



House of Commons  
Transport Committee

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# Integrated Transport: the Future of Light Rail and Modern Trams in the United Kingdom

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## The Transport Committee

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## Summary

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We are in no doubt that light rail has the potential to be an important part of the transport mix, although it will not meet all transport needs. It needs to be part of an integrated transport system, and its development needs to involve not just highway authorities, but local planning authorities, if it is to be fully effective. Promoters bringing forward new schemes should take this into account, and we welcome the Department's view that light rail should be considered as part of an integrated system.

We believe experience demonstrates it is no longer possible to transfer revenue risk to the private sector without increasing costs dramatically, whether or not those risks materialise. The Department's openness to new forms of financing is welcome, but it should be a source of expertise and guidance to promoters, rather than requiring them to present proposals with little or no indication of whether or not they meet the Department's requirements.

Currently, "about the equivalent of 10 full-time posts" in the Department work on what are new and fairly new major projects in the light rail division. If the Department is to support promoters trying to introduce light rail schemes, this may need to be increased, but the key is not the number in post, but the expertise and responsiveness of those concerned.

The Department has failed to give a strategic lead in the development of light rail. We believe the following actions are needed to ensure that the Department can give such a lead.

- The Department must build up its own expertise on light rail, and share that expertise with promoters.
- The Department must engage wholeheartedly with bodies such as UKTram which are trying to drive down costs by increasing standardisation and sharing experience.
- The Department must give clear guidance about the circumstances in which it is prepared to consider light rail schemes. In considering schemes, it should look at the extent to which highway and planning authorities are co-operating effectively, the way in which light rail is integrated with other transport modes, and the extent to which public transport will provide a comprehensive network.
- The Department must accept that the time it takes to consider schemes, and the fact that even once approval in principle is given funding remains uncertain, itself adds considerably to project costs. It must adhere to its new four month limit for considering schemes. It must be stable in its funding decisions, although it would be perfectly reasonable for the Department to refuse to fund increases in costs beyond those initially approved.
- The Department must urgently reconsider the contribution utilities make to the

diversion of their services. Their contribution should be high enough to deter them from demanding unnecessary works. In particular, promoters should not be expected to bear the bulk of the cost of locating infrastructure belonging to utility companies.

- The Department must give local authorities more powers over their bus services. The reduction of the time required before quality bus contracts can be introduced, and the transfer of Bus Service Operators' Grant to local authorities using quality contracts, are welcome signs, but we consider more may be needed.

In the longer term, central Government may wish to consider whether local authorities should have greater powers to raise their own resources to fund local transport infrastructure. We suggest this to any future Transport Committee as a fruitful topic of inquiry.

# 1 Introduction

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1. In May 2000 the Environment, Transport, and the Regional Affairs Committee, on which many of us served, reported on *Light Rapid Transit Systems*.<sup>1</sup> While the report concluded that “The Government should adopt a “horses for courses” approach to ensure that investment is directed to the modes of transport which is best suited to local conditions and passenger flows”,<sup>2</sup> it was also clear that Light Rapid Transit (LRT) was likely to tempt motorists out of their cars. The Committee noted:

If the Government is serious about enabling LRT to play its full role in tackling traffic congestion, it must go beyond statements of support and be prepared to contribute public funds to projects which are unable to cover all of their costs through fare revenues, but which reduce congestion, bring environmental improvements and can stimulate economic development. In that respect its recent announcements about the Sunderland Metro Extension, Manchester Metrolink, Nottingham Express Transit and Docklands Light Railway have been most welcome, and we look forward to similarly positive decisions in future.<sup>3</sup>

2. We identified “Integrated Transport” as a subject for inquiry last summer, but have only been able to turn to it recently. We decided to open this inquiry with an investigation into Light Rail and Modern Trams<sup>4</sup> because it is clear that the optimism of 2000 is no longer appropriate. Funding for the Manchester Metrolink, Leeds Supertram and the South Hampshire Rapid Transit has been withdrawn by the Department for Transport, which appears to have developed a preference for bus over rail-based schemes. A National Audit Office Report on *Improving Public Transport in England through Light Rail* found that light rail had improved the quality and choice of public transport, and departmental expenditure had been kept within budget, but it also considered:

- Passenger numbers, and therefore passenger benefits, had been lower than expected;
- Light rail systems were not fully integrated with other forms of public transport;
- Light rail had had a limited impact on road congestion, pollution and road accidents;
- It was not clear what impact light rail has had on regeneration and social exclusion.<sup>5</sup>

We felt we needed to find out whether the problems were intrinsic to light rail as a mode of transport, or had been caused by past mistakes on the part of government, promoters and operators. Essentially, does light rail have a future in the United Kingdom?

3. Accordingly we called for evidence on the following points:

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1 Eighth Report of Session 1999-2000, HC 153

2 HC (1999-2000) 153, para 56

3 HC (1999-2000) 153, para 57

4 “light rail” covers all light rail systems, including metro like systems with no on street running; trams typically have on street running, although they may use segregated track for part of their route.

5 *Improving Public Transport in England through Light Rail*, Report By The Comptroller And Auditor General, HC 518 Session 2003-2004: 23 April 2004

- The costs and benefits of light rail;
- What light rail systems need to be successful;
- How effectively is light rail used as part of an integrated transport system;
- Barriers to the development of light rail;
- The effect of different financing arrangements (public/private) on the overall cost of light rail systems;
- The practicality of alternatives to light rail, such as increased investment in buses.

Since it was possible that there would be a May election, we gave respondents only four weeks to reply. Even so we received nearly 100 memoranda: light rail is clearly considered important.

4. Many of the memoranda related to personal experience of two schemes: the Manchester Metrolink and the Nottingham Express Transit (NET). We have read these submissions, and have drawn upon them in our report, but to save space and money we have not printed them unless they explicitly addressed the questions in our call for evidence. Some raised particular questions about the proposed route extensions to the NET. We are not qualified to comment on such local matters, but appreciate these insights into the views of those affected. We note that the representations from Nottingham, where the tram system is relatively new, tended to raise concerns about noise, safety and the routes of possible extensions, whereas those from Manchester, where the Metrolink has been open since 1992, were strongly in support of light rail.

5. The limited time available to us meant we had to limit our oral evidence; we heard from the National Audit Office; AEA Technology (Rail), a participant in the Light Rail Thematic Network, Tramtrack Croydon, Transport for London, Nottingham City and County Councils, Mr Tony McNulty MP, the Minister of State at the Department for Transport, Merseytravel, Manchester City Council, the Association of Greater Manchester Authorities and Greater Manchester Passenger Transport Authority and Executive, and JM Parry and Associates and Holdfast Carpet Track. We are grateful to all those who gave evidence, both written and oral.

## 2 Horses for courses?

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6. The 2000 report on *Light Rapid Transit Systems* recognised that light rail or tram systems were not the only options for authorities which wished to invest in speedy, high-quality public transport. It noted that busways, guided light transit and ultra light rail might each have a part to play. Our current inquiry is more strongly focused on light rail and tram systems, but we agree that: “Light Rapid Transit cannot provide an appropriate solution for all urban transport problems”.<sup>6</sup> Even when Light Rapid Transit is appropriate, a full light rail system may not always be the best option: other modes such as guided busways or even ultra light rail may be more suitable in particular cases. But that should not prevent light rail being adopted when it is the most suitable mode for the area concerned.

### The Advantages of Light Rail

7. The NAO was concerned that the light rail schemes it investigated had had limited impacts on congestion, pollution and social exclusion, and that their impact on regeneration and social exclusion was not clear. Nonetheless the evidence we received, and, indeed, much of the NAO report itself, indicates that there is a reasonable body of evidence about the advantages of light rail and modern tram systems in general. Much of this evidence has been gathered together in *What Light Rail Can Do For Cities*, a report commissioned by pteg, the Passenger Transport Executive Group.<sup>7</sup>

### Congestion

8. We agree with the NAO that “light rail cannot by itself reduce congestion significantly over the long term” and that “other complementary measures are needed to discourage car use”.<sup>8</sup> Nonetheless, it is important to remember that a system which reduced congestion in the centre of the city simply by reducing the number of people travelling into that city could do more economic harm than good. The great advantage of light rail is that it can increase the number of people coming into a centre without increasing congestion.

9. Light rail and tram systems typically can carry loads of over 3,000 passengers per hour, in vehicles containing up to 350 people. Not only does this enable many people to be carried quickly, it can minimise disruption to other road users, by limiting the number of vehicles needed. Not only do 10 or 12 trams an hour take less road space than the buses required to carry the same numbers, it is practicable to make them attractive to users by giving them priority over other traffic, while it would not be possible to do the same for thirty double decker buses.<sup>9</sup> Nottingham chose a tram scheme because its constrained city centre meant that it could not get the number of buses it needed into the heart of the city.<sup>10</sup>

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6 HC (1999-2000) 518, para 56

7 *What Light Rail Can Do For Cities: A Review of the Evidence*, prepared for pteg by Steer Davies Gleave, January 2005

8 HC (2003-04) 518, para 2.30

9 See LR 16

10 Q 182

10. It is difficult to be precise about light rail's effect on congestion: traffic flows do not remain stable, and people may make new journeys by car if road space is freed by the introduction of the tram. A light rail scheme may result in more people travelling along a particular corridor, rather than an overall reduction in traffic. Nonetheless, the report for pteg by Steer Davies Gleave provides a startling comparison of traffic flows in Croydon, served by the tram, and in nearby Kingston, which is not. As the table shows, variations in flow around each area in the five years before the Tramlink opened were within 3% of each other, but traffic in Croydon dropped dramatically once the light rail system opened in 2000 while traffic in Kingston grew.

**Table 1: .Changes in average daily flow for Central Croydon and Kingston (1994 –2000) (% change on previous year)**

	1995	1996	1997	1998	1999	2000
<b>Croydon</b>	-1%	-3%	+1%	+2%	-3%	-14%
<b>Kingston</b>	-2%	-1%	-2%	0	-1%	+2%

Source: *What Light Rail Can Do for Cities*

### **Modal Shift**

11. Light rail is relatively quick; it is usually reliable and has a good ride quality. As is well documented, people will leave their cars to take the tram or metro.<sup>11</sup> While bus journeys in England have reduced by 14% since 1982 and, outside London, bus use has tended to fall, light rail journeys have more than tripled.<sup>12</sup> While this is a reflection of the fact that the number of light rail systems has increased, Transport Statistics Great Britain 2004 shows that patronage has risen on the Docklands Light Railway, the Manchester Metrolink, the Sheffield Supertram, and the Croydon Tramlink, even when the systems were not being extended.<sup>13</sup>

12. It is possible to use bus priority measures or bus guideways to encourage modal shift from cars. The Fastway guided bus link between Crawley and Gatwick has reportedly had passenger growth far higher than expectations.<sup>14</sup> New developments, such as the f-t-r, a bus which has been designed to have the tram's advantages of accessibility and capacity and which the manufacturers will only make available to authorities which implement priority measures, may increase that shift.<sup>15</sup> Nonetheless, they are as yet unproven. Currently, only light rail or tram can offer results like those documented in Croydon. Professor Richard Knowles, the leading researcher on the Metrolink Impact Study, told us that "The Metrolink Impact Study research identified a clear, substantial and unforecast modal shift from car to light rail of 2.6 million passengers per year."<sup>16</sup> Manchester Airport Group told us "Metrolink will bring the most significant step change in public transport accessibility to

11 LR 46

12 Transport Trends, 2004 edition, National Statistics, DfT, nd, page 23, see also LR 33

13 Transport Statistics Great Britain, 2004 Edition, Department for Transport, Scottish Executive and Welsh Assembly, October 2004, Tables 6.11, 6.13, 6.15, 6.17

14 Transport Briefing, 28 February 2005

15 LR 66

16 LR 74

Manchester Airport since the opening of the heavy rail link in 1993” and that it would be hard to reduce the number of trips to the airport made by car without it.<sup>17</sup>

13. The pteg report suggested that “in a peak hour, a typical system operating at, say, six [trams per hour] would have resulted in c240 cars per hour removed from the road network” but that “at an overall level of service of, say, 30 [buses per hour] then c40 cars per hour would be removed from the road network.”<sup>18</sup>

## Environment

14. It is generally assumed that light rail is a “green” form of transport, although two witnesses claimed that trams were less fuel efficient than buses.<sup>19</sup> Trams generally run on electricity, and so the greenhouse gases produced will depend on the form of generation used.<sup>20</sup> In principle, it would be possible to power a tram without greenhouse emissions, just as it would be possible to produce hydrogen to power fuel cell vehicles without such emissions. However, as we noted in our inquiry into the Cars of the Future,<sup>21</sup> that may be some way off. The conventional engine is itself a source of CO<sub>2</sub>, and whilst figures vary, estimates made for Greater Manchester Passenger Transport Executive suggest that cars produced 30% more CO<sub>2</sub> per passenger kilometre than trams, while buses produced about 17% more.<sup>22</sup>

15. Unlike cars or buses, electrically powered light rail vehicles will not produce exhaust emissions, and so can be expected to have beneficial effects on urban air pollution.<sup>23</sup> The Greater Manchester Air Quality Strategy notes that Metrolink is expected to produce two thirds less particulates per passenger km than a car.<sup>24</sup> The precise effects will depend both on the cleanliness of the vehicle itself, and on the extent to which it reduces both the volume of other vehicles on the road, and congestion (freely flowing traffic produces lower emissions than stop-start driving), but we can be confident that light rail should improve air quality.

## Safety

16. Light rail is extremely safe. There were three fatal accidents in 2002-03, no major injury accidents and only seven minor injury accidents.<sup>25</sup> It is the mode with the lowest comparative accident rate per billion passenger kilometres travelled.

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17 LR 67

18 *What Light Rail Can Do For Cities: A Review of the Evidence*, para 4.37

19 LR 29, LR 94

20 L 52, LR 54, LR 60

21 Seventeenth Report of Session 2003-04, HC 319-I

22 see also LR 46, LR 92

23 LR 46, LR 68

24 LR 98

25 *What Light Rail Can Do For Cities*, Table 7.2

**Table 2: Comparative Accident rates in UK for different transport modes (per billion pax km travelled, 2001)**

Mode	Killed	Killed and injured
Motorcycle	112	5,549
Cycling	33	4,525
Walking	48	2,335
Private car	3	337
Bus or Coach	0.1	196
Heavy Rail	0.1	13
Light Rail	0.00002	0.00007

Source: *What Light Rail Can do for Cities*, Table 7.3

## Regeneration

17. One of our witnesses spoke lyrically about the allure of “shiny steel rails”<sup>26</sup> in attracting investment to areas served by high quality, permanent local transport. The pteg report from Steer Davies Gleave notes:

There is a lot of literature on the economic impact of tram schemes, although surprisingly little formal and consistent monitoring of the effects of individual schemes.<sup>27</sup>

Similarly, the NAO recommended:

In conjunction with promoters, the Department should commission a comprehensive evaluation of the costs and benefits of every light rail scheme it has funded after it has opened to assess whether the expected number of vehicles and other infrastructure has been put in place, the frequency and speed of services are as expected, and systems are delivering the other expected benefits to passengers *and local communities*. Costs should be reviewed after one year; benefits, including services, and patronage *and economic and social impacts* should be evaluated after three to five years.<sup>28</sup>

We were surprised to learn that there had been no consistent evaluation of the regeneration effects of light rail schemes; we were equally surprised by Mr Rowlands’s suggestion to the Committee on Public Accounts that such an evaluation could cost between £10 and £15 million.<sup>29</sup> Our witnesses from the NAO declined to comment on whether this was reasonable, but conceded that “at first glance £10 million to £15 million

26 LR 49

27 *What Light Rail Can do for Cities: A Review of the Evidence*, para 5.14

28 HC (2003-04) 518, para 17, (emphasis added)

29 PAC: Oral Evidence on Improving Public Transport in England through Light Rail, 10 November 2004, to be published as HC 1258-I, QQ 77-79

seems a great deal of money to evaluate a light rail system".<sup>30</sup> When we took evidence from the Minister, Mr McNulty told us that the Department did intend to commission a comprehensive before and after evaluation of a suitable scheme, such as the Manchester Metrolink extension.<sup>31</sup>

18. Evaluation is difficult given the long times involved, and the many factors involved in such regeneration.<sup>32</sup> Nonetheless, there is already sufficient evidence, both from the United Kingdom and from other countries, to demonstrate that light rail systems have significant regeneration potential, although a long term evaluation can be expected to give a clearer view of when light rail is most effective in securing regeneration, and what can be done to achieve the greatest benefits. We acknowledge that schemes will not all be equally successful in achieving their regeneration objectives. Nevertheless, it is clear that some schemes, such as the Docklands Light Railway or Manchester Metrolink, have had significant regeneration benefits,<sup>33</sup> and that this perceived regeneration effect is the aspect of light rail that is most attractive to promoters, and to local authorities which hope their area will benefit from a light rail scheme.<sup>34</sup>

19. Merseytravel noted that:

The fact that the capital costs are high provides longevity and certainty for both the infrastructure and the service which it will provide. Businesses and communities know that light rail systems, once constructed, will remain in operation over the long-term in order to get a return on the initial capital costs. They will not easily be withdrawn, therefore. This permanence enables other investments to be made along the route of light rail systems, which bring major associated social and regeneration benefits. Light rail is a key driver for economic and social regeneration.<sup>35</sup>

Several witnesses considered that far too little emphasis was placed on regeneration when schemes were evaluated.<sup>36</sup> Councillor Richard Leese, the Deputy Chairman of the Association of Greater Manchester Authorities,<sup>37</sup> drew our attention to a report published by the Office of the Deputy Prime Minister in January 2005 which noted:

The most persistent concern expressed ... is the failure of transport policies to contribute sufficiently to urban renaissance and sustainable communities. The concerns are myriad, ranging from the separation of Transport from Environment, through the unwillingness to recognise the significance of transport to urban economic competitiveness, to the failure of government departments to speak with the same voice, as in the Manchester Metro case. There are concerns that the failure

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30 Qq 33-35

31 Q 267

32 Q 41

33 LR 87

34 See, for example, LR 90, LR 91, LR 98

35 LR 78

36 Q 319, LR 50, LR 56

37 and Leader of Manchester City Council

to invest in and support transport projects significantly restricts urban, regional and hence national economic performance.<sup>38</sup>

20. It is clear that light rail attracts investors. For example Merseytravel told us that Knowsley Metropolitan Borough Council had been able to use the prospect of Merseytram Line 1 to attract retail investment to Kirkby town centre; similarly, the New East Manchester urban development company noted that a new Fujitsu headquarters building had been attracted to their area because of “the fast, efficient and reliable public transport connections which Metrolink offers”.<sup>39</sup> Tameside Metropolitan Borough Council noted that:

Major companies including AMEC, Ask Developments and Watkins Jones have expressly stated that the likelihood of a light rail system being introduced into the area was a strong material factor in influencing their recent decisions to invest in the area. Their proposed investment alone on only three sites will result in over 5,000 new jobs. Confirmation of the light rail system will unlock additional investment.<sup>40</sup>

The Nottingham Express Transit also appears to be attracting investment to the area.<sup>41</sup>

21. The very pattern of settlement in modern London, which has been strongly influenced by the existence of the London Underground, and even driven by it, supports the contention that high quality permanent public transport systems themselves attract investment. We also note the pteg finding that “there is clear empirical evidence of the positive effects that light rail has had on the cities where it has been implemented in the UK.”<sup>42</sup>

22. Regeneration depends on planning and transport authorities working together. As the NAO points out, one reason why the Sheffield Supertram failed to attract the number of passengers originally expected was that much of the high density housing on its route was actually removed between the system being planned and starting operating.<sup>43</sup> The number of submissions from local authorities and other groups in the Greater Manchester Area, and from other areas with light rail schemes, suggests that local authorities are now working together to ensure the transport infrastructure is used effectively.<sup>44</sup>

## Cost

23. For all its advantages, light rail requires expensive infrastructure. The precise costs depend on the nature of the scheme: a light rail system using the tracks of a former heavy

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38 *State of the Cities: A Progress Report to the Delivering Sustainable Communities Summit*, Professor Michael Parkinson, Mary Hutchins, European Institute of Urban Affairs, Liverpool John Moores University; Professor Tony Champion, Professor Mike Coombes, University of Newcastle; Professor Danny Dorling, University of Sheffield; Alison Parks, National Centre for Social Research; Professor James Simmie, Oxford Brookes University; Professor Ivan Turok, University of Glasgow, January 2005, Office of the Deputy Prime Minister: London, see Q346

39 LR 90

40 LR 98

41 LR 27

42 *What Light Rail Can Do for Cities*, para 5.17

43 HC (2003-04) 518, para 2.37

44 See, for example, LR 51, LR 75, LR 86, LR 98

rail route is far cheaper than an on-street scheme. The NAO reported that the cost per kilometre of existing schemes had varied between £5.4m for the Sunderland extension to the Tyne and Wear Metro to £21.2m for Phase 2 of the Manchester Metrolink.<sup>45</sup>

24. In contrast, bus services are cheaper to improve, although their cost advantages can be exaggerated. We also note that there are very few examples of high-quality guided bus schemes in operation. Some of us were able to visit the Adelaide guided bus with the previous Committee. But there are few other examples. Mr Ambrose of AEA Technology (Rail) told us that there “have been a number of guided bus experiments, most of which are dropping by the wayside at the moment, some through unreliability and some really because they had been found to be unsuitable”.<sup>46</sup>

25. We are disappointed that so little appears to have been done to ensure that real comparisons can be made between bus and tram. In 2000 our precursors recommended Government assist in the development of extensive guided bus networks to allow the viability of the guided bus to be properly assessed.<sup>47</sup> Yet in March 2005, the Minister told us that the Department had not made any direct comparison of the success of guided buses compared with light rail “because there is not a lot, yet, of guided buses in place and working in any substantive fashion.”<sup>48</sup> This is not for lack of opportunity: Greater Manchester has had proposals for a guided bus way which have been in existence for some 6 years without departmental approval.<sup>49</sup>

26. Most of our evidence was clear that although bus based systems cost less, the potential benefits were lower.<sup>50</sup> The cost of bus improvements varies widely; the “more tram-like the bus system, the more tram-like the costs”.<sup>51</sup> As the Institution of Highways and Transportation noted, “The only effective alternative to light rail to obtain consistency of regularity and reliability would be some form of fixed track bus rapid transit.”<sup>52</sup> *What Light Rail Can Do For Cities* reports that “high-end” bus based systems with segregated lines, high-quality stops and electric power through overhead lines can cost 80% of the light rail system. Greater Manchester Passenger Transport Executive (GMPTE) has worked out the comparative costs of bus and light rail on the routes of Phase 3 of the Metrolink. Although bus schemes would cost about 69% of the cost of the tram systems, and carry 74% of their passenger numbers, they would were likely to remove from the network only 36% of the cars that a tram could.<sup>53</sup>

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45 HC (2003-04) 518, Table 3

46 Q 172, see also LR 50, LR 87

47 HC(1999-2000)153, para 60

48 Q 286

49 Q 345

50 LR 25, LR 33, LR 35, LR 36, LR 46, LR 56, LR 79

51 LR 55, see also Qq 175-6

52 LR 50

53 LR 83, see also LR 46

**Table 3: Light Rail and Bus Comparisons, Metrolink Phase 3**

	Metrolink Phase 3	All Bus
Operational Commencement	2009/10	2012/13
Capital Cost	£764m	£527m
Annual Revenues pa	20.0	15.4
Operating Costs pa	17.1	16.1
Passenger Journeys p.a.	18.0m	13.4m
Car Journeys Removed p.a.	5.6m	2m

Source: LR 83

27. In addition, as Mr Christopher Mulligan, the Chief Executive of GMPTE, pointed out, although the capital costs of light rail were higher than bus improvements, light rail was forecast to more than cover its operating cost, while bus services would require continuing subsidy from the local authorities.<sup>54</sup> It should not be forgotten that bus services already receive a subsidy from the Bus Service Operators' Grant – which is estimated at £365 million for this financial year.<sup>55</sup> Transport for London said although operating costs per bus kilometre were lower than the equivalent operating costs for light rail, the costs per passenger could be lower because of the greater capacity of light rail, particularly on heavily congested routes.

**Table 4: Bus and Light Rail: comparative operating costs**

Mode	Operating cost per vehicle km	Operating cost per passenger place km
Bus	£3–£7	3.5p–6.5p
Light Rail (Tramlink)	£5.1	2.4
Light Metro (DLR)	£5.2, £10.3*	2.4
Underground	£24.9 *	2.8p

Source: LR 77 \* cost per train km.

Not only can light rail be cheaper to operate than bus systems; if passenger volumes are high enough, the total costs of a light rail system can be lower than those of an equivalent bus system.<sup>56</sup>

## Conclusion

28. Light rail will not meet every transport need. It is best suited to heavily used urban corridors, where flows are over 2,000 people per hour, or are expected to reach that level in

54 Q 333, see also LR 33

55 Q 301

56 *What Light Rail Can Do For Cities*, Figure 3.1, see also LR51, LR 52, LR 60, LR 91

the near future. If passenger flows justify the expense, we consider that there is ample evidence light rail offers high quality, accessible,<sup>57</sup> urban transport that is comparable in whole system costs to high quality bus systems and is more likely to achieve modal shift from cars, reduce congestion and assist regeneration than any other urban mass transit system currently available.

## 3 What's gone wrong?

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29. As Mr Lingard of the National Audit Office told us, the light rail systems built so far “have realised quite a lot of benefits. They are fast, reliable, frequent, comfortable, and they have attracted people out of their cars. They have delivered lots of good benefits, it is just that their full potential has not been realised and that is where the value for money has been lacking.”<sup>58</sup> What, then, has prevented the full benefits of light rail being realised, and why have costs escalated so much?

### Integration

30. One of the key weaknesses identified by the National Audit Office was that ridership had been lower than forecast. There are many reasons for this optimism bias, but one is the extent which services are integrated with other parts of the public transport system. In principle, light rail can operate as the core of an integrated transport scheme. In practice, this has rarely been achieved.<sup>59</sup> Not only have patronage and revenues suffered as a result, such lack of integration may reduce the ability of light rail systems to persuade people from their cars into public transport. The separation of planning authorities and highways authorities, and the limited power of local authorities outside London to control bus services in their area have both hindered the development of integrated transport systems.

31. The promoters of Nottingham Express Transit, which has been an example of a successfully integrated system, had both planning powers and extensive control over the local bus network. Because the promoters, Nottingham City Council and Nottinghamshire County Council were planning authorities,<sup>60</sup> they were able to ensure that park and ride facilities were provided and vehicular access to the city centre restricted. In contrast, Croydon was unwilling to provide park and ride facilities for the Tramlink, and Transport for London had no powers to force them to do so; similarly, although Mr Hendy of Transport for London, hoped there would be park and ride facilities linked with new tram links or extensions, that depended on the willingness of local authorities to accept them.<sup>61</sup>

32. Nottingham City Council is part owner of the major bus operator in the area<sup>62</sup> and so was also able to ensure that bus systems complemented the tram. Other schemes have not been so successful. The Institution of Civil Engineers claimed “The UK is the only developed country in the world where light rail is expected to compete with bus and train services rather than form an essential part of an integrated network.”<sup>63</sup> Certainly, outside London, local authorities have very limited control over the bus network. Councillor Leese told us that:

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58 Q 84

59 LR 50, LR 87

60 Q 196

61 QQ 214-216

62 Q 221

63 LR 91

Some of the things you need to do, like integrated ticketing, integrated timetabling and a measure of price stability in terms of fares, can only be done if you have a fully regulated system.<sup>64</sup>

Councillor Roger Jones, Chairman of the Greater Manchester Passenger Transport Authority, emphasised that:

all the major cities outside London are at a massive disadvantage when it comes to the way buses operate. In Greater Manchester, at the last count I had there were 44 bus operators operating within the county. You have got two that dominate the market which never compete against one another and we have no regulatory powers whatsoever, as you know, to sort out the frequencies of the buses, the fares, the timetables and so on, so we are really in a mess when it comes to trying to make some sense of the bus.<sup>65</sup>

33. This lack of control means that buses can be run in competition with the light rail system.<sup>66</sup> It is notable that the Tyne and Wear Metro suffered a dramatic decrease in passengers after bus deregulation in 1985, and deregulation also badly affected the Sheffield Supertram.<sup>67</sup> Even in London, Tramtrack Croydon complained that Transport for London was now running more bus miles in the tram track area than when the contract was let.<sup>68</sup> Not only does bus competition reduce light rail patronage, uncertainty about the level of bus competition can lead to contractors pricing in more risk, driving costs higher.<sup>69</sup> Pteg considered that changes to the bus “quality contract” scheme might help but that although the Railways Bill would make it easier for PTEs to introduce such quality contracts to replace rail services, it would not “reduce any of the obstacles which stand in the way of quality contract proposals which are designed to complement a light rail scheme.”<sup>70</sup>

34. It was notable that we received several submissions from Nottingham complaining that direct bus services had been replaced by feeder services to the tram. Hyson Green Traders’ Association felt their area had not only lost custom during construction, but was no longer as well served as before.<sup>71</sup> We are not in a position to establish whether services have significantly deteriorated in any particular area, nor do we believe that this is an appropriate task for a select committee. However, it does raise a general point: although we consider bus services should be regulated so that they not compete directly with publicly funded light rail systems, we do not believe that the introduction of a tram system should mean that direct bus services are replaced by feeder services to light rail systems unless this results in overall benefits to the passenger.

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64 Q 315

65 Q 313, see also Q221

66 LR 26, LR 30, LR 35

67 LR 46, LR 57

68 Q 200

69 LR 25, LR 55, LR 56

70 LR 55

71 LR 93

## Standardisation

35. The NAO recommendation that “The Department should seek efficiency savings by requiring promoters, as a condition of its grants, to demonstrate greater standardisation in the design of systems, vehicles and methods of construction”<sup>72</sup> echoes the recommendation made by our precursors in 2000 that the “Government bring together local authorities and other promoters of LRT projects to ensure that where possible vehicles and other equipment are standardised in order to realise economies of scale.”<sup>73</sup> Clearly, little or no progress has been made. Lack of standardisation increases costs. Mr Ambrose of AEA Technology told us that there were economies of scale in buying large numbers of vehicles, and that continental systems which might order 100 vehicles at a time were at an advantage compared to the far smaller British systems.<sup>74</sup> There are some examples of unexpected co-operation: when we took evidence Mr Scales of Merseytravel told us: “we have actually agreed whilst sitting down here that when I order my 21 trams for Line 1 I will make 22 and we will do one for Croydon as well”,<sup>75</sup> but little has been done to date.

36. Transport for London told us that a new body, UKTram, had been set up:

to allow the tramway industry to develop a coordinated and unified front in dealing with government and statutory bodies. It seeks to develop national standards, reflecting an earlier recommendation made by the Committee, and best practice guidelines for the design, construction and operation of tramways and to provide a pool of technical and operational expertise that can be drawn upon at local, national or international government level. TfL (London Trams) is a founder member and administrator of UKTram. It is hoped that it will help to ease or remove some of the barriers that currently exist in developing light rail and tramway schemes, particularly those identified in the NAO report. DfT is supporting the work of UK Tram, and is a board observer.<sup>76</sup>

It was clear from the evidence we took from the Department that although the DfT might support UKTram it had not taken the initiative to set it up.<sup>77</sup> The Minister was lukewarm about standardisation:

As far as you can standardise, in terms of best practice and all the other elements that UKTram may well give to promoters, that is perfectly fine; standardisation is not a magic bullet or panacea to try and solve many of the problems that have come up in the past for some of these projects.<sup>78</sup>

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72 HC (2003-04) 518, para 17

73 HC (1999-2000) 153, para 64

74 Q 158, see also LR 87

75 Q 158

76 LR 77

77 Q 265

78 Q 275

## Cost escalation

37. Although central Government contributions to light rail schemes have ranged from 11% to 96% of the construction costs, the Department expects to pay not much more than around 75 percent.<sup>79</sup> While earlier light rail systems in the United Kingdom were generally built without requiring a higher contribution from government than planned, more recent schemes have significantly increased in cost during their planning period. The DfT told us public-sector contributions for Manchester Metrolink Phase 3, Leeds Supertram and South Hampshire Rapid Transit had all increased dramatically between their first approval and the point at which the Department revoked that approval in July 2004.

**Table 5: Cost escalation in schemes given DfT approval 2000–2004**

	July 2000	March 2001	December 2002	2004
Manchester Metrolink Phase 3	£282m	-	£520m	£900m
Leeds Supertram	-	£355m		£500m
South Hampshire Rapid Transit		£170m		£270m

Source: LR 72

These are significant increases, and the Department is rightly concerned. The reasons for this cost escalation are complex and interdependent; we look at the Department’s role in the approval processes in the next chapter; here we examine other factors involved in the increase.

## Allocation of risk

38. While a variety of contract structures have been used to secure funding for light rail, past schemes have been procured in ways which attempted to transfer risk to the private sector. Until recently, the most favoured contract form was Design, Build, Operate and Maintain (DBOM), in which the private sector took over both the risk that construction would be delayed or over budget, and the risks that patronage, and accordingly revenues, would be lower than forecast. Initially at least, risks were successfully passed to the private sector. Although some schemes have operated at a profit, as the NAO report notes, “the Midland Metro, Manchester Metrolink and the Croydon Tramlink, all operated by private sector companies, made financial losses over the period 2000-2003”<sup>80</sup> and the private sector’s “losses ranged from £200,000 on the Sheffield Supertram to £11.4 million on the Midland Metro.”<sup>81</sup> In addition, the private sector bore cost overruns on the construction of some schemes, although in some cases these were borne by the builder of the system rather than the consortium with overall responsibility.<sup>82</sup>

79 HC (2003-04) 518, para 1.9 and Table 2

80 HC (2003-04) 518, para 2.35

81 HC (2003-04) 518, para 2.35

82 Q 200

39. We were told that at least 50% of the increase in costs had stemmed from the fact that the private sector had learned from these examples, and was now pricing in the risk.<sup>83</sup> even though at least two of the schemes mentioned in paragraph 39 are now making an operating profit. Mr Mulligan told us that it was not that the capital cost of light rail had trebled, but that the perception of risk had collapsed.<sup>84</sup> The equity the private sector was prepared to put into the Metrolink extension had shrunk from £252m to £60m.<sup>85</sup> Mr Ambrose told us that major vehicle manufacturers estimated that light rail cost 60 per cent more to procure in the United Kingdom than in other European countries, because “at the moment the winning consortium is expected to take all the risk, including things over which it has absolutely no control.”<sup>86</sup> Revenue risk, in particular, is impossible for the private sector to control, both since the transport market is so little regulated, and since local authority planning decisions can have profound effects on patronage. Lenders are likely to require discounts of 30-40 per cent to be applied to such revenues.<sup>87</sup>

40. The Department’s own appraisal criteria now cost in this risk. TfL told us:

Serious concerns over escalating cost estimates for some light rail projects have resulted in the DfT requiring an ‘optimism bias’ loading of up to 57% on capital costs. This has for example resulted in the estimated cost for West London Tram increasing from £463m to £648m.<sup>88</sup>

### *Contract forms*

41. Manchester was entirely clear that it had used DBOM because when Metrolink was first procured, it was a choice between that and the PFI favoured by the Treasury. Although a public-sector procurement might have been the most effective way of financing the Metrolink, it would not have been acceptable to central government.<sup>89</sup> Some witnesses considered that there were severe problems with the Design, Build, Operate and Maintain approach. AEA Technology (Rail) contended that a procurement process which relied on finding a single operator for the entire system limited the number of companies able to bid:

Consortia will generally include a vehicle supplier and an operator. Following recent mergers there are only three major and about three smaller light rail vehicle suppliers in Europe, and a similar number of transport operating groups with light rail experience interested in bidding for UK work. There is a wider choice of civil construction firms, but few of these have experience of building light rail infrastructure. Since it is very difficult for a single bidder to participate in more than one consortium, public sector promoters seeking consortia to bid for a light rail

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83 Q 322

84 Q 323

85 Q 323

86 Q143, see also LR 35

87 LR 61

88 LR 77

89 Qq 328–331

scheme may face a limited choice of credible bidders and this lack of competition is likely to increase the price.<sup>90</sup>

D. Scott Hellewell, a transport consultant, considered that DBOM not only meant that expertise remained within the private companies which had been successful in bidding for contracts, but that that expertise became too expensive to use:

Consortia who have subsequently built LRT systems or extensions in the UK have amassed a great deal of hard-won knowledge and experience. This they priced into subsequent LRT schemes for which they bid. However, this usually means that they are under-cut by an inexperienced ‘new boy’. *It is significant that every LRT scheme or extension in Britain has been built by a different contractor.* There are a number of consequences of this: firstly, there is no transfer of experience from one project to another and the same costly mistakes are repeated. Secondly, there is no standardisation or commonality of large or small elements between the schemes. This leads to inflated costs, a perceived unacceptable degree of risk and hence the current situation.<sup>91</sup>

42. Mr Hendy believed that there was “an elegance in having the smallest number of people involved in service delivery” and found it helpful to have a single concessionaire responsible for delivering the service.<sup>92</sup> Nottingham felt that it wished to retain a single contract in which the consortium took the risk of ensuring that the various components of the system worked together.<sup>93</sup> Manchester considered that it was inappropriate to change its procurement approach so far into the process, both because the high risk premia were now a fact of the market, and were unlikely to be avoided by alternative procurement methods, and because:

Fundamentally changing the contractual approach would involve long contract delays. A minimum delay of 24 months would be the outcome, which would cost a minimum increase in costs of £75m given construction industry inflation. This would mean the need for cost efficiencies in excess of 10% to be captured just to stand still – a very high-risk strategy given the dynamics of the market place now and for the foreseeable future.<sup>94</sup>

Nonetheless Manchester now considered that given the assumptions the private sector was now making about risk, and their appetite for that risk, it would be appropriate to review procurement options.<sup>95</sup>

43. Other promoters are already actively exploring new contract methods, which could bring down costs for them.<sup>96</sup> Merseytravel involved the private sector from a very early stage, and invested in ensuring that it could provide the private sector with the most

90 LR 57

91 LR 25, see also LR 50, LR 57, LR 60

92 Q 227

93 Q 226

94 LR 83

95 Qq 324-5

96 LR 69

advanced and accurate information relating to the project to give genuine cost certainty. At a late stage, it rejected the DBOM route, and decided to split up the contract into smaller separate contracts.<sup>97</sup>

44. Mr Hendy told us that one of the aims of UKTram was to “help Government feel more comfortable about the quoted costs and the quoted patronage” by “trying to establish better methods of procurement ... reducing the risk premium particularly for construction and the equipment.”<sup>98</sup> The Minister told us the Department had no preferred form of procurement:

We have said, clearly, to Manchester and others: “come up a procurement scheme that works for you ...”.<sup>99</sup>

He went so far as to suggest that he would look at a public sector scheme “if it worked”, but warned:

In some of the cases where there has been a lot of work done over some of these extant schemes, part of the process has been simply to shift that private risk element to the public sector, and in some cases that may mean, as you work through the figures, no adjustment or increase in the costs in terms of the upfront element for the public sector, but down the line, in some five or ten years’ time, a fairly substantial hit if the risk revenue formulae and speculation does not work. So it is about balance. If shifting all that risk revenue back to the public sector means, in cash terms, upfront and beyond upfront, significant increases in costs, then that is not achieving what we want ...<sup>100</sup>

45. In principle, local authorities might shoulder more of the cost of light rail, but they do not appear willing to use their current powers to raise revenue to do so. Although local authorities have powers to spend money raised from congestion charging or workplace parking levies on public transport, none outside London has so far chosen to introduce such a large scale scheme. It is clear from our evidence and from the NAO report that local authorities in France or Germany have more power to raise funds for local transport systems.<sup>101</sup> Sir Howard Bernstein, the Chief Executive of Manchester City Council, thought that there would be scope for local business taxes to raise funding for light rail schemes, which are clearly supported by business.<sup>102</sup> Dr John Disney similarly suggested that rateable values might be increased along a light rail corridor, since the fixed route was an obvious benefit to the neighbouring property and businesses.<sup>103</sup>

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97 LR 78, LR 78A

98 Q 204

99 Q 251

100 Q 252

101 Q 151

102 Q 352

103 LR 30, see also LR 64, LR 65, LR 68

## Utility diversion

46. Further expense is caused by the cost of diverting utilities when light rail schemes are constructed. Utility diversion is desirable both because work on utilities once a system is built will affect the system severely, and because it is intrinsically undesirable to have loose electric current close to gas or water pipes. The utilities effectively stipulate the level of diversion required, and carry out the work themselves.<sup>104</sup> The NAO said that utility companies might demand diversions which were not technically necessary, and promoters had not been sufficiently robust in questioning whether these diversions were really needed, or who should carry them out.<sup>105</sup> 92½ percent of the cost of the new infrastructure provided when utilities are diverted comes from the light rail scheme. Mr Hendy told us that this provided no incentive for utilities to try and minimise the amount of work necessary and that:

I would be surprised if you could find anybody who has been involved in delivering one of these schemes in the last 25 years who did not find themselves in a position of believing that they paid for a lot of additional utilities work that in normal circumstances would have represented the maintenance and the renewal of utilities...<sup>106</sup>

In addition, a scheme or its promoters may also have to pay heavily simply to establish the precise location of the utility infrastructure.<sup>107</sup>

47. Our precursor committee, which reported before the utilities' share of the cost was reduced to 7½ per cent recommended that it should remain at 18%. Although the recommendation was not accepted at the time, when the Minister appeared before us there were indications that he was prepared to reconsider, although he stopped short of giving an undertaking to bring forward the necessary regulations.<sup>108</sup>

## Innovation

48. The National Audit Office recommended that more should be done to promote innovative light-rail technologies, and to assess whether conversion, track sharing or substitution of heavy rail by light rail would be possible. The Department has already removed the threshold of £5 million below which it would not support innovative schemes,<sup>109</sup> and Mr Hendy told us that the Department was co-operating with industry and promoters in looking at innovative forms of track which would reduce or eliminate the need to divert utilities.<sup>110</sup>

49. We received a certain amount of evidence from individuals or companies proposing new technology. The constraints on our time meant we were not able to consider these as

<sup>104</sup> Qq 30–32

<sup>105</sup> Qq 29–30

<sup>106</sup> Q 233, see also LR 46

<sup>107</sup> LR 51

<sup>108</sup> Qq 288–9

<sup>109</sup> Q 134

<sup>110</sup> Q 233

thoroughly as we would have liked, but it was clear that there was frustration at the UK's lack of support for new technology and the regulatory barriers which hinder its speedy development.<sup>111</sup> We took evidence from JPM Parry & Associates, a company which has been involved in attempts to run a light-rail vehicle on a branch line on Sundays when the line is unused since 2001.<sup>112</sup> Although the vehicle had been passed as safe by the Railway Inspectorate in 2002,<sup>113</sup> after four years the company remained in negotiations to allow it to run its vehicle. We are not in a position to judge whether or not such permission should be granted; but we can say definitively that an answer should have been given years ago. Delays like this are not only frustrating, but they put at risk the commercial partnerships set up to support such innovation.<sup>114</sup> The Department should be prepared to intervene when non-financial barriers to innovation occur.

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111 LR 94

112 LR 80

113 Q 397

114 Q 370

## 4 The role of the Department for Transport

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### Approval process

50. Light-rail systems need two forms of approval. They need to use the Transport and Works Act (TWA) procedures to get the legal powers they require to build their project, but they also need Departmental approval at many stages in the process. The Department needs to decide on any inspector's report from the TWA process, but more importantly it needs to give promoters financial authority to proceed. A significant amount of work can be done both by the promoters and private sector before final permission is given (or withheld). It is important that the decision processes are as smooth and swift as possible. As D. Scott Hellewell notes:

“before the project has started and with no benefit to the travelling public, £17 - 37m has been spent, the majority private sector risk. If the project does not proceed, this money has been wasted. The opportunity cost of this expenditure is significant. The inherent risks are substantial.”<sup>115</sup>

### Transport and Works Act

51. Although the National Audit Office had found delays in the Transport and Works Act processes themselves, which require a public inquiry for contested applications, and in the Department's subsequent consideration of inspectors' reports, it appears that reforms made to the process and increases in the Departmental resources allocated to dealing with it have considerably reduced these delays.<sup>116</sup> The Department has the following limits on making decisions on applications:

- where there has been a public inquiry; six months from receiving the inspector's report;
- where objections are dealt with in writing: four months;
- where there are no objections, three months.<sup>117</sup>

The Minister told us that of the three most recent applications, two had been dealt with within the Department's time limits, and one took only slightly longer than expected.<sup>118</sup> The Department plans to introduce new rules to make procedures more efficient later this year.<sup>119</sup> It is far too early to say definitively that the planning process itself is no longer a significant barrier to light rail schemes, but at the moment the Transport and Works Act itself does not seem to be the major problem.

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115 LR 25

116 Q 197

117 HC (2003-04) 518, para 3-31

118 Q 282, see LR 72A

119 LR 72A

### **Departmental Evaluation**

52. In contrast, there was widespread frustration about the time the Department for Transport took to consider proposals other than through the TWA process, and the difficulty in engaging with it. Metro, the West Yorkshire Passenger Transport Executive told us:

Each scheme that has been introduced so far has been procured in a different way and the views on the best method of procurement are once again in flux. Linked to the cost barrier and the different procurement methods are the constantly changing methods of evaluation adopted by the Department for Transport, which contrast with the rigidity of the planning and legal processes. ...<sup>120</sup>

53. The Government is in a difficult position when it comes to evaluating and approving light rail systems. It bears the bulk of the capital cost, and so it must scrutinise the proposals carefully. It is also ultimately faces any risks borne by the public sector, since although these may be the responsibility of the promoters, in practice, as the experience in Sheffield shows, the Department may find itself bailing out imprudent local authorities.

54. Although the Department has good grounds for evaluating schemes carefully, we believe its current approach is unreasonable. Mr Holden of the National Audit Office told us that the Department:

has had a very arm's length approach to light rail and what has come along with that is a degree of uncertainty on the part of the promoters in terms of whether or not, for example, their proposals are likely to be received positively by the Department and whether or not after a very long period of time... going through all the steps that are required, at the end of it they will satisfy the Department and receiving the funding they want to build their systems.<sup>121</sup>

As Mr Ambrose said, in most cases local authorities putting forward light rail schemes have examined the options, and have found light rail the best for the corridor in question.<sup>122</sup> Mr Scales told us that the proposals for Merseytram had been developed from detailed analysis of the transport corridors across the county "So what we came up with was a three line tramway from the ground up rather than thinking that trams were a great idea, and start from that and work backwards."<sup>123</sup>

55. The Department's delays and changes of heart themselves add significantly to scheme costs.<sup>124</sup> Mr Ambrose told us that cost escalation was more prevalent in the United Kingdom than in Europe in part at least because of "the time differential between inception and completion of UK systems compared to those that are being installed in France, Spain and Germany".<sup>125</sup> Light Rail schemes in the UK take between 5 to 15 years to deliver.<sup>126</sup> The

120 LR 79

121 Q ^%

122 Q 169

123 Q 180

124 LR 25

125 Q 142

126 LR 33

Lyon LRT scheme took only 4 years from inception to development:<sup>127</sup> it has taken longer for Phase 3 of the Manchester Metrolink to get nowhere. The NAO noted that it can take promoters “something like £1 million a year to develop their proposals”.<sup>128</sup>

56. The length of time taken before final approval is given can mean that substantial investments have been made. Manchester Airport has spent £3.9 million on Metrolink related works; Tameside Council considered that £200 million had been spent on advanced works and property acquisition and we were given a breakdown of £47 million which had been spent on or committed to Metrolink related works in East Manchester.<sup>129</sup> Promoters who have already gained the powers they need to implement their scheme can find the Department’s delays mean those powers have to be renewed, at further expense.<sup>130</sup>

57. Lord Smith of Leigh, the Chairman of the Association of Greater Manchester Authorities, told us that “The Minister indicated to us that he would consult with the Secretary of State and come back to us. Several months later, about 20 minutes before the announcement on 20 July, we learned that Metrolink was to be cancelled...” The delays in approving Metrolink have meant that both potential bidders have been lost and that “Both of the leading consortia for the scheme have invested many millions of pounds in developing a scheme in design and build terms, all of which will have to be written off by them.”<sup>131</sup> Those costs, will, of course, be reflected in the price of any future bids. Councillor Leese noted:

One of the other factors for increasing cost is the slowness of the procurement process. Quite often there are six to twelve month delays in getting responses from the Department for Transport. Again, another factor which is taken into account in our written evidence is that any advantages we might gain from an alternative procurement process might be lost simply because the time delays would put the costs on in a different way.<sup>132</sup>

58. Even on the question of funding the refurbishment of the existing Metrolink phase 1 and 2 schemes, the Department was at odds with local authorities. While Mr McNulty told us the Department’s response would be “as quick as we possibly can”, Mr Mulligan told us:

The Minister of Transport was given the application for phases 1 and 2 in January. About a fortnight ago I received a letter with a whole series of questions about this scheme, largely dealing with issues which had been dealt with at length in the preceding months. Last week there was a meeting held on 8 March and the Department made it fairly clear that they were going to treat this as a fresh application for a major scheme.<sup>133</sup>

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127 LR 25

128 Q 65

129 LR 67, LR 90, LR 98

130 LR 79

131 Q 348, see also LR 91

132 Q 327

133 Q 340

The NAO report states that the Department has decided that “in future it would only assess completed business cases satisfying the Department’s guidance and that it would aim to assess them within four months of receiving them.”<sup>134</sup> This is extremely welcome, but the four month period should be a strict time limit, not an aspiration,

## 5 Conclusions and recommendations

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59. We are in no doubt that light rail has the potential to be an important part of the transport mix, although it will not meet all transport needs. It needs to be part of an integrated transport system, and its development needs to involve not just highway authorities, but local planning authorities, if it is to be fully effective. Promoters bringing forward new schemes should take this into account, and we welcome the Department's view that light rail should be considered as part of an integrated system.

60. Given that applications come in at different times from different authorities, it may be difficult for the Department always to prioritise those with the best business case; there will be cases where approval has been granted to a scheme with lower benefits than another which is submitted later; it would be wrong to withdraw it. The only practicable way of avoiding such situations would be to have competitions for light rail funds, and this has its own difficulties; it may encourage authorities to bid before their schemes are ready, and to incur expenses on bidding alone.

61. Nonetheless, **we agree that the Department has failed to give a strategic lead in the development of light rail.** The problems identified by the NAO in 2004 were identified by the House of Commons Environment, Transport and Regional Affairs Committee in 2000: insufficient standardisation, the high cost of utility diversion, the barriers to ensuring that light rail formed part of an integrated system. Yet little has been done. Even the initiative to set up UKTram came from promoters and industry rather than the Department.<sup>135</sup>

62. Instead of taking a lead, the Department has refused to trust local authorities' estimates of their own requirements, required repeated re-examination of bus schemes which had already been rejected, and been inconsistent in its funding decisions. There are signs that the Department is changing. The Minister told us

What we are seeking far more than we have done in the past is to have that engagement, that discussion, about what might be the most appropriate thing for any particular local authority, long, long before they are committing either funds, expertise or resources into working on that definitive scheme. So we do stand ready to help at the earliest opportunity, which is perhaps what did not prevail enough in the past.<sup>136</sup>

63. But this engagement must be responsive to authorities' own assessment of their needs. There appears to have been a clear shift in favour of bus based systems, even though there is little evidence about their effectiveness. We were surprised that although the Minister was prepared to accept that in some instances and on some corridors there could be a limit of 3,000 passengers per hour on a bus corridor, and a higher limit if a tram was used "I do not accept it as a generality."<sup>137</sup> Promoters have been repeatedly asked to evaluate bus based alternatives to the tram and Sir Howard Bernstein told us "within the Department there are still very clear views that the bus is a more low-cost option than MetroLink and should be

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135 LR 86

136 Q 303

137 Q 257

pursued.”<sup>138</sup> The Minister told us that there had been no change of policy in relation to light rail, and that he was “cracking the whip” to get an early decision on the refurbishment of the Manchester Metrolink. We welcome these assurances. The decision on Metrolink refurbishment should provide an early indication of the Department’s continuing commitment to light rail.

**64. We believe experience demonstrates it is no longer possible to transfer revenue risk to the private sector without increasing costs dramatically, whether or not those risks materialise.** Some contracts have attempted to claw back funds if risks do not materialise, but they cannot completely remove the premium the private sector charges for assuming risk, and it would be invidious for them to do so. It is true that if the public sector takes on a risk it may find itself facing charges in future (although the risk may equally not materialise). That may be an argument for assessing the risk carefully; it is not an absolute barrier to the public sector taking it.

65. Design, Build Operate and Maintain contracts are clearly no longer appropriate for all light rail schemes. The public sector should assume more of those risks which the private sector is ill placed to manage. We welcome the Department’s willingness to consider a variety of contracts, which appears to be a shift from its earlier attitude. It is clear that promoters have different views on what will work for them. The Department is going to issue guidance on best practice on procurement tendering and project management.<sup>139</sup> Nonetheless, we note that when Manchester raised a number of alternative procurement options with the Department “there was no answer” and “there was no detailed response given to us”.<sup>140</sup> We do not think it is helpful for the Department to give so little indication about the types of contract it considers acceptable, and what types concern it. Standardised bidding processes have themselves the potential to reduce costs; at present it can cost over £1million for a private sector bidder just to make a bid, and this must be recouped somewhere.<sup>141</sup> **The Department’s openness to new forms of financing is welcome, but it should be a source of expertise and guidance to promoters, rather than requiring them to present proposals with little or no indication of whether or not they meet the Department’s requirements.**

66. It is clear that the development of light rail is being hindered because expertise is not being shared between the promoters and developers of different schemes. The Department must ensure that, where they are not commercially sensitive, knowledge and experience should be shared as widely as possible. **Currently, “about the equivalent of 10 full-time posts” in the Department work on what are new and fairly new major projects in the light rail division.**<sup>142</sup> **If the Department is to support promoters trying to introduce light rail schemes, this may need to be increased, but the key is not the number in post, but the expertise and responsiveness of those concerned.**

**67. We believe the following actions are needed to ensure that the Department can give a strategic lead.**

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138 Q 344

139 Q 273

140 Qq 3267

141 LR 61

142 Q 244

- The Department must build up its own expertise on light rail, and share that expertise with promoters.
- The Department must engage wholeheartedly with bodies such as UKTram which are trying to drive down costs by increasing standardisation and sharing experience.
- The Department must give clear guidance about the circumstances in which it is prepared to consider light rail schemes. In considering schemes, it should look at the extent to which highway and planning authorities are co-operating effectively, the way in which light rail is integrated with other transport modes, and the extent to which public transport will provide a comprehensive network.
- The Department must accept that the time it takes to consider schemes, and the fact that even once approval in principle is given funding remains uncertain, itself adds considerably to project costs. It must adhere to its new four month limit for considering schemes. It must be stable in its funding decisions, although it would be perfectly reasonable for the Department to refuse to fund increases in costs beyond those initially approved.
- The Department must urgently reconsider the contribution utilities make to the diversion of their services. Their contribution should be high enough to deter them from demanding unnecessary works. In particular, promoters should not be expected to bear the bulk of the cost of locating infrastructure belonging to utility companies.
- The Department must give local authorities more powers over their bus services. The reduction of the time required before quality bus contracts can be introduced, and the transfer of Bus Service Operators' Grant to Local authorities using quality contracts, are welcome signs, but we consider more may be needed.

In the longer term, central Government may wish to consider whether local authorities should have greater powers to raise their own resources to fund local transport infrastructure. We suggest this to any future Transport Committee as a fruitful topic of inquiry.

## Formal minutes

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*The following Declarations of Interest were made:*

Mrs Gwyneth Dunwoody, Member, Associated Society of Locomotive Engineers and Firemen

Mr Brian H. Donohoe, Clive Efford and Mrs Louise Ellman, Members of the Transport and General Workers' Union

Ian Lucas, Member of Amicus

Miss Anne McIntosh, First Group, and Industry and Parliament Trust placement with Network Rail

Mr Graham Stringer, Member of Amicus and a former Member of the Greater Manchester Passenger Transport Authority and Manchester City Council

### Wednesday 23 March 2005

Members present:

Mrs Gwyneth Dunwoody, in the Chair

Mr Jeffrey M. Donaldson

Ian Lucas

Mr Brian H. Donohoe

Miss Anne McIntosh

Clive Efford

Mr Graham Stringer

Mrs Louise Ellman

The Committee deliberated

Draft Report (*Integrated Transport: the Future of Light Rail and Modern Trams in Britain*), proposed by the Chairman, brought up and read.

*Ordered*, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 66 read, amended and agreed to.

*Resolved*, That the title of the Report be changed as follows, *Integrated Transport: The Future of Light Rail and Modern Trams in the United Kingdom*.—(*The Chairman*.)

*Resolved*, That the Report be the Tenth Report of the Committee to the House.

*Ordered*, That the Chairman do make the Report to the House.

*Ordered*, That the provisions of Standing Order No. 134 (Select committee (reports)) be applied to the Report.

[Adjourned to a day and time to be fixed by the Chairman.]

## Witnesses

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### Wednesday 23 February 2005

**Mr Keith Holden**, Director, and **Mr Stewart Lingard**, Audit Manager, Transport Value for Money Studies, National Audit Office

### Wednesday 9 March 2005

**Ian Ambrose**, Principal Consultant, New Railways Team, AEA Technology (Rail)

**Mr Paul Davison**, Managing Director, and **Mr Roger Harding**, General Manager, Tramtrack Croydon Ltd

**Mr Peter Hendy**, Managing Director, Surface Transport, Transport for London

**Mr Pat Armstrong**, Head of Transport & Major Projects, Nottingham City Council

**Mr Neil Scales**, Chief Executive and Director General, Merseytravel

**Mr Tony McNulty MP**, Minister of State, and **Mr Bob Linnard**, Director of Regional and Local Transport Policy Directorate, Department for Transport

### Monday 14 March 2005

**Sir Howard Bernstein**, Chief Executive, Manchester City Council and Clerk to the Greater Manchester Passenger Transport Authority, and **Councillor Roger Jones**, Chairman, Greater Manchester Passenger Transport Authority

**Mr Christopher J Mulligan**, Director General, Greater Manchester Passenger Transport Executive

**Lord Smith of Leigh**, Chairman, and **Councillor Richard Leese CBE**, Deputy Chairman, Association of Greater Manchester Authorities

**Mr John Parry**, Chairman, and **Mr Caspar Lucas**, Engineering Manager, JPM Parry & Associates Ltd., and **Major Kit Holden**, Director, Holdfast Carpet Track Ltd

## List of written evidence

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LR 01	Railfuture
LR 02	Dr Roger Sexton
LR 12	Better Community Transport (BCT)
LR 15	Sustraco Ltd
LR 16	Tramtrack Croydon Ltd
LR 16A	Supplementary memorandum by Tramtrack Croydon Ltd
LR 17	Environment Not Trams
LR 24	Beeston & Chilwell Business & Residents' Association
LR 25	Scott Hellewell & Co. Independent Transport Consultant
LR 26	Norman Andrew Kellett
LR 27	Nottingham City Council and Nottinghamshire County Council, the promoters of Nottingham Express Transit
LR 29	Transport-watch UK
LR 29A	Further memorandum by Transport-watch UK
LR 30	Dr John Disney
LR 31	Philip and Andrew Longdon
LR 32	P G Rayner
LR 33	Mowlem
LR 34	Transport 2000
LR 35	Tony Young
LR 36	Greater Manchester Chamber of Commerce
LR 37	Bristol Electric Railbus Ltd
LR 38	JPM Parry & Associates Ltd (JPA)
LR 39	Victor Korzeniewicz
LR 43	Light Rail (UK) Ltd
LR 44	Peter Thompson
LR 46	Scott McIntosh
LR 47	Chris Tigwell
LR 48	Planet Practice
LR 49	David Holt
LR 50	The Institution of Highways and Transportation
LR 51	South London Partnership
LR 52	Light Rail Transit Association
LR 54	Ian Souter
LR 55	Pteg
LR 56	Reg Harman
LR 57	AEA Technology (Rail)
LR 59	South Yorkshire Passenger Transport Executive
LR 60	Parsons Brinckerhoff and Interfleet Technology
LR 61	Light Rapid Transit Forum
LR 63	MonoMetro
LR 64	T. Martin Blaiklock

LR 65	RMT
LR 66	FirstGroup Plc
LR 67	Manchester Airports Group
LR 68	Serco Integrated Transport
LR 69	CENTRO
LR 72	Department for Transport
LR 72A	Supplementary memorandum by the Department for Transport
LR 73	The Confederation of Passenger Transport (UK)
LR 74	Professor Richard Knowles
LR 75	Oldham Metropolitan Borough Council
LR 76	Docklands Light Railway
LR 77	Transport for London
LR 78	Merseytravel
LR 78A	Supplementary memorandum by Merseytravel
LR 79	Metro, West Yorkshire PTE
LR 80	Pre Metro Operations
LR 81	Electronic TBUS Group
LR 82	Manchester City Council
LR 83	Greater Manchester Passenger Transport Authority & Executive
LR 84	Councillor John Leech
LR 86	South Hampshire Rapid Transit
LR 87	Mott MacDonald
LR 88	CTC – The National Cyclists' Organisation
LR 90	New East Manchester
LR 91	Institution of Civil Engineers
LR 92	High Wycombe Society
LR 93	Hyson Green Traders Association
LR 94	Advanced Transport Systems Ltd
LR 95	Health and Safety Executive (HSE)
LR 96	The Chartered Institute of Logistics and Transport (UK)
LR 98	Tameside Metropolitan Borough Council

The following memoranda have been reported to the House, but to save printing costs they have not been printed and copies have been placed in the House of Commons Library, where they may be inspected by Members. Other copies are in the Record Office, House of Lords, and are available to the public for inspection. Requests for inspection should be addressed to the Record Office, House of Lords, London SW1 (telephone 020 7219 3074). Hours of inspection are from 9.30 a.m. to 5.00 p.m. on Monday to Fridays:

LR 03	Mr David Hard
LR 05	Mrs M Buxton
LR 06	Mrs Betsy A Clark
LR 07	Mrs R Nwume
LR 08	Mr and Mrs Price
LR 09	G Comer
LR 10	Mr & Mrs T Smith

- LR 11 Ann R Parker
- LR 13 Paul Tansey
- LR 14 Kurt Stephens
- LR 18 Andrew Battersby
- LR 19 Andrea Chadwick
- LR 20 Dipesh Asher
- LR 21 Norbrook Youth Club
- LR 22 Ms A Buckley
- LR 23 A Connolly
- LR 28 David Liebling
- LR 40 Margaret Bates
- LR 41 Jenny Rees, Phil, Lloyd and Bryn Richmond
- LR 42 P G Shipley
- LR 45 Nigel Lee
- LR 53 Mr J Cooper
- LR 58 Carplus Trust
- LR 62 John McCarthy
- LR 70 G.M. Lister
- LR 71 Mr A P Haworth
- LR 85 Ken Lewis
- LR 89 PT Jackson & J Jordon
- LR 97 Arthur Moore
- LR 99 The Greater Manchester Cycling Campaign

# Reports from the Transport Committee since 2002

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## Session 2004–05

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Third Report	Disabled People's Access to Transport: A year's worth of improvements?	HC 93
First Special Report	Government Response to the Seventeenth Report of the Committee: Cars of the Future	HC 377
Fourth Report	The Departmental Annual Report 2004	HC 409
Second Special Report	Government Response to the Eighteenth Report of the Committee: Galileo	HC 410
Fifth Report	Rural Railways	HC 169-I
Sixth Report	The Performance of the London Underground	HC 94
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Eighth Report	Search and Rescue	HC 322
Ninth Report	European Community Competence and Transport	HC 467

## Session 2003–04

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Fifth Report	The Office of Fair Trading's Response to the Third Report of the Committee: The Regulation of Licensed Taxis and Private Hire Vehicle Services in the UK	HC 418
Sixth Report	Disabled People's Access to Transport	HC 439
Seventh Report	The Future of the Railway	HC 145-I
Eighth Report	School Transport	HC 318-I
Ninth Report	Navigational Hazards and the Energy Bill	HC 555
Tenth Report	The Work of the Vehicle and Operator Services Agency and The Vehicle Certification Agency	HC 250
Eleventh Report	National Rail Enquiry Service	HC 580
Twelfth Report	British Transport Police	HC 488
Thirteenth Report	The Rail Regulator's Last Consultations	HC 805
Fourteenth Report	The Work of the Maritime and Coastguard Agency	HC 500
First Special Report	Government Response to the Eleventh Report of the Committee: National Rail Enquiry Service	HC 1132
Second Special Report	Government Response to the Ninth Report of the Committee: Navigational Hazards and the Energy Bill	HC 1133
Third Special Report	Government Response to the Twelfth Report of the Committee: British Transport Police	HC 1134
Fifteenth Report	Financial Protection for Air Travellers	HC 806-I
Sixteenth Report	Traffic Law and its Enforcement	HC 105-I
Seventeenth Report	Cars of the Future	HC 319-I
Fourth Special Report	Government, Health and Safety Commission and Executive, and Office of the Rail Regulator	HC 1209

Eighteenth Report	Responses to the Seventh Report from the Committee, on the Future of the Railway Galileo	HC 1210
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### Session 2002-03

First Report	Urban Charging Schemes	HC 390-I
Second Report	Transport Committee: Annual Report 2002	HC 410
Third Report	Jam Tomorrow?: The Multi Modal Study Investment Plans	HC 38-I
Fourth Report	Railways in the North of England	HC 782-I
Fifth Report	Local Roads and Pathways	HC 407-I
Sixth Report	Aviation	HC 454-I
Seventh Report	Overcrowding on Public Transport	HC 201-I
Eighth Report	The Work of the Highways Agency	HC 453
Ninth Report	Ports	HC 783-I
First Special Report	Government and Office of Fair Trading Responses to the Seventeenth Report of the Transport, Local Government and the Regions Committee, The Bus Industry	HC 97
Second Special Report	Government Response to the Committee's Fourth Report, Railways in the North of England	HC 1212

### Session 2001-02

First Special Report	The Attendance of a Minister from HM Treasury before the Transport, Local Government and The Regions Committee	HC 771
Second Special Report	Government Response to the to the Fifth Report of the Transport, Local Government and the Regions Committee, Session 2001-02, European Transport White Paper	HC 1285
Third Special Report	Government Response to the Eighteenth Report of the Transport, Local Government and the Regions Committee, Session 2001-02, National Air Traffic Services Finances	HC 1305

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