

Transport and Works Act 1992
ASHTON VALE TO TEMPLE MEADS AND BRISTOL CITY RAPID TRANSIT ORDER

OBJECTION
SUBMITTED ON BEHALF OF THE SUSTAINABLE TRANSPORT COMPANY
(Sustraco)

1 INTRODUCTION

1.1 The attached appendix documents provide information about Sustraco and the type of transport technology we promote , which is called Ultra Light Rail (ULR)

1.2 Sustraco objects to the draft Order for the Ashton Vale to Temple Meads and Bristol City Rapid Transit project. In summary our objection is because we are convinced that for many reasons the the promoters have chosen the wrong type of vehicle technology. The reasons are given in the following sections. We recommend ULR technology as a better choice which is better value for money.

1.3 The concluding section includes our requests for a modified project or a replacement project, because we recognise that there is a good case for a transit project of some type in this transport corridor.

2 CARBON DIOXIDE EMISSIONS

2.1 The new coalition government has a commitment to reduce CO2 emissions in the transport sector of the economy. Consequently the government has clarified the requirements for project assessment and now requires carbon savings compared to baseline to be a material consideration where public funding is sought for transport projects (including rapid transit).

2.2 This project provides an opportunity to achieve exemplar carbon savings by the adoption of ULR technology, which includes public transport vehicles with zero net CO2 emissions, powered by bio-methane made from waste.

2.3 The value of an exemplar zero carbon public transport project should not be underestimated because there are about 500 similar potential projects in UK which could benefit from an in use, on street, project with government support. There are also thousands of potential projects worldwide offering export potential for British innovations.

2.4 However the largest carbon savings are achievable in the shortest timescales by mode shifts from car use, and from bus use, to tram use – especially ULR tram use. The adoption of ULR tram technology

for this project in association with existing policies to restrain car use in Bristol can achieve very much larger carbon savings than BRT technology. This is due to

- the increased energy efficiency of trams running on steel wheels on steel rails, as compared with buses with rubber tyres running on tarmac or concrete surfaces
- the much higher levels of modal shift which can be achieved by tram systems than by bus systems.

No additional cost requirement has been identified as necessary to achieve this much greater benefit.

2.5 The BRT promoters have failed to consider:-

- The Dept. of Trade and Industry policy – “Our Energy Future – Creating a low Carbon Economy”; TSO London (2003), which advocates a price of £80 per tonne for fossil carbon emissions.
- The Dept of Energy and Climate Change policy – “The UK Low Carbon Transition Plan : National Strategy for Climate and Energy”; TSO London (2009), which advocates an equivalent price for assessment of £21 per tonne of CO2 equivalent.

2.6 It could be claimed that in Sept 2008 the project promoters were not legally required to consider these assessment prices for their technology review. It is not a valid excuse. We are where we are and the current Secretary of State for Transport is required to adhere to the adopted coalition government policies. He must require full and appropriate Benefit Cost Ratio (BCR) analysis of the CO2 emissions of all transport projects requiring his approval.

2.7 The promoters have failed to compare the monetised value of carbon savings achievable with bus technology with the very much greater carbon savings achievable by the adoption of ULR technology tram vehicles with zero net fossil CO2 emissions.

2.8 This failure has contributed to the BRT promoters making an error in their choice of vehicle technology by failing to undertake appropriate benefit /cost assessments to achieve the best possible value for money.

3 AIR QUALITY

3.1 Poor air quality is a serious problem and a health hazard for the inhabitants of the inner areas of Bristol.

3.2 This transport project provides an opportunity to achieve significant improvements to the air quality in the Bristol Air Quality Management area at lower cost than alternative options.

3.3 Because air quality is largely caused by toxic emissions from road transport vehicles any publicly funded road project (including rapid transit) must address air quality concerns by adopting the best available technology not involving excessive cost.

3.4 The BRT promoters have failed to compare the value of air quality improvements achievable by bus technology with the very much greater air quality benefits achievable by ULR technology tram vehicles with zero toxic emissions.

3.5 This failure has contributed to the BRT promoters making an error in their choice of vehicle technology by failing to undertake appropriate benefit /cost assessments to achieve the best possible value for money.

4 ENERGY EFFICIENCY

4.1 The current government has a commitment to promote energy efficiency in all sectors of the economy, including transport. The transport sector has in fact been underperforming recently compared to the improvements being made in some other sectors.

4.2 Sustraco believes this poor performance has been due to lack of ambition and poor investment of public money rather than any lack of available technology.

4.3 For a rapid transit project fuel costs can represent as much as 15% of operating costs. Currently energy costs to bus operators using fossil diesel are not taxed (as nearly all other diesel use is) and in addition many bus services are subsidised. Sustraco's position is that ULR tram technology is so energy efficient compared to bus technology that it does not need any energy subsidy, because fuel cost is less than 5% of a much lower operating cost.

4.3 It is also Sustraco's stated position that taxes to all fuels for public transport vehicles should reflect their fossil carbon footprints. Assuming government policy will continue to move towards that goal it is clear that the BRT promoters have made a serious error of judgement by their choice of fossil diesel fuel and not bio-methane.

4.4 This error of judgement has contributed to BRT promoters making an error in their choice of vehicle technology.

5 ENERGY SECURITY

5.1 The current government recognises that energy security is a risk to the UK economy. It is accepted that this risk was not so readily apparent at the time of the promoters technology review. However we are where we are. Some of the government's most qualified advisers now consider energy security to be the greatest single risk to the UK economy.

5.2 The Secretary of State should not approve public funding for any public transport project (including rapid transit) unless he is satisfied that energy security issues have been fully and appropriately considered.

5.3 The BRT promoters advocate fossil diesel fueled buses and have failed entirely to consider energy security risks and their associated risks to operating costs. This failure must be rectified.

5.4 This transport project provides an opportunity to achieve full energy security by using ULR technology and bio-methane fuel made from waste locally in Bristol. There is no extra cost for this option which delivers significant value for money benefits.

5.5 This failure to consider energy security risks has contributed to the BRT promoters making an error in their choice of vehicle technology.

6 SAFETY AND ACCIDENT REDUCTIONS

6.1 The Dept of Transport has targets and aspirations for continuing reductions to all types of accidents on highways. The published statistics clearly demonstrate that travel by tram is safer than travel by bus and both are significantly safer than travel by private car.

6.2 There is some evidence that some types of bendy bus can be less safe than standard 10m rigid buses. There is no evidence that ULR trams are any less safe than any other types of trams.

6.3 Because car accident rates (per 1000 passenger km p.a.) are much higher than tram or bus accident rates mode shifts from car to transit are an effective and rapid way to reduce accidents on city streets. It is widely accepted that mode shifts to tram will be greater than modes shifts to bus for similar routes; and therefore the accident reductions will be correspondingly greater with trams.

6.4 Where public transport services are required in pedestrian areas buses are unsafe. Trams provide the only form of public transport which can be safely used in services in pedestrian areas, as is commonly done in many towns all over the world (cf Bahnhofstrasse Zurich).

6.5 With ULR trams accident reductions should be no less than with conventional trams, but at a lower cost; representing better value for money.

6.6 The BRT promoters have failed to properly consider and compare the monetised benefits of accident reductions achievable with bus and ULR vehicle technologies.

6.7 This failure to consider properly the monetised benefits of accident reductions has contributed to the BRT promoters making an error in their choice of vehicle technology.

7 CONGESTION

7.1 The EIA for the proposed BRT suggests that traffic congestion problems in Bristol may still increase even if BRT fully achieves all its potential; including potential to slow the pace of increasing congestion.

7.2 It must be accepted that trams of any type can be more effective in reducing congestion than any type of bus on a busway can ever be. There are several reasons for this superior capability of tramways:-

- Mode shift and therefore road traffic reductions are greater with trams.
- Trams have better acceleration, deceleration and line speed capabilities .
- Because the largest capacity bus is about 100 passengers, compared to 300 or more for the largest trams the tram vehicles would operate the priority signals against other traffic less frequently than bus vehicles would, for the same passenger demand; thus having less impact on congestion.
- Fully segregated trams can require less highway space than fully segregated buses on busways, leaving more highway space for other users.

7.3 The BRT promoters have failed to appreciate the importance of the need to reduce congestion and achieve significant traffic reductions in Bristol against baseline projections.

7.4 This failure has contributed to the BRT promoters making an error in their choice of vehicle technology by failing to estimate the monetised values of congestion reductions.

8 MODE SHIFT

8.1 It is part of government policy and widely accepted that a key element of transport policy has to be to reduce per capita car use.

8.2 If it can be achieved there are very large potential benefits in terms of reduced congestion, reduced CO2 emissions, reduced toxic emissions, reduced highways construction and costs and reduced accidents.

8.3 Sustraco believes that negative policies to restrain car use and increase car users costs will soon reach a limit of toleration and anyway they can only achieve a small part (perhaps 20%) of the desirable reductions to car use.

8.4 What is required is carrots not sticks – in the form of affordable, reliable, comfortable public transport. The public preference is for trams and light rail. In UK cities where light rail services are available they are the fastest growing mode. Overall in UK light rail use is growing at +7% p.a. – faster than any other mode.

8.5 The government accepts that mode shifts from cars to trams are likely to be greater than mode shifts to busway on comparable routes. In the long run for technical and operational reasons bus travel cannot be made as fast, convenient, comfortable, safe and cheap as tram travel.

8.6 There is only one substantial argument which has ever been advanced for giving the public busways when they actually want tramways. That is the alleged higher initial capital cost of tramways. ULR

technology is the solution to that concern – tramways with the same benefits but at a lower initial capital cost.

9 PERSONAL SECURITY

9.1 Achieving personal security and a feeling of safety is an important objective for any transit project.

9.2 Many security measures such as CCTV and good lighting at stops are equally applicable to both busways and tramways (including ULR)

9.3 Evidence from several UK tram systems has demonstrated that from a user perspective one security measure is of outstanding importance. The presence of conductors or personal assistants on the vehicles has a significant influence on the mode choice made by people most concerned about personal safety and security and can increase patronage by up to 10%.

9.4 For a tram vehicle with a capacity of 200 or more the cost of a conductor can be fully recovered from increased passenger numbers and reduced fares evasion. For a bus with a capacity less than 150 that cost cannot be fully recovered. Therefore trams typically have personal assistants and better personal security and buses do not.

9.5 BRT promoters have failed to appreciate the monetised value of better personal security achievable with tram technology compared to bus technology.

9.6 This failure has contributed to the BRT promoters making an error in their choice of vehicle technology.

10 DISABILITY DISCRIMINATION ACT (DDA)

10.1 The promoters of tramway projects and busway projects both have to satisfy the requirements of the DDA. However the regulations for compliance are different for the two different vehicle technologies.

10.2 The minimum requirements for compliance are less onerous for bus vehicles than for tram vehicles (including ULR). That means quite simply that for DDA benefits a busway will achieve less than a ULR tramway for a similar overall system cost.

Section 10 of this objection headed “Social Inclusion and Mobility Impaired” suggests that DDA compliance benefits are not insignificant, especially for trams.

10.3 The promoters of the BRT proposal are deluding themselves if they believe that DDA compliance to bus standards can achieve the same benefits as compliance to rail regulations standards simply because the vehicles look similar.

11 SOCIAL INCLUSION (OLDER PEOPLE AND MOBILITY IMPAIRED)

11.1 Analysis of passenger data from Croydon Tram by TfL has shown that two groups of passengers, older people and mobility impaired, are significantly more likely to use tram services than bus services. This finding is believed to apply to all tram and bus systems. There appears to be no evidence that guided buses can achieve the same attraction as trams for older age groups.

11.2 There are two main reasons for this difference between trams and buses:-

- Trams typically have conductors; buses do not
- Level gap free boarding is much closer to being fully achieved with trams

11.3 For various technical and cost reasons there is no way any type of bus vehicles can eliminate these two significant differences between buses and trams.

11.4 Therefore the service offer of trams (including ULR) is more inclusive with greater social inclusion benefits. At present 91% of single pensioners and 53% of pensioner couples do not own a car. In future not only will the percentage of older people in the population increase but their age profile will also change, leading to a greater need for public transport vehicles which are attractive to older people and mobility impaired groups. The ability of trams to operate in pedestrian areas is an additional advantage for old people and those with impaired mobility since pedestrian areas now occupy a large proportion of the best shopping areas in many towns where lack of public transport acts as a handicap for old people.

11.5 A failure to appreciate properly the future needs of older and mobility impaired people and the ability of ULR technology to deliver appropriate vehicles at affordable cost has contributed to the BRT promoters making an error in their choice of vehicle technology.

12 COMFORT

12.1 It is generally accepted that improved comfort on urban transit services is a significant influence for maximising patronage. Most recently this is demonstrated around Canary Wharf, London by the growth in passengers on all seating river services compared to mostly standing LUL trains.

12.2 It must be accepted that for technical reasons no bendy bus or double decker can ever be as convenient or comfortable to use as an average tram. There are several technical reasons:-

- Better step free level boarding
- Better, smoother acceleration and deceleration
- Better controlled movement round bends
- More spacious vehicle interiors to trams
- Generally more effective vehicle suspension systems on trams
- Rear end slew is especially bad on bendy buses with long rear end sections.
- Inability of buses to operate safely in pedestrian areas

The public understand and appreciate these comfort benefits.

12.3 It should also be appreciated and accepted that, for most passengers, by far the most important comfort considerations are whether they get a seat, or have to push and shove to get on and off.

12.4 ULR technology has a critical advantage over any other technology for improving comfort . With ULR the operating costs are so low that it becomes cost effective to provide a service with a high ratio of seating to standing. Quite simply ULR is by far the cheapest moving seat per km that a transport operator can buy.

12.5 Providing guaranteed seating for most of the passengers for most of the operating day significantly increases patronage and mode shift from cars; with all the associated benefits that brings.

12.6 With BRT bus technology it is not possible to achieve the same seating /standing ratios as ULR unless the system operating cost is two or three times higher. Because all operating costs per passenger are much higher with bus technology and vehicle size is limited the operator has an incentive to make most passengers stand much of the time, as they do on London’s bendy buses.

12.7 BRT promoters pay lip service to comfort requirements, but their actual proposed seating /standing ratios speak for themselves – “cattle trucks”.

12.8 The failure of the BRT promoters to properly understand the need for comfort to increase both ridership and social inclusivity has contributed to an error in their choice of vehicle technology.

13 DRAFT PLANNING POLICY GUIDANCE

13.1 The Dept of Communities and Local Government has issued a draft PPS – “Planning for a Low Carbon Future in a Changing Climate” (March 2010). The consultation period expired on 1 June 2010.

13.2 The Bristol Rapid Transit proposals do not take account of this draft guidance and are not in accordance with its stated objectives for development.

13.3 The Secretary of State is respectfully requested to withhold planning permission approval under the TWA Order until the approved Climate Change PPS has been issued by DCLG and he is satisfied that the BRT proposal has been appropriately modified to achieve all the stated objectives of the PPS.

14 LOCAL TRANSPORT PLAN

14.1 It is generally accepted that transit proposals should aim to support or achieve the objectives in the Local Transport Plan.

14.2 However since many LTP objectives have multiple solutions, or no quantified targets, or both, it is possible to claim that minimalist contributions which are poor value for money are still supporting the achievement of LTP objectives. BRT proposals appear to do just that.

14.3 Sustraco maintains that is not good enough. There must be an obligation on the project promoters to :-

- Achieve the best possible value for public money
- Maximise the project's contribution to achieving the objectives in the LTP
- Use the best available technology not involving excessive cost.

14.4 In order to achieve the above three objectives the promoters need to modify their proposal by adopting ULR technology in place of bendy bus technology.

15 TECHNOLOGY REVIEW

15.1 A technology review undertaken by the promoters in Sept 2008 is available in the public domain. The Promoters invited Sustraco to comment on the draft review and Sustraco's comments can be made available to any public inquiry. Unfortunately there was no follow up of differences of professional opinion between the promoters consultant, Steer Davies Gleave, and Sustraco, so a valuable opportunity was missed.

15.2 It is unfortunate that for this rapid transit project the technology review was undertaken by a single consultant , not entirely disinterested in the outcome. As all ULR companies endorse the ULR guide in appendix 2 it can be assumed that all of them will have at least some disagreements with the findings of the review.

15.3 A better approach would have been for a university transport research institute to undertake the review because of their ability to work with econometric and technology experts in other departments. The report would have been exposed to greater scrutiny by peer group review and would have then been more credible.

15.4 The review considered 34 criteria for assesment but some criteria included in this objection were left out. In Sustraco's current judgement BRT and ULR perform equally well against 10 of the criteria. For 21 criteria BRT does not perform as well as ULR and for two criteria BRT at that time performed better; and for one criteria there is no evidence to choose a preference.

15.5 In the review the three most important criteria which tipped the balance in favour of BRT are:-

- initial capital cost and current funding available
- funding –available funding levels and likelihood of securing funding.
- technology maturity

15.6 The following section explains why the review conclusions about unproven technology are misguided.

The section in this objection headed "estimate of costs" presents new evidence on initial capital costs of busways. The section in this objection headed "applicants proposals for funding" explains why the assumed funding is no longer available.

15.7 The conclusions of the promoters technology review are no longer robust and should not be relied upon by the Secretary of State when making his decision on the draft Order.

16 UNPROVEN TECHNOLOGY

16.1 In recent decades both DfT and TfL have displayed ambivalent reactions to what they perceive as either “unproven technology” or “important innovation”. Unfortunately in retrospect there is little evidence that their categorising of transport technologies (and the “optimism bias” penalties which follow) have served any useful purpose. The All Party Parliamentary Light Rail Group has been critical. The term “unproven technology” is a relative term which begs the question how much proof is required before the label “unproven” is removed? It is a fact that no ULR vehicle in public service has ever failed due to a patented innovative technology.

16.2 It should be acknowledged and accepted that previous and current busway projects (including the Bristol proposal) include just as much so called “unproven technology” as existing and proposed ULR vehicles.

16.3 For example previous failures on busway projects due to unproven technology include electronic guidance (Greenwich Waterfront Transit), Kassel Kerbs, TfL bendy bus fires, disabled access ramps (Millenium Transit) and busway block paving (GWT). The 10m +8m unproven bendy buses proposed for BRT are high risk and in the opinion of Sustraco’s development engineers is likely to increase accident risks compared to more conventional buses.

16.4 It should also be recognised that many tramway, busway and railway projects all over the world suffer from failures of proven technologies – often because of optimistic attempts to reduce costs by redesign.

16.5 One example of the inappropriate labeling of ULR as “unproven technology” arises because of acknowledged problems of wheel/ rail interface with Parry Peoplemover vehicles on the Stourbridge service. However that is not a problem of unproven technology, nor is it generic to all types of ULR vehicles. The type of vehicles Sustraco is recommending for Bristol will have bogies.

16.6 The promoters of Bristol BRT appear to have been influenced by a somewhat simplified and biased assessment of complicated technology risks. That misguided assesment has contributed to them making an error in their choice of vehicle technology.

17 CONSIDERATION OF ALTERNATIVES

17.1 It is established as good practice that the promoters of transit projects who seek a TWA Order should consider alternatives to their preferred solution and all of them now do so.

17.2 However Sustraco is dissatisfied with the way this has been done in practice in the recent past at public inquiries for transit projects.:-

- Technology alternatives have been less rigorously considered than route alignment alternatives.
- The early selection of alternatives for public consultation by LTAs can be somewhat random.
- Inquiry inspectors can be inconsistent in their confidence and willingness to investigate technology alternatives in depth.
- Government advice has not facilitated probing inquiry of technology options

The Luton / Dunstable transit inquiry is a good example of these problems.

17.3 The section headings of this objection are all generic issues which are, or should be, material considerations for every transit project, whether a tramway or a busway preference. Generic issues should not be only resolved by partial and superficial evidence at each and every TWA inquiry. The DfT needs to procure robust data on innovative emerging technologies.

17.4 The SoS has the powers to ensure that any public inquiry into the Bristol Rapid Transit proposal fully considers all the available evidence on matters of generic technology choices.

17.5 Alternatively the SoS could decline to approve this TWA order until he has the benefit of a full and independent experts report on all generic technology options and how they must be assessed for all transit approvals in order to comply with government policy.

17.6 An unfortunate history of inadequate generic assessment of technology options for transit projects has contributed to the BRT promoters making an error of judgement in their choice of vehicle technology.

18 VALUE FOR MONEY

18.1 All government departments including DfT are required to consider value for money for their public expenditure. In the case of DfT value for money is mentioned in a footnote to PPG13. By following various web links the government's definitions of value for money, ranging from poor to excellent can be found.

18.2 The BRT promoters have failed to give proper consideration to the need to achieve the best possible value for money. The claimed benefit/cost ratio (BCR) may be average but that claim is doubtful because some of the benefits claimed for busways are spurious.

18.3 Whatever the actual BCR may be for the proposed busway it is clear beyond reasonable doubt that the BCR of a ULR tramway of equivalent capacity and quality would be much better because:-

- The initial capital costs will be comparable
- The operating costs over 30 years at NPV will be less
- The air quality benefits will be greater

- The value of carbon savings will be greater
- The value of accident reduction benefits will be greater
- The value of energy security will reduce risk costs
- Patronage and net fares revenues will be greater
- Congestion reduction benefits will be significantly greater
- Social inclusion benefits to older people will be greater
- The total system maintenance costs over 30 years at NPV will be less.

18.4 It should be for the promoters to undertake these necessary BCR calculations and comparisons.

18.5 It is Sustraco's considered opinion that a well specified ULR project to serve the same route corridor as the proposed BRT could represent good (or possibly excellent) value for money. It would definitely provide much better value for money than the proposed BRT.

18.6 A failure to consider fully the DfT value for money requirements as part of the promoters technology review, or elsewhere, has contributed to the BRT promoters making an error in their choice of vehicle technology

19 ESTIMATE OF COSTS

19.1 Estimates of costs for transit projects have not been noted for their reliability or clarity of detail over the last 20 years. DfT have addressed this concern by adding "optimism bias" additions to promoters estimates of costs.

19.2 Sustraco believes that for rail based projects (including ULR) new promotions can benefit from studying the mistakes of earlier promotions. The most recent projects including Nottingham Express Transit and Docklands Light Railway extensions have generally avoided cost escalation problems.

19.3 Because large busway projects are less common globally and more recent in UK such realism in cost estimates has yet to be achieved for busways. For example the Millennium Transit project cost about £25 million for only 1.3 km. of busway due to failed experimentation with unproven electronic guidance.

19.4 Large and continuing cost escalations to Cambridge busway and the estimates for Luton/Dunstable busway demonstrate how inadequate recent estimates of costs for busways have been. The SoS can have no confidence that the estimate of costs for BRT is reliable. There is an unacceptable risk of future requirements for additional funding which can only be met from the public purse, even if DfT funding is capped.

19.5 Some very real costs for the BRT project are not in the estimate of costs. They include for example bespoke bendy bus vehicles, depot and maintenance facilities and transport interchange works. All of these are typically required to be included in any estimate for a tram or ULR project involving a TWA Order.

19.6 There has been no level playing field for cost comparisons between ULR and BRT in Bristol (or elsewhere in most cases). Cost items have been left out of the BRT estimates and spurious additions, such as, for example, excessive and unsubstantiated optimism bias, have been added into the ULR cost estimates.

19.7 The Secretary of State is respectfully requested to require that in addition to the minimum legal requirements for TWA Orders the promoters produce a realistic, publicly available estimate of all project costs showing whole life all costs over 30 years at net present values, including all costs for underwriting risks, whoever those costs are assigned to.

19.8 Sustraco will then be able to demonstrate on a comparable basis that compared to BRT an equivalent ULR system will be less costly to the public purse and better value for money.

20 APPLICANTS PROPOSALS FOR FUNDING

20.1 The rule 10 (3)(a) statement in effect identifies three sources of funding:-

- DfT grant
- Local Authorities, including community charge
- Private sector, including s106 developer contributions

20.2 This was a reasonable statement when it was written, but in the present circumstances it is hopelessly optimistic.

20.3 The DfT grant is, or should be, under review as part of the department's deficit reduction strategy because the proposal does not have an above average BCR, which by definition means it does not represent good value for money.

20.4 Assuming the DfT grant (if still on offer) is capped, the two LTAs are no longer in a position to be able to underwrite both their share of the costs and the sort of cost escalations that are being experienced with Cambridge, Luton and other busway projects. They have their own very onerous requirements for deficit reductions and lower spending budgets.

20.5 The City of Bristol will not be able to fund the likely cost increases by increasing the community charge to their residents (as they did with their Portbury Dock scheme) because that charge is now capped by Parliament.

20.6 In the recession developers and other private sector funding contributions for busways are likely to be reduced, placing a heavier funding burden on local authorities and other public funding sources. The ethical and green funding sources available for ULR projects are not so readily available to busway promoters.

20.7 Sustraco respectfully requests the SoS to withdraw the funding offer of the previous government under the Major Schemes programme and to work with the promoters, ULR companies and ethical and green private sector funders to see if a revised project with tramway technology is fundable with a reduced grant requirement from DfT.

21 CONCLUSION

21.1 For the reasons given in the preceding sections the Secretary of State is respectfully requested to use his powers to amend the Draft Transport and Works Act Order for the Ashton Vale to Temple Meads and Bristol City Rapid Transit by deleting each and every reference to “buses” and “busways” and substituting as appropriate the words “tram” and “tramway”; and also to make such other consequential amendments to the Draft Order as he may deem to be required .

21.2 The SoS is further requested to direct the promoters to amend their supporting documentation to the Order to reflect any changes he may make to the draft Order.

21.3 Nothing precludes the promoters from withdrawing their draft Order on the grounds that the project as currently specified is no longer in accordance with government policies. Should they decide to do so Sustraco hopes the SoS may look favourably on any future request to submit a replacement draft order which is for an Ultra Light Rail project, whether on a similar route alignment or a different one.

APPENDICES:

1. Sustraco Company Profile
2. Guide to Ultra Light Rail