

BEXHILL TO HASTINGS LINK ROAD PUBLIC INQUIRY

Proof of Evidence by

Keith Buchan

on behalf of

The Hastings Alliance

1 Author

1.1 My name is Keith Alexander Buchan and this Proof is submitted as part of the advice provided to the Hastings Alliance, who are objectors to the scheme for the Bexhill to Hastings Link Road (BHLR) which is being considered at this Inquiry. I have an MSc in Transport Planning and Management and I am a Member of the Institution of Highways and Transportation, and of the Transport Planning Society.

1.2 I have over 25 years of experience in transport planning, much of it for local authorities both as a senior officer and a consultant. Since 1990 I have been Director of the Metropolitan Transport Research Unit (MTRU). In this role I have undertaken projects for City, County and Regional authorities in the UK. This included extensive work on innovative bus schemes in the UK and Europe and travel demand planning (sometimes called smart choices or personalised travel planning). MTRU has also undertaken research for the DfT (and as DETR) on objectives led appraisal, accessibility planning, parking standards and PPG13. I have also worked for commercial companies, community groups and environmental interest organisations.

1.3 In relation to climate change I have recently completed a two year project on this in relation to transport policy (November 2008). Phase 1 proposals included a nationally funded programme of Smarter Choices, a first year car sales tax on high emission vehicles and stressed the importance of continuous carbon budgeting rather than using two distant target dates.

1.4 In 1996/7 I was a member of the Advisory Group for the 1997 National Road Traffic Forecasts and am currently a member of the DfT's Expert Group on reforming NATA (the New Approach to Transport Appraisal). I am also a member of the European Commission's Peer Review Group on new research into Longer Heavier Vehicles.

2 Introduction and Summary

2.1 This Proof deals with two substantial matters. The first is the issue of testing for value for money and how this relies upon assessing whether other forms of intervention could achieve the overall objectives. In relation to a transport scheme, the objectives, the problems and any possible solutions, are drawn from national, regional and local sources. Engaging with local people is also specifically included in guidance¹. It should be noted that the objectives must, at this stage, be modally neutral and not point to one particular solution prior to assessing all alternatives.

2.2 The second issue is related to the first and concerns the way in which greenhouse gas emission targets are dealt with in appraisals. It is fair to say that this is an area undergoing significant change. While guidance is still in need of further development, the picture is at least becoming clearer. It is certainly the case that Government has put climate change at the centre of its policymaking and there is no doubt that achieving the reduction targets is not only a key policy, the Climate Change Act gives their achievement a legal status that most other objectives cannot claim.

2.3 I will draw on the DfT Guidance, as published on the internet through <http://www.dft.gov.uk/webtag>, and the Treasury Green Book, to explore both these issues. In both sources, the preparation of reasonable alternatives against which a scheme can be properly assessed is the key test. This Proof sets out how this was not done in this case, and suggests what sort of alternatives should have been considered. It should be noted that it is the responsibility of the promoter to show that alternatives have been properly prepared and assessed. The promoters appear to be relying on an earlier Multi Modal Study (SoCoMMS)² to avoid having to undertake further assessment. In view of the fact that climate change now has far greater importance in policymaking, and that much of the SoCoMMS package has not been implemented, this reliance is misplaced.

¹ See TAG Unit 2.1: Overall steps in the process

² South Coast Corridor Multi Modal Study, 2003

2.4 This issue also relates to the preparation of a realistic Do Minimum. For climate change reasons alone, as described later in the Proof, the Do Minimum as presented would not be acceptable to policy makers because it facilitates significant increases in carbon emissions. In reality, considerable remedial action is almost certain to be taken between now and 2020, and beyond. This affects the whole justification for the road scheme, since its impacts are tested against the transport patterns in the Do Minimum. The differences in these patterns of travel are assumed to continue to 2072, well beyond the key climate change target dates of 2020 and 2050. The need for further action highlights the significance of the failure to develop and test proper alternatives. These are in fact the most likely way forward.

2.5 This creates a genuine difficulty in appraisal in the situation where the continuation of current policies is unlikely to achieve Government objectives. In the case of the BHLR the most obvious is the overriding need to reduce greenhouse gas emissions. In fact, failure to do so with the BHLR in place is accompanied by a failure to improve public transport's mode share in the area, which actually falls between the base year of 2004 and the modelled years of 2010 and 2025. There is no comparison with an option in which public transport and the other sustainable modes increase market share.

2.6 To summarise, the poor performance of both the Do Minimum and the Do Something against the key objective of emissions reduction should have triggered a return to the options development stage to devise an alternative which would achieve the objectives. This could have taken the form of a package of schemes which would achieve the target. These would most likely involve a combination of land use planning and demand management with or without changes to the road network over and above those in the current Do Minimum.

2.7 In relation to this I will consider the way in which climate change itself is treated in the appraisal in more detail later in the Proof which sets out the new policy framework of 5 year budgets which is in place following passage of the

Climate Change Act, and the statutory advice published by the Committee on Climate Change. Transport other than aviation is a “non-traded” sector, and is not within the EU carbon trading scheme. Thus it must provide its own pathway to carbon reductions. The non-traded sector as a whole will need to reduce emissions by 19% between today and 2020, and transport needs to reduce its emissions by at least 14%³.

2.8 The whole issue of how to deal with climate change in appraisal is the next subject to be dealt with by the NATA reform process⁴. This follows on from some proposed revisions to NATA and the Assessment Summary Table (AST) published on 6th April. Further proposals have been published for consultation in October 2009. Change is due for April 2010 and the drafts very significantly strengthen the current requirements for considering alternatives. They also introduce the concept of a “showstopper” or “pass/fail” test for key objectives⁵. The transport emissions target is different in nature from other objectives in that it seeks to avoid damage of an irreversible nature and has legal force.

2.9 In response to the Climate Change Committee recommendations, the Department for Energy and Climate Change (DECC) has published the UK Low Carbon Transition Plan (CD 5/33) and concurrently DfT published Low Carbon Transport: a Greener Future (CD 5/35) and the accompanying Impact Appraisal (CD X). These confirm the Government’s policy that it is essential to achieve the carbon reduction targets. Transport’s commitment from CD 5/35 is equivalent to about a 14% reduction between today and 2020.

2.10 Further reductions will be needed to meet the ultimate aim of at least an 80% reduction in total emissions (traded and non-traded) by 2050. This latter target is also part of the Act. It is fair to say that there is major uncertainty in relation to how this 80% target will be achieved and thus in the prediction of emissions, particularly in the decade leading up to 2050.

³ Target reductions up to 2022 take the form of the first three 5 year budget periods – we are already in the first. This is set out further later in the Proof.

⁴ NATA Refresh: Appraisal for a Sustainable Transport System, DfT, April 2009

⁵ Webtag Unit 2.1.2C – consultation draft

Webtag (and thus the modelling for the BHLR) assumes a continuing and significant improvement in the fuel efficiency of vehicles and an increased use of biofuels up to 2020.

2.11 Overall, any transport appraisal should provide a test against a future in which policies on climate change have achieved the minimum target as well as a simple carbon valuation. It provides the real measure of whether the greenhouse gas objective, now with its own place in Government objectives for transport⁶, has been achieved. This Proof assesses the road scheme in the light of current policy, in particular highlighting the significant increases in emissions. This meets, for example, the Guidance to Regions⁷ on meeting emissions targets, which states,

“the requirement of the DfT’s overall goal within DaSTS is to “deliver quantified reductions in greenhouse gas emissions within cities and regional networks”, which goes further than the requirement to “consider and estimate the effects on carbon dioxide emissions which may result from their proposals” in RFA advice.” (Para 23).

2.12 In fact, no estimate of an emissions baseline is available, either for the present day or for 1990 (the standard emissions base year). Thus it is not possible to check exactly how the Do Something situation performs against target. However, from the evidence to hand, with the BHLR in place, there is a 2% rise in CO2 by 2020 instead of a 14% fall, and a 10% increase by 2050 instead of an 80% fall. This latter result probably also illustrates the fragility of using very long time scales in appraisal.

2.13 Clearly the overall value for money of the scheme would altered if it were compared to a transport intervention, or combination of interventions, which was more likely to achieve the objectives overall and CO2 reductions in particular.

⁶ See Delivering a Sustainable Transport System, DfT, November 2008

⁷ Guidance to Regions on Delivering a Sustainable Transport System, DfT, July 2009

Conclusions

2.14 A proper range of alternatives to the BHLR have not been assessed. SoCoMMS suggests that such a scheme in isolation and unaccompanied by a full range of other transport measures would not achieve the Government objectives at the time. In fact, a key issue for this scheme, the failure to meet carbon targets after its implementation, has grown in importance since. This is particularly important given that the appraisal shows that in the Do Something in 2020 key Government targets for carbon reduction are exceeded by more than 18%. For these reasons the Inspector is asked to recommend rejection of the BHLR as presented to this Inquiry.

3 Government Guidance and Transport Appraisal

The Green Book

3.1 The Green Book is the starting point for all appraisal across Government Departments. The DfT's appraisal guidance, published on the web as "webtag" refers back to the Green Book and explores its application in the transport field.

3.2 The approach is very clear. First the objectives are defined. These are not scheme specific, thus building a piece of infrastructure is not an objective, it is only valued as a means to achieving an objective.

"5.1 The purpose of option appraisal is to help develop a value for money solution that meets the objectives of government action. Creating and reviewing options helps decision-makers understand the potential range of action that they may take."

3.3 And under "Creating Options, it goes on:

"5.3 This step involves preparing a list of the range of actions which government could possibly take to achieve the identified objectives. The list should include an option where government takes the minimum amount of action necessary (the 'do minimum option'), so that the reasons for more interventionist actions can be judged."

3.4 It also deals with the issue of interlinked schemes:

"5.5 An option may affect, or be affected by, other expenditure across the public sector (for example, where its outputs or costs depend upon another project or the implementation of a related policy perhaps in another department). Where a number of expenditures or activities are linked together and the costs or benefits are mutually dependent, the proposal must be appraised as a whole. However, the contribution of the component parts of each proposal to achieving overall value for money must be taken into account."

3.5 It is important to create a genuine range of options and to distinguish between “Do Nothing” and “Do Minimum”. One of the most common mistakes in appraisal has been to judge a proposed scheme against a future which has little or no interventions designed to meet that particular scheme’s objectives. This is explored later and is very much the case for the BHLR.

Webtag, the Do Minimum and realistic alternatives

3.6 Transport appraisal conforms to the Green Book but contains much more detail. It is available as a web based resource. It is very clear about the processes to be followed. The flow chart for scheme appraisal is shown in several places, for example in Unit 2.1, Figure 2.1, reproduced below.

3.7 One area relevant to this Proof is the relationship between the “Do Minimum”, alternative solutions, and the preferred option. In transport, the Do Minimum should reveal what the future will hold with only committed actions included. The unreality of the Do Minimum was a major criticism of appraisal, particularly in the context of management policies.

3.8 It is critical to understand this point, because the following of guidance should mean that individual schemes which perform badly against a key objective, as in the case of the BHLR, should not get through to full appraisal as an isolated proposal. Instead there should be proper testing of alternatives or a package which means that overall the objective can be met. Of course some objectives do not **have** to be met in the same way that for as greenhouse gas emissions.

3.9 This problem is avoided by the introduction of the webtag guidance on option development. For example, in this case the Do Minimum performs badly carbon emissions, congestion gets worse and public transport loses market share. It is unlikely that any responsible authority would fail to do anything to address such problems. What should happen is that realistic alternatives and possibly packages of measures would be tested. ESCC seem to rely on the 2002 South Coast Multi-Modal Study to cover this point.

SoCoMMS and alternatives

3.10 SoCoMMS contains a wide range of proposals for land use, travel planning, public transport and highways covering a corridor between Southampton and Thanet, with Bexhill and Hastings pretty much in the middle. Proposals were viewed as a whole and many elements of the package have not been brought forward. It is misleading to extract one isolated element from a strategy which as a whole achieves objectives and claim that it can proceed without the rest of the package.

3.11 SoCoMMS predated the extra emphasis on climate change in transport policy, which suggests it would have changed priorities today in this regard. However, it is interesting to note that it understands and emphasises the need for an integrated approach and for demand management. In particular, it is worth quoting what SoCoMMS says about its overall package, within which road proposals are based.

“Ensuring Balance – Demand Management *Each of the above strategy elements will only be effective if a state of equilibrium is achieved between the demand for travel by car and other modes of transport. To ensure this, the strategy must have at its core measures that seek to control the overall level of future car usage, particularly in locations where there are, or will be, good alternative public transport systems. Moreover, this balance should be planned and delivered as a region wide initiative, to ensure both consistency and maximum effectiveness. All of the above measures should therefore be introduced within an overall policy regime that includes:*

- *significantly increased long stay public parking charges within each of the South Coast towns, using a fee hierarchy that reflects the town’s status;*
- *increases to short stay public parking charges so as to encourage off-peak modal transfer to public transport and park and ride;*
- *a levy on all private workplace parking spaces in core urban areas, together with all parking spaces in “out of town” retail parks along the South Coast; and*

- *car based cordon charges for entry into the major conurbations of Southampton, Portsmouth and Brighton and Hove so as to encourage use of the new Park and Ride facilities.*⁸

Objectives, problems, and solutions in Webtag

3.12 Webtag is clear that the appraisal process should begin with underlying problems, not just symptoms, and that these are mode neutral and not scheme specific. This summarised in Unit 1.1 as follows.

“1.4.3 In all cases, however, the process of identifying solutions should be broadly similar and:

- be easily comprehensible, to those commissioning, steering and undertaking the work; and where possible to a wider public;
- avoid leading to a particular outcome simply by virtue of the method or process adopted;
- enable a wide range of solutions and the synergy between combinations of components to be investigated in a cost-effective manner;
- enable a preferred solution to be developed which addresses the objectives and problems at which it is aimed; and
- provide a means by which the acceptability of the solution to the public can be tested and taken into account.

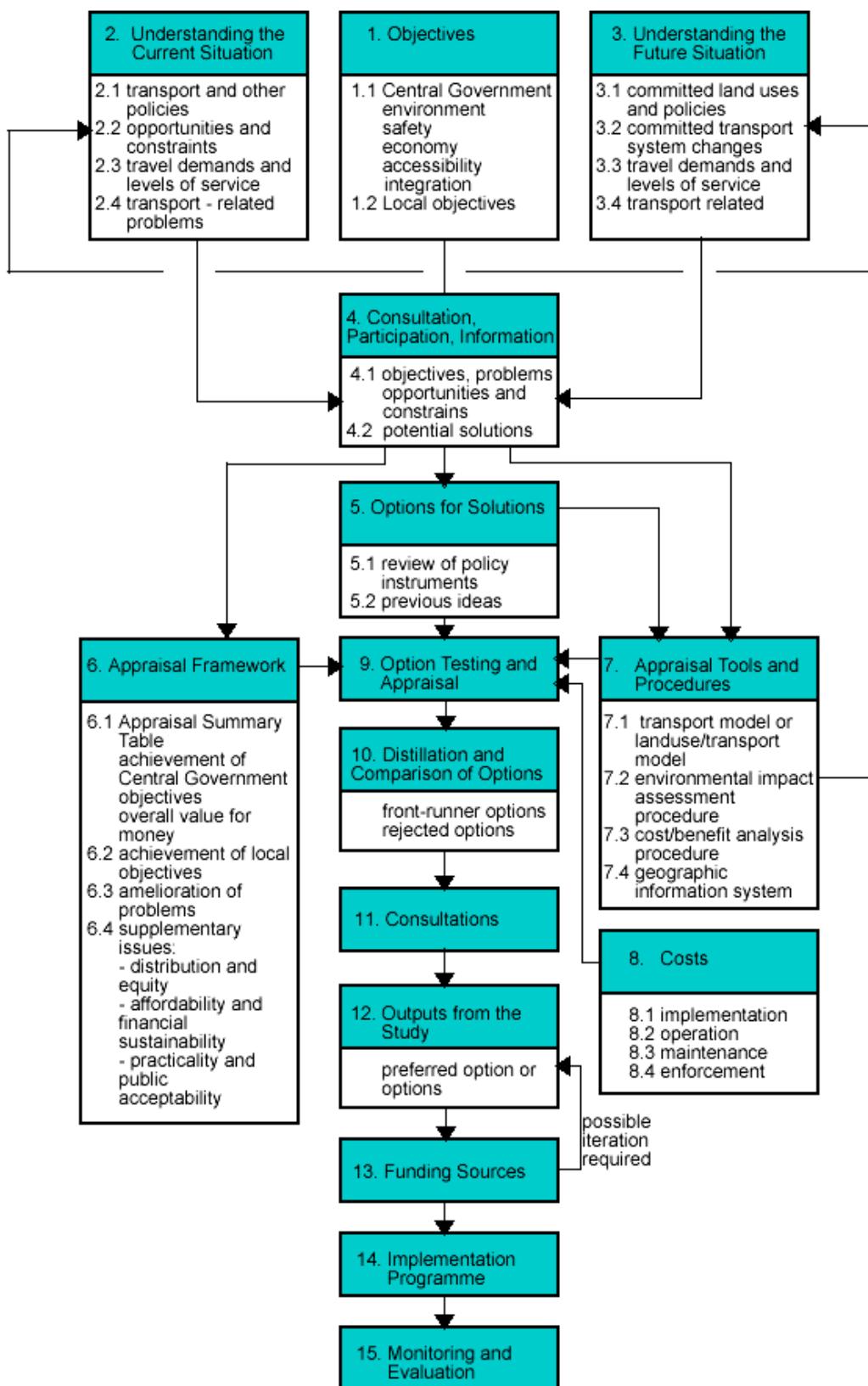
“1.4.4 Typically, a study should include:

- agreement on a set of objectives which the solution should seek to satisfy;
- analysis of present and future problems on, or relating to, the transport system;
- exploration of potential solutions for solving the problems and meeting the objectives;
- appraisal of options, seeking combinations which perform better as a whole than the sum of the individual components; and
- selection and phasing of the preferred solution, taking account of the views of the public and transport providers.”

3.13 The evidence before the Inquiry from the promoters suggests that the middle three processes from the first list and three and four from the second list have not been followed. The overall process is also set out clearly in diagrammatic form in webtag, reproduced as Figure 1 below.

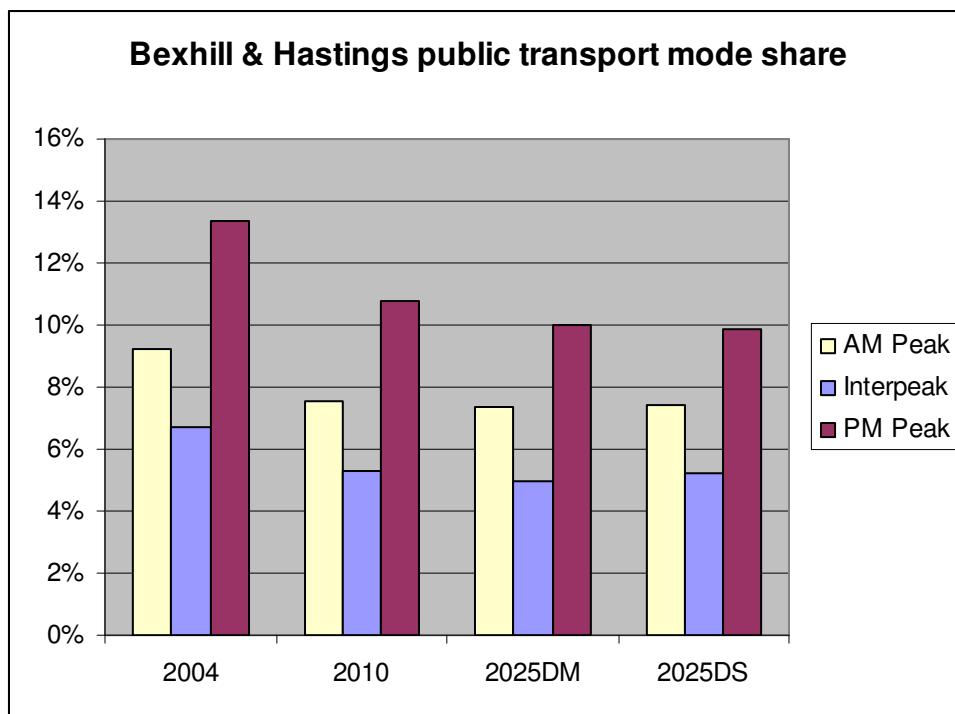
⁸ SoCoMMS Executive Summary, page 13

Figure 1



3.14 The failure to include options which promote public transport, walking or cycling is revealed clearly in the modelling results. These may be altered if new material is put to the Inquiry by the promoter, but the following chart is based on the Major Scheme Business Case Appendix 12, Traffic Forecasting Report, Tables 3-8 to 3-13 and Tables 6-1 and 6-2. The source data is set out in Annex 1. It shows clearly how public transport's market share declines between the base year and forecast years.

Figure 2



3.15 It should be noted that local groups including the Hastings Alliance and Campaign for Better Transport have consistently called upon ESCC to consider realistic alternatives to the BHLR scheme which could better achieve transport and climate change objectives.

3.16 If this scheme is to be considered outside the SoCoMMS package, the steps shown in Figure 1 have not been followed and the appraisal does not conform with Guidance. If SoCoMMS is relied upon as a study of alternatives, it is clear that some prerequisites of the strategy within which road schemes were justified are not in place and the scheme should not proceed.

4 Carbon emissions

4.1 Government policy on climate change has had a consistent direction for some time, but this has taken a more structured form with the passing of the Climate Change Act. This contained the requirement to set up a Committee on Climate Change (CCC), which in turn delivers advice to Government on the level of reductions needed. The Act contains two important milestones: a 26% reduction by 2020 and an 80% reduction by 2050. Both are compared to a base year of 1990.

4.2 However, achieving the targets at a specific date is insufficient to meet the challenge of climate change. This is because emissions stay in the atmosphere for considerable periods of time and it is in fact the total emissions within a given period which determine the degree of climate change. Thus achieving the target at the last possible moment while permitting high levels of emissions in the interim periods would fail to stabilise or slow the rate of growth of the level of greenhouse gas in the atmosphere.

4.3 For this reason, the Act specifies five year “budgets”, starting in 2008. This allows some flexibility and adjustment, but keeps to a tighter reduction profile than the two target dates and creates a means of monitoring progress. The CCC has suggested budgets for the first three time periods: 2008-2012, 2013-2017 and 2018-2022. Government commitments in relation to these, including transport, are set out in CDs 5/33 and 5/35.

4.4 One important and relevant distinction made by the CCC is between traded and non-traded sectors. Traded sectors include energy production and aviation. In these carbon credits are issued within an overall limit which reduces over time. The credits can be traded so that those who find it easy to reduce emissions will do so and sell their credits to those who would find it more difficult and costly. In the third budget period, trading will account for 55% of reductions, transport for 19% and other non-traded sectors for 27%⁹.

⁹ CD 5/35, Figure 6.4, there is a small contingency figure included in the above.

4.5 Apart from aviation (and international shipping) transport is in the non-traded sector. This means that reductions will be policy led. The conclusion here is that there may be some variation in the 19% reduction, but this could be higher as well as lower. However, it is unthinkable that an increase in emissions would fit with Government or Regional Policy.

4.6 In this case, no reference point has been provided by the promoters for present day emissions (or for 1990 levels). Emissions in the base year, where traffic flows are available, should however be easy to estimate. Without it, it is difficult to assess whether the scheme meets the target. In order to do so, ESCC were requested to supply model outputs but these were only available for 2013 to 2072.

4.7 In order to produce a reasonable estimate, I have assumed that prior to 2013 emissions are constant at 55,000 tonnes (they are actually more likely to be lower). This has enabled the performance of the scheme against the targets to be estimated and the results are shown in Figure 3. The targets are expressed as a straight line between 2020 and 2050, in practice this will vary from budget period to budget period. In terms of target dates alone, in 2020 the Do Something will be 19% over target and by 2050 will be 455% over target.

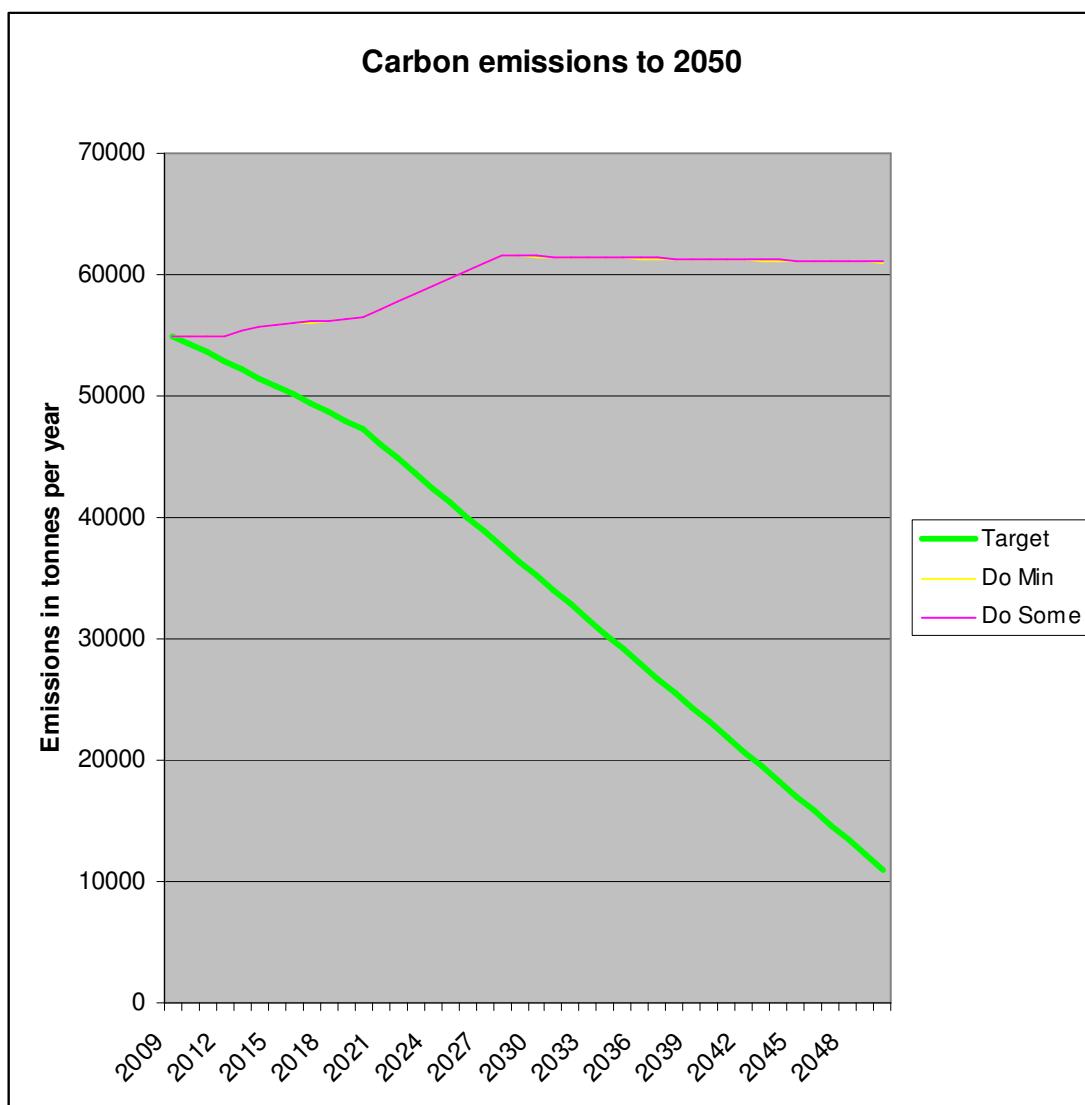
4.8 This increase should be referred to in the AST and compared to the reductions set out in the CC Act and the CCC budgets. It should be noted that there is a qualitative difference between achieving targets which are absolute (as in the case of carbon reductions) and comparing marginal changes in costs between options. Thus the policy score should be major adverse, or more accurately a failure. This observation applies both to the Do Minimum and the Do Something. It may not apply to options which reduce emissions compared to 1990 such as land use policy, promotion of alternative modes, and demand management.

4.9 This approach is supported in webtag, Unit 2.1, para 1.3.11:

“For example, if an objective had been set to reduce emissions from transport to a specified level, and if emissions can be shown to be above that specified level, a problem of poor air quality can be said to exist. Thus, problems can be defined as unmet objectives.”

4.10 This Proof maintains that the failure to reduce carbon emissions is a major problem and one which puts into doubt the realism of the Do Minimum and emphasises the need to assess a proper range of alternatives.

Figure 3



*Source: TUBA data supplied by ESCC, CD 5/35, MTRU assumption 2009-13
Spreadsheet supplied as Annex 2*

5 Other issues

5.1 While preparing this Proof certain queries have arisen over the Transport Economic Efficiency Table which are being discussed with ESCC. These relate to the sensitivity of the appraisal to the current economic situation. For example, the construction costs have been reduced to reflect lower construction inflation and this has caused the BCR to rise. If a similar allowance had been made for the latest Treasury assessments of economic growth, the rise in the value of time which is built in to TUBA would have slowed between 2007 and the scheme opening year.

5.2 This could reduce time saving benefits by between 9% (April budget forecast) and 12% (Treasury August average of forecasts). Undoubtedly this will be further estimated in the next Pre Budget Report. ESCC have confirmed that no test has been undertaken which include such values.

5.3 It is expected that further queries over tax and fare revenues, and their impact on the BCR, will be clarified shortly. It is hoped they will be matters where technical agreement can be reached.

6 Conclusions

6.1 A proper range of alternatives to the BHLR have not been assessed. SoCoMMS suggests that such a scheme in isolation and unaccompanied by a full range of other transport measures would not achieve the Government objectives at the time. In fact, a key issue for this scheme, the failure to meet carbon targets after its implementation, has grown in importance since.

6.2 This is particularly important given that the appraisal shows that in the Do Something in 2020 key Government targets for carbon reduction are exceeded by more than 18%.

6.3 The Inspector is therefore asked to recommend rejection of the BHLR as presented to this Inquiry to the Secretary of State.

Annex 1

Summary of data from Tables 3-8 to 3-13 and Tables 6-1 and 6-2 of the Forecasting Report

Total trips by mode after variable demand modelling (Diadem)

Final post Diadem

AM Peak

	2004	2010	2025DM	2025DS
Car				
Commute	15599			
Emp Business	2716			
Other	7892			
Total	26207	33210	37189	38629
PT				
Bus car avail	146	161	176	210
Bus car n/a	125	137	150	174
Rail car avail	1938	1964	2190	2254
Rail car n/a	461	450	431	444
	2670	2712	2947	3082
All modes	28877	35922	40136	41711
Mode share				
Car	90.8%	92.5%	92.7%	92.6%
Bus	0.9%	0.8%	0.8%	0.9%
Rail	8.3%	6.7%	6.5%	6.5%
All PT	9.2%	7.5%	7.3%	7.4%

Interpeak

	2004	2010	2025DM	2025DS
Car				
Commute	3161			
Emp				
Business	3140			
Other	14999			
Total	21300	27450	30422	31233
PT				
Bus car				
avail	155	157	157	175
Bus car n/a	146	150	149	169
Rail car				
avail	883	893	969	1052
Rail car n/a	347	341	325	332
	1531	1541	1600	1728
All modes	22831	28991	32022	32961
Mode share				
Car	93.3%	94.7%	95.0%	94.8%
Bus	1.3%	1.1%	1.0%	1.0%
Rail	5.4%	4.3%	4.0%	4.2%
All PT	6.7%	5.3%	5.0%	5.2%

PM Peak		2004	2010	2025DM	2025DS
Car					
Commute	12438				
Emp					
Business	1852				
Other	12297				
Total	26587	33747	37431	38936	
PT					
Bus car					
avail	110	127	120	134	
Bus car n/a	92	105	97	105	
Rail car					
avail	3022	3006	3215	3291	
Rail car n/a	873	827	722	729	
	4097	4065	4154	4259	
All modes	30684	37812	41585	43195	
Mode share					
Car	86.6%	89.2%	90.0%	90.1%	
Bus	0.7%	0.6%	0.5%	0.6%	
Rail	12.7%	10.1%	9.5%	9.3%	
All PT	13.4%	10.8%	10.0%	9.9%	

Trips before the variable modelling was applied are shown for comparison below.

Reference Matrices		2004	2010	2025DM	2025DS
AM Peak					
Car					
Commute	15599	16712	17315	18074	
Emp Business	2716	2827	3028	3203	
Other	7892	8262	8908	9370	
Total	26207	27801	29251	30647	
PT					
Bus car avail	146	160	178	204	
Bus car n/a	125	137	151	173	
Rail car avail	1938	2015	2225	2305	
Rail car n/a	461	450	426	444	
	2670	2762	2980	3126	
All modes	28877	30563	32231	33773	
Mode share					
Car	0.907539	0.909629	0.907542	0.907441	
Bus	0.009385	0.009718	0.010208	0.011163	
Rail	0.083076	0.080653	0.08225	0.081396	
All PT	0.092461	0.090371	0.092458	0.092559	

Annex 2

TUBA output spreadsheet supplied by ESCC, with additions by MTRU

CARBON EMISSIONS (Tonnes)

Year	DM	DS	Target
2009	55000	55000	55000
2010	55000	55000	54300
2011	55000	55000	53600
2012	55000	55000	52900
2013	55430	55457	52200
2014	55638	55667	51500
2015	55842	55872	50800
2016	55972	56004	50100
2017	56101	56134	49400
2018	56228	56262	48700
2019	56354	56389	48000
2020	56478	56514	47300
2021	57112	57150	46090
2022	57744	57785	44880
2023	58375	58418	43670
2024	59005	59050	42460
2025	59633	59681	41250
2026	60285	60335	40040
2027	60935	60988	38830
2028	61584	61639	37620
2029	61528	61584	36410
2030	61473	61528	35200
2031	61450	61506	33990
2032	61428	61483	32780
2033	61405	61460	31570
2034	61383	61438	30360
2035	61360	61415	29150
2036	61337	61392	27940
2037	61315	61370	26730
2038	61292	61347	25520
2039	61270	61325	24310
2040	61247	61302	23100
2041	61225	61280	21890
2042	61203	61257	20680
2043	61180	61235	19470
2044	61158	61212	18260
2045	61135	61190	17050
2046	61113	61167	15840
2047	61091	61145	14630
2048	61068	61122	13420
2049	61046	61100	12210
2050	61024	61078	11000
2051	61002	61055	11000
2052	60979	61033	11000
2053	60957	61011	11000

2054	60935	60989	11000
2055	60913	60966	11000
2056	60891	60944	11000
2057	60869	60922	11000
2058	60847	60900	11000
2059	60824	60878	11000
2060	60802	60855	11000
2061	60780	60833	11000
2062	60758	60811	11000
2063	60736	60789	11000
2064	60714	60767	11000
2065	60692	60745	11000
2066	60670	60723	11000
2067	60649	60701	11000
2068	60627	60679	11000
2069	60605	60657	11000
2070	60583	60635	11000
2071	60561	60613	11000
2072	60539	60591	11000