted over time depending on local circumstances and prevailing market conditions, including the use of Private Finance Initiative (PFI) schemes where these have been judged to offer best value for money.

It is expected that, for all light rail scheme proposals, because of their size, promoters will need to consider whether a PFI procurement strategy is likely to offer best value for money. The Government requires that all such procurement strategy assessments are carried out in accordance with HM Treasury guidance on the selection of PFI procurement routes. More information about approaches to PFI is available on the HM Treasury website.[23].

In carrying out a procurement options appraisal, promoters should consider the full range of procurement options available and in particular that there are a number of different procurement models that could be pursued for a PFI scheme. Use of a PFI approach does not necessarily require either the transfer of revenue risk or responsibility for operations to a concessionaire. PFI procurement models that should be considered alongside non-PFI options should include, but are not limited to, the following:

- A design, build, finance, maintain and operate model with transfer of all revenue risk to the concessionaire;
- A design build, finance, maintain and operate model with no or limited transfer of revenue risk to the concessionaire; and
- A design build, finance and maintain model with separate arrangements for the operation of the system.

Alongside the PFI options, non-PFI options will need to be assessed and consideration given to how, amongst other aspects, systems integration issues would be managed.

In assessing the procurement strategy, promoters must consider the likely period over which there will be certainty of the requirement that would be placed on any concessionaire. In particular, where significant network expansion is expected during the lifetime of any concession, the ability for the initial contractual arrangements to deliver the expanded network whilst maintaining value for money and the impact of having to terminate any such contracts early would need to be considered. Contract lengths will also need to be consistent with any emerging EC Regulations (see Section 7.3 below).

[23] http://www.hm-treasury.gov.uk/ppp_index.htm

The consideration of a PFI procurement route and non-PFI options must be based on the underlying value for money and is independent of any accounting or affordability implications of the particular approach.

In developing the procurement strategy promoters are strongly encouraged to discuss their approach at as early a stage as possible with the Department.

5.3 Specific areas to be addressed

Based on the nature of light rail schemes and recent procurement experience, there are a number of key areas that will need to be assessed in developing the most appropriate procurement strategy:

Area 1: Revenue Risk

The transfer of revenue risk to any operator can be a powerful performance incentive in the right circumstances. However it also likely that where there is little or no evidence of revenue levels or there are significant external threats to the estimated revenue levels then any commercial operator may take a prudent view of future revenue income in developing its commercial proposals. This may undermine the value for money of a full transfer of revenue risk in such circumstances. This will need to be considered carefully on a case by case basis.

Particular factors that will need to be considered in determining the best value for money treatment of revenue risk in the procurement strategy include: who sets the fare levels; what are the competing transport choices; the degree to which demand growth is dependent on external development proposals; whether the financial impact of revenue variation is offset by availability payments to a concessionaire; the proposed term of the contract; prevailing market conditions etc.

In a number of schemes, promoters have considered implementing revenue sharing mechanisms to balance the performance incentive and uncertainty aspects of revenue risk. Promoters are encouraged to consider these fully.

Area 2: Design Risk

Promoters need to consider which party will be responsible for the detailed system design and any consequential impact that issues arising from that design might have. In particular where the detailed design work is not being done by the same party that has responsibility for the build or operational performance of the system, very clear assessments of how the risks relating to any subsequent shortcomings in the design will be managed need to be made.

Area 3: Utilities

The diversion of utility infrastructure prior to service commencement and possible service disruption arising from the need to access utilities after service commencement need to be assessed and a strategy proposed. Previous experience has shown that for systems with significant street running sections these issues can bring large costs and uncertainty in contractors proposals that may undermine value for money.

Promoters should consider the degree to which utility infrastructure needs to be diverted and also how the financial and other risks associated with subsequent service disruptions is managed.

UKTram has prioritised work in this area and promoters are strongly encouraged to consider the emerging recommendations from this work when they are available.

Area 4: Third Party Interfaces

Practical and commercial interfaces with third parties such as commercial landowners, Network Rail, and relevant Highways and Planning Authorities can present uncertainty in early scheme development and difficulties for contractors in determining timescales and final prices with confidence. Promoters therefore need to allow for these risks in their initial scheme appraisals but also ensure that the proposed procurement strategy offers the best value for money way of dealing with them.

Consideration should given by promoters to investing in the development of early agreements with third parties where this can provide greater certainty and value for money.

Area 5: Network Flexibility

As referred to in section 5.2 above, the options for future development of any proposed system into a larger network should be considered in developing the initial procurement strategy.

Promoters will need to assess whether the proposed contractual structure can provide a value for money route to deliver potentially uncertain future requirements while also complying with relevant procurement regulations. The cost of early termination of contractual arrangements to allow for network expansion should be assessed.

The capability of the technical design of the proposed scheme including rolling stock should also be assessed in the light of future expansion.

Area 6: Systems Integration

Successful light rail schemes require a number of different technical elements to function together effectively, for example, track, rolling stock, power supply, signalling systems, ticketing systems and depot facilities.

Promoters should not underestimate either the risks associated with the integration of these systems or the risk premium which may be associated with requiring any contractor or concessionaire to be responsible for them. Given that efficient integration is a necessary pre-requisite for any system, promoters are encouraged to consider how integration risks can be managed and develop a procurement strategy which allocates these risks and achieves value for money.

Chapter 6 - Financial

6.1 Introduction

This chapter sets out the issues for promoters to consider with regard to funding opportunities for a light rail scheme covering both Government funding and alternative sources. In addition a summary of the range of costs that should be considered by scheme promoters is also provided.

6.2 Government Funding

Government Funding will need to follow the Department's *Guidance to Local Authorities seeking DfT Funding for Local Transport Major Schemes*.

There are three main sources of Government funding - Regional Funding Allocation (RFA), Private Finance Initiative (PFI) funding, or funding from the Transport Innovation Fund (TIF). RFA and TIF funding will be paid as direct grant from DfT. PFI funding will be provided as PFI Credits which support availability payments during the life of the concession.

Government funding will not be available to support operating subsidies and promoters will need to supply the Department with their finance modelling to demonstrate that such subsidies are not being funded by the Government.

6.3 Prudential Borrowing

The Prudential Capital Finance System was introduced when the Local Government Act 2003 came fully into force in April 2004. The Act allows councils to fund local improvements by borrowing money without government consent, provided that they can afford to take on the debt.

6.4 Local Contribution

For light rail schemes Government will expect promoters to find local contribution of at least 25% of scheme costs.

Authorities should seek to minimise the amount of scheme costs that fall to the public sector. They can do this by exploring fully the scope for contributions from potential beneficiaries such

as local developers and transport operators. Such contributions will be treated as local contributions and will count towards a promoter's 25% of the funding requirement.

There are other sources of local contribution. These can include (not exclusive):

- European grants (such as ERDF) if available (see below);
- direct promoters' contributions not refunded by the Department (see 6.4 Preparatory Costs below);
- local business contributions;
- increased local taxation;
- income from demand management schemes such as road charging; and
- sale of land or other assets.

Given the scale of local contribution needed, promoters will need to be clear what the various sources are, and demonstrate confidence that these will be forthcoming.

6.5 Preparatory costs

The Government will pay towards the preparatory costs for all light rail schemes that gain Programme Entry. The Government will pay 50% of the preparatory costs incurred after Programme Entry approval.

The Department will share all costs with promoters on a 50:50 basis up until final business case approval stage.

Those costs paid by the promoter and not being reimbursed by the Department following Programme Entry should be counted towards the local contribution. These costs will include those for all works associated with the promotion and preparation for public inquiries and any necessary land in advance payments.

Costs expended by the promoter during early stage option appraisal and feasibility studies to achieve Programme Entry will not be shared with the Department and will not count towards the local contribution.

6.6 Cost Estimates

Promoters should follow the Department's methodology for preparation of robust cost estimates, including Quantified Risk Assessments, as appropriate for the development stage. It should be noted that the Department's methodology places the responsibility for funding

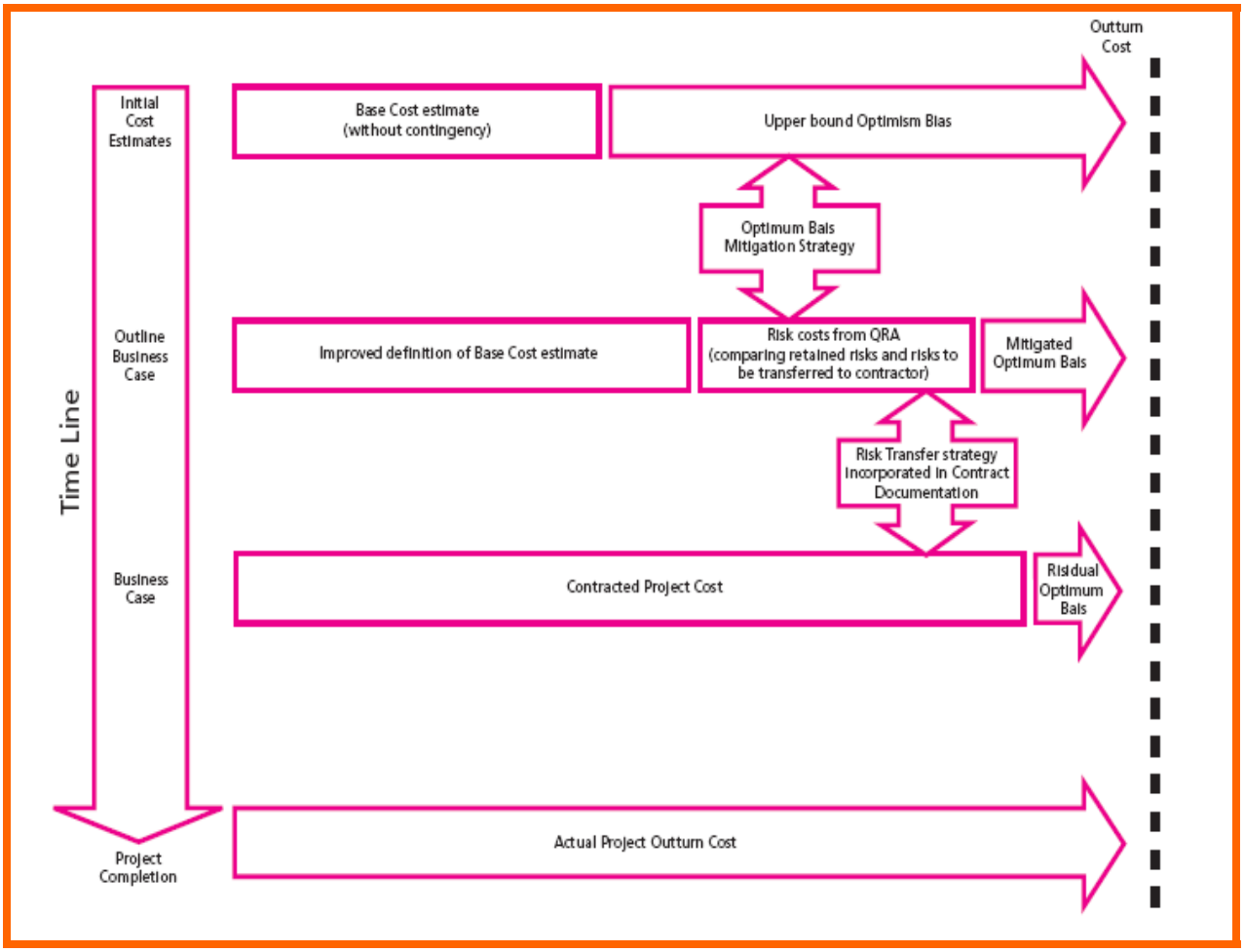
higher than expected risk costs firmly with promoters, and therefore the agreed base estimate will need to be a careful balance of risk and affordability.

6.7 Cost Ranges

Promoters should demonstrate how risks and inflation have been considered, costed and accounted for.

Promoters should consider Optimism Bias in accordance with Treasury's Green Book and Bent Flyvbjerg's ancillary report commissioned by the Department[24]. Promoters should robustly demonstrate how, at what level and why the Optimism Bias percentage increase has been chosen at each stage.

The normal progression of cost estimation, taking into account base cost, risk and Optimism Bias should flow as shown in the following diagram as a scheme progresses through its development stages.



[24] http://www.dft.gov.uk/pgr/regional/ltp/major/coll_proceduresfordealingwithopt/eduresfordealingwithopti3688.pdf

Chapter 7 - Delivery

7.1 Introduction

This chapter sets out the key factors which promoters should consider in order to ensure effective delivery of schemes. This includes the consideration of appropriate project management structures, peer review processes and compliance with wider legislation, including European Union considerations and state aid issues. A summary of key issues connected to the safe and efficient operation of light rail schemes is also provided.

7.2 Project Management

The Government will need to be satisfied that promoters have appropriate project management arrangements and personnel in place to deliver a light rail scheme. This is essential if a scheme comprises a number of separate contracts, eg for: design and build; provision of light rail vehicles; operations; and maintenance. A key risk to the successful delivery of a light rail project will be the large number of complex key interfaces and relationships that will need to be managed simultaneously. The promoter will need to fully demonstrate as part of the Project Management Plan the process for identifying, integrating and managing the complex systems interfaces during the design and delivery process.

Promoters will need to set out their formal project management methodology before Programme Entry is granted and provide information as detailed in Section 4.2 of the DfT Guidance on Major Projects[25] (Guidance to Local Authorities seeking DfT funding for transport Major Schemes). Promoters can make use of the various guidance and information available on project management and procurement referenced in that section.

[25] http://www.dft.gov.uk/consultations/archive/2005/glastms/guidancetolocalauthoritiesse1611

7.3 Gateway reviews

Section 4.3 of the DfT *Guidance on Major Projects* sets out the requirements for Gateway reviews. A Gateway review is an assessment of a project or programme carried out at crucial junctions in its development, in order to provide assurances that it can progress successfully to the next step. The Gateway process is owned and administered by the Office of Government Commerce (OGC) and is explained in detail on their website[26]. Gateway reviews are to be carried out by competent and experienced organisations (such as 4ps) that have a demonstrable track record in management and delivery of major public private partnership infrastructure projects. The Gateway Reviews will be programmed and initiated by promoters.

Gateway Reviews will be mandatory for all proposals for new light rail systems and extensions to existing systems. Promoters should therefore include Gateway Reviews in their project plans.

7.4 European Union Issues

The current Community rules governing the award of public service contracts are set out in Regulation (EEC) No 1191/69[27] as amended by Regulation (EEC) No 1893/91[28].

In July 2005, the European Commission published a proposal for a new Regulation on public passenger transport services by rail and road[29] which would replace the current Community rules. The Council reached a political agreement on this in June 2006. Among other things, that agreement would affect light rail schemes in the following ways:

- Length of concession is limited to 15 years, or 22½ years if the public service operator provides significant assets which are linked to the passenger transport service;
- However, If justified by the amortisation of capital in relation to exceptional infrastructure, rolling stock or vehicular investment and provided the contract was competitively tendered, a concession may have a longer (unspecified) duration. In such a case, the Government would need to justify its longer duration to the Commission within 1 year after the conclusion of the contract;
- Most light rail concessions are currently competitively tendered. However, local authorities have the ability to let some concessions without competition. The Regulation would set limits on work outside the authority area on any body involved in a concession which was not competitively tendered; and

[26] Available at www.4ps.gov.uk/PageContent.aspx?id=40&tp=Y
[27] Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31969R1191:EN:HTML
[28] Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31991R1893:EN:HTML
[29] Available at www.ec.europa.eu/transport/rail/passenger/doc/com_2005_0319_en.pdf

- Promoters will need to publish details of concessions they intend to let at least year in advance of doing so.

Promoters should be aware that the agreement reached by the Council has been approved by the European Parliament and will be in force from December 2009.

7.5 State Aid

Promoters will also need to consider carefully whether their proposals raise any state aid issues.

In the award of any public sector contract care needs to be taken either that the award does not constitute "state aid" (as determined under Community law) or has been specifically authorised by the Commission. Recent judgments of the European Court, notably the Altmark judgment[30], have clarified the application of the state aid rules to the transport sector.

The basic principle is that member States should not confer special favours on particular private companies in a way that could distort competition and trade between member States (including "over-compensation" by paying them more than a reasonable market price for a particular service). In principle, the award of a contract following open competitive tender, so that the successful bidder receives no more than a fair market price for the service provided, would not normally constitute unlawful state aid. A contractual arrangement which "overcompensates" a private company (pays the company substantially more than the market rate) could however amount to unlawful state aid - this is unlikely to occur where there has been a fair competitive process for the award of the contract. The ramifications of this principle can, nevertheless, become highly complicated.

Even where no contractual arrangement exists, public expenditure could constitute a state aid if it confers a special benefit on a particular operator (or class of operator).

In considering whether competition may be distorted as a result of public expenditure, the effect on transport operators other than light rail (if there are any providing similar services) also needs to be taken into account. This principle also means that there could be state aid issues if the provision of a light rail system resulted in a benefit to the light rail operator as opposed to the local bus operators and prejudiced the competitive interests of bus operators.

7.6 Physical Accessibility

The proposed design of new light rail vehicles will need to comply fully with the Rail Vehicle Accessibility Regulations 1998 (as amended), whilst the infrastructure elements would be expected to follow the principles laid down in the Department's publication, "Inclusive

[30] Case C-280/00 Reference by Germany for a preliminary ruling in the proceedings between Altmark Trans GmbH, Regierungspräsidium Magdeburg v Nahverkehrsgesellschaft Altmark GmbH".

Mobility", as far as reasonably practicable. In addition, under the Disability Discrimination Act (DDA) 2005, suppliers of transport services have a duty, as far as reasonably practicable, not to discriminate against disabled people and must design their policies and procedures to comply with this requirement.

Early contact with the Department's Accessibility and Equalities Unit is advisable. Their early input can help to ensure that all accessibility issues are addressed for the whole scheme. Whilst the above Acts and Regulations set the minimum framework standards for access to public transport, the promoter will need to pay careful consideration to determine the full extent of the DDA provision for each scheme.

7.7 Safety Regulation

As noted earlier in the document Her Majesty's Railway Inspectorate (HMRI), a part of the Office of Rail Regulation, is responsible for the regulation of safety on railways, tramways and certain other modes of guided transport in the United Kingdom.

The scope of HMRI's enforcement is set out in The Health and Safety (Enforcing Authority for Railways and Other Guided Transport Systems) Regulations 2006, (statutory instrument 2006 No. 557).

In normal circumstances the Inspectorate is the enforcing body on light rail systems for all aspects of the Health and Safety at Work etc Act and its subsidiary legislation. The scope of the Enforcing Authority Regulations is complex however and the inspectorate must be consulted if there is ambiguity on whether they, the Health and Safety Executive or the local authority has jurisdiction in particular circumstances.

At present the regulatory system for new and modified works is in transition from the Railways and Other Guided Transport Systems (Approval of Works, Plant and Equipment) Regulations 1997, (ROTS), which requires HMRI to approve light rail works before they are brought into service, to a new system under the Railways and Other Guided Transport Systems (Safety) Regulations 2006, (ROGS), in which HMRI takes a less detailed regulatory role. The transition period for tramways allows new applications under ROTS up until the end of September 2008, and all works under those Regulations must be approved by the end of September 2010; if those dates cannot be achieved then schemes must progress under the ROGS system.

Under either system the Inspectorate expects that risks are reduced to as low as is reasonably practicable and will look for this whether they are assessing schemes for approval under ROTS or carrying out checks on the application of a safety management system under ROGS.

Under the new ROGS system it is the responsibility of the promoters of new schemes to decide whether their scheme represents one with 'significant risk' as defined in the Regulations and if so to develop and apply the relevant system for safety verification including the appointment of a competent person (or persons) for that process. The ROGS system requires no submissions to be made to HMRI for the granting of consents and or approvals to the proposed system safety verification process including the granting of approvals for trials, testing or bringing into operation of any works.

Guidance on ORR and HMRI policy and procedures can be found on their website www.rail-reg.gov.uk and HMRI encourages current dutyholders and the promoters of new systems to contact them as early as possible in the development process and then maintain regular dialogue throughout this process so that they can discuss relevant safety issues before designs become fixed. HMRI's guidance note on Tramways can also be downloaded from their website.

7.8 Passenger and Staff Security

In developing a scheme, promoters will need to consider ways to reduce crime and the fear of crime for both passengers and staff. Local police Architectural Liaison Officers will be able to advise on 'Secured By Design' standards[31].

The Secure Stations Scheme[32] covers all rail and underground networks which are policed by the British Transport Police (BTP). It establishes standards of good practice to improve security and provide reassurance to passengers and staff. It accredits individual stations which have worked with the BTP and other local partners to implement security measures. Light rail stops and stations not policed by the BTP may participate in the Scheme if suitable arrangements can be made in liaison with the BTP and the local police force.

Promoters and operators will need to consider

[31] Available at www.securedbydesign.com/
[32] Available at www.dft.gov.uk/stellent/groups/dft_mobility/documents/page/dft_mobility_036931.hcsp

the arrangements for policing a light rail system. The choice will normally be between BTP and the local Home Office police force. Ultimately this will be a commercial decision based on the services provided against the costs involved, local circumstances and advice from the police.

Factors to be considered will include:

- whether there is significant interaction with the national rail network (favouring BTP);
- whether there is significant on-street operation (favouring the local force);
- the number of officers required;
- whether to provide a dedicated team of officers stationed on operators' premises or to provide policing from the local force's general resources;
- the ability to call on additional back-up when required and the response times involved;
- levels of anti-social behaviour and vandalism; and
- catering for sports/social events.

It should also be noted that, irrespective of which police force is chosen to provide policing services, in the event of an incident such as a road traffic accident it will often be the local police who are first on the scene.

Arrangements will also need to be made with local fire and rescue and ambulance services to provide cover in the event of an incident. The fire and rescue services, in particular, may be unfamiliar with light rail vehicles and infrastructure, and will need training in dealing with incidents, including isolating the power supplies and lifting a vehicle to release a casualty. It would be very prudent to liaise with the local emergency services early in the design development process to cater for any special measures/requirements that may be identified to improve passenger, public and operational safety.

7.9 System Security

Promoters are encouraged to talk to system security specialists like the Department's Transport Security and Contingencies Directorate, TRANSEC, about security arrangements in respect of light rail systems. TRANSEC's role in respect of light rail systems is currently advisory. However, they can give advice at an early stage which could save costly changes at a later stage. At the time of issue TRANSEC is in the process of finalising guidance on security issues for light rail operators and promoters.

7.10 Evaluation and Information Sharing

Promoters will be required to carry out an evaluation of the success of their scheme and to make the results of this evaluation available to the Department. It is likely that the evaluation will be published. It will be the promoters' responsibility to collect the necessary pre and post implementation information to carry out a robust evaluation.

Promoters should consider how they intend to evaluate the success of a scheme at the earliest possible stage. The scope of the evaluation will be subject to the Department's agreement prior to scheme approval.

The *Guidance to local authorities seeking DfT funding for Local Transport Major Schemes* includes a section on evaluation which promoters should consider as part of their evaluation proposals. The Department has recently published new guidance on the evaluation of major schemes[33].

New promoters may have no direct experience of developing a light rail scheme. They can buy in expertise, but it is likely that they will need to address the same issues that other promoters have already addressed. There is therefore a need for experience and expertise to be captured and made available for all future scheme promoters. The Government will make it a condition of approval that promoters share their knowledge and experience with other potential promoters, so far as lawful, in response to reasonable requests. Other organisations such as UK Tram, Confederation of Passenger Transport (CPT) and Light Rapid Transit Forum may also be able to provide expertise and advice to new promoters.

[33] Available at www.dft.gov.uk/pgr/evaluation/evaluationguidance/

Chapter 8 - Approval Processes

8.1 Introduction

This chapter provides an overview of the various stages in the scheme approval process which promoters of major rapid transit schemes will be required to follow. Issues such as liaison with the DfT and obtaining powers under the Transport and Works Act are also covered.

8.2 Approval Stages

The *Guidance to local authorities seeking DfT funding for Local Transport Major Schemes* sets out a new approvals process containing three formal approval stages, as summarised below:

Programme Entry

Before Programme Entry is granted promoters will need to submit a Major Scheme Business Case containing all the information set out in the Department's *Major Schemes* guidance. All light rail schemes are likely to require the approval of the Treasury as well as the Department before Programme Entry is granted. Treasury approval would be sought by the Department once the Department had concluded that it was minded to support a scheme.

Conditional Approval

An application for Conditional Approval would normally be made following the granting of statutory powers, but before procurement has commenced. For PFI schemes, the proposed procurement route will need to be approved by the Treasury's Project Review Group (PRG) before Conditional Approval is granted.

Full Approval

Full Approval will be given only once firm prices are available, normally when procurement has been completed. Full Approval is the Government's confirmation that funds are available and that work can commence.

Before Full Approval is granted for a light rail scheme, the Department will require letters from the Section 151 Officers of each of the local authorities promoting a light rail scheme (or, in the case of a metropolitan area, from each district that is part of the PTE area which is promoting the scheme, as well as from the PTE and the PTA themselves), confirming that they: understand that central Government funding is capped; undertake not to come back to the Government for additional funding; and accept that the PTE, PTA and districts (for metropolitan areas) or the local authority promoters are together responsible for addressing any cost increases.

If RFA funding is being sought, the scheme will also need to have been prioritised by the region. If a light rail scheme forms part of a TIF package, approval for the light rail scheme will be considered in the context of the wider TIF bid.

8.3 How DfT will work with promoters

The section above sets out the formal process for approval of a scheme. However, the Government would not expect authorities to submit a fully worked up major scheme business case for any rapid transit based project without having first had preliminary discussion with the Department and Government Office on the feasibility of the proposal, which may include the submission of draft business cases for discussion prior to formal submission.

The Department is keen to work with scheme promoters as early as possible in the development process and would, therefore, advise promoters to make contact with the Department at the outset of the project development to discuss the development of the project as a whole and identify all of the significant issues that will need to be addressed in the scheme's development.

Such initial discussions will help to identify and address potential areas of difficulty before proposals are submitted. They will also help the Department to process applications more speedily once received. Pre-application discussions will be on the understanding that these discussions would be on a "without prejudice" basis. Whilst such discussions should help to smooth the process, they cannot in any way be binding on either party.

Once an application for **Programme Entry** has been received, the Department will continue to work closely with promoters to resolve any outstanding issues. Chapter 4 explains how the Department will carry out its appraisal of the scheme. Throughout this stage, it is likely that the Department will need to discuss many issues with the promoter.

If Programme Entry is granted, the Department will expect to have regular discussions with the promoter concerning the next steps they are taking. The Department and promoters will agree the nature of such discussions when Programme Entry is agreed and liaison arrangements will be included within the Programme Entry letter.

Once **Conditional Approval** has been granted, the Department will again expect to have regular updates from promoters as they finalise their contractual aspects. Liaison arrangements will be set out in the Conditional Approval letter.

Once **Full Approval** has been granted, the Department will expect to be informed if anything impacts on the agreed delivery programme. In particular, if anything occurs that could affect the proposed funding schedule, the promoter must let the Department know immediately.

8.4 Applying for powers under the Transport and Works Act (TWA)

For any new light rail project, promoters are likely to require a wide range of statutory powers – e.g. to construct, maintain and operate the system, to acquire land compulsorily, to stop up streets etc. These can be obtained by applying to the Secretary of State (via the Department's TWA Orders Unit) for an Order under Part I of the Transport and Works Act 1992. An applicant can, when applying for a TWA Order, also ask the Secretary of State to direct that planning permission be deemed to be granted for any development provided for in the Order.

TWA Orders are usually long and complex documents which, if approved, are made by way of a Statutory Instrument. Draft Orders are scrutinised by the Department with a view to ensuring that the powers sought are necessary, appropriately drafted and justified in the public interest. But the onus is on promoters and their legal advisers in the first place to ensure that they are seeking all the powers they need to implement their scheme properly.

Any prospective applicant for a TWA Order should obtain a copy of the Department's *Guide to TWA Procedures*[34], as this gives comprehensive guidance on the whole process, including work that should be undertaken before an application is submitted. The Department's web site also gives good practice tips for TWA applicants[35]. Furthermore, there are model clauses for TWA Orders relating to railways and tramways, which cover the provisions which are typically required for such Orders. These are set out in a Statutory Instrument (SI 2006 No. 1954) made by the Secretary of State, and should be incorporated into a draft Order wherever possible.

Promoters who are new to the TWA process may also wish to talk to other promoters who have experience of it and, if necessary, to seek guidance from the TWA Orders Unit. The Unit will not be able to discuss the merits of a proposed application, or to receive any presentation about it, in order not to compromise its impartial role in the quasi-judicial TWA process. But it would be able to give guidance, if required, on procedural and timing matters. The Unit would, in any event, welcome early forewarning of a proposed application to assist in forward planning.

[34] Available at www.dft.gov.uk/strategy/twa
[35] Available at www.dft.gov.uk/pgr/twa/guidance/twagoodpracticetipsforapplicants

The process for considering TWA Order applications is entirely separate from the Department's assessment of requests for funding. Any decision to give a project Programme Entry status will therefore be without prejudice to consideration of any TWA Order application which may be made. Similarly, any decision to make a TWA Order will be without prejudice to subsequent decisions on whether to give Conditional and Full Approval for funding.

8.5 Standard conditions which the Government will attach to approval letters

The Government will apply conditions to all approval letters at Programme Entry, Conditional Approval and Full Approval stages. Whilst these may include specific conditions of relevance only to the particular scheme, they will also include some general conditions. The *Guidance to local authorities seeking DfT funding for Local Transport Major Schemes* will set out some standard conditions. In addition, for light rail schemes, the standard conditions are likely to include (though not necessarily be limited to):

- A requirement for the promoter to keep the Department informed of the development of the project. The approval letter will set out requirement for this, which might include monthly project meetings. Promoters will be responsible for providing a project report, in a format agreed by the Department in advance of each meeting.

- A requirement, so far as lawful, for promoters to share their knowledge and experience with other potential promoters in response to reasonable requests.

- In the case of Full Approval, a requirement for the S151 Officers of all relevant local authorities, as well as the PTE and the PTA if appropriate, to provide letters to the Department, confirming that they: will provide any proposed local contribution from their authority; understand that central Government funding is capped; undertake not to come back to the Government for additional funding; and accept that the PTE, PTA and districts (for metropolitan areas) or the local authority promoters are together responsible for addressing any cost increases.

Wider light rail interests Annex A

National Audit Office/Public Accounts Committee/Transport Select Committee

The National Audit Office (NAO), the Public Accounts Committee (PAC) and the Transport Select Committee (TSC) have all taken an interest in light rail in recent years.

The NAO report *Improving public transport in England through light rail*[36], noted that, whilst there has been significant patronage growth, patronage has fallen short of expectations in some cases and potential benefits have not been fully exploited. It further noted that the forecast costs of schemes under development have risen in recent years.

The findings of the NAO were backed up by the Public Accounts Committee (PAC) in its report *Improving public transport in England through light rail* [37] and the Transport Select Committee in its report on the *Future of Light Rail and Modern Trams in the United Kingdom*[38].

Her Majesty's Railway Inspectorate (HMRI)

Her Majesty's Railway Inspectorate (HMRI), a part of the Office of Rail Regulation (ORR), is the body that enforces health and safety and associated legislation on railways, tramways and other modes of guided transport excluding guided bus systems.

The role of HMRI is to secure the proper control by dutyholders[39] of risks to the health and safety of employees, passengers and others who might be affected by the operation of Britain's railways and related modes of transport. They do this within an overall strategy set by ORR. They have inspectors and policy advisors who work together to develop and deliver this strategy.

HMRI also enforces the Level Crossings Act and Regulations, though proposals for 'crossings' on tramways should always be discussed in detail with the inspectorate to determine how legislation might apply in each particular case.

In addition to its role in relation to new works HMRI has ongoing responsibility for the enforcement of the Health and Safety at Work etc Act and subsidiary legislation in all respects

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[36] Available at http://www.nao.org.uk/publications/0304/improving_public_transport.aspx or in hard copy (ISBN 0-10-292787-1) from The Stationary Office at http://www.tsoshop.co.uk/

[37] Available at www.publications.parliament.uk/pa/cm200405/cmselect/cmpubacc/440/440.pdf or in hard copy (ISBN 0-10-166092-8) from The Stationary Office at http://www.tsoshop.co.uk/

[38] Available at www.publications.parliament.uk/pa/cm200405/cmselect/cmtran/378/378i.pdf or in hard copy (ISBN 0-215-02377-3) from The Stationary Office at http://www.tsoshop.co.uk/

[39] The dutyholder can be a promoter or, once a contract has been let, the operator and/or infrastructure provider etc. If in doubt, HMRI can provide advice.

where they are related to the operation of light rail systems, this includes matters of occupational health and workshop safety for example.

HMRI always encourages early contact from promoters of schemes and an open discussion of the safety matters surrounding design and operational proposals. The Inspectorate generally works through a series of regional teams, but in the first instance contact should be through their head office and their National Expertise Team for tramways, metros and heritage railways.

Transport for London

Transport for London (TfL) is responsible for the development and funding of new tram and light rail schemes in Greater London. TfL is a functional body of the Greater London Authority. It is responsible for implementing the Mayor of London's Transport Strategy and managing transport services across the Capital. TfL is responsible for London's buses, the Underground, the Docklands Light Railway (DLR) and the management of Croydon Tramlink and London River Services.

Devolved Administrations

Responsibility for transport in the UK outside England has been transferred to the Devolved Administrations. As such the Department does not have any direct dealings with light rail schemes outside England. The Devolved Administrations will have their own procedures, which may differ in detail but are likely to follow the same general principles for assessing value for money. Annex B gives contact points in Scotland, Wales and Northern Ireland.

European Union interests

Whilst the Department sets the policy for light rail in England outside London, it does so within the context of European Community legislation. For example, when considering how to procure and operate a light rail scheme, promoters must follow community rules on procurement and the award of public service contracts. The Department liaises with the European Commission and other member states on the introduction of all new Regulations and Directives which might have an impact on the light rail sector.

UKTram

UKTram Limited was formed in 2004 to represent designers, operators, promoters and suppliers of tramway systems in the UK. It brings together representatives from: Confederation of Passenger Transport UK, Transport for London, ***pteg*** light rail group and the Light Rapid Transport Forum (private sector industry body including contractors, suppliers and advisers).

UKTram seeks to promote efficiencies in the design, specification, procurement and operation of tramways aimed at making tram schemes more efficient, affordable and better value for

money. Its purpose is to produce various forms of output of benefit to the United Kingdom's tram industry, promoters and transport users as a whole. UKTram is seeking to find ways of addressing the factors that led to previous costs escalations in tramway/light rail projects, and to disseminate advice to help contain costs in the future. In tackling this key issue, UKTram expects to commission research, publish documentation and to work in other ways to assist all parts of the industry in improving value for money.

The Department will continue to work closely with UKTram as their work programme develops. As mentioned above, the outputs of this work programme will inform future versions of this guidance.

pteg Light Rapid Transit Group

pteg - the Passenger Transport Executive Group - brings together and promotes the interests of the six Passenger Transport Executives (PTEs) in England. Strathclyde Partnership for Transport and Transport for London are associate members.

pteg has two main tasks:

- the exchange of knowledge and good practice within the PTE network, and
- raising awareness nationally about the key transport challenges which face the city regions, and the public transport solutions which PTEs are implementing.

pteg strategy and policy is determined by the Directors General of the six PTEs, who meet at least quarterly. ***pteg*** also runs a number of task groups and committees which bring together professionals from across the PTE network to focus on specific policy areas, and to share expertise and good practice. The ***pteg*** Support Unit, based in Leeds, coordinates ***pteg***'s activities and acts as a central point of contact.

The ***pteg*** Light Rapid Transit Group is a specialist committee within ***pteg*** that considers all matters relating to the planning, design and implementation of Light Rail and other rapid transit systems. The group's membership comes from the six PTEs together with other public bodies with a strong commitment to developing and implementing Light Rapid Transit schemes.

The Department has embarked upon a programme of workshops with ***pteg*** covering subjects including:

- realising the benefits for passengers and improving financial viability of schemes;
- evaluating light rail schemes;
- procurement strategies;
- Transport and Works Act process; and

- safety issues and potential for track-sharing and parallel running with Network Rail.

The output from these workshops has informed this guidance. Further workshops may be held on other relevant issues.

Confederation of Passenger Transport UK

The Confederation of Passenger Transport (CPT) is the UK trade association for the bus, coach and light rail industries. CPT represents the owners and operators of the principal light rail and tramway systems in the UK. Its members include the operators of the Tyne and Wear Metro, Docklands Light Railway and all the modern tramways, as well as the Blackpool tramway and several minor tramways. It also represents the promoters of new lines such as the proposed Edinburgh tramway.

CPT works with the Department, the Office of Rail Regulation, HM Railway Inspectorate, the Rail Accident Investigation Branch and other bodies to ensure effective working of the regulatory regime for light rail, and provides a forum for light rail operators to exchange information on operational and safety matters.

Light Rapid Transport Forum

The Light Rapid Transit Forum (LRTF) represents private sector suppliers to the LRT (including tram) industry in the UK. It is a founder member of UKTram. Membership includes organisations and individuals involved in the design, construction, supply, financing, insurance, technical, legal and economic support for and operation of trams and light rail schemes in the UK and throughout the world. Its objective is to secure wide support from Government and other policy makers towards the development and delivery of more LRT systems in our urban areas.

Commission for Integrated Transport

The Commission for Integrated Transport (CfIT) is an independent body advising the Government on integrated transport policy. CfIT was established in the 1998 Integrated Transport White Paper 'to provide independent advice to Government on the implementation of integrated transport policy, to monitor developments across transport, environment, health and other sectors and to review progress towards meeting our objectives'.

CfIT has produced guidance on affordable mass transit systems[40] which is referred to in Chapter 2 of this guidance.

[40] Available at www.cfit.gov.uk/docs/2005/amt/index.htm

Useful Contacts

Annex B

DfT - general advice on light rail issues Bob Collins Department for Transport Zone 3/18 Great Minster House 76 Marsham Street London, SW1P 4DR Tel: 020 7944 2569 bob.collins@dft.gsi.gov.uk	**DfT advice on economic issues** Mark Ledbury Economics of Regional and Local Transport Division Department for Transport Zone 3/14 Great Minster House 76 Marsham Street London, SW1P 4DR Tel: 020 7944 2286 mark.ledbury@dft.gsi.gov.uk
DfT advice on bus issues Peter Openshaw Buses and Taxis Division Department for Transport Zone 3/11 Great Minster House 76 Marsham Street London, SW1P 4DR Tel: 020 7944 2284 peter.openshaw@dft.gsi.gov.uk	**DfT advice on Mobility issues** John Bengough Department for Transport Zone 4/23 Great Minster House 76 Marsham Street London, SW1P 4DR Tel: 020 7944 5035 john.bengough@dft.gsi.gov.uk
DfT advice on security issues Gill Bramham 5/08, Southside 105 Victoria Street London, SW1E 6DT Tel: 020 7944 6707 gill.bramham@dft.gsi.gov.uk	**DfT advice on TWA procedures** 9/09 Southside, 105 Victoria Street, London, SW1E 6DT, tel 020 7944 4506/3293/2487 transportandworks@dft.gsi.gov.uk
HMRI Light Rail / Metro / Heritage National Expertise Team HM Railway Inspectorate Office of Rail Regulation One Kemble Street London, WC2B 4AN Tel: 020 7282 3937 Permissioning.team@orr.gsi.gov.uk	**CfiT** Peter Hendy 1/F16, Ashdown House, 123 Victoria Street, London SW1E 6DE cfit@dft.gsi.gov.uk
Light Rail in Northern Ireland Mike Thompson	**Light Rail in Scotland** John Ramsay

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Light Rail in Wales Colin Eaketts Transport Planning and Administration Division Department for Enterprise, Innovation and Networks Welsh Assembly Government Cathays Park Cardiff, CF10 3NQ colin.eaketts@wales.gsi.gov.uk	**UKTram and TfL contact point** Phil Hewitt Head of London Trams Transport for London 5th Floor North Wing Parnell House 25 Wilton Road London, SW1V 1LW Tel: 020 7027 9362 LondonTrams@tfl.gov.uk
CPT contact point David Walmsley CPT Fixed Track Executive Drury House 34-43 Russell Street London WC2B 5HA Tel: 020 7240 3131 walmsleyd@cpt-uk.org	***pteg* light rail group contact point** Dave Haskins West Yorkshire PTE (Metro) Wellington House 40-50 Wellington Street Leeds LS1 2DE Tel: 0113 348 1701 Dave.Haskins@wypte.gov.uk
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Picture credits

Annex C

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