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Budget 2004 and Energy

Tenth Report of Session 2003–04

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The Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

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Contacts

All correspondence should be addressed to The Clerk, Environmental Audit Committee, Committee Office, 7 Millbank, London SW1P 3JA. The telephone number for general inquiries is: 020 7219 6150; the Committee's e-mail address is: eacom@parliament.uk

References

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Overview

1. As a percentage of total tax, the revenues from environmental taxes have recently been at their lowest level since 1993. The latest Pre-Budget and Budget Reports contain few significant new measures, and fail to take forward the Treasury's strategy of shifting the burden of taxation from "goods" to "bads". Indeed, the Economic Secretary for the Treasury admitted that the Treasury's environmental tax strategy was a framework for taking decisions rather than a strategy as such. (Paragraph 14)

2. Recent data supports our contention that the Climate Change Strategy is seriously off course. The policy instruments the Government has put in place have yet to make a significant impact on the UK carbon emissions trajectory. The Government's latest forecasts indicate that carbon emissions will fall only to around 140 MtC by 2010—some 8 MtC more than the target. This carbon gap could be much greater if the policy instruments in place and planned fail to deliver the reductions envisaged. (Paragraph 21)

3. In view of its central coordinating role, the Treasury will need to play a significant part in the review of the Climate Change Strategy and in exploring with other departments the scope for introducing further policy measures to promote both renewable energy and energy efficiency. A more imaginative and radical strategy which might involve the use of fiscal instruments—in particular for transport and domestic energy efficiency—is called for. (Paragraph 22)

Transport

4. Carbon emissions from transport are still moving in the wrong direction. The Government must use the fiscal incentives at its disposal to curb transport growth while at the same time ensuring that there is sufficient investment in low-carbon public transport systems—particularly in the development of new communities—to provide an efficient and effective alternative. (Paragraph 25)

5. The voluntary agreement with European car-makers may not deliver the forecast emission reductions, and the savings of 5.6 MtC predicted in the Government's Ten Year Transport Plan will not now be achieved. This highlights the need for complementary measures, including fiscal measures, to promote a shift to low carbon transport. (Paragraph 29)

6. The attempt to set additional targets for low carbon vehicles in 2010 and 2020 was not particularly helpful, though we appreciate the Government's desire to give a long-term signal to the industry. Capital grants and investment subsidies provide another way to promote change, and we are not convinced that there is sufficient Government support for, or indeed coordination between, the various bodies involved. (Paragraph 33)

7. We welcome the introduction of the Alternative Fuels Framework. We see this as a direct response to our earlier recommendations on this score. But the Government faces major choices in terms of the role it sees biofuels, LPG and CNG playing in future. The Treasury cannot expect industry to provide long-term investment in alternative fuels unless it adopts a long-term strategy itself, and there is clearly a need for a rather more substantial strategy than the Alternative Fuels Framework currently provides. (Paragraph 40)

8. The continued growth of carbon emissions from transport remains one of the most serious problems we face, and the Government's commitment to sustainable development will be called into question unless it takes steps to confront this issue. The 1999 Pre-Budget Report included a commitment to ring-fence any above inflation increases in duty and recycle the proceeds. We urge the Government to implement the planned rise in fuel duty at the earliest opportunity, and to consider the case for recycling proceeds from future increases in order to subsidise transport spending and low carbon alternatives to conventional fuels. It would be helpful if the Treasury's fuel duty strategy could in future include specific discussion of this issue. (Paragraph 45)

9. We are disappointed that the Future of Transport White Paper had nothing new to say on the practical steps the Department for Transport would take to tackle carbon emissions from transport and to promote a shift to a low carbon economy. It will take 10 to 15 years to introduce road charging on a national basis and such a regime would be far more of a blunt instrument than the present system, where larger differentials in rates of fuel duties and VED can potentially be used to promote a shift to low-carbon vehicles. We therefore see a continuing and important role for an environmental fuel duty strategy over the next decade or more. (Paragraph 46)

10. We trust that the review of the company car tax scheme will give full consideration to the scope to widen the differentials further in order to increase the incentives for purchasing very low-emissions vehicles. (Paragraph 47)

11. The Government's own evaluation of the current VED scheme shows that current differentials are insufficient to prompt behavioural changes. The Government should increase them radically as part of a coherent strategy to promote low-carbon transport. (Paragraph 51)

Energy Efficiency

12. It is unfortunate that the Energy Efficiency Action Plan has had to be produced before a number of key evaluations on which it should have been based—including Spending Review 2004, the revised DTI Energy Projections, and the review of the Climate Change Programme. As a result, it is impossible to assess to what extent the measures it contains are sufficient to deliver the absolute emission levels required, or even unclear whether the various components of the Plan will indeed deliver their forecast benefits. (Paragraph 58)

13. In publishing the revised energy projections, the Department of Trade and Industry must highlight the extent of any 'carbon gap' and reconcile the impact of current policies to the 20% UK target for 2010 of 132 MtC. (Paragraph 59)

14. It is disappointing that the Treasury, after consulting in both 2002 and 2003 on fiscal measures for domestic energy efficiency, was unable to include in Budget 2004 a more significant package of measures. (Paragraph 63)

15. We share the concerns expressed by the Energy Saving Trust about the scale of the savings which can realistically be expected from the Energy Efficiency Commitment, and about the commitment required to achieve these savings. While it may be right for the Government to adopt a cautious approach here, it is surprising that it did not seek to involve the Energy Saving Trust more fully in agreeing the figures in the Action Plan. (Paragraph 66)

16. We welcome the evaluation which the Carbon Trust has recently carried out of the impact of Enhanced Capital Allowances (ECAs), and the Treasury should publish it immediately. But we remain concerned about the extent to which efficiency savings from ECAs would in any case have resulted from the introduction of the Integrated Pollution Prevention and Control regulations. (Paragraph 70)

17. We recommend that the Treasury should fulfil its earlier commitment to this Committee and regularly carry out systematic ex post appraisals of environmental tax measures. (Paragraph 71)

18. The Treasury now considers that the introduction of the EU Energy Products Directive provides a basis for extending eligibility for Climate Change Agreements to energy intensive industries. Yet it has failed to set out the rationale for introducing such an extension at this time or to include this measure in the table of environmental impacts appended to Chapter 7 of the Budget Report. (Paragraph 73)

19. We are sceptical of the figures quoted for emissions savings from Climate Change Agreements and recommend that baseline figures and future assessments, including that for 2004, are independently audited. The transparency of reporting could be improved and it would be helpful if DEFRA assessment reports could include a more strategic overview of performance, including progress against targets under the Climate Change Programme. (Paragraph 76)

Conclusions

20. A central theme emerging from this report is the difficulty of assessing progress on energy efficiency in the absence of robust and reliable energy projections and systematic ex post appraisals of the impact of specific policy measures. For this reason it is difficult to come to any conclusive view on the extent of any shortfall between the savings which current policies will deliver and the absolute level of emissions we need to meet. However, as we have suggested, there are grounds for supposing that this shortfall might be more substantial than currently envisaged, and that the Government will need to adopt more radical policies and implement them with still greater commitment if we are to attain the challenging objectives it has set. (Paragraph 78)

21. We fear that the Treasury is failing to exploit opportunities for more imaginative policy initiatives which might deliver the step changes needed rather than steady incremental progress. The crucially important series of reviews which are taking place this year and next provide an opportunity for it to look afresh at the scale of the challenges we face and re-assess the adequacy of the policy mechanisms we have in place to meet them. (Paragraph 79)

Introduction

1. Since its inception in 1997, the Environmental Audit Committee has regularly reviewed the progress made by the Treasury in placing environmental objectives at the heart of its fiscal policies.[1] In doing so, we have taken as one of our reference points the Statement of Intent on Environmental Taxation, which the Treasury itself released in July 1997 and which stated that the Government would "*over time...reform the tax system to increase incentives to reduce environmental damage.*"[2]

2. In our report last year on the Budget, *Budget 2003 and Aviation*,[3] we focussed specifically on the environmental costs and impacts of aviation in the light of the discussion document, *Aviation and the Environment: Using Economic Instruments*, published by the Treasury and the Department for Transport (DfT) in March 2003. We did so in the context of the DfT's airports consultation and the concerns felt by many over the huge projected increase in air traffic.

3. Following the publication of the Government's Pre-Budget Report on 10 December 2003 and the aviation White Paper, *The Future of Air Transport*, on 16 December 2003, we took evidence on environmental policy issues in relation to both these documents. As the function of the Pre-Budget is to set out the Treasury's strategy, including its environmental tax strategy, we would normally have used our own review of it to examine the extent to which the Treasury was taking forward the agenda set out in the Statement of Intent. However, in view of the seriousness with which we view the growing environmental impacts of aviation, we focused our review exclusively on aviation.[4]

4. In this report, therefore, we aim to cover environmental issues relating to the December 2003 Pre-Budget Report, together with recent measures announced in March 2004 in the Budget. Some of the evidence we draw on has already been published along with our

1 First Report of the Environmental Audit Committee, Session 1997-98, *The Pre-Budget Report*, HC 547.

Third Report, 1997–98, The Pre-Budget Report: Government response and follow-up, HC 985.

Fourth Report, 1998–99, The Pre-Budget Report 1998, HC 93.

Eighth Report, 1998–99, The Budget 1999: Environmental Implications, HC 326.

Fourth Report, 1999–2000, The Pre-Budget Report 1999: Pesticides, Aggregates and the Climate Change Levy, HC 76.

Sixth Report, 1999–2000, Budget 2000 and the Environment, HC 404.

Second Report, 2000–01, The Pre-Budget Report 2000: Fuelling the Debate, HC 71.

Minutes of Evidence, 14 March 2001, Budget 2001, HC 333 of Session 2000-01.

Second Report, 2001-02, Pre-Budget Report 2001:A New Agenda?, HC 363.

Fourth Report, 2002-03, Pre-Budget Report 2002, HC 167.

Ninth Report, 2002-03, Budget 2003 and Aviation, HC 672

2 *The Statement of Intent on Environmental Taxation* was issued in July 1997 as an annex to one of the Budget press releases. It is reprinted at Appendix II (p xx) in the Third Report from the Environmental Audit Committee, Session 1997–98, *The Pre–Budget Report: Government response and follow–up*, HC 985.

3 EAC, Ninth Report of 2002-03, *Budget 2003 and Aviation*, HC 672.

4 EAC, Third Report of 2003-04, *Pre-Budget Report 2003:Aviation follow-up*, HC 233.The EAC has since published a further report on aviation commenting on the quality of the Government's response to that report. See EAC, Seventh Report of 2003-04, *Aviation: Sustainability and the Government Response*, HC 623.

follow-up report on aviation. This included various memoranda commenting on a variety of fiscal issues, and oral evidence from John Healey MP (the Economic Secretary for the Treasury), the Association for the Conservation of Energy, the Energy Saving Trust, and the Carbon Trust.[5] Since then, we have taken further evidence from the Economic Secretary and from the two Trusts, and evidence from the Government's Chief Scientist—Sir David King, all of which is published with this report.[6] We would like to express our thanks to all those individuals and organisations who have contributed to our inquiry.

5. To the extent that combating climate change is of overriding importance, we have focused this report on the role of fiscal instruments in relation to energy and transport policy. Our report is not intended to be a comprehensive analysis, but rather to highlight some of the concerns we have which the Government may wish to take into account in the various related reviews which it is about to undertake.

Pre-Budget 2003 and Budget 2004

New environmental measures

6. The 2003 Pre-Budget Report (PBR 2003) introduced several new proposals or measures of national significance:[7]

- an Alternative Fuels Framework to underpin the duty regime for alternative fuels, including a commitment to provide rolling three-year certainty on duty differentials for all alternative fuels. As part of this, the PBR signalled a gradual increase in duty rates for Liquid Petroleum Gas (LPG), while differentials for Natural Gas (NG) would be held constant;

- an extension of the 80% rebate from the Climate Change Levy, subject to agreeing targets for energy efficiency (ie Climate Change Agreements), to energy intensive industries which were previously considered ineligible;

- a proposal to allow installations to maintain their 80% rebate from the Climate Change Levy if they enter the EU Emissions Trading System as an alternative to maintaining their Climate Change Agreements;

- a commitment to consult on options to tackle diffuse pollution in early 2004, including a consideration of the pros and cons of a role for economic instruments; and

- proposals for recycling landfill tax revenues to businesses.

7. In addition, PBR 2003 announced that coal mine methane exemption had now been introduced from 1 November 2003 following the original announcement in Pre-Budget

5 EAC, Third Report of 2003-04, *Pre-Budget Report 2003: Aviation follow-up*, HC 233-II.

6 Ev 1-84

7 With regard to Northern Ireland, the PBR announced a significant extension of relief from the levy for aggregates used in processed products and virgin aggregate.

2002 and success in obtaining state aid clearance. Noticeable by their absence from PBR 2003 were any specific measures or proposals on domestic energy efficiency—despite two previous Treasury consultations on this topic—or on aviation, which we have not discussed here in the light of our two recent reports on this subject. We also experienced a sense of déjà vu in relation to the proposed consultation on options to tackle diffuse pollution, given the work the DETR carried out on this in 1997-98.[8]

8. Budget 2004 re-affirmed some of the proposals included in PBR 2003 and contained a few additional ones. In the area of domestic energy efficiency, it included:

- a reduced rate of VAT for the domestic installation of ground source heat pumps;
- a landlord's energy saving allowance, which provides individual private landlords with upfront relief on capital expenditure for installations of loft and cavity wall insulation in rented accommodation; and
- a commitment to a reduced rate of VAT on micro-CHP from 2005, subject to the emerging findings of field trials.

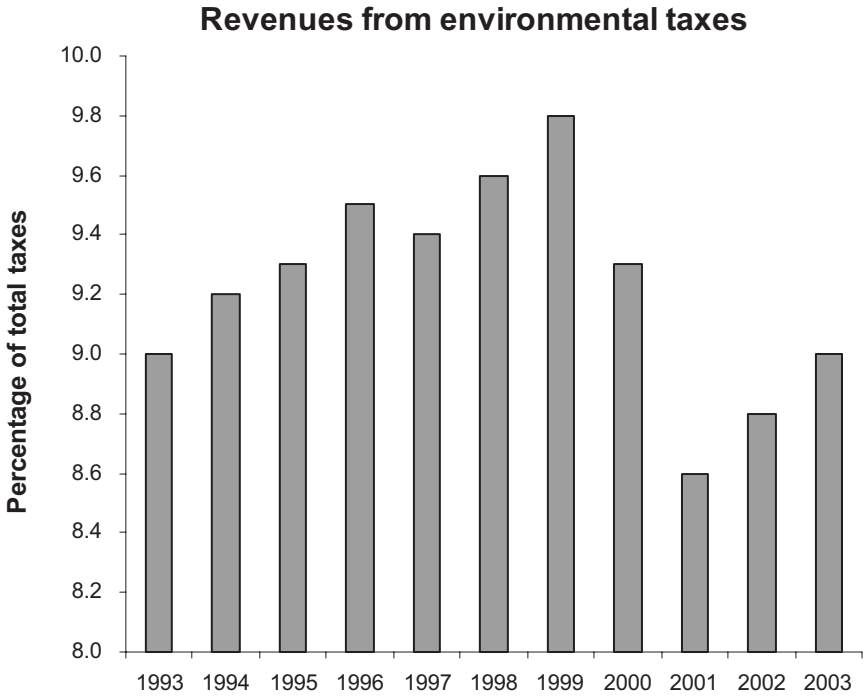
Overview of progress

9. In commenting on both the 2001 and 2002 Pre-Budget Reports, we concluded that the initiative of "shifting the burden"—set out in the Statement of Intent in 1997—was in danger of stalling. Whilst we acknowledged the major steps the Government had taken in its first term, we felt that there was in this second term perceptibly less enthusiasm for radical new environmental fiscal initiatives. The key policy instruments which the Government regularly points to as evidence of its environmental tax strategy—the Climate Change Levy, the UK Emissions Trading System, and the Aggregates Levy—all stemmed from proposals dating back to 1998-99. We have seen little further development of fiscal policy instruments in this Parliament.

10. Indeed, data published by the Office for National Statistics (ONS) shows that—notwithstanding the introduction of these flagship measures since 2000—the revenues from environmental taxes, as a proportion of total taxes and social security payments, have recently been at their lowest level since 1993.[9] The following graph, based on data in the latest set of Environmental Accounts, shows the relative contribution from environmental taxes.

8 DETR, *Economic instruments for Water Pollution,* 1997. For a summary of work carried out from May 1997 to November 1999 on water pollution and the scope for a pesticides tax, see EAC's Fourth Report of 1999-2000, *Pre-Budget Report 1999:Pesticides, Aggregates and the Climate Change Levy*, HC 76, paragraph 9.

9 ONS, *Environmental Accounts*, Spring 2004, table 3.1, page 48.



Source: Office of National Statistics

11. While there has been some increase in the last two years, this largely relates to fuel duty and Vehicle Excise Duty, though the introduction of the Aggregates Levy and the Climate Change Levy have also played a part. Moreover, some of the proposals in this budgetary round will result in slight decreases in revenue. The freeze in the rate of the Climate Change Levy, for example, together with the extension of eligibility for Climate Change Agreements, will alone result in a decrease of £50 million a year. Yet the appraisal table appended to chapter 7 of the PBR and Budget reports entirely fails to include these impacts or quantify their effect in terms of carbon emissions.[10]

12. We asked the Economic Secretary whether the Treasury could really be said to have an environmental tax strategy and whether—in the light of our concerns on this score—he envisaged that in the years ahead a shift in the burden of taxation would still take place.[11] We were surprised that he was unaware of the percentage revenue raised from environmental taxes and that he claimed such a shift had been happening. On the question of a strategy, he admitted that the Treasury's document amounted to a "*framework and a set of principles for how we, as the Treasury at the centre of government, would approach the policy question of whether or not for any specific environmental purposes and ends we would consider the use of economic instruments including tax to achieve those …. and so, in that sense, it is a strategy and framework for making the sort of decisions in particular policy areas that we have to make.*" In other words, it is a framework for making decisions rather than a strategy as such.

10 Budget 2004,*Prudence for a purpose :A Britain of stability and strength*, HC 301, 2003-04.Table A1 of the FSBR (page 187, lines 30 and 31) disclose the financial costs of these measures, but table 7.2 (page 173) of the Budget Report includes no reference to them or appraisal of their impacts.

11 EAC, Third Report of 2003-04, *Pre-Budget Report: Aviation follow-up*, HC 233-II, QQ 83-84.

13. The Energy Saving Trust provided a particularly apt description of the Treasury's approach:

> *"I have to say that from our perspective, what we are seeing is a highly tactical set of responses to individual audiences. Some work very effectively and some do not. What we would like to see is a very much clearer statement of what that strategy amounts to".*[12]

14. **As a percentage of total tax, the revenues from environmental taxes have recently been at their lowest level since 1993. The latest Pre-Budget and Budget Reports contain few significant new measures, and fail to take forward the Treasury's strategy of shifting the burden of taxation from "goods" to "bads". Indeed, the Economic Secretary for the Treasury admitted that the Treasury's environmental tax strategy was a framework for taking decisions rather than a strategy as such.**

The Climate Change Strategy

15. In our report on the 2002 Pre-Budget, we concluded that the Government's Climate Change strategy was seriously off-course and recommended that current progress and future projections should be reviewed as a matter of urgency. The Treasury hit back, claiming that "factual inaccuracies" in the report masked the government's environmental successes, and that data published shortly after our report was agreed showed a 3.5 per cent fall in UK carbon dioxide emissions in 2002 putting the UK firmly on course to meet climate change targets.[13]

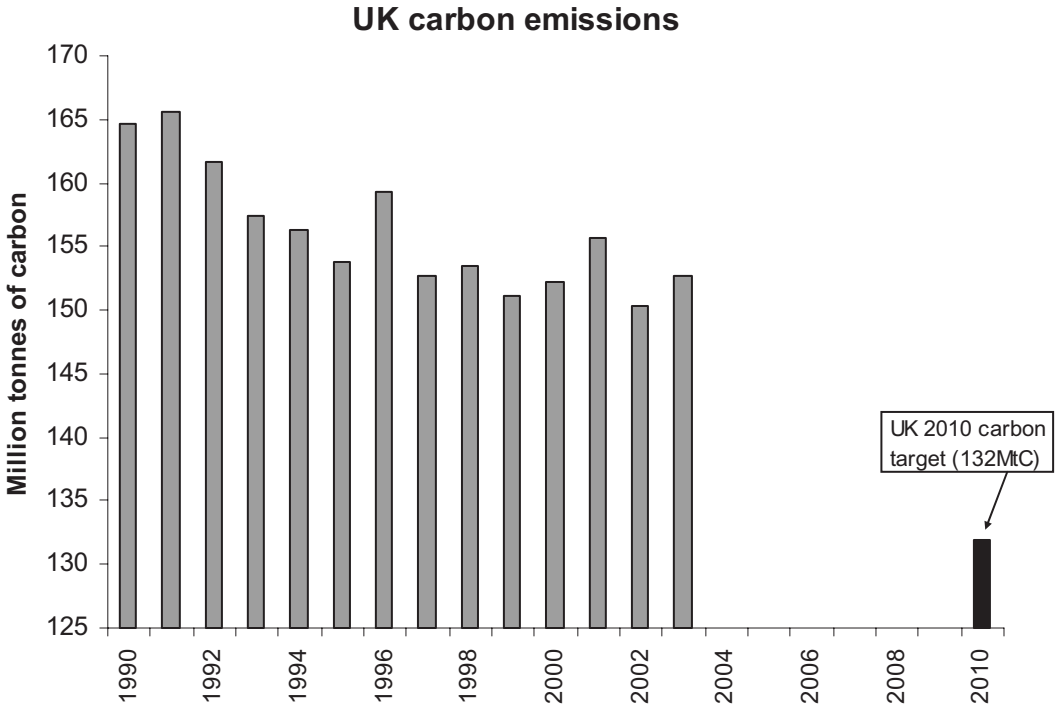
16. Since then, further information has vindicated our claim that the Government is struggling to get anywhere near its 20% carbon reduction target by 2010. Provisional emissions data for 2003 show that carbon emissions increased to about 152.7 MtC, largely due to the continuing increased use of coal for electricity generation.[14] Although this figure is still significantly lower than the 1990 baseline (164.6 MtC), much of the reduction was due to the "dash for gas" in the 1990s and further savings will be harder to achieve. For the Government to achieve the 20% carbon reduction target it has set for 2010, emissions would need to fall from their current level to 132 MtC. A further reduction to 110 MtC would be required by 2020 if the UK is to remain on course for achieving the 60% carbon reduction target for 2050.

17. The following graph demonstrates forcibly that the policy instruments the Government has put in place have yet to make a significant impact on the UK carbon emissions trajectory.

12 EAC, Third Report of 2003-04, *Pre-Budget Report: Aviation follow-up*, HC 233-II, Q 132.

13 "MPs criticise greenhouse gas progress and urge chancellor to raise environmental taxes", Financial Times , 2 April 2003, page 8

14 DTI, *Energy Trends*, March 2004, page 22ff and Table 1 (page 27).



Source: DTI / EAC[15]

18. The Energy White Paper endorsed the vision that renewables and energy efficiency would be at the heart of future energy policy and would make up for the gap caused by the decline in coal and nuclear; and stated that current policies (including all the measures set out in the White Paper) would enable the 20% carbon reduction target to be met. The position is complicated by the delay on the part of the Government in finalising and publishing its energy projection forecasts, an issue we comment on below. But a recent DTI working paper on energy projections suggests that coal will provide a much more important component of the electricity mix than previously envisaged, and that emissions in 2010 will amount to 140 MtC, taking account of all policy measures both current and proposed.[16] Over the last year, therefore, we have seen Government forecasts of performance against the 20% target fall to around 15%.[17] This amounts to a substantial 'carbon gap' of some 8 MtC—a forecast of 140 MtC against a target of 132 MtC.

19. Even this projection assumes that the forecast emission reductions arising from these policy measures will actually be delivered. We have significant concerns on this score. The Energy White Paper endorsed the vision that renewables and energy efficiency would be at the heart of future energy policy and would make up for the gap caused by the decline in coal and nuclear. With regard to energy efficiency, the Government acknowledges that the rate of improvement, which has remained at about 2% per annum for many years, will

15 The graph is based on carbon emissions data in DTI's *Energy Trends*, March 2004.

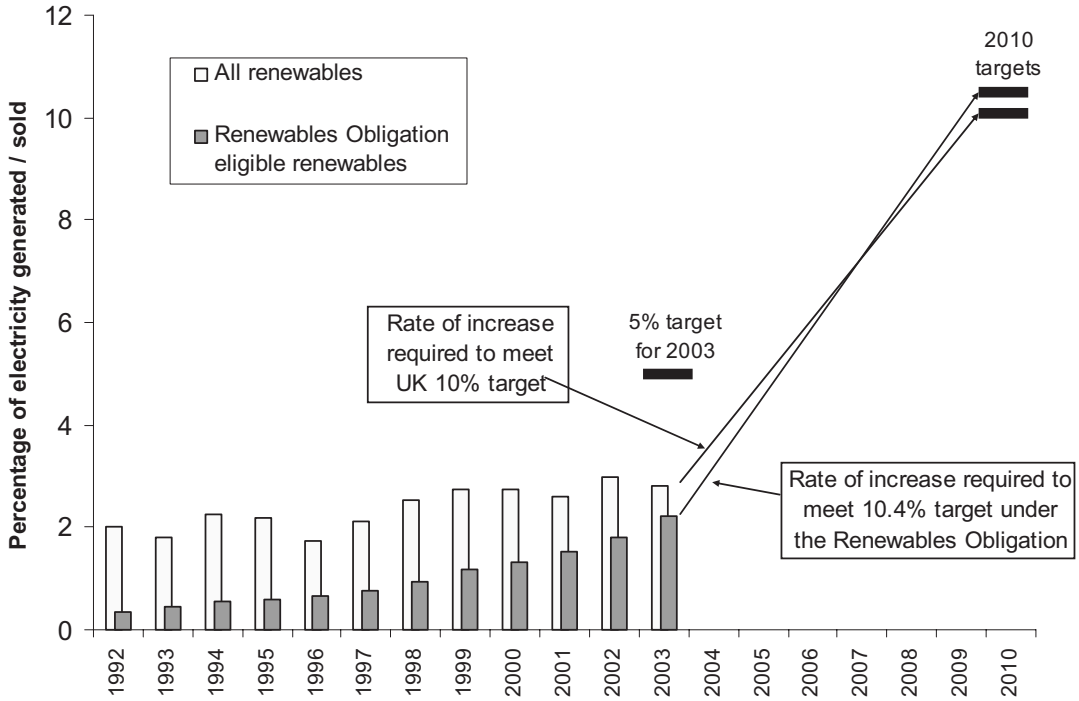
16 The DTI May 2004 working paper can be found at: http://www.dti.gov.uk/energy/sepn/uep.pdf.

17 *Ibid.* paragraph 2.7 and Table 10. (Note that Table 10 includes a figure of 159.6 MtC for the 1990 baseline. It is unclear how this relates to the figure of 164.6 MtC which is the commonly accepted baseline—on which, for example, the Energy White Paper and the Defra headline indicator data are based.).

need to double even to achieve the 140 MtC level of emissions forecast for 2010.[18] But we have seen no evidence so far of a step-change in this respect.

20. The other main plank of the Government's policy is to promote renewable energy. Yet it is increasingly clear that the Renewables Obligation will not provide sufficient stimulus to technologies other than wind power, and that without this there is little chance that the 10.4% renewables target can be achieved by 2010. We have updated the graph we have produced for the last two years, and it shows no evidence of a step change in deployment so far.[19] In view of the time lags involved in bringing on-stream renewable energy projects, the window of opportunity for achieving the target is gradually closing.

UK progress against renewables targets



Source: EAC / DTI Energy Trends, June 2004

Note: The data for all renewables is calculated on the basis of the percentage of electricity generated. It also includes types of renewables which are not eligible for the Renewables Obligation (eg most large-scale hydro). By contrast, the data for Renewables Obligation (RO) eligible electricity is calculated on the basis of the percentage of electricity sold. The two sets of data are therefore not directly comparable with each other.

18 DEFRA, *Energy Efficiency: the Government's plan* for action, April 2004, paragraph 4.

19 While electricity eligible for the Renewables Obligation increased from 1.8% in 2002 to 2.2% in 2003, data from the DTI shows that much of the increase was due to landfill gas and refurbished large-scale hydro. Indeed, the percentage of energy from wind remained static in 2003 at 0.39%.

21. **Recent data supports our contention that the Climate Change Strategy is seriously off course. The policy instruments the Government has put in place have yet to make a significant impact on the UK carbon emissions trajectory. The Government's latest forecasts indicate that carbon emissions will fall only to around 140 MtC by 2010—some 8 MtC more than the target. This carbon gap could be much greater if the policy instruments in place and planned fail to deliver the reductions envisaged.**

22. **In view of its central coordinating role, the Treasury will need to play a significant part in the review of the Climate Change Strategy and in exploring with other departments the scope for introducing further policy measures to promote both renewable energy and energy efficiency. A more imaginative and radical strategy which might involve the use of fiscal instruments—in particular for transport and domestic energy efficiency—is called for.**

Transport

Introduction

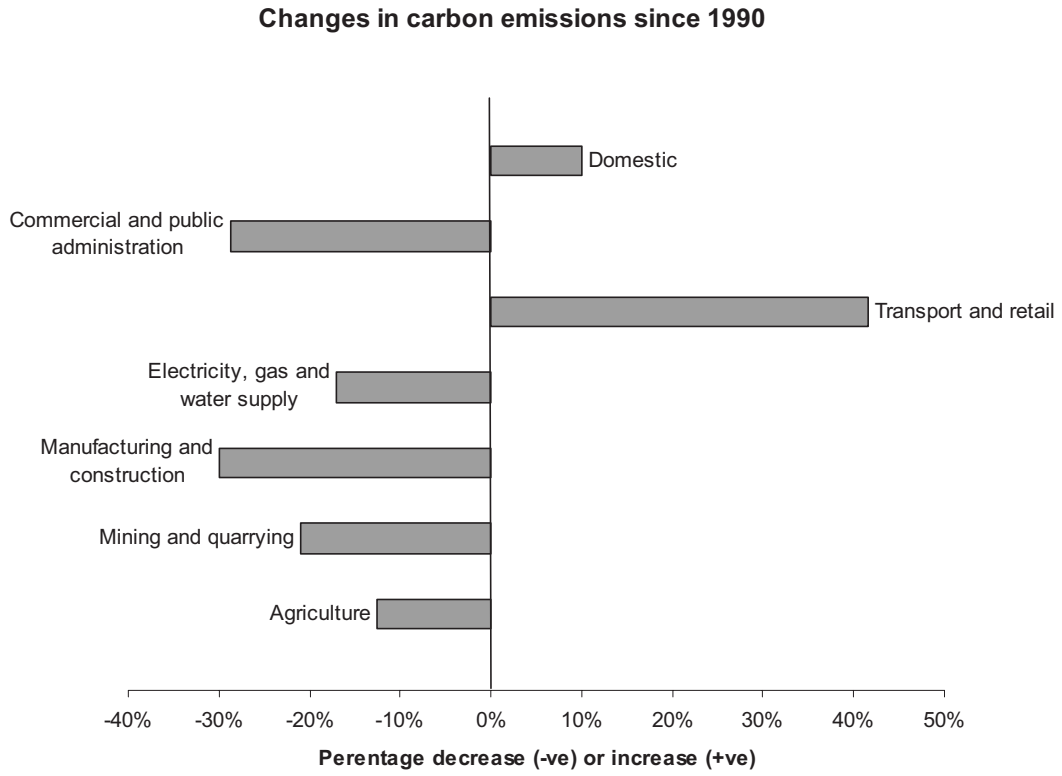
23. Transport accounts for over 30% of total energy consumption. There has been a steady increase in the volume of road traffic since 1970, and this is a key area where the trend is still moving in the wrong direction and the headline indicator is red.[20] Last year, in an effort to present the position more positively, the Government included an additional indicator for 'traffic intensity'—a measure of vehicle kilometres per unit of GDP. This shows a steady fall since 1991, though in the last three years the trend has flattened out. While it demonstrates some decoupling from growth, it should not obscure the fact that growth is still occurring and carbon emissions from this sector rising.

24. Indeed, carbon emissions from transport since 1990 have moved spectacularly in the wrong direction—in marked contrast to other sectors. We reproduce below a graph which the Office for National Statistics published in the latest set of Environmental Accounts.[21] In view of the dramatic increase in transport emissions, we were surprised that the ONS chose not to mention it in the Summary of the Environmental Accounts and note that this might have been due to pressure from the Department for Transport.[22]

20 The 15 headline indicators have been chosen by the Government as a basis for summarising progress in all areas of sustainable development. They cover economic, social, environmental performance and are reported on every year in the Government's annual report on progress against the Sustainable Development Strategy.

21 ONS, *Environmental Accounts*, Spring 2004, page 27.

22 "Officials try to hide rise in transport pollution", The Guardian, 27 May 2004.



Source: Office for National Statistics (Environmental Accounts, Spring 2004)

25. **Carbon emissions from transport are still moving in the wrong direction. The Government must use the fiscal incentives at its disposal to curb transport growth while at the same time ensuring that there is sufficient investment in low-carbon public transport systems—particularly in the development of new communities—to provide an efficient and effective alternative.**

Emissions targets for road transport

26. In July 1998, the European Car Makers Association[23] concluded a voluntary agreement with the EC to reduce the average carbon emissions of new cars to 140 gC/km by 2008; and to 120 gC/km by 2012. The following table sets out performance to date.

	CO_2 (g/km)							
EU-15	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**
Petrol-fuelled vehicles	189	186	184	182	180	178	173	172
Diesel –fuelled vehicles	179	178	175	171	165	163	156	157
All fuels	**186**	**184**	**182**	**180**	**176**	**172**	**167**	**166**

Source: European Commission, COM (204) 78 final.

23 The Association des Constructeurs Européens d' Automobiles(ACEA)

27. We asked the Society of Motor Manufacturers and Traders about the feasibility of meeting these targets.[24] Mr Everitt pointed out that two interim targets had been met,[25] and he felt that they were therefore on course to meet the 140 gC/km target, though the SMMT was much more cautious about the 2012 target. We are somewhat less sanguine even about the earlier target, as the evidence suggests that rate of improvement tailed off in 2002. There have also been reports that European and Japanese car makers have emphatically rejected suggestions that they could achieve the 2012 target of 120 gC/km.[26] Moreover, we noted that the UK's performance was rather worse than the EU as a whole with emissions of 174 gC/km in 2002, as against the EU average of 166.[27]

28. With regard to targets set by the UK Government, the Ten Year Plan for Transport stated that

> *"The levels of investment in the Plan will help to develop the transport measures described in the UK's draft Climate Change Programme. Together with the 4.0 MtC anticipated from the voluntary agreement with car manufacturers, they are projected to deliver savings in CO2 emissions in 2010 equivalent to 5.6 million tonnes of carbon (MtC). Further savings should be achievable with additional measures under consideration, including further improvements in vehicle efficiency and new technologies."*[28]

Yet, in evidence to the Transport Committee, the Government acknowledged that these figures were over-optimistic and not now likely to be achieved.[29] We trust that the revised energy projections and the review of the 10 Year Transport Plan will clarify what level of savings can now be expected.

29. **The voluntary agreement with European car-makers may not deliver the forecast emission reductions, and the savings of 5.6 MtC predicted in the Government's Ten Year Transport Plan will not now be achieved. This highlights the need for complementary measures, including fiscal measures, to promote a shift to low carbon transport.**

30. There are also two other targets we noted. The Department for Transport's *Powering Future Vehicles* strategy (July 2002) set a target that 10% of new vehicles will emit less than 100gC/km of CO2 at the tailpipe by 2012. This compares to a current fleet average of 174gC/km decreasing at only 3-4 gC/km per year. Even vehicles such as the Smart car are higher than this: the Toyota Prius, which utilises hybrid electric/petrol technology, is one of the very few cars which meets this specification. The Society of Motor Manufacturers and Traders commented that the 10% target was feasible but the dominant focus for

24 Q48 ff

25 Firstly, the availability in 2000 of a vehicle with a performance of less than 120 grams per kilometre; and secondly that, by the end of 2003, the average new car emissions should be between 175 and 165 grams per kilometre. See Q48.

26 ENDS Daily, 15 March 2004.

27 Society of Motor Manufacturers and Traders.

28 *Op.cit.* paragraph 8.9.

29 Evidence given before the Transport Committee, 10 March 2004, Q 596ff.

industry was going to be the European level agreement rather than on creating a small and specialised niche market.[30]

31. The other target was not so much a target as a promise to set one. The *Powering Future Vehicles* strategy referred to *"the expectation that a significant proportion of the 2020 cars will offer zero tailpipe emissions. The precise target, including the definition of 'ultra-low carbon' will be quantified within one year."*[31] The first annual review of the strategy was published in October 2003, but it states only that it has asked for advice on this target from the Low Carbon Vehicle Partnership (LowCVP) which was established in January 2003 to bring together stakeholders and help promote a shift to low carbon vehicles. The SMMT told us that there were so many technologies being developed and so many areas of investigation underway that it was not possible to come up with a rational and dependable 2020 target.[32]

32. The other main way the Treasury and the Department for Transport can assist is through the structure and amount of capital funding they provide for innovative projects and infrastructure development. However, there are a variety of bodies involved,[33] and various funding initiatives such as the New Vehicle Technology Fund, and the Ultra Low Carbon Car Challenge. The first annual review of the Powering Future Vehicles strategy states that:

> "*The PFV Strategy identified the need for closer links between the various R,D&D programmes, and the Government has asked the LowCVP R,D&D working group for its recommendations on how to improve these linkages. We have also asked for the Partnership's advice on setting up a 'single portal' to build stronger links between Government programmes and provide a single point of advice and information on the support available.*"[34]

The SMMT acknowledged the need for more coordination here, and subsequently provided evidence to suggest that the extent of Government funding for such initiatives compared poorly with other countries.[35]

33. **The attempt to set additional targets for low carbon vehicles in 2010 and 2020 was not particularly helpful, though we appreciate the Government's desire to give a long-term signal to the industry. Capital grants and investment subsidies provide another way to promote change, and we are not convinced that there is sufficient Government support for, or indeed coordination between, the various bodies involved.**

Fuel duties

34. In our report on the 2002 Pre-Budget Report, we were critical of the absence of any strategy underpinning the Treasury's policy on relative levels of fuel duty.[36] The 2003 Pre-

30 Q 59.

31 *Op. cit*, paragraph 2.1.4.

32 Q 74.

33 DfT, HMT, Energy Savings Trust, the Carbon Trust, LowCVP, etc.

34 *Op cit*, paragraph 3.4.

35 QQ77-79 and Ev 22-23.

Budget and 2004 Budget report has now, for the first time, included an 'Alternative Fuels Framework' which aims to set out the rationale behind the relative levels of fuel duty and provide certainty about future levels of duty on a three year rolling period. In line with the Alternative Fuels Framework, the Budget included the following main announcements with regard to fuel duty:

- an overall increase in zero sulphur fuel only in line with inflation (though low-sulphur fuel will increase by 0.5p a litre more than this)l
- the 20p incentive for biodiesel to be maintained at least until 2007;
- a 20p incentive for bioethanol to be introduced from 1 January 2005 and to be maintained at least until 2007;
- Compressed Natural Gas (CNG) to be maintained at its current price of 41p until 2007; and
- LPG to be increased by 1p each year until 2007 from its current rate of 41p.

35. The Energy Saving Trust argued forcibly that three years was not long enough to constitute a strategy, and that in any case there had to be more clarity on the reasons for giving tax breaks for particular fuels:

> *The reason we want a long-term strategy for each fuel which is clear is that there are two reasons for giving a tax break to a particular fuel. One is that it has environmental benefits and that justifies a tax break over a long period, but the other is to support an innovative industry, where that is environmentally beneficial. That requires a higher initial level of subsidy, but there has to be some level of certainty in the industry about what the initial level will be and how that will come down. We do not have any problem with the view that the level of support should be reduced as the market grows and costs reduce. We just say that people need to be clearer about what that level and reduction will be, if we are to expect them to invest.*[37]

36. The Energy Saving Trust also expressed concern about the message which the increase in duty for LPG might send—not just in terms of the impact on the LPG market itself but more widely on all investors in alternative fuels.[38] We have considerable sympathy for their arguments, and it reminds us of the difficulty renewable energy projects have faced of putting together a business case to attract long-term investment. Indeed, the Government has itself recognised the latter when it was forced to extend the targets for the Renewables Obligation on a ten year rolling basis. The position with regard to alternative fuels does not seem to us to be radically different. The Government faces major choices in terms of the role it sees biofuels, LPG, or CNG playing in future. Such issues would, however, justify rather more of a strategy than the Alternative Fuels Framework currently provides.

37. A particular cause for concern is the impact of the rise in duty on the fledgling market for LPG. We heard that uptake had significantly increased in the last 18 months. Even so,

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36 EAC, Fourth Report, 2002-03, *Pre-Budget Report 2002,* HC 167.

37 EAC, Third Report of Session 2003-04, *Pre-Budget Report 2003:Aviation Follow-up*, HC 233-II, Q 130.

38 *Ibid.*Q 127.

it amounts to very little: recent available data suggests that only 73,000 tonnes of LPG was sold in 2001, some 0.2% of the total market for petrol and diesel sales. It is particularly disappointing that Government departments have signally failed to promote LPG within their car fleets.[39] We do not know whether LPG represents a lost opportunity or whether it could still play a significant part in future strategy. Nor do we know whether the rise in duty on LPG will have a significant impact on investors not just in LPG but in other alternative fuels as well. A Treasury strategy covering a longer period would certainly help to assuage such concerns.

38. The lack of a clear strategy also affects biofuels, where greater challenges lie ahead. The EU biofuels directive, agreed in May 2003, requires member states to promote the use of biofuels or other renewable fuels as a substitute for petrol or diesel in the transport sector, to set indicative targets for biofuel sales for 2005 and 2010, and to introduce a specific labelling requirement at point of sale for biofuel blends in excess of 5 percent.[40] With regard to the indicative targets, member states must take account of two prescribed reference values—2% of all road fuel sales (calculated on the basis of energy content) by December 2005, and 5.75% by 31 December 2010. Member states must also report to the Commission each year on measures taken to promote the use of biofuels and on levels of biofuel sales.

39. In response to this directive, the Government published a consultation in April 2004. This considered how support could be provided for biofuels (eg through the use of fuel duties or some form of obligation, and the need for regional support), aspects of production and labelling, and the nature of the targets which should be set. We note that the proposed target for 2005—144 million litres—is only a fraction of the 2% suggested in the directive;[41] and that the Government is proposing to delay setting a target for 2010 until 2007. While we appreciate the policy difficulties facing the Government, it does appear to us that such proposals reflect the absence of a coherent strategy. We do, however, note the commitment in the Energy White Paper to evaluate the move to hydrogen and large-scale biomass fuels, and welcome the fact that this assessment is now in progress.[42]

40. **We welcome the introduction of the Alternative Fuels Framework. We see this as a direct response to our earlier recommendations on this score. But the Government faces major choices in terms of the role it sees biofuels, LPG and CNG playing in future. The Treasury cannot expect industry to provide long-term investment in alternative fuels unless it adopts a long-term strategy itself, and there is clearly a need for a rather more substantial strategy than the Alternative Fuels Framework currently provides.**

41. With regard to other fuel duty rates, the most important decision in Budget 2004 was the commitment to increase the duty on zero sulphur fuels from 1 September 2004 only by the rate of inflation. By levying an above inflation increase on ultra low sulphur fuels, the Treasury is once again planning to shift the market entirely to sulphur free fuels. This will

39 Q 57. See also EAC, Thirteenth Report of 2002-03, *Greening Government 2003*, HC 961, Annex paragraph 40ff.

40 Biofuels can be blended with petrol or diesel at levels of up to 5% while still conforming to engine specifications.

41 Using a conversion factor of 1250 litres per ton, 144 million litres amounts to 115,200 tons of biofuels. This represents only 0.3% of petrol and diesel sales (37 million tons).The percentage would be smaller if higher conversion factors were used.

42 Budget 2004, paragraph 7.34.

be the fourth Budget in succession where there has been no real-terms increase in fuel duty. Indeed, this is one of the main reasons why environmental taxes have fallen in recent years as a proportion of total taxes.

42. When he gave evidence to us on the 12 May 2004, the Economic Secretary gave a categorical assurance that the increase in fuel duty would take place as planned on the 1st September.[43] But on the 20th July 2004, along with the publication of the *Future of Transport* White Paper, the Treasury announced that the increase in fuel duty, which had been under review since 3 June, would not take place due to continuing international uncertainty in oil markets.[44]

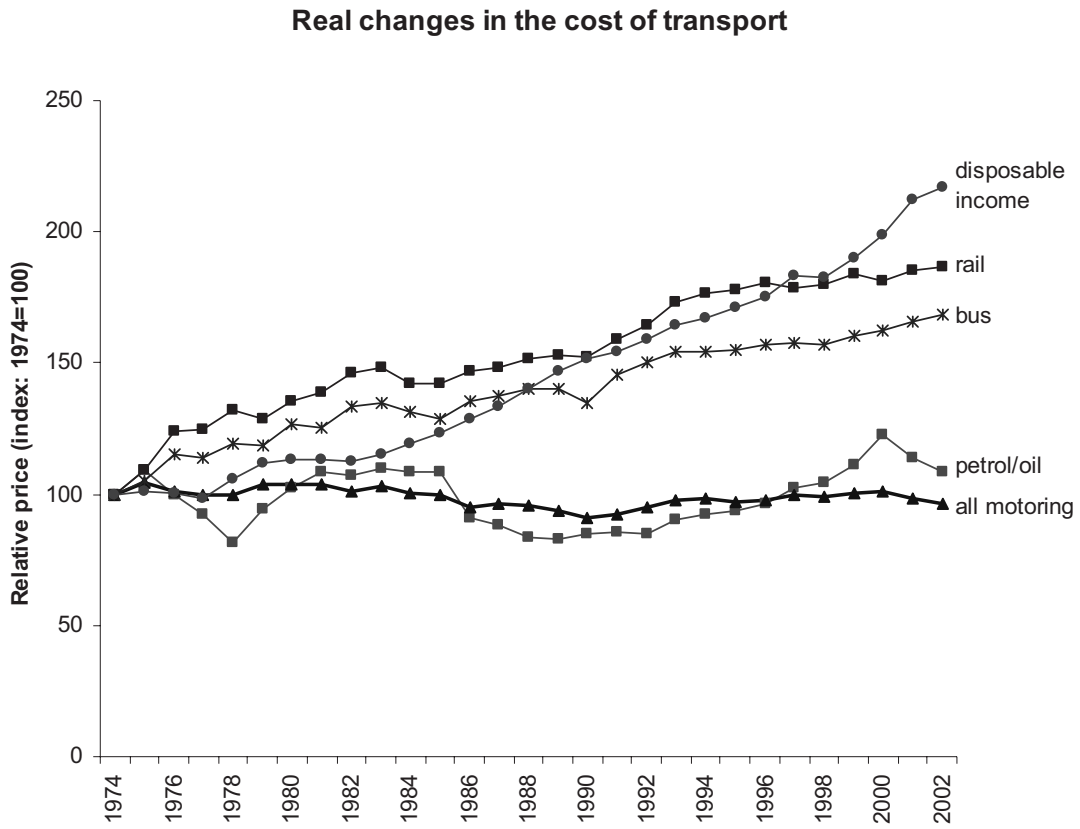
43. Yet the real cost of petrol fell by 11% over the period 2000 to 2002 while disposable incomes increase by 9% over the same period.[45] The latest available data for petrol prices, covering the first quarter of 2004, shows that—despite the recent rise in oil prices—petrol is still at least 10% cheaper than in 2000 in real terms.[46] These figures do not even take into account any changes in the capital costs involved in car purchase. Moreover, Government data reveals that the real costs of motoring have remained static since 1970 in marked contrast to the trends in public transport and disposable income, as the following graph demonstrates:

43 Q 240.

44 Hansard, 20 Jul 2004 : Column 189W.

45 See http://www.sustainable-development.gov.uk/indicators/national/index.htm. Indicator T4 (real changes in the cost of transport) shows that petrol/oil costs have fallen from 122.4 (2000) to 108.7 (2002), while disposable income has increased from 198.5 (2000) to 216.8 (2002).[Index:1974=100].

46 See DTI, *Quarterly Energy Prices*, June 2004. Table 2.1.2 reveals a 13% fall in the cost of petrol and oil and a 10% fall in the cost of fuel, light petrol and oil.



Source: DEFRA, national indicator T4

44. We appreciate that the shadow of the fuel protests of 2000 still hangs over the Government and that it is fearful of a repetition of those events. Indeed, this is an issue which is of particular sensitivity not only for the Government but for those in all mainstream political parties. Politicians have hardly tried to convince the public that motoring has not become more expensive, and they have failed to make the case for the environmental benefits of taxing fuel to reflect the damage—particularly in terms of global warming—which it gives rise to. In addition, we firmly believe that the public would respond more favourably if they saw clearly that increases in duty were being recycled to promote the deployment of low-carbon alternatives to conventional fuel—such as biodiesel and renewable hydrogen.

45. **The continued growth of carbon emissions from transport remains one of the most serious problems we face, and the Government's commitment to sustainable development will be called into question unless it takes steps to confront this issue. The 1999 Pre-Budget Report included a commitment to ring-fence any above inflation increases in duty and recycle the proceeds. We urge the Government to implement the planned rise in fuel duty at the earliest opportunity, and to consider the case for recycling proceeds from future increases in order to subsidise transport spending and low carbon alternatives to conventional fuels. It would be helpful if the Treasury's fuel duty strategy could in future include specific discussion of this issue.**

46. **We are disappointed that the *Future of Transport* White Paper had nothing new to say on the practical steps the Department for Transport would take to tackle carbon**

emissions from transport and to promote a shift to a low carbon economy. It will take 10 to 15 years to introduce road charging on a national basis and such a regime would be far more of a blunt instrument than the present system, where larger differentials in rates of fuel duties and VED can potentially be used to promote a shift to low-carbon vehicles. We therefore see a continuing and important role for an environmental fuel duty strategy over the next decade or more.

47. The introduction from April 2002 of a new environmental company car tax scheme has been a significant success. The Energy Saving Trust thought that this was an area where the Treasury had done good work and wanted to see 'much more of the same'.[47] More specifically, the Society of Motor Manufacturers and Traders suggested that the scheme should provide clearer support for cars with very low CO_2 emissions.[48] We also note that Budget 2003 abandoned the earlier commitment to reduce the emission thresholds by 10g each year, and instead reduced the lowest threshold by only 5g. Budget 2004 has gone further by announcing that the minimum rate will be frozen at 140 gC/km in order to give time to assess the impact of the system and provide certainty to company car managers about future rates. We feel that the Treasury could have been more ambitious here. **We trust that the review of the company car tax scheme will give full consideration to the scope to widen the differentials further in order to increase the incentives for purchasing very low-emissions vehicles.**

Vehicle Excise Duty

48. Vehicle Excise Duty (VED) represents another area where the Treasury introduced welcome reform by introducing a graduated scale of charges which relate to emissions performance and the type of fuel used. The new scheme was announced in Budget 2000 and introduced from April 2001 with four emissions bands and charges. With the exception of Budget 2003, VED rates have been frozen since their introduction. But two additional low-carbon bands have been introduced, one in Budget 2002 for vehicles producing less than 120 gC/km, and one in Budget 2003 for vehicles producing less than 100 gC/km. The current pattern of charges is set out below.

		Diesel Car		**Petrol Car**		**Alternative Fuel Car**	
Bands	CO_2 Emission Figure (g/km)	12 months rate £	6 months rate £	12 months rate £	6 months rate £	12 months rate £	6 months rate £
Band AAA	Up to 100	75.00	41.25	65.00	35.75	55.00	30.25
Band AA	101 to 120	85.00	46.75	75.00	41.25	65.00	35.75
Band A	121 - 150	115.00	63.25	105.00	57.75	95.00	52.25
Band B	151 - 165	135.00	74.25	125.00	68.75	115.00	63.25
Band C	166 - 185	155.00	85.25	145.00	79.75	135.00	74.25
Band D	Over 185	165.00	90.75	160.00	88.00	155.00	85.25

47 EAC, Third Report of Session 2003-04, *Pre-Budget Report 2003:Aviation Follow-up*, HC 233-II, Q 122.

48 Ev 22.

49. What is immediately striking about this table is that it is fairly complex while at the same time the range of charges is not particularly great. The Department for Transport carried out an evaluation of the scheme in mid-2003.[49] The results showed that most car buyers were entirely unaware of the connection between VED and car emissions and that environmental factors ranked low on purchasing considerations. Furthermore, the research concluded that:

- *the current graduated scheme does not offer a large enough incentive to encourage behavioral change. And indeed across both recent and potential buyers there is a significant minority who believe that the current scheme and any subsequent increase to the differential will not help to reduce CO_2 emissions.*

- *Looking to the future and possible changes to the scheme, a differential between bands of £50 would be enough for some buyers to choose a different car (33%). Others would consider it. At a differential of £150 55% would change to a lower emission car to benefit from the saving. There is however a core of buyers who would not change their vehicle choice regardless of the differential (28%). This hard core are typically older, of higher social class and own or intend to buy a larger sized engine vehicle.*

50. The obvious conclusion to draw from this is not that the attempt to 'green' VED is a waste of time, but that differentials will have to be increased very much more substantially if we are to bring about a significant behavioural shift towards the purchase of low-emission vehicles. Some other EU states have put in place considerably wider differentials than the UK. And more recently, we have the example of the French proposal to introduce a very high rate of tax on SUVs while recycling the proceeds to reduce tax on low emission vehicles.

51. We asked the Economic Secretary for his views on VED and were surprised that he did not appear to agree that one of the main objectives of the scheme was to influence buying decisions.[50] We found his attitude extraordinary given the importance which successive budgetary reports have placed on this aspect. **The Government's own evaluation of the current VED scheme shows that current differentials are insufficient to prompt behavioural changes. The Government should increase them radically as part of a coherent strategy to promote low-carbon transport.**

Energy Efficiency

The Energy White Paper and the Action Plan

52. The Energy White Paper envisaged energy efficiency, together with renewables, as playing a central role in future energy policy. It set out anticipated savings by 2010 of 11 MtC from energy efficiency measures and suggested that a further 10 MtC of efficiency savings could be achieved by 2020. Half of these savings were expected to come from the

49 The DfT survey is at: http://www.dft.gov.uk/stellent/groups/dft_roads/documents/page/dft_roads_027589.hcsp

50 QQ 248-253

domestic sector and half from business.[51] While a wide range of policy instruments or measures were cited as potentially contributing to these efficiency savings, there were few detailed proposals though an Implementation Plan was promised within a year.

53. In April 2004, over a year later, DEFRA finally published the long awaited Action Plan.[52] This included revised figures for energy efficiency savings by 2010. It reduced the anticipated savings from the domestic sector from 5MtC to 4.2 MtC, but increased business efficiency savings from 6 MtC to 7.9 MtC. It included no new fiscal measures beyond those introduced in the 2003 Pre-Budget Report and the 2004 Budget (see above, paragraphs 6 to 8), but envisaged a key role in the domestic sector for an expanded Energy Efficiency Commitment and, in the business sector, for the Climate Change Agreements and Emissions Trading.

Energy Efficiency Implementation Plan: forecast carbon savings (2010)

	MtC
Households Projected Carbon savings (MtC pa)	
Measures already in the UK Climate Change Programme	1.5
Energy Efficiency Commitment from 2005, Decent Homes	1.4
Warm Front	0.2
Community Energy	0.1
Building Regulations 2005	0.8
Other measures	0.2
	4.2
Business & public sector	
CCA	2.4
Revision of CCA targets	0.9
Extension to new sectors	0.5
UK and EU ETS	2.0
Carbon Trust (incl ECAs)	1.0
Building Regulations (non housing)	0.6
Public Sector	0.5
	7.9
Total	**12.1**

Source: Defra

A carbon gap

54. In their evidence to us, the Carbon Trust referred to a 'carbon gap' between the savings which the Climate Change Programme is expected to deliver and the Government's target

51 DTI, *The Energy White Paper*, paragraphs 3.5-3.7.

52 DEFRA, *Energy Efficiency: The Government's Plan for Action*, April 2004, Cm 6168.

to reduce carbon emissions by 20% by 2010. They pointed out that changes to baseline projections (largely driven by higher GDP growth and more coal burn) mean that the existing package of measures in the Climate Change Programme may no longer be sufficient to keep the UK on track to deliver the expected absolute emissions level. While the overall size of this gap amounted to some 4 MtC, effective implementation of planned measures would reduce this by over 2 MtC, leaving a carbon gap of some 1.6 MtC (6 million tonnes of carbon dioxide).[53]

55. However, in discussion with them and in our own subsequent analysis, a more fundamental problem emerged—the difficulty of calculating the impact of efficiency measures in the absence of the revised energy projections which the DTI has still to publish, and before both the Spending Review and the review of the Climate Change Programme had been completed or even begun. The DTI's previous energy projections, EP68, were produced in November 2000 but quickly became out of date. The DTI produced some provisional data in 2003 to inform the allocation of allowances as part of the EU Emissions Trading System, and has continued this analysis to underpin the UK National Allocation Plan (April 2004) and in a related working paper which the DTI published in May 2004. The revised energy projections, however, have still not been published.

56. Indeed, in dealing with energy efficiency, there is a sensation of standing on shifting sands due to the difficulty of producing reliable future forecasts and evaluating the impact of current policy measures. If the baseline forecasts prove to be wrong and demand for energy rises faster than expected, then there is no guarantee that the absolute target level of emissions will be delivered. The Carbon Trust commented that the absence of firm forecasts and evaluations on which to base the Action Plan rendered it vague.

> *"It is not as clear maybe as we would all have liked to see. I think the elements are there in the Implementation Plan but probably not in sufficient detail to give any definitive view …. ..it is quite difficult to be precise around the numbers when neither the funding nor the gap has been confirmed by Government's own analysis, which is due to be carried out this year. I think there will be a case to say this is a Plan which, for various reasons, was published maybe six months earlier than would have been ideal."*[54]

57. As an example of this lack of clarity, Mr Rea picked out building procurement and the commitment to procure buildings that are in the top quartile in terms of energy efficiency performance. While he considered that this was certainly the right thing to do, he pointed out:

> *"the Action Plan does not talk about is how we are going to do that, how we are going to make that happen, what is the methodology which defines how we measure top quartile, how that links to the EU Buildings Directive and what would be a sensible timescale to roll that out across the government estate. As ever, the devil is in the detail, and I think that is one good example."*[55]

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53 Q 285 and Ev 70.

54 Q 287.

55 Q 286.

58. **It is unfortunate that the Energy Efficiency Action Plan has had to be produced before a number of key evaluations on which it should have been based—including Spending Review 2004, the revised DTI Energy Projections, and the review of the Climate Change Programme. As a result, it is impossible to assess to what extent the measures it contains are sufficient to deliver the absolute emission levels required, or even unclear whether the various components of the Plan will indeed deliver their forecast benefits.**

59. It is therefore difficult to assess the overall impact of the plan. Indeed, our suspicion is that the scale of the 'carbon gap' might prove to be considerably larger than the Carbon Trust suggested. We noted above (paragraph 18) that the May 2004 DTI working paper included a forecast of 139.8 MtC emissions in 2010 against a target of 132 MtC, and that there might therefore be a gap of nearly 8 MtC. **In publishing the revised energy projections, the Department of Trade and Industry must highlight the extent of any 'carbon gap' and reconcile the impact of current policies to the 20% UK target for 2010 of 132 MtC.**

Domestic energy efficiency

60. The Treasury consulted on fiscal instruments for energy efficiency in both 2002 and in 2003, but the Pre-Budget Report (November 2003) contained no new policy measures in this area. Budget 2004 included three measures—a reduced rate of VAT for ground source heat pumps, the possibility of a reduced rate of VAT for micro-CHP from 2005, and a landlord's energy saving allowance to promote investment in loft and cavity wall insulation within the rented sector. The Action Plan added several further non-fiscal measures—in particular the doubling and extension of the Energy Efficiency Commitment, through which the majority of domestic savings are to be delivered.

61. In giving evidence before the Budget, the Energy Saving Trust and the Association for the Conservation of Energy suggested that much more needed to be done to promote domestic energy efficiency, given the ambitious goals for energy efficiency set out in the Energy White Paper; and they cited an array of proposals for taxing inefficient products and homes. They expressed disappointment at the inertia displayed by the Treasury and indeed the Sustainable Energy Partnership referred to a 'deafening silence' on this score.[56] Indeed, we received a considerable amount of written evidence in this area, much of which corroborated the views expressed by these two organisations.[57]

62. The Energy Saving Trust subsequently expressed mixed feelings on the package of Budget measures. They welcomed the Landlord's Energy Saving Allowance, though they considered that it might not have as significant an impact as one might initially expect. As Mr Sellwood pointed out, from the perspective of landlords, "*if you can get 60 per cent rebate on something that is fine, but if you can get 100 per cent rebate by doing nothing in the first place that is even better.*" The reduction on ground source heat pumps was an unexpected surprise, though they accepted that it was not necessarily the most significant

56 EAC, Third Report of Session 2003-04, *Pre-Budget Report 2003:Aviation Follow-up*, HC 233-II, Ev 23-26, Q 86ff etc.

57 *Ibid.*Ev 92-145 *passim.*

of measures; but they were disappointed in the lack of a firm commitment on micro-CHP and by the Treasury's rejection of their proposals for inefficiency charges.[58]

63. We questioned the Economic Secretary on these issues. His responses did nothing to convince us that these budgetary measures would have any significant impact.[59] The reduction on VAT for ground source heat pumps is peripheral, while that on micro-CHP remains somewhat equivocal and distant. The proposal to introduce a Landlord's Energy Saving Allowance is welcome, but may not turn out to be as significant as initially envisaged. Indeed, the Treasury has made no attempt to forecast the carbon savings which might arise. Moreover, the Budget did not include any proposals for encouraging energy efficiency in the private housing sector—though in view of our current study on sustainable housing, we have refrained from further comment on this topic in this report. **It is disappointing that the Treasury, after consulting in both 2002 and 2003 on fiscal measures for domestic energy efficiency, was unable to include in Budget 2004 a more significant package of measures.**

64. The Energy Saving Trust also expressed concern over two issues relating to the Energy Efficiency Commitment (EEC).[60] The first related to the decision to scale down the anticipated savings from a factor of three to only two. Indeed, it was this change which had led to the reduction in planned carbon savings from the domestic sector from 5 MtC to only 4.2 MtC. The EST argued that the EEC needed to be three times the existing level, in order to make the step change necessary in terms of meeting the original targets in the Energy White Paper, and that the DEFRA figures for likely savings represented a serious underestimate of what was achievable. Given the somewhat technical nature of the dispute,[61] we are not in a position to assess the merits of the argument but it does strike us as strange that the Energy Saving Trust was not more fully involved in agreeing the figures included in the Action Plan.

65. The second issue concerned the nature of the anticipated savings. The EST pointed out that 70% of the total savings expected from the EEC related to cavity wall insulation. In practice this amounted to installing four and a half million cavity walls and Mr Sellwood expressed some concern over the commitment required to achieve this target.

> *"I have to tell you that the last three years have seen a three per cent, a five per cent and, with all that we and others have done, a 13 per cent increase… so in the last three years that market has seen a 20 per cent increase. Actually it has to double every three years between now and 2010 in order to meet the overall target, so we believe there is still a lot to do in terms of incentivising that market."*[62]

We also note that many of the easy pickings may already have been achieved as a result of earlier energy efficiency campaigns, and that it may prove successively more difficult for energy companies to achieve the scale of increase in deployment which is necessary.

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58 QQ 357ff.

59 QQ 181ff.

60 QQ 368, 371ff.

61 It relates to the extent to which savings relating to white goods and appliances adequately reflect the full extent of market transformation.

62 Q 368.

66. **We share the concerns expressed by the Energy Saving Trust about the scale of the savings which can realistically be expected from the Energy Efficiency Commitment, and about the commitment required to achieve these savings. While it may be right for the Government to adopt a cautious approach here, it is surprising that it did not seek to involve the Energy Saving Trust more fully in agreeing the figures in the Action Plan.**

Business use of energy

67. The Government's policy for encouraging energy efficiency in the business sector involves a range of policy instruments including Enhanced Capital Allowances (ECAs), the Climate Change Levy (CCL) and Climate Change Agreements (CCAs), and both the UK and EU Emissions Trading Schemes (ETS). The savings forecast in the Action Plan from these various policy instruments are set out above (paragraph 49), and amount in total to 7.9 MtC by 2010. We offer here some observations on a few specific aspects of these policies.

68. Enhanced Capital Allowances (ECAs) were originally introduced in Pre-Budget 1999 as part of the Climate Change Levy. The initial proposal was that £100 million of revenues from the CCL would be recycled to industry in order to promote energy efficiency measures. The Treasury subsequently increased this figure to £140 million in subsequent budgetary reports—though we note that it has desisted from quoting such figures more recently. In previous reports we have pointed out that the actual cost to the Government of this measure only amounts to the interest lost on the deferred tax liability, and in their evidence the Carbon Trust endorsed this point.[63]

69. The Carbon Trust confirmed that the Inland Revenue did not monitor the impact of ECAs as it was not considered cost-effective to do so; but that they themselves, in conjunction with the Treasury, had been carrying out a special exercise to assess the effect on companies. This evaluation suggested that take-up amounted to £100 million a year—somewhat less than the estimate the Treasury included in previous Budget Reports.[64] We asked the Carbon Trust whether, in carrying out this evaluation, they had been able to distinguish the impact of different policy instruments, and in particular how much of the efficiency savings would have resulted in any case from the introduction of the Integrated Pollution Prevention and Control (IPPC) regulations. The Carbon Trust confirmed that they had not been able to distinguish these impacts and they referred us to the Treasury when we requested a copy of their evaluation.[65]

70. **We welcome the evaluation which the Carbon Trust has recently carried out of the impact of Enhanced Capital Allowances (ECAs), and the Treasury should publish it immediately. But we remain concerned about the extent to which efficiency savings from ECAs would in any case have resulted from the introduction of the Integrated Pollution Prevention and Control regulations.**

71. Moreover, these difficulties demonstrate the need to evaluate regularly the impact of fiscal measures, and this constituted one of the earliest recommendations of the

63 Q 303.

64 *Ibid*.

65 Q 309 and Ev71 (responses to questions 2 and 3).

Committee. In its response to that recommendation, the Treasury committed itself to carry out such ex post evaluations on a systematic basis and the Financial Secretary to the Treasury acknowledged the need for monitoring in evidence he gave to us in 2002.[66] **We recommend that the Treasury should fulfil its earlier commitment to this Committee and regularly carry out systematic ex post appraisals of environmental tax measures.**

72. Industries subject to the Climate Change Levy can claim an 80% discount for those installations covered by the EU IPPC regulations, provided that they enter Climate Change Agreements (CCAs) which include energy efficiency targets. The Government's latest Pre-Budget Report (December 2003) included two proposals relating to the CCL:

- The first proposal will allow businesses to be able to claim their discount by participating in the EU Emissions Trading Scheme, rather than by continuing with their Climate Change Agreement and specific energy efficiency targets.

- The second will extend eligibility for the 80% discount to certain energy-intensive sectors, subject to further consultation and state aid approval, using a specific energy-intensity threshold.

73. The Government has previously argued that it was legally impossible to extend eligibility to energy-intensive industries in this way. In 2000, the Financial Secretary told the Committee that

> *"Any alternative [to the use of IPPC] would need to have a clear rationale (in the way that IPPC does), would need to apply legal certainty, be simple to administer, and be consistent with the EU state aid rules, and none of the alternative definitions that have been put to us so far meet the criteria that I have just set out."*[67]

The Treasury now considers that the introduction of the EU Energy Products Directive provides a basis for extending eligibility for Climate Change Agreements to energy intensive industries. Yet it has failed to set out the rationale for introducing such an extension at this time or to include this measure in the table of environmental impacts appended to Chapter 7 of the Budget Report.

74. The Economic Secretary made great play of the fact that Climate Change Agreements had delivered three times the target amount of emissions savings.[68] This was based on the assessment carried out by Future Energy Solutions in April 2003 of the first target period (2001-02).[69] The CCA scheme was originally expected to deliver 3.3 MtC savings by 2010.[70] The assessment concluded that the cumulative energy saving as a result of the agreements amounted to 3.7 MtC by 2002 compared to a 2000 baseline. Thus the CCA scheme would appear to have already delivered more than the entire target savings

66 For the Government Response, see EAC's Fourth Report of 1999-2000, *Pre-Budget Report 1999*, HC 76, p.xlvii. See also Evidence taken before the Environmental Audit Committee on 14 March 2001, HC 333-I, QA14-15; and the recommendation on this score which the EAC made in its Second Report of 2001-02, *Pre-Budget Report 2001:A New Agenda?*, HC 363-I, paragraph 45.

67 EAC, Sixth Report of 1999-2000, *Budget 2000 and the Environment*, HC 404, Q 99.

68 Q 219.

69 The report can be found at: http://www.defra.gov.uk/environment/ccl/results.htm.

70 Ev 58.

envisaged by 2010. However, most of these savings[71] arose from the steel industry where there was a huge fall in output during 2002 resulting from severe operational difficulties and major structural changes. If the steel sector is excluded, the savings from the remaining sectors amounted to a more modest 1.1 MtC.

75. We have various concerns relating to the Climate Change Agreements. In 2001, DETR were unable to provide us with baseline data for each sector,[72] and it is unclear from the latest monitoring reports how robust and auditable such data now is. Moreover, we note the concern expressed by the National Audit Office in its report on the UK Emissions Trading System over the difficulties DEFRA faced in assessing baseline performance and determining initial allocations.[73] If DEFRA were unable to avoid such problems in negotiating with 34 individual firms, there is every reason to suppose that they faced more formidable challenges in negotiating with 44 trade sectors.

76. **We are sceptical of the figures quoted for emissions savings from Climate Change Agreements and recommend that baseline figures and future assessments, including that for 2004, are independently audited.** We are aware that DEFRA is now renegotiating targets for future assessment periods (2006 and 2008) and we accept that, as the scheme rolls on, more reliable data from previous assessments will become available on which to base such targets. However, we were unable to readily identify from DEFRA's website overall targets set for particular assessment periods or indeed the baselines against which performance in 2002 was assessed. In addition, the relationship between this data and the basis on which the CCA scheme is assessed under the Climate Change Programme is unclear. **The transparency of reporting could be improved and it would be helpful if DEFRA assessment reports could include a more strategic overview of performance, including progress against targets under the Climate Change Programme.**

77. Moreover, for those firms and sectors which continue to participate in Climate Change Agreements and opt-out of the first stage of the EU Emissions Trading System, the UK is obliged to demonstrate that the targets they face are equally demanding. We will be interested to see what progress DEFRA makes on this score, and how many industries decide to opt out of the CCA scheme to participate in the EU ETS while preserving the 80% rebate from the Climate Change Levy which they enjoy.

Conclusion

78. **A central theme emerging from this report is the difficulty of assessing progress on energy efficiency in the absence of robust and reliable energy projections and systematic ex post appraisals of the impact of specific policy measures. For this reason it is difficult to come to any conclusive view on the extent of any shortfall between the**

71 2.6MtC.

72 EAC, Second Report of 2001-02, *Pre-Budget Report 2001:A New Agenda?*, HC 363-II.The memorandum from DETR at Annex 1 states (question 3a response): "The baseline data that forms the basis of the agreements, in most cases relates to energy usage per unit of output. We do not have data on total energy use at a base year, nor, therefore, any estimate of the total emissions from each sector."

73 The NAO report can be found at:http://www.nao.org.uk/pn/03-04/0304517.htm.

savings which current policies will deliver and the absolute level of emissions we need to meet. However, as we have suggested, there are grounds for supposing that this shortfall might be more substantial than currently envisaged, and that the Government will need to adopt more radical policies and implement them with still greater commitment if we are to attain the challenging objectives it has set.

79. In this context, **we fear that the Treasury is failing to exploit opportunities for more imaginative policy initiatives which might deliver the step changes needed rather than steady incremental progress.** It is particularly frustrating that—over four years after the RCEP Energy Report and two years after the Strategy Unit Energy report—relatively little progress has been made in the important area of domestic energy efficiency. Moreover, the Treasury needs to commit itself afresh to a strategic program of environmental tax reform, as the zeal so abundantly manifest in the 1997-2001 Parliament appears to have been lost. **The crucially important series of reviews which are taking place this year and next provide an opportunity for it to look afresh at the scale of the challenges we face and re-assess the adequacy of the policy mechanisms we have in place to meet them.**

Formal minutes

Wednesday 21 July 2004

Members present:
Mr Peter Ainsworth, in the Chair

Mr Colin Challen	Mr Paul Flynn
Mr David Chaytor	Mr Malcolm Savidge
Mrs Helen Clark	

The Committee deliberated.

Draft Report (Budget 2004 and Energy), proposed by the Chairman, brought up and read.

Ordered, That the Chairman's draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 79 read and agreed to.

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.

Several papers were ordered to be appended to the Minutes of Evidence.

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

Ordered, That the Appendices to the Minutes of Evidence taken before the Committee be reported to the House.

[Adjourned till Wednesday 8 September at 3pm.

Witnesses

Wednesday 24 March 2004

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Mr Simon Bullock, Environmental Taxation Co-ordinator; **Mr Roger Higman**, Environmental Limits Co-ordinator; **Ms Bryony Worthington**, UK Climate Campaigner and **Dr Hugh Ellis**, Planning Adviser, Friends of the Earth. Ev. 1

Mr Paul Everitt, Head of Communications, Economic Policy, The Society of Motor Manufacturers and Traders Ltd; **Katherine Bennett**, Manager Government Affairs, Vauxhall and **Mr Mike Hawes**, Head of Corporate and Government Affairs, Toyota. Ev. 15

Tuesday 30 March 2004

Professor Sir David King, Chief Scientific Adviser to the Government and Head of Office of Science and Technology and **Claire Durkin**, Director, Head of Energy Innovation and Business Unit, Department of Trade and Industry. Ev. 24

Wednesday 12 May 2004

John Healey MP, Economic Secretary; **Mr Paul O'Sullivan**, Head of Environmental Tax Team, and **Ms Fiona James**, Head of Environment, HM Treasury. Ev. 39

Wednesday 19 May 2004

Mr Tom Delay, Chief Executive, **Mr Michael Rea**, Director of Strategy and **Dr Peter Mallaburn**, Head of Government and International Affairs, Carbon Trust. Ev. 60

Mr Philip Sellwood, Chief Executive, and **Dr Nick Eyre**, Director of Policy and Development, Energy Saving Trust. Ev. 72

List of written evidence

Past reports from the Environmental Audit Committee since 1997

2003-04 Session

First	Annual Report 2003, HC 214
Second	GM Foods – Evaluating the Farm Scale Trials, HC 90
Third	Pre-Budget Report 2003: Aviation follow-up, HC 233
Fourth	Water: The Periodic Review 2004 and the Environmental Programme, HC 416 *(Reply, HC 950)*
Fifth	GM Foods – Evaluating the Farm Scale Trials, HC 564
Sixth	Environmental Crime and the Court, HC 126
Seventh	Aviation: Sustainability and the Government Response, HC 623
Eighth	Greening Government 2004, HC 881
Ninth	Environmental Crime: Fly-tipping, Fly-posting, Litter, Graffiti and Noise, HC 445

2002-03 Session

First	Pesticides: The Voluntary Initiative, HC100 (*Reply, HC 443*)
Second	Johannesburg and Back: The World Summit on Sustainable Development–Committee delegation report on proceedings, HC 169
Third	Annual Report, HC 262
Fourth	Pre-Budget 2002, HC 167 (*Reply, HC 688)*
Fifth	Waste – An Audit, HC 99 *(Reply, HC 1081)*
Sixth	Buying Time for Forests: Timber Trade and Public Procurement - The Government Response, HC 909
Seventh	Export Credits Guarantee Department and Sustainable Development, HC 689 (*Reply, HC 1238*)
Eighth	Energy White Paper – Empowering Change?, HC 618
Ninth	Budget 2003 and Aviation, HC 672 (Reply, Cm 6063)
Tenth	Learning the Sustainability Lesson, HC 472 *(Reply, HC 1221)*
Eleventh	Sustainable Development Headline Indicators, HC 1080 *(Reply, HC 320)*
Twelfth	World Summit for Sustainable Development – From rhetoric to reality, HC 98 (*Reply, HC 232*)
Thirteenth	Greening Government 2003, HC 961

2001-02 Session

First	Departmental Responsibilities for Sustainable Development, HC 326 (*Reply, Cm 5519*)
Second	Pre-Budget Report 2001: *A New Agenda?*, HC 363 (*HC 1000*)
Third	UK Preparations for the World Summit on Sustainable Development, HC 616 (*Reply, Cm 5558*)
Fourth	Measuring the Quality of Life: The Sustainable Development Headline Indicators, HC 824 (*Reply, Cm 5650*)
Fifth	A Sustainable Energy Strategy? Renewables and the PIU Review, HC 582 (*Reply, HC 471*)
Sixth	Buying Time for Forests: *Timber Trade and Public Procurement*, HC 792-I , (*Reply, HC 909, Session 2002-03)*

2000-01 Session

First	Environmental Audit: *the first Parliament*, HC 67 (*Reply, Cm 5098*)
Second	The Pre-Budget Report 2000: *fuelling the debate*, HC 71 (*Reply HC 216, Session 2001-02*)

1999-2000 Session

First	EU Policy and the Environment: An Agenda for the Helsinki Summit, HC 44 (*Reply, HC 68*)
Second	World Trade and Sustainable Development: An Agenda for the Seattle Summit, HC 45 (Including the Government response to the First Report 1998-99: Multilateral Agreement on Investment, HC 58) (*Reply, HC 69*)
Third	Comprehensive Spending Review: Government response and follow-up, HC 233 (*Reply, HC 70, Session 2000-01*)
Fourth	The Pre-Budget Report 1999: pesticides, aggregates and the Climate Change Levy, HC 76
Fifth	The Greening Government Initiative: first annual report from the Green Ministers Committee 1998/99, HC 341
Sixth	Budget 2000 and the Environment etc., HC 404
Seventh	Water Prices and the Environment, HC 597 (*Reply, HC 290, Session 2000-01*)

1998-99 Session

First	The Multilateral Agreement on Investment, HC 58 (*Reply, HC 45, Session 1999-2000*)
Second	Climate Change: Government response and follow-up, HC 88
Third	The Comprehensive Spending Review and Public Service Agreements, HC 92 (*Reply, HC 233, Session 1999-2000*)
Fourth	The Pre-Budget Report 1998, HC 93
Fifth	GMOs and the Environment: Coordination of Government Policy, HC 384 (*Reply Cm* 4528)
Sixth	The Greening Government Initiative 1999, HC 426
Seventh	Energy Efficiency, HC 159 (*Reply, HC 571, Session 2000-01)*
Eighth	The Budget 1999: Environmental Implications, HC 326

1997-98 Session

First	The Pre-Budget Report, HC 547 (*Reply, HC 985*)
Second	The Greening Government Initiative, HC 517 (*Reply, HC 426, Session 1998-99*)
Third	The Pre-Budget Report: Government response and follow-up, HC 985
Fourth	Climate Change: UK Emission Reduction Targets and Audit Arrangements, HC 899 (*Reply, HC 88, Session 1998-99*)

Oral evidence

Taken before the Environmental Audit Committee

on Wednesday 24 March 2004

Members present

Mr Peter Ainsworth, in the Chair

Mr Colin Challen	Joan Walley
Sue Doughty	David Wright

Witnesses: **Mr Simon Bullock,** Environmental Taxation Co-ordinator; **Mr Roger Higman,** Environmental Limits Co-ordinator; **Ms Bryony Worthington,** UK Climate Campaigner and **Dr Hugh Ellis,** Planning Adviser, Friends of the Earth, examined.

Q1 Chairman: Welcome. Good afternoon. Thank you for coming in. Did you want to make a few introductory remarks? We have had your press release on the Budget, "Brown Ignores the Environment Again"[1], which may be a summation of your views, but if you have any brief comments to add we would be pleased to hear them.

Mr Bullock: Yes, we would be very grateful to make some introductory remarks. First of all, I am Simon Bullock and I work on Environmental Taxation Policy; Bryony Worthington is our UK Climate Campaigner; Hugh Ellis is our Planning Adviser and Roger Higman is our Environmental Limits Co-ordinator. So, briefly, to set out what we think three priorities for the Treasury should be: a priority for us—and I think we share this view with Tony Blair, it seems—is to tackle climate change to deliver at least 60% cuts in carbon emissions. This level of target means that all sectors will need to do their part; domestic, transport, aviation and industry. We feel that to do this the Treasury must set a strategic approach to set the right economic framework to deliver that target, for two reasons: first to provide the incentives to change behaviour and redirect investment, and secondly, to signal the Government's intention that it has a strategic commitment to tackle this which will underpin all of its policies across all departments. Our view is that although at the moment there is some reasonable rhetoric we do not have such a strategy, as we can see from the Government's own projections on, for example, transport and aviation emissions. So the first of three priorities, we feel, is that the Treasury should set an economic strategy to deliver 60% carbon cuts. Within that there are two priorities. The first would be to link the Budget more clearly to the spending review, particularly the coming spending review this summer. Taxes and economic instruments need to be introduced as part of well-designed packages, it has been argued for a long time, and a stronger link with spending is needed. Some proportion of revenue is needed to provide appropriate incentives, some spending will be needed to reinforce tax policy and some is also needed to address any adverse impacts that taxes may have. As an example for that we would cite transport. The right incentives are crucial. As we can see, the costs of motoring are continuing to fall and they need to increase, but that is not enough on its own; we need to have that hand-in-hand with spending to create alternatives for people to travel by public transport or make walking or cycling safer. The last priority for us is that this strategy should be very clear and open about the environmental and social objectives of its strategy. Often it has not been spelt out clearly enough that policies should be intended for environmental and social means, and these goals should be linked together as well. Again, transport for us is a good example of that. There is an urgent social need as well as an environmental need for alternatives to the car. Friends of the Earth are very keen on ensuring that policy delivers environmental and social goals together. If you look at transport, 60% of the poorest fifth of households do not have access to a car. Even for the whole population, 30% of the population do not have access to a car, so for those people having decent alternatives, a decent transport network and safe streets to walk on is an absolutely crucial thing and a basic need for most people. I have brought with me today a copy of a report we have done (I will leave a copy for you). It is work we have done with communities in Longsight, an area of Manchester with very low areas of car ownership, and we were asking them what they wanted to see and what their priorities are for transport. Overwhelmingly it is better buses and safer streets. It is an issue that is eroding the quality of life for them and people in the city. So this is an example of where improving public transport and safety would meet environmental and social goals together. To conclude my opening statement, I think the two crucial elements to deliver a carbon strategy for the Treasury—to meet the 60% target—are clear, linked social and environmental goals and to link tax with spending, particularly with the spending review coming up in the next couple of months.

Q2 Chairman: Thank you very much for that. We will come back to a number of the points you have raised in a minute or two. Can I ask you, first of all, whether you think the Government has, as it seems to claim, an environmental tax strategy?

[1] Press release, 17.3.04. Please see www.foe.co.uk

Mr Bullock: I think the statement of intent on environmental taxation in 1997 was very good. Two statements, in particular, were very good. The first one was that growth must be stable and environmentally sustainable, that quality of growth matters not just quantity; and the second that the "Government will aim to reform the tax system to increase incentives to reduce environmental damage. That will shift the burden of tax from goods to bads." We think that was a very good initial, starting statement. In Labour's first term we felt they went quite a long way on this agenda: they introduced a climate change levy, they introduced an aggregates tax and they put in some good measures on road taxation. Since then we feel they have stalled, relatively. They have back-tracked on transport taxation; environmental tax as a proportion of GDP is 10% and has been around 10% for ten years—that is not moving up or down particularly much. They say there is a strategy to deliver a low-carbon economy, (coming back, again, to climate change and a 60% target), and for some sectors they are doing quite well; there is a long way to go and there is a lot more to do, but in industry, for example, we are going in the right direction. For the domestic sector things, at least, are not getting any worse. However, two areas which are really crucial are transport and aviation, and the trends are in completely the wrong direction. We see the Government's tax and spending policies having a major effect here in stopping us getting towards those climate targets.

Q3 Chairman: Coming back to one of the points you made earlier, is not the reason why it is moving the wrong way on transport exactly to do with social attitudes and social issues? We saw it happen with the fuel crisis/protest and the public objections that were raised. Whilst it may be the case that 60% of the poorest fifth do not have a car at all, there are an awful lot of people who are not well-off who do, and who object very strongly when the price of running their cars goes up.
Mr Bullock: I think this is a clear example of the need to link environmental and social goals and deal with tax and spending at the same time. Of course, it would be politically very difficult to increase the costs of motoring if alternatives to the car are not put in place. I would note, however, that since 1980 the costs of motoring overall have fallen and since 1997 the costs of motoring have fallen as well. We have a tax and spend policy which does not provide for those alternatives. If you look at the spending figures the Social Exclusion Unit put out on transport, buses and walking get very small comparative sums compared with other modes of transport. Bus spending, I think, is around a third of annual spending for rail, or maybe a quarter—I forget the exact figures.[2] Overall, though, they said that spending is very regressive. The poorest fifth of the population get 12% of the transport spending budget and the richest fifth of the population get 38% of it. So it is very important in the Comprehensive Spending Review that the Chancellor puts more money into creating decent alternatives to the car.

Q4 Chairman: Taking it back to my first question, it seems, in the context of what you have just said, that rather than there being an environmental tax strategy which has stalled, there is no strategy as such at all.
Mr Bullock: That is one way of putting it, yes.

Q5 Chairman: There were some initiatives, there were some statements, there was *Tax and the Environment: Using Economic Instruments* published in 2002. These do not amount to a strategy.
Mr Bullock: No, I do not think they do. That is why we are calling for an overall carbon strategy which would link the transport, aviation, domestic and industry sectors. As I say, we need to take action in all of these areas to ensure that overall that 60% target is met.

Q6 Joan Walley: Can I just press you a little bit further on that and ask: if you were advising the Chancellor how that strategy should look, are you saying there should be an action plan to it, or what would you say should be flagged up in that, in a bit more detail?
Mr Higman: If I can come in on that, I think, firstly, we are looking to see that the Chancellor review all the areas of taxation in respect of carbon emissions to make sure they are moving forward on each of those areas. There are some areas that are not being taxed at all at the moment. Secondly, we have to consider other environmental impacts, and there are areas where we have seen voluntary initiatives, for example on pesticides, where we feel that tax approaches might be more suitable. We are looking for the sorts of initiatives that the Treasury was putting forward in the late-1990s to be reinstated, and that level of commitment moving forward to get the amounts of taxation on environmental bads increased such that we can reduce taxation on things that are considered to be environmental goods, like labour.

Q7 Chairman: In the light of that, what do you see as the role for fiscal instruments? Do you see them as a way of reflecting the cost to the environment of various activities, or do you see them as a way of managing demand—as a stick to beat bads?
Mr Bullock: We would say that the role of any fiscal instrument is to achieve the policy objective rather than simply just to internalise the external costs, which is I believe something the Committee has touched on before.

Q8 Chairman: Do you think internalising the external costs is a worthwhile activity?
Mr Bullock: I think it is worthwhile in that it certainly would be better than doing nothing. If you look at aviation, for example, the external costs are not being tackled at all at present due to the lack of

[2] Mr Bullock later added that for passengers it is between a third and a quarter. The Social Exclusion Unit says of the Transport 10 year plan: "of the plan's £20 billion allocation, 11% relates directly to buses, compared with 40% for passenger rail".

duty on various sorts of fuel. But we feel we would need to go beyond that. There are a large number of methodological difficulties in internalising external costs. We have got reservations about that almost at a moral level in some senses, in that it assumes that all environmental resources have a price and that there is no such thing as critical natural capital, that environmental goods can always be traded off. We would think that just dealing with internalising the costs, although it would be a useful and necessary first step, if that is the practical way to proceed at the moment, is worth doing, but in the long-term the price mechanism should be used to meet the policy objective rather than just to iron out externalities.

Ms Worthington: I would only add that there is an obvious trend in government to move to more flexible, market-based economic instruments. Where they are designed well and lead to the achievement of environmental objectives we support the use of those. I think the Government's policy is now far broader than simply a fiscal and spend policy; it now has a third string in its bow, if you like. I do not think they have, perhaps, been as explicit in telling us what their attitude to those instruments is and it might be useful for them to make a statement about their continued use of these trading mechanisms.

Q9 Chairman: Coming back to something Roger Higman said, we hear a lot about environmental taxation and managing, controlling and punishing bads. Do you think there is enough done within the fiscal environment to encourage good behaviour? Are there a sufficient number of carrots (on the basis of what you said) as well as an insufficient number of sticks?

Mr Higman: I think in some areas there are. Clearly, we have got incentives for alternative fuels and we support those. We may want to argue about the details of those but we generally support the framework. In other areas it may not be enough to give fiscal incentives, we may actually want to give direct support, financial support, through spending. Again, an example we have already mentioned, public transport, is a very good one. You can reduce the taxation of public transport quite substantially but that may not be the most effective way of providing the alternative people need. So, in that sense, we do not see it as simply a question of taxation.

Mr Bullock: To add a little bit to that as well, if the Government was to increase road fuel duty just to keep the overall motoring costs constant, so no extra burden to motorists, that would raise between £16 and £30 billion pounds over the period to 2010, depending on the global price of oil. We feel that a large amount of that revenue could be used to create those incentives for alternative behaviour. For example, if you were to put a Safe Route to School into every school in the country that would cost a mere billion pounds compared to the £16 to £30 billion figure. If you wanted to put 20 mile-an-hour zones into every residential street in the country that would be around £500 million. If you wanted to put a comprehensive network of bus lanes into the total built-up area that would cost £1 billion as well. So there is a major opportunity in the spending review coming up and the review of the transport 10-year plan to use some of the spending which should be raised from increasing motoring costs into providing safer streets, improving safety and improving public transport.

Q10 Joan Walley: Have you actually got all of those details set out in some separate report that you have done?

Mr Bullock: Ourselves and Transport 2000 will be publishing it on Monday, so I can get it to you.

Joan Walley: That would be very helpful.

Q11 Chairman: Yes, it would. Thank you very much. Can I just finally ask, we used to hear from you about Green GDP. I know that Roger Higman, for one, has been with Friends of the Earth for quite a long time. What has happened to Green GDP as a concept? Has it departed?

Mr Bullock: No, I think not. In fact, the new Economics Foundation published a report very recently with an update called *Measure of Domestic Progress*, which is in fact very similar to the *Index on Sustainable Economic Welfare*. I think this agenda is still very relevant, mainly because it highlights that not all types of growth are good. It shows that much growth comes from running down environmental resources, treating capital like income (as no business would do); it shows that a lot of growth has large costs attached, like climate change and air pollution. So where we see the advantage of Green GDP is that it focuses on the fact that growth is for a purpose, it is not an end in itself; it is there to improve the quality of life, and from that you can show that some growth is just not worth having. It is very important that this debate continues. I think there is a danger that it simply focuses on how best to adjust Gross Domestic Product; it is not just about fiddling with the indicators or going down some statistical black hole, what is important is the idea behind Green GDP, which is that we need to focus on quality growth. We think this is a really major issue because, in principle, in the statements of intent and subsequently, Tony Blair and Gordon Brown have both said that quality growth is crucial, but we do not feel the Government acts on this in any strategic way. If the Treasury was to take quality growth seriously it would use economic instruments not just to promote any old growth but to promote growth that meets its environmental and social goals. I think this is part of the sustainable development idea; that you should link economic, social and environmental goals together. What we see, unfortunately, from Government on quite a number of occasions is that it still trades-off these goals—the language is very much about balance, about trading off. A good example was the Aviation White Paper where the environmental damage was considered to be the price to pay for economic growth. Our view is that the Government should use economic instruments to promote growth sectors in

the economy that do not damage the environment or people's health. That is why it is so important that the Green GDP debate continues.

Q12 Mr Challen: I was very struck by the headline of your overall press release, issued on 17 March, "Brown Ignores the Environment Again", and I was particularly struck by the "Again" word at the end. Obviously you do share some of the frustrations that this Committee has. To what would you ascribe this caution? Is it lack of commitment or is it confusion or is it, perhaps, a fear that if we go too far too fast the electorate is going to boot us out?
Mr Bullock: I think, partly, it may be to do with a perception that some environmental issues are too politically difficult to deal with. I do not think that is actually the case. Transport is a good example of that. If you just increase road fuel duties then that is going to get people's backs up, but if you link it very explicitly to tackling problems and creating alternatives for people then I think it is much more politically palatable. I do not know, Roger, if you want to add anything.
Mr Higman: I think there are a number of things I would say about that. Firstly, the Government made a lot of progress, as you said, up until 2000, and I do not think we would underestimate the importance of things like the fuel protest in terms of dissuading the Government from the strategy it was pursuing. What we are looking for, though, is for the Government to recognise that although the pursuit may have got difficult, the path may have got difficult, the eventual aim was the right one, and what they were committed to in the late-1990s was the right approach. Therefore, if you like, we need to get smarter about how we do it. That is the message we would have put, and that is where we have been a bit disappointed. We feel there might be things that the Government could do that would not be so controversial but would actually enable them to further the environmental tax agenda in a way that they otherwise have not been doing. An example might be the pesticide side.

Q13 Mr Challen: This was described as a "Steady as she goes" kind of Budget, a consolidating Budget—and we have our differences, probably, about that. Should we not also try and consolidate the things that we have done in terms of the environment—climate change levy and things of that sort—which in their own areas are hugely controversial and which some people might want to get rid of still? Should we not allow things to work and to see how they work rather than saying that every year we are going to have more and more new measures?

The Committee suspended from 4.15 pm to 4.35 pm for a division in the House

Mr Higman: Essentially the question was why do we have to do more every year, I believe. The answer, obviously, from our perspective is that we are facing big environmental problems right across the range. We think that climate change is the most prominent of those but we have also got continuing air quality problems, we have got problems to do with over-consumption of resources, problems to do with water pollution and problems to do with abuse of fertilisers and pesticides. All of these environmental problems need to be tackled, in our view, and therefore we have been calling on the Treasury to have a progressive movement so that eventually all of those are tackled. That is why we feel that we need to do a little bit more every year.

Q14 Mr Challen: Looking at a couple of graphs in the Budget document (I forget what it is called: the Red Book or something), if we turn to page 161 (I do not know if you have access to it) it does show that there are fairly consistent trends downwards in, for example, CO_2 emissions from new cars. I am just looking at the graph, which shows a steady downward trend. Chart 7.4 on page 162, UK particulate emissions from the transport sector show a dramatic decline. Some of it, of course, is fairly predictive but, even so, there is an actual decline in the last ten years, then a further decline down to 2015, and then a very slight increase at that point. I am pursuing this issue about how much can we get away with if we want to increase these rates of improvement before people say "That's enough; we are not going to go with it any further". That is the cut-off point for any government. Is it not?
Mr Higman: There are a number of things to say about that. Firstly, not all of those indicators are going down. There are—

Q15 Mr Challen: So you dispute the—
Mr Higman: There are other indicators where, if you look, for example, at the 15 government headline indicators we had the report on last week, my recollection is that in three of them the emissions are actually going in the wrong direction and three of them are steady. So while we can draw attention to those where we seem to be making progress, there are others where we need to make more progress.

Q16 Mr Challen: Let us be clear on this: you are saying that the Chancellor is using the information selectively to bolster the case and is ignoring other relevant information?
Ms Worthington: Yes, absolutely. The indicators that were used in the Budget—they used a greenhouse gas statistic without comparing it to the year before. If you look at what is happening in carbon dioxide emissions in totality, they are increasing and have been increasing since 1999. That is not a good record for a Government that is supposedly using economic instruments to tackle climate change. So it is absolutely true that they are using indicators selectively; if they were to look at the totality of energy and fuel consumption they would see big rises, and yet that is buried in amongst the statistics that you really have to look out for in order to see that that is happening.

Q17 Chairman: It is a fair point that Mr Challen draws attention to, which is that the graph that he refers to is detailing efficiency gains. It is reasonable that efficiency gains are there and real, and where, as a result, individual engines have been more efficient

then there is a downward trend. The problem, I take it, is that total volume of traffic continues to rise and, therefore, the total problem continues to get worse.
Ms Worthington: Yes, absolutely. The environmental goal for us is not efficient cars but to maintain the integrity of the environment. I am afraid that indicator is not very helpful in telling whether it is a green taxation policy or not.
Mr Bullock: Efficiency is just one element of the solution.

Q18 Mr Challen: You have argued for reinstating the fuel duty escalator and larger differentials in the VED.[3] Would you put some figures on that? I have not seen any myself so I am wondering how far you would go down that route.
Mr Bullock: We commissioned some research from the IEEP a couple of years ago which is still up-to-date but shows that if you were to increase the road duty to keep overall motoring costs constant that would raise £16-30 billion. It depends on the global price of oil, but it would range between 16 and 30 billion. On VED, currently the Government has lower rates for more fuel-efficient cars but we believe that there should be an incentive against gas-guzzling, very fuel-inefficient cars, so we are proposing a series of bands, £200, £250, £300, £350 and £500 according to carbon emissions. The Department for Transport's research shows, I believe, that if you had a £100 differential between bands then that would persuade 47% of people to buy a more fuel-efficient car. So we think it would make sense for the Government to extend the VED range at the higher end as well as creating incentives at the lower end.
Ms Worthington: There are other economic instruments that we know the Treasury and DfT are considering which would, in fact, increase the cost of transport, whilst delivering a valid gain. The one that they are looking at at the moment is to create an obligation for renewable fuels, so that it becomes obligatory to sell a proportion of bio-fuels within your fuel mix. That would have the effect of a very precise instrument. It would be spread across all industry so it would lead to an increase in the cost of transport but it would also deliver environmental gain.

Q19 Mr Challen: If the money (£16 billion) that you estimate might be raised in these two particular ways was hypothecated to public transport, do you have any evidence to show that that would have greater public acceptance? Have you done any polling on that subject, for example?
Mr Higman: I think there has been polling looking at motorists' attitudes in general to these things. We do not necessarily carry out extensive polls on every single item of policy—we have not got that sort of level of resources. The opinion polls I have seen have suggested that although there is hostility to some aspects of increased taxation, that is mollified quite dramatically when the money is used to promote an alternative. We can see that, also, in press reactions to government policies where large sections of the media have been crying out for more resources to go into alternatives.
Ms Worthington: The best example of that is congestion charging, where you saw a new facility that was directly linked to visible improvements—the number of buses, frequency of buses and the cleanliness and newness of buses. So where it is obvious, it is common sense; people can see that the payment is going directly to something that they can perceive to be changing. That has made that a more popular instrument.

Q20 Mr Challen: I am not really sure that is the case; perhaps it is a grudging acceptance that they have no choice other than to go on to a crowded tube train. More people are now complaining that there are empty buses running up and down the roads in London, and I believe one or two parties want to abolish the congestion charge. However, that is another matter. Can I just wind up, because we are short of time. In terms of looking at the Government's road building proposals, would you say that the environmental lobby has lost the argument—or certainly lost the argument with the Government—in principle?
Mr Higman: That is an issue I have been working on for a decade, and if you go back to the full horror of the 1989 and 1990 road building proposals and then the plans, for example, for widening the M25 in parts of Surrey in the mid-90s, what you will find is that about 180 of the 1990 proposals were built and about 250 (I think it is) have since been scrapped. There is a rump in the middle that is what the Government is currently talking about. We, obviously, are not happy with some of those proposals. We think that they will further reduce the incentive to use public transport and damage the countryside. That is a debate between us and the Government. I think, if you look at the record in the round, what you can see is that the environmental movement has done very well in persuading successive governments to abandon road building as a policy of first resort.
Mr Bullock: As a further point on that, the Chancellor in his Budget said that overall transport investment was likely to go up in the spending review, and then we had an almost throw-away remark that, by implication, that would mean that road building spending would go up. I believe that probably that is just a throw-away remark but it does mean that the spending review in the next couple of months is really quite crucial; it could be a turning point for transport spending to be dealing with social exclusion, protecting the environment and providing people with decent alternatives or it could be a continuation of road building with the damage to the environment, the regressive nature of it and the increased demand that that would entail.

Q21 Chairman: The Chancellor referred to hundreds of road projects planned by the previous government and never completed, and went on to say that the spending review "will provide not for cuts but for real terms growth in transport in our

[3] Vehicle Excise Duty.

country." It seemed pretty unequivocal. I might have to invite Mr Higman back to my constituency ten years on!
Mr Bullock: I think he was saying that the transport spending will go up but then it was just an implication that the reason it is going to go up is to fund road-building schemes. I was not sure it was directly "It is going to go up because of road building . . .". The wording was very obscure.

Q22 David Wright: There are some positive road building proposals, are there not? If you look at the M6 toll motorway, it has been, I think, fairly popular within the West Midlands. It seems to be reducing congestion, although I would argue that the pricing strategy for heavy goods vehicles is probably wrong and we probably need to shift more heavy goods vehicles. It seems to me to have been quite successful; the public have accepted it. That type of scheme is pretty positive, is it not?
Mr Higman: We opposed the M6 toll. We were one of the only organisations that actually pointed out that discrepancy in the way the toll order was made that allowed the company to discriminate and actually discourage heavy lorries from using it and encourage them on to the public roads. I can see why they had an incentive to do that. I think it is early days to say whether that is truly effective or not. The modelling that was done at the public inquiry suggested that it would not relieve congestion in the long run on the M6 and that the levels of congestion on the M6 would be about the same as they were before the road was built. It remains to be seen whether that is going to be the case or not.

Q23 David Wright: It seems to have shifted cars off but not HGVs. That was not the area of questioning I wanted to pursue, I was just interested in whether you had a view on the M6 toll because it is very close to my constituency. Could I ask a few questions on the Climate Change Levy and the EU Emissions Trading Scheme? The Government has previously argued firmly that Integrated Pollution Prevention Control offered the only possible criterion for CCA eligibility, and it now seems that they have turned that position around. What do you make of the new eligibility criteria for Climate Change Agreements?
Ms Worthington: It is not something that I have worked on in a great deal of detail. We, on the whole, believe that the existing CCAs were not transparent enough for us to be able to scrutinise. Therefore, we were very sceptical of the reported savings that they delivered. So, in that context, we are definitely sceptical about the need for and, in fact, the correctness of extending it to further industries. Until that situation is resolved we will continue to oppose CCAs relative to the CCL.

Q24 David Wright: Do you think there was a significant lobby here from companies?
Ms Worthington: Absolutely.

Q25 David Wright: Are you aware of any particular companies that were lobbying intensively?
Ms Worthington: We are not aware. As I say, it is not something we have studied in a great deal of detail but we know that, in general, the tax is disliked and very unpopular—compared to CCAs which are seen to be negotiated agreements between Defra and the trade association—and which, as I have said, are very unclear and untransparent. So there is certainly a sense that industry prefers the CCA over the CCL.

Q26 David Wright: The Budget contains, to be clear, a proposal to allow participation in the EU Emissions Trading Scheme as an alternative to adhering to the Climate Change Agreements. Is that the beginning of the end, in your view, of the Climate Change Levy negotiated agreement process and, indeed, the levy itself?
Ms Worthington: It will be very interesting to see what happens. Everything is still in flux because the figures associated with the Emissions Trading Scheme are not yet fixed and will not be fixed until towards the end of this year. Companies will make an assessment based on which measure they think will have the least effect on their bottom line. The Commission has stated that there should be no difference in terms of environmental equivalence of effort so that the Climate Change Agreements should deliver the same level of savings that they would achieve if you were in the trading scheme. The Commission is still able to stop companies opting out if they do not believe that is the case, which has actually led to a commitment from government to improve the CCA target so that the second-round CCA target will be increased to ensure that equivalence of effort. The effect of the trading scheme is actually to drag a greater degree of saving from those people in the CCAs, so that they should be equal in their equivalence of effort.

Q27 David Wright: Do you see, as an organisation, a continuing role for national energy or carbon taxes alongside the EU Emissions Trading Scheme? We have obviously got a whole raft of different strategies across the EU. Do you think there should be a move to participate on an equal footing? What are the trends, in your view?
Ms Worthington: I think the unfortunate thing about the Climate Change Levy is that it is slightly wrongly titled; it should be an energy tax and it has been perceived to be a climate tax and that is why it seems now the industry is playing the role of regulator, and the Climate Change Levy ought to be abolished. We definitely see a continuing role for energy taxation in the UK and across Europe, but each country's situation with regard to energy security is very different and energy taxation is as much a measure for energy security as it is for environmental gain. So the two work in tandem and we would advocate that they should continue at a Member State level.

Q28 David Wright: Do you support the introduction of the EU Emissions Trading System? How do you view the latest proposals on the use of foreign credits by Member States?

Ms Worthington: Friends of the Earth has taken a largely supportive approach to the issue of the EU Emissions Trading Scheme. It is a well-designed scheme, in theory, and is far superior to the UK's own pilot scheme. However, the devil will be in the detail and, of course, the two questions that everyone is waiting to see the answer to are the overall allocation of allowances and the level of carbon price that emerges as a result of the balance between demand and supply at EU level, both of which are very hard to calculate at this stage. In theory, if it delivers a certain environmental goal then we are supportive of it. In terms of the linking directive, we still maintain that the EU scheme should have been maintained in isolation from flexible mechanisms to give us more flexibility over the results that it will deliver. However, we can see that politically it is a trade-off between linking with flexible mechanisms and the level of the ambition of the scheme. So that if you link with flexible mechanisms the Commission will feel more able to impose tighter targets on the countries within the scheme. Without the linking directive we may have seen less stringent targets. So there is a kind of trade-off between the two. If the link goes ahead then we are very supportive of the UK's position that there should be a cap on the overall use of those credits and that that cap should be both quantitative, in the sense that only a certain number of credits can be allowed for compliance, and qualitative in the sense that we would want to see exclusions of Sink projects, for example.

Q29 Sue Doughty: I am going to try and keep it fairly brief, having had the interruption, but move on to energy. When we start looking at carbon emissions we seem to have a bit of a messy picture here and the Committee has been worried about it for a while. You have recently released some figures about the way you think 2003 is going in terms of carbon emissions. Could you go over that with the Committee?
Ms Worthington: Yes. Each quarter the Department of Trade and Industry issues energy statistics which show the overall consumption of primary energy—fossil fuels—in this country. We were able to take those figures and derive a figure for CO_2 using the IPPC methodology, which is the methodology that is used for us to communicate with the UNFCCC about our overall emissions. So, essentially, their top line message was that compared to 2002 our CO_2 emissions from energy consumption, fossil fuels, was up 3% compared to the year before, which to put it into context, actually equated to 4.5 megatons of carbon increase. If you consider that in 2010 the whole of the renewables obligation is only designed to deliver 2.5 megatons of carbon that is a big hike and really starts to cut into the savings that were made during the 1990s which has enabled us to take a lead on climate change. So the picture is not good. The principal reason for that quite sharp increase was through the increased use of coal in inefficient power stations, and that has led to a balance shift between fuels, between gas and coal, and an overall decrease in efficiency.

Q30 Sue Doughty: Having said that, could the DTI address that by tightening the sectoral targets in order to put some correction in there?
Ms Worthington: Yes, the best tool that we have in our armoury for correcting this imbalance between coal and gas is emissions trading, and the current proposal is that the power sector should take more of a burden in terms of delivering savings through that scheme, so they would be allocated fewer amounts relative to other industries. We believe that is correct because that is a sector where there is the least exposure to international competition and the most technological potential for low-cost savings. We think they should have even gone further than they have gone, but we are pleased they have gone as far as they have.

Q31 Sue Doughty: Turning to wind energy, the Government has some good intentions and was supported by the RSPB until recently. Do you have any sympathy with the position that the Government is in now?
Ms Worthington: Friends of the Earth has taken a very supportive line on wind energy developments and we believe that is justifiable because there is no source of zero impact energy. We, as a society, rely on energy; it is essential to maintain our lifestyles and there is no simple solution that would enable us to maintain that standard of living without some impact. We consider the impact of wind to be of a very low order and in no way comparable to the impact we get from fossil fuel burning and nuclear power.

Q32 Sue Doughty: So you are reasonably happy about the Government's priorities still in renewable energies?
Ms Worthington: Yes, we are happy. We consider that there still needs to be additional help for less close-to-market technologies. The support mechanism, at the moment, is designed to deliver least cost solutions, which is good for now, but we will need additional help to bring those less close-to-market technologies forward, like wave and tide.

Q33 Sue Doughty: Thank you very much for being brief on that. I am going to turn very quickly to the Barker Report because, of course, we had that at the same time as the Budget. Last week you released a statement which said that the Barker review was a "social and environmental disaster"; yet in the introduction you were talking about meeting environmental and social goals. Are you pleased with the emphasis on social housing?
Dr Ellis: If I could respond on that, I think our overall response to Barker is it is probably one of the least helpful and least authoritative statements on the housing crisis we have had in a long time. It also has very wide-ranging implications for the planning system. The principles of Barker go way beyond social housing and, in fact, Barker does not say anything new in her report and acknowledges quite explicitly that she does not say anything new about the social housing crisis. What she is doing inside the Barker report and what is the absolutely essential

theme of Barker is to introduce price sensitivity into the provision of housing and to introduce price sensitivity into planning. There is a gulf between the press reports from Barker and the summaries of her report, and some of the most extraordinary recommendations for the future of the planning system which Barker contains. What those, essentially, seem to do is to misunderstand planning by saying, essentially, that if only planning regulation will get out of the way we could over-supply housing and reduce housing price inflation. There is nothing in Barker—no comprehensive assessment of environmental impact of that development. There is nothing which links increased supply of housing to redistribution, which is a critical issue in social housing, and there is nothing which analyses the capacity of particular regions to take the kind of housing which she suggests. If I just focus on one aspect of Barker, as a planner I do not necessarily get on well with economists, but Barker is A level economics at its worst. She is saying that in areas of high demand we must tackle that issue by high supply. That is a recipe for the exacerbation of regional inequality on a spectacularly imperial scale in relation to planning. If you try and make planning price-sensitive you have to ask the question "What is the point of planning?" Planning traditionally has sought to, at least, balance if not integrate public interest objections, like sustainable development, with a rights based democratic process, and some market sensitivities to try and mix that pot, and it is a messy process; it is a politically difficult process. What Barker is essentially recommending is that we solve that problem by removing political input. There are seven or eight references and two recommendations which suggest that locally elected members should have less of a role in planning, and she is also suggesting some extraordinary recommendations which would remove the discretionary nature of planning. Just to focus on one, which I think is the most extraordinary, she suggested that local authorities allocate at least 40% more land for housing than they need in order to deal with local price volatility, but land would be released if prices breached a certain point—known as a "price premia", which is a phrase I have never come across before. Her essential argument is that they will set thresholds in each particular local authority area on land prices and when those price premia are breached there would be a presumption in favour of the development of that type of land. That is an extraordinarily bizarre and unworkable recommendation for a planning system which has to deal with all sorts of other critical issues. This is something we are developing a position on, but I want to emphasise as much as I possibly can that many organisations welcome Barker, I think, without reading some of the detailed recommendations that it contains. Barker has to be set in the context of a 20-year series of reports from Treasury which began in the early 1990s with McKenzie, which essentially does not understand why planning regulation has a vital role to play in local democracy, civil rights and sustainable development. What you need in order to balance Barker is to start again and to factor in those other important environmental costs. The direct and practical implication of Barker for the South East will be the most extraordinary increase in pressure for housing, which I do not think will solve the social housing crisis, which will breach environmental limits and which certainly will not be sustainable. Let me say a final word on social housing because I think our sector has not been as responsible as it should have been in meeting the needs of social housing. I think we acknowledge that more and more. The tentative position we have is that the demand for social housing, as Barker recognises (although there is a dispute about figures), should be met in every region and that there is an absolutely straightforward social justice case for that, but that general demand for housing—which Barker is saying should be entirely market driven—cannot be met in each region. What you need, in terms of general demand, is a national spatial plan for housing which has a redistributive nature. Without that redistributive element Teeside, where I was a week ago, will have housing abandonment on a grand scale and the South East will have a quality of life and, ultimately, a poor economic performance that will result from the most extraordinary over development.

Q34 Sue Doughty: Thank you very much for that. I think that is a topic this Committee could probably spend a whole session on in itself. Finally, because I know we have got a number of other questions waiting and other witnesses, can I turn to VAT on Greenfield sites. Barker has spent quite a bit of time constructing arguments for and against, and some of those arguments may not be very credible (I do not know how you feel about that), but are there not even more problems with a planning authority levelled development tax? If you could be fairly brief on that.

Dr Ellis: I will be very, very brief because our position on this is emerging, if that is a polite way of putting it. For the last two years we have believed very strongly that a land development tax is better than taxation. I think that is preferable to changes to VAT, although clearly there are arguments that VAT should have parity between renewal and new build. The reason land development tax is much more effective in encouraging brown field site development, for example, is it is capturing a huge value-added when planning permission is given, that value is created by the community's democratic grant of permission and that resource should come back into the community. There is a powerful case for a land development tax, it is much more effective than the current 106 agreements, which are both regressive and you have all of the detailed negotiations and the public mistrust. Broadly speaking we would like to see that introduced. That part of Barker is one of the few parts which has merit in suggesting why it might happened. Why she sees fit to hook in to 106 agreements is not clear to me.

Q35 Joan Walley: In view of what has just been said about this emerging view which Friends of the Earth have in relation to Barker, housing supply and how you balance all of the issues that planning has dealt with, can I just ask for your views on where you think the debate on all of this is? Where is it being played out, is it being played out through the press? I am not quite sure where people who have views on one side or the other side or who are attempting to find some way forward through these very real problems are. Where is that debate being heard or where is it taking place? I would be interested to know where you think the points are where that debate could be influenced, if you see what I mean?
Dr Ellis: The shorthand response to that is that all planning policy—we are just working on PPS6 on re-sale at the moment as we review it—comes up against one central problem, which is usually the DTI's or Treasury's view of how a macro-economic model of the United Kingdom impacts on planning. The macro-economic model is the Golden Arc, Bournemouth to Cambridge, inside that area is the economic driver of the United Kingdom, it is what keeps us competitive and must not be restrained. I just draw your attention to PPS6 which now talks about managed decline in the retail sector, and that is something that we should be doing. Many communities are more and more being acknowledged in the North and West as essentially being places where we manage, decline and consolidate. Unless you can try and integrate the needs for the social equity and sustainable development with the Treasury's model of that economic driver in the United Kingdom more effectively then the policy debate becomes very sterile and is becoming very sterile. Every time we try and say "You are over developing in to the South East" we are simply told that will be anti-competitive, there is no way you can deliver that. I think that issue is crucial.

Q36 Joan Walley: In terms of the Treasury model that you are referring to, is that being shaped by the current debate that is going on round the Comprehensive Spending Review? I am not sure where this new vision which is coming is actually being formed or shaped. Do you see what I mean?
Dr Ellis: From my point of view, looking at it from a planner's perspective through ODPM, all I can say is that the PSA agreements as they stand at the moment are the most influential mechanism for the Treasury's implementation of its model on planning regulations and, to some extent, environmental regulations. PSA 6 in relation to ODPM in relation to planning has been influential right across the board. I know under the PSA review the question has been raised quite innocently about whether or not sustainable development might feature more heavily, particularly in relation to the climate, in the PSA agreements, which of course it should.
Chairman: I have a strong feeling that the question of Barker and all that her report entails is something which the Committee would wish to return to. That concludes our questions to you. Thank you very much indeed, we are very grateful to you. It has been a helpful session.

Memorandum from Friends of the Earth

Introduction

Response to specific questions from the Environmental Committee following Friends of the Earth's oral evidence session, 24 March 2004.

This note expands upon Friends of the Earth's oral evidence in relation to land taxation issues and addresses three principal questions:

1. *To what extent we support the Barker reports broad analysis of the balance between VAT and land taxes*
2. *The case for betterment taxation*
3. *Specific issues of implementing a betterment tax.*

Please note that our thinking in relation to questions 1 and 3 is developing. We have further analysed the principles of betterment taxation, based on a longer paper commissioned from the University of Sheffield. We are happy to submit this paper if the committee requires more detail.

1. The Barker Report Vision of Land Taxation

We made clear in oral evidence that we did not support the overall analysis of the Barker Report in relation to its implications for housing provision and the land-use planning system. However we do broadly concur as to the need for a model of land development taxation and that this would be more desirable than changes to VAT.

Our provisional overall view is that there is a lack of clarity in current debates over land taxation between the differing taxation approaches available and the key objectives that such regimes are attempting to achieve.

In our view there are three principal land taxation approaches.

— Impact fees which deal with specific consequences of particular developments.
— Extension of general taxation instruments such as VAT to the cost of development including land and materials. (One might also mention the capital gains tax and corporation tax are currently applied to those profiting from land development).
— Betterment taxation which has the principal aim of recouping the value created by the state which currently accrues to private landowners.

In our view land and development taxation should have three principal objectives:

1. Provide a way of mitigating the direct impact of development on infrastructure or the environment.
2. Recoup the betterment value created by the grant of planning permission by the state.
3. Encourage the environmentally efficient use of land.

In order to achieve these objectives we support a combination of impact fees and betterment taxation. We broadly support Barker's reservation about the use of VAT which is limited by law in relation to the rate at which it is set. This limitation reduces the scope of VAT to encourage environmentally efficient use of land by creating meaningful incentives and differentials between greenfield and brownfield development. More importantly VAT is not sensitive to betterment values. We do acknowledge that action is needed to equalise VAT between new build and repair and renovation of residential development.

2. The Case for Betterment Taxation

Recouping a public asset

The interrelationship of the property development market and the land-use planning system creates a substantial and unrecouped public asset known as betterment. This betterment, which arises from the increase in the value of land after the state's grant of planning permission, has been subject to varying tax regimes during three historical periods. This tax, which was severe at between 40% and 100% of development value, had a dramatic impact on the property market by reducing the supply of land and thus increasing its cost to the property development industry.

Replacing planning gain

Current policy toward economic instruments in planning is vaguely drawn. The main instrument is *ad hoc* planning obligations. These legal obligations provide an informal and variable impact fee system to mitigate the environmental and social costs of development. Such obligations involve lengthy and complex negotiations and provide highly variable yields to localities, often referred to as "planning gain", which are dependent on the differential strength of regional property markets. Planning obligations are generally related to development costs rather than values and can be viewed as charges rather than taxes. Such measures are therefore in principle regressive, inequitable and inefficient financial instruments. We concur with the Barker report that some form of impact fee system which could deal with the specific infrastructure impacts of development should be retained in a codified way.

The environmental benefits of betterment tax

Betterment taxation can influence the consumption of greenfield sites to achieve an environmentally more benign land-use pattern. It is likely to reduce the supply of land to the market thus increasing costs and so reducing demand, but in order to achieve a focused intervention for the reuse of brownfield sites it would need to have a graduated structure. This graduation would need to address the spatial variations in the strength of the property market, sectorial differences in the different elements of property development, for example between office and industrial development, and finally would need to be hypothecated so revenues were applied in a way to facilitate the regeneration of urban areas or mitigate environmental harm. We acknowledge that the need to set betterment at a politically acceptable rate may limit its effectiveness. Given wider macro economic forces and the complex disincentives for the development of brownfield sites, betterment taxation is likely only to be a contributory factor to a more environmentally efficient use of land and should be seen alongside other measures represented in the land-use planning system.

The impact of the betterment tax on competitiveness

A betterment tax would impact on competitiveness. The degree of this impact is dependent on the rate at which it was established and how far graduation measures conflicted with market behaviour. It would also depend on where the tax burden fell. For example, if costs fell on land ownership interests rather than the built development industry, the effect on competitiveness would be reduced. The tax would need to overcome the very significant problem of establishing and collecting the true development value for each project, a process likely to create additional administrative burdens on industry. It should be noted, however, that considerable complexity and inefficiency already exists in the current system of planning obligations particularly with regard to the valuation of proposed developments.

Market volatility

Betterment taxation may lead to a slight reduction in the cyclical nature of the property development market. Such a tax is likely to suppress volatility to some degree by decreasing the elasticity of supply of land.

3. Implementation Issues

It is possible to identify three major implementation issues based on the experience of previous attempts to introduce betterment taxation

(i) The level of betterment taxation.

Historically betterment taxation rates were based on the laudable principle that all the value created by the state should be recouped by it. Experience after the 1947 Planning Act illustrated that such a 100% levy effectively killed off the speculative market in land, reducing supply to a very low level. One might argue that in an era when it was assumed that most development would be delivered by the public sector it was not a problem. The repeal of betterment taxation in the 1950s led to a resurgence of private sector development and it is clear that a future betterment tax would have to be set at a socially acceptable level. This figure would need to take account of the fact that the private sector is already paying considerable and complex informal taxes through planning gain deals which go beyond the mitigation of direct impact of development.

(ii) Cross-party consensus.

The reintroduction of betterment a tax in the 1960s and again in the mid-1970s under Labour administrations were set to a more modest but still relatively high rate of 40%. These taxes had a disproportionate effect on reducing land supply because the opposition made clear that they intended to repeal the legislation if they came to power. Landowners therefore horded the land in the hope of receiving the full value later. In the future it would be vital to have a consensual approach to setting taxation rates at levels which do not snuff out all land speculation. (An initial view based only on a judgement between what might be politically acceptable to industry yet still relatively effective in delivering environmental goods would be around 20%).

(iii) Estimating land values.

While betterment taxation is more efficient and progressive than the current planning gain system it is founded on the ability to achieve accurate assessments of land values in particular localities and potentially for differing development sectors. Calculating land values is complex and might require inter and intra regional variations. While such measures would make the tax market sensitive, it may not be desirable since a flat rate betterment taxation measure would have the effect of creating higher returns in areas of high development pressure and therefore land value. This in itself may be a desirable redistributive outcome.

Conclusion

While the introduction of a betterment tax has a number of problematic issues, its desirability must be seen in the light of current policy. Planning obligations are increasingly recognised to have significant disbenefits, notably: their regressive nature in terms of the spatial distribution of such planning gains, their procedural complexity and cost, their uncertain policy basis, their environmentally regressive impact on land-use patterns by encouraging the development of larger greenfield sites and finally public perception of such obligations as lacking transparency and accountability. The political consequences of such disbenefits should not be underestimated nor the hidden economic costs on the development community.

The introduction of betterment taxation would in principle overcome much of the public concern over the conduct of planning obligations, removing the negotiating and trading aspects of current practice. Such a tax would provide a mechanism for resolving much of the complexity of the current system, providing certainty to the development community (assuming rates were not draconian) and transparency to the general public. Betterment taxation would, in principle, be equitable allowing distribution of revenues on the basis of need rather than market circumstance. It should be noted, however, that betterment taxation would remove the aspect of local flexibility and direct hypothecation that is currently enshrined in the planning obligations system.

A graduated betterment tax would deliver the much debated "greenfield levy". However, the introduction of comprehensive betterment tax may provide a coherent framework of taxation within which to influence other undesirable environmental outcomes, for example, traffic generation which could be incorporated within the overall and framework of betterment. This would avoid the introduction of a plethora of one-off economic measures to deal with specific environmental problems (graduated betterment could provide a framework to deal with other contentious developments in the areas of minerals and waste).

Our overall conclusions are twofold: first that current policy on economic instruments in land use planning and specifically planning obligations is confused, regressive and tends to increase the consumption of large greenfield sites. Second that betterment taxation offers a partial solution to aspects of these problems, particularly in the realm of equity and procedural transparency, and therefore deserves further careful exploration.

Annex

The following expands on Friends of the Earth's oral evidence in relation to costing three transport measures—bus lanes, safe routes to schools, and lower speed limits. This is based on research for the Way to Go campaign, a coalition of over 25 environment, transport and social justice organisations. A full briefing is available from Friends of the Earth.

1. Networks of Bus Lanes

1.1 *What is being costed?*

This section costs provision of the following:

— a programme of bus lanes and other capital measures to improve bus services as part of quality bus partnerships in all urban areas; and

— effective promotion and marketing of bus services.

1.2 *How much would it cost?*

Some local authorities are already spending substantial sums on bus lanes, bus priority at traffic lights, electronic bus time information and other capital measures to improve bus services. In the most successful local authorities, this is coupled with promotion and marketing. Table 3 summarises annual spending on capital schemes in London, Nottingham and Brighton.

Table 3

CAPITAL SPENDING ON BUS INFRASTRUCTURE

	Population	**Annual spend on bus infrastructure (2003–04)**	**Spend per person**
London	7.6 million	£43.5 million	£6
Nottingham	270,000	£1.4 million	£5
Brighton	125,000	£490,000	£4

If all English urban areas with a population of 20,000 or more invested at a similar rate of about £5 per head, the total amount invested would be £165 million per year, **or £990 million between now and 2010.**

Figures for local authority spending on marketing and promotion of bus services are available for Nottingham and Brighton and amount to roughly 30–50 pence per head per year. If all English urban areas with a population of 20,000 or more had a similar revenue budget for public transport publicity and marketing, **the total per year would be £10–£17 million.**

1.3 *Who benefits, and how?*

Investment in quality bus partnerships is helping to deliver significant increases in passenger use. Bus use is currently rising at about 13% per year in London and 5% per year in Brighton. Over the last three years Nottingham has reversed historic declines in bus use, and is now achieving small increases of about 1% per year. More bus use in these areas is helping relieve traffic congestion, benefiting residents and businesses. People on lower incomes, older people and young people would benefit most from better bus services.

1.4 *Where might the money come from?*

Some cities are already spending substantial sums on bus infrastructure. However, others are reluctant to invest in bus lanes, especially where they will take road space away from cars or where local businesses object. The main problem is not lack of funding, but lack of political will.

2. Safe Routes to Schools

2.1 *What is being costed?*

Providing basic infrastructure improvements around every school, plus "micro-infrastructure" such as cycle shelters and awareness-raising at every school.

2.2 *How much would this cost?*

The cost of these measures can be divided into three parts:

- Capital funding for on-road infrastructure improvements such as traffic calming.
- Capital funding for "micro-infrastructure" on the school site, such as cycle shelters or lockers.
- Revenue funding, mainly for local authority staff costs to promote school travel plans.

2.2.1 *On-road infrastructure*

From provisional analysis of data currently being collected by Transport 2000 for the Department for Transport as part of the *Making School Travel Plans Work* research project, we know that where local authorities have invested in infrastructure improvements such as pedestrian crossings, pavement widening, cycle lanes and traffic calming, they have typically spent between £30,000 and £75,000 per school, or on average about £100 per pupil place. This is not sufficient to buy a complete "Danish style" safe routes network, but it is enough to pay for basic essential infrastructure—for example £30,000 might pay for one pedestrian crossing and some footway improvements.

There are roughly 6.5 million school age children in England, suggesting that the cost of basic 'safe routes' infrastructure for every child might be of the order of £650 million.

In an urban area like Merseyside, with 582 schools, the total cost would be £17—£44 million. Currently the five local authorities in Merseyside have allocated about £650,000 per year to these measures. To provide basic safe routes infrastructure at every school by 2010, capital funding would need to increase by a factor of between four and 11 times.

2.2.2 *School site micro-infrastructure*

Funding for "micro-infrastructure" such as cycle shelters and lockers provides a strong incentive for schools to get involved in travel planning. Where local authority school travel advisers are able to offer this incentive, it is generally about £5000 to £10,000 per school. This is enough to purchase (say) two cycle shelters. There are roughly 18,000 primary schools and 3,400 secondary schools in England, so it would cost £100 to £200 million to offer this support to every school.

2.2.3 *School travel plan co-ordination*

According to interim research for DfT on soft factors[1], local authority staff costs to promote and develop school travel plans are about £4 per pupil place targeted. This funding is required every year to sustain schools' involvement in walking buses, walk to school days, curriculum work and other travel behaviour initiatives. With 6.5 million school-age children, the annual cost of school travel work if every school were targeted would be £26 million.

Summary

- **Basic "safe routes" infrastructure for every school would require a capital programme totalling £650 million.**
- **"Micro-infrastructure" such as cycle shelters and lockers for every school would cost £100 to £200 million.**
- **Revenue funding for school travel promotion work with every school would cost roughly £26 million per year.**

2.3 *Who benefits, and how?*

Money spent in this way benefits parents of school-age children and children themselves. The main benefits are:

- Children get healthy exercise (if they walk or cycle to school), reducing obesity and encouraging active travel habits.

[1] Sloman, L, Cairns, S and Goodwin, P (2003) The impact of soft factors on travel demand, summary report to Department for Transport seminar, December 2003.

— Some teachers report that children who walk or cycle to school are better able to settle down to work once they arrive, concentrate better, and have greater road-safety awareness. At schools where truancy or lateness is a problem, walking bus schemes can improve attendance and punctuality.

— Where school travel work involves a whole community it can increase social capital. Some school travel co-ordinators report that walking buses in areas of high unemployment are getting parents more involved in their local community and building skills and confidence.

— Traffic emissions and congestion are reduced in the morning peak.

2.4 *Where might the money come from?*

Even in local authorities with quite generous allocations of LTP capital funding for "safe routes" infrastructure, the proportion of the total LTP settlement allocated to safe routes is small. For example York spends about 1% of its LTP allocation on safe routes capital measures. The 2004–05 LTP settlement for all local authorities in England was £1.9 billion. Allocating 6% of this to safe routes infrastructure would enable some improvements at every school by 2010.

The government has recently announced a programme of £50 million over the next two years for safe and healthy travel to school. This includes £35 million towards micro-infrastructure at schools, set at £5,000 for primary schools and £10,000 for secondary schools. This level of funding will encourage many schools to get involved in travel planning, and will go some way towards the £100 to £200 million that would be needed for all schools. The package also includes £7.5 million per year for local authority school travel co-ordinators. This will provide some of the estimated £26 million annual cost of working with all schools on travel plans. The outstanding amount could partly come from existing local authority revenue budgets. For example, local authorities such as Buckinghamshire and York have already found sufficient revenue resources to work with about two-thirds of their schools.

3. Lower Speed Limits—20mph Default in Residential Streets

3.1 *What is being costed?*

This section costs the implementation of 20mph zones enforced by physical traffic calming where necessary, or by signs without physical measures elsewhere.

3.2 *How much would it cost?*

When 20mph limits are introduced in residential streets, the actual reduction in vehicle speeds is greater if the new speed limit is combined with traffic calming. This might suggest that physical design changes should be introduced in all residential streets. However, the cost of such an approach would be substantial: TRL calculated that the cost of introducing traffic calming and area-wide safety management in all urban areas would be around £3 billion (based on 1995 figures).

Sign-only 20mph zones are less effective in terms of speed reduction, but they nevertheless have some effect on speeds and there is evidence suggesting they reduce casualties. Research published by the Scottish Executive looked at before and after traffic speed data from 75 trial sites where the speed limit had been reduced to 20mph without any changes to the design of the road (but in most cases *with* publicity measures). The average reduction in 85th percentile speed was quite small, from 29.4 mph to 28.3 mph. However, casualties across 59 sites for which data was available fell by 42%, and deaths and serious injuries fell by 59%.

This suggests that there would be merit in setting the default speed limit in residential streets at 20mph, even where traffic calming measures cannot be afforded immediately.

There are many streets where traffic calming would bring additional benefits. The calculations below assess the cost of introducing a traffic calming programme comparable to that in Hull in all urban areas with populations of 20,000 or more. Hull already has more than 112 20mph zones covering 26% of the city's roads.

3.2.1 *National sign-only 20mph limit on residential streets*

The Scottish trial cost £369,315. Data on 68 of the trial sites, covering more than 31,000 households, suggests that the average cost per household was £10.30.

There are just under 20 million households in England. It is not possible to say how many of these households live on residential streets. However, at an upper limit, **the cost of implementing sign-only 20mph limits on all residential streets might be roughly £200 million,** or £33 million per year between now and 2010.

3.2.2 *Hull-style traffic calming and 20mph zones*

Hull introduces roughly 20 local safety schemes on residential roads every year. According to the 2003 APR the programmed cost in 2003–04 was £330,000 for 23 schemes. However, a report by IPPR[2] suggests the historic cost of 100 20mph zones between 1994 and 2002 was about £4 million, indicating somewhat higher annual spending of about £500,000.

The population of Hull is 311,000, suggesting an annual cost per city resident of £1 to £1.60. Scaling this up to cover the 33 million people in towns of over 20,000 in England, the annual cost of replicating Hull's programme elsewhere would be £33 to £53 million. **The cost between now and 2010 would be £198 to £318 million.**

3.3 *Who benefits, and how?*

Lower speeds on residential streets would reduce road deaths and injuries. Between 1994 and 2002, IPPR estimates traffic calming in Hull has saved about 200 serious injuries and 1,000 minor injuries.

Introduction of 20mph limits and traffic calming should be focussed in areas of greatest deprivation, where the incidence of child pedestrian injuries is greatest. When Hull began its programme of traffic calming and 20mph zones in 1994, there was a strong correlation between numbers of child pedestrian casualties and an index of ward deprivation. That correlation has now been broken and children in the most deprived wards in Hull are no longer at greater risk.

3.4 *Where might the money come from?*

Local authorities are already spending significant sums on traffic calming and 20mph zones, so not all the cost identified above would be new. Hull's LTP allocation is roughly £8 million per year, so the proportion of funds allocated to traffic calming and 20mph zones is only about 4% of the total. If local authorities collectively were to spend £83 million per year on 20mph zones, this would represent only 4% of the LTP settlement.

3.5 *To what extent might 20mph limits pay for themselves?*

The Scottish 20mph trials were conservatively calculated to have delivered casualty savings worth £177,000 in the first year, equivalent to a first year rate of return of 48%. This suggests that a 20mph signing programme would pay for itself over a period of about two years.

According to IPPR research, the programme of traffic calming and 20mph zones in Hull between 1994 and 2002 delivered savings worth well over £40 million, suggesting that by 2002 the programme had paid for itself at least ten times over.

April 2004

Witnesses: **Mr Paul Everitt,** Head of Communications, Economics Policy, the Society of Motor Manufacturers and Traders Ltd, **Ms Katherine Bennett,** Manager, Government Affairs, Vauxhall, and **Mr Mike Hawes,** Head of Corporate & Government Affairs, Toyata, examined.

Q37 Chairman: Thank you very much indeed for coming and for your patience. I am sorry you had to sit there rather a long time listening to some no doubt fascinating discourse, even though it is not always discourse relevant to your own particular sector. I do not know whether you want to say anything in opening or whether you can weave your thoughts into the answers that you give to our questions.

Mr Everitt: If I may introduce my colleagues, Katherine Bennett from Vauxhall and Mike Hawes from Toyota. I would like to make four very brief points in relation to the Budget and the focus of what we are looking at, low carbon vehicles: Firstly, in the run-up to the Budget the key message that we were delivering to the Treasury was we wanted a Budget that was going to deliver to us stability in the market place and greater certainty in terms of the fiscal framework for environmental, particularly for motoring and transport taxation. I think to a large degree we got that; I think also looking at the low carbon agenda I would like to register in our view this is a long-term process and not necessarily something which you can judge from budget to budget, that is why we were looking for greater stability and certainty from the Chancellor; It is also an agenda to which the motor industry is fully committed, and we may touch on that in various different questions and answers; I think it is also key to recognise that consumers in our industry dictate what happens in the market place, their preferences are ultimately driving the market place. We cannot avoid that, we may want people to buy certain things but unless they want to they will not buy them; the last point is that out of this low carbon agenda as an industry, and certainly as the SMMT, we are very

[2] Grayling T, Hallam, H, Graham, D, Anderson, R and Glaister, G (2002) Streets ahead: safe and liveable streets for children. Institute for Public Policy Research.

much focused on ensuring that we take all of the opportunities which we can to maximise the competitive advantage for the United Kingdom based industry.

Q38 Chairman: Thank you very much. We heard from our previous witnesses about the perceived over-consumption of resources, you will be aware that the Government has a sustainable consumption strategy, how does your industry fit into that?
Mr Everitt: That is an interesting question, perhaps one we are not immediately prepared for. As an industry we take a view we are a commercial organisation, we supply the market place but we like to think we are taking a responsible attitude, particularly a responsible attitude as far as environmental issues are concerned across all elements of the products we produce, from the materials we use, the manufacturing processes which we use to construct them into the technology which we then sell on to the market place. Environmental factors are very much to the fore, we touch upon the recycability of our vehicles. We already have about 75% to 80% recycability with all of our products, we are legislated to reach 95%, and that is an indication of the commitment that we as industry have made and pressures society has put upon us.

Q39 Chairman: Yet the contribution of your industry to climate change continues to grow.
Mr Everitt: I think we would dispute whether it continues to grow. Overall our transport figures in the United Kingdom indicate it has been about level for the about best part of a decade and we would believe that most of the modelling indicates that CO_2 emissions from road transport will begin to move downwards quite significantly over the course of the next decade to two decades.

Q40 Chairman: A lot of our questions will be to do with CO_2 emissions, can I just ask you about HFCs, which has been a live issue in the European Parliament recently. I understand that your industry lobbied against the controls the European Parliament was seeking to replace HFCs, particularly their use in air-conditioning systems in cars.
Mr Everitt: We were not lobbying against the restrictions on the use of HFCs we are looking for a Directive which is workable and implementable.

Q41 Chairman: Would it not be simpler for them to be banned?
Mr Everitt: One of the points we make is over the time period which that ban should come into effect. I do not think we have tried to suggest there should not be a ban. I think it is fairly interesting that the United Kingdom Government cost-benefit analysis indicated that improvements to systems reducing leakage rates was by far the most environmentally productive route rather than an outright ban. As an industry the difficulty we face at the moment is there is no ready-made alternative. There are a number of different systems which vehicle manufacturers are in the process of testing and developing which we believe we can bring on stream in a reasonable time period.

Q42 Chairman: What is a reasonable time period?
Mr Everitt: I think we are looking at a period of a ban from 2012.

Q43 Chairman: It has been suggested that if you are saying 2012 you can do it a lot easier and faster than that.
Mr Everitt: I think you will find traditionally there is always this particular debate that goes on between those who think everything can be done very quickly. If we were talking about one vehicle or even ten vehicles going on to the roads I am sure that would be the case. I think people have to remember that these systems are going to be fitted to millions of vehicles. They also have to be assured that when those vehicles are involved in collisions and accidents that the performance of materials and the components are not going to create a worse problem than the ones we already have.

Q44 Chairman: Are HCs no good?
Mr Everitt: Sorry?

Q45 Chairman: Are HCs an alternative?
Mr Everitt: I am not an expert in this particular area. There are a range of alternatives which we are looking at and also individual companies are developing. We believe there are ways in which we can replace those gases and we are keen to do that. What we are asking for is over a reasonable time period and in a manner that can be befitted into the normal production cycle of new models.

Q46 Chairman: Is there any way the Government could help achieve the objectives which you stated that you want?
Mr Everitt: I think the Government has been reasonably supportive in the discussions and debates that have gone on at a European level. I am not really certain there is a great deal more given the nature of this particular legislation and the fact that the systems that are being developed are being developed certainly as a minimum on European level, and indeed in most cases global level. I do not think one individual Member State can make that much difference.

Q47 Chairman: It would probably help if they did announce these things were going to be banned on a given date, that would give you the sort of certainty you were asking for earlier.
Mr Everitt: It would not make a great deal of difference. One of the key issues and one of the key debates in the Directive is the legal basis under which it is introduced. For us as a global industry working across a European market it is not very helpful if individual Member States take a different approach.

Q48 Chairman: That is understood. Coming on to CO_2 and the voluntary agreement which was introduced in 1998, the latest data we see suggests that progress and meeting targets set for the voluntary agreement is petering out.
Mr Everitt: The EU agreement, as you said, was signed in 1998, within the agreement there were a number of interim milestones, one was the availability in 2000 of a vehicle with a performance of less than 120 grams per kilometre, the second was by the end of 2003 the average new car emissions should be between 175 and 165 grams per kilometre, the latest monitoring data from the EU is at the end of 2002, and I think it is 165. That would mean that we have met the two interim milestones and I think from our point of view we feel we are on target. We would not under-estimate the challenge which lays ahead of us because there are a range of constraints which we face but I think broadly speaking we are on track.

Q49 Chairman: The 2010 target is 120 grams of CO_2 per kilometre?
Mr Everitt: The European one.

Q50 Chairman: The EU one. Do you think you can hit that?
Mr Hawes: It is a 2012 target of 120 rather than 2010.

Q51 Chairman: Are you going to get that?
Mr Hawes: We are looking at it. It is going to be great challenge to reduce from 140 in 2008–09 down to 120. You have to reduce by an average of five grams per kilometre per year. That is a schedule which will be extraordinarily difficult to meet. We are looking to see how progress is developing and what other technologies are going to help us deliver that.

Q52 Chairman: Are there technologies around which will enable you to do this?
Mr Hawes: There are a wide range of technologies varying from hybrids to producing cleaner diesels to alternative fuels like LPG and CNG.
Mr Everitt: We have an agreement which covers the period to 2008–09 which we are focused on. The European Commission is opening discussions and debate on the period after 2008. The focus that we have is to ensure that the discussions are taking into account the economic well-being of the industry as well as the environmental objectives.

Q53 Chairman: The United Kingdom seems to be lagging behind the rest of the EU in terms of meeting targets, is there a particular reason for that?
Mr Everitt: The target is pan-European it is not split nation by nation.

Q54 Chairman: The individual performances are visible in data and the United Kingdom is doing worse than the rest of Europe, is that because we have bigger cars?
Mr Everitt: We have to recognise where we started from, when the agreement started we were probably ranked fourteenth or fifteenth of the EU Member States and we have actually improved our performance at a slightly faster rate than some others. The historic make up of the car and purchasing trends in individual markets will have an influence. I think we feel we are making significant progress in the United Kingdom.

Q55 Mr Challen: One of the tables which was missing from the Budget book was the one which shows that road transport carbon emissions rising and worryingly are forecast to continue rising, would you accept this represents a very serious threat to the prospect of us meeting our domestic target of a 20% cut in carbon emissions by 2010?
Mr Everitt: Our view is that carbon emissions from road transport, from passenger cars will turn down.

Q56 Mr Challen: When do you think that will happen?
Mr Everitt: Over the course of the next five to ten years I would be fairly confident that will be the case. Clearly the United Kingdom's domestic target is much broader than just the road transport sector. We as an industry feel that through the voluntary agreement and the commitment we have to introducing new technologies it will make a substantial contribution to achieving the EU Kyoto target and also the United Kingdom domestic target.

Q57 Mr Challen: This sounds a little vague, I am just wondering if there is an element of crossed fingers there, what are the key elements which make you confident you will achieve these targets in five to ten years' time, even before 2010 possibly?
Mr Everitt: We are seeing lower and lower emission vehicles being put on to the market. There will always be an element of doubt. This is one of the key points I was trying to make in the opening, this is a long-term project both for society and industry. We are talking about a very long period of time. If there is always a focus from year to year where you do not seem to be doing very well you need to change something and it does not create a stable environment where businesses can invest in the types of technology and in the types of products which will help achieve the goals we are trying to meet.

Q58 Mr Challen: In the voluntary agreement and in the 10 Year Plan for Transport that envisages a four million tonne of carbon reduction from the United Kingdom, are we on target for that reduction?
Mr Hawes: I think if you look at the various targets we have they are all reading in the one direction, we are all obliged to introduce technology to which the market will respond and help us deliver those. The indication is that we are on track for the 140 and that target will be complementary to some of the other targets.
Ms Bennett: The other point to bear in mind is that cars have a lifetime of between possibly ten to 12 years, there is always going to be a time lag before

the impact takes over. As Paul was saying we build the car but we need the customers to buy them, it has a knock-on effect in that way as well.

Q59 Mr Challen: The Powering Future Vehicles Strategy set a target for 10% of new vehicles to emit less than 100 grams per kilometre by 2010. Are we on target to meet that target?
Mr Everitt: We have to look very closely at that particular target. It is important to say—and we will come back to this as a continual theme—we are not a single United Kingdom market, we are a European market. To some degree the technology and the thrust of an individual company is going to be more geared towards a general 140 target that is part of the European agreement. Generally that is not inconsistent with the 10% target. The difficulty or what we need to be sure about as we move forward is that what we do not end up with is, if you like, a very small niche of vehicles in the United Kingdom which meet that particular target and the bulk of the rest of the car is off track. The technologies which we need to introduce have to work across the vehicle path, across all vehicles we are selling. As an industry we need to sell the full range of vehicles in order to generate the revenues that we need to make the investment. To give you a more direct answer, the 10% target is feasible but the dominant focus for industry is going to be the European level agreement.

Q60 Mr Challen: It is like saying you only go as fast as the slowest. Could there be a future competitive advantage to meeting these targets earlier than other people so that you can get in with new technology and beat other manufacturers in other parts of the European market?
Ms Bennett: You need to appreciate that most of the big car companies research and development is done centrally. We do not just design and build cars in this country, we sell cars across Europe that are designed and researched in the technology developed all over Europe, it is not just a United Kingdom developed car which is brought to the market.

Q61 Mr Challen: What does that say about the United Kingdom Government's desire to have all of these targets?
Ms Bennett: We work with the Government to help set the targets.

Q62 Mr Challen: For the United Kingdom?
Ms Bennett: Yes.

Q63 Mr Challen: Then we are back to the market saying, "Why do we have all these targets?"
Ms Bennett: You have to have targets.

Q64 Mr Challen: Only if they are going to be sensible and smart, and all of the rest of it.
Mr Everitt: I do not think we are trying to suggest there is something wrong with the 10% target. What we are saying is it needs to be seen alongside the broader European agreement and the opportunities in the United Kingdom are not so much, if you like, in the vehicle but the technologies that that vehicle will use. There are great opportunities and ones that we as the SMMT are keen to encourage the exploitation of and generate within the United Kingdom a supplier base of technological excellence to take advantage of that. All of these major car companies are looking for ways and means of improving efficiency which they will be able to supply.

Q65 Mr Challen: If I came to either of the manufacturers here and said, "Could I buy a petrol or diesel car which meets this target now?", could you sell me one?
Mr Everitt: Yes.
Ms Bennett: Yes.

Q66 Mr Challen: They are available?
Mr Everitt: It is feasible. We know there are vehicles available today that are less than 100 grams per kilometre. I have to tell you that not very many of them are being bought and that is the issue.

Q67 Mr Challen: Is it price?
Mr Hawes: It is a combination, it is price, it is the utility of the vehicle. Coming back to the consumer, it is motivation behind choice, by and large consumers do not rate environmental performance very highly on their criteria in determining to buy a car.

Q68 David Wright: They do on other products. If you go into a retailer to buy white goods, one of the things which is on white goods these days is a sticker on the front of it which gives it a rating. When I go and buy a fridge I look at that rating and I decide how I am going to weigh off the comparison between the cost and the advantage to the environment, a conscious decision is made. When are you going to badge your vehicles in a similar way?
Mr Everitt: The motor industry introduced voluntary environmental labelling in 1999 which highlighted CO_2 emissions, that was superseded by a European directive which meant we had to slightly change the label. We have been labelling vehicles with CO_2 information since 1999.

Q69 David Wright: I do not remember wandering round the car dealers in my constituency when I bought my last car seeing any particularly high profile advertising—it was not one of yours, a terrible shock to you, I know—I do not remember seeing anything.
Mr Hawes: It is a requirement.

Q70 David Wright:—a very high profile campaign on this issue.

Mr Hawes: It is a requirement to display that label.

Q71 David Wright: About two millimetres high.
Mr Everitt: A4.
Ms Bennett: Perhaps it comes back to what I was saying earlier, we do extensive market research and in the list of priorities for a customer the environment is number eight or nine. Number one is cost.

Q72 David Wright: Surely you have a responsibility to lead in terms of public opinion as well? We are talking about the global market now, there are increasingly less players in the car manufacturing market and you have to take on and deal with corporate responsibility now as global companies. You have to lead the market as well as follow it.
Ms Bennett: We bring environmentally friendly vehicles to the market and have advertising marketing which supports that. I promise you we do advertise extensively on environmental issues, but you can image the discussions which go on in our head office in Luton when you are looking at an advertising campaign promoting the economic benefits of the car or other customer benefits, and our marketing people have to balance that up. The environment is one of the issues which we do push on but there are other benefits which customers look at.

Q73 Mr Challen: I am sure you will not market cars on the basis of speed, I am sure that never appears in an advert.
Ms Bennett: That is actually against the law.

Q74 Mr Challen: It is done very, very subtlety. In the Powering Future Vehicle Strategy a zero emissions target is set for 2020. That was not set at that time, is that target now being set?
Mr Everitt: As I recall the Powering Future Vehicle Strategy asked that the Low Carbon Vehicle Partnership view what might be appropriate for an ultra low carbon car target for 2020. The Low Carbon Vehicle Partnership is an advice body outside of Government which includes vehicle manufactures, component suppliers, energy providers as well as NGOs, local government and a range of other stakeholders. There was and has been a discussion on whether it is appropriate and possible to set a realistic target for 2020 and the view which was taken by the Partnership was that at this point in time there were so many technologies being developed, there were so many areas of investigation underway it was not possible to come up with a rational and dependable 2020 target. Where we are at the moment is very much on the cusp of what might be a very significant change in the sense of vehicle technology. The speed of which that change is likely to take effect is something which no one is really in a position to make a sensible judgment on. It was thought better to keep the situation under review rather than pin a number up on a board which had no value.

Q75 Mr Challen: That is being kept under review, when do you think a decision might be likely?
Mr Everitt: That is the reason why it is under review. If we could say it is going to be this people would go with it. At the moment the view is that we simply do not know. We have some significant and challenging targets to reach in terms of 2008 and indeed 2012. I think the closer we get to the 2008 situation it will make it slightly clearer about where we might get to in terms of the 2020 target.

Q76 Mr Challen: I was wondering how the review worked, are you able to revisit on an annual basis?
Mr Everitt: Within the Low Carbon Vehicle Partnership it is an on-going monitoring which they do. The 2012 target is discussed on a regular basis, the progress is discussed on a regular basis and the opportunity to make it a review and advise on that is an on-going issue.

Q77 Joan Walley: Innovation is very much the watch word and the key word and just referring to the Powering Future Vehicles Strategy I wonder if you can tell us whether or not you feel there are too many organisations involved? Is there a need for one organisation, one port of call? How is it all panning out, how is it all working?
Mr Everitt: It is true there are a number of organisations and there are a number of different funds and tasks. The first thing to state is that we should not over-estimate the potential. The major investments into R&D on vehicle technology are clearly being made by global companies, vehicle manufacturers and component suppliers. However, there are significant opportunities for leveraging investment into the United Kingdom and thereby the various programmes from the Foresight Vehicle Programme to the New Vehicle Technology Fund and the Ultra Low Carbon Car Challenge are all means by which they serve some direct benefit in terms of pushing the agenda along by providing important R&D and/or opportunities for demonstration projects but also, more importantly, they draw in the United Kingdom based supply chain and mix them with the experience within academia and some of the global car companies. It is a complex situation but I think broadly people understand what the different programmes are for. Since the publication of the Powering Future Vehicle Strategy there is a better understanding and greater co-ordination within Government itself. We now have the ministerial group with DTI, Defra, DfT and Treasury. There is a greater internal cohesion within government and that has benefits of allowing those people outside government to be a bit clearer on what is going on.

Q78 Joan Walley: Given it is a big maze for people to find their way around, do you agree with the recommendation that there should be a single point of advice and information? Has there been any progress on that? Are we likely to see a single one-stop-shop point of contact?
Mr Everitt: In general terms the SMMT is very keen for business support programmes to be very much of the one-stop-shop variety. Given some of the organisations are relatively new, certainly the Low

Carbon Vehicle Partnership is relatively new, some other organisations are perhaps more established, the Energy Saving Trust and indeed the Carbon Trust. I think there may be—

Q79 Chairman: You are doing well, we have it all written down!
Mr Everitt: I am not making a good argument that it is all hanging together very well. It would be safe to say there is scope for some better co-ordination.
Ms Bennett: The other complication is the RDAs. We talk about innovation in the different regions, for those of us who have sites in different parts there is a wide diversity of research grants on offer. We certainly agree with the one-stop-shop approach. We do think the partnerships which have been set up so far seem to be working but the regional aspect can be confusing.

Q80 Joan Walley: Would you say there is some kind of inconsistency as to how this is being applied?
Ms Bennett: I would say on low carbon that is very much more central. We do have the door knocked regularly by people with regional hats on talking about innovation and R&D.

Q81 Joan Walley: Are there any particular regions you suggest we should go and talk to?
Ms Bennett: I am generally impressed with the RDAs I have dealt with. Talking about our Luton closure we were very impressed with the work of the RDA, they were very helpful to us with the new training programmes. There is a diversity and maybe for some of the smaller businesses, the technological driven ones who have small staff they do not quite know where to go, let us hope the Partnership can help with that.

Q82 Joan Walley: Could you explain to us about how the Ultra Low Carbon Car Challenge fits in with the New Vehicle Technology Fund? Are they working together and reinforcing each other?
Mr Everitt: Yes.

Q83 Joan Walley: Good.
Mr Everitt: Yes is the answer to that question. I think the Ultra Low Carbon Car Challenge is a specific project designed to address some of the issues that we have raised here in terms of looking to create the opportunities for a real vehicle rather than a niche product. It was looking to draw in the best technologies and create some interest and excitement in a car that people could recognise as a car which had a utility value that people associated with that car but that was providing environmental excellence. That is an interesting and an exciting thing to try to do.

Q84 David Wright: It would be good if some of the mainstream stands in the Motor Show could exhibit them because what tends to happen is we go round a corner and we will look at a strange looking vehicle that is particularly good and environmentally sensitive and we will go back into the main hall and have a look at the Ferrari. There is a bit of that about it, is there not? It is about mainstreaming that into your whole approach, so if are you doing the United Kingdom Motor Show you are mainstreaming some of this stuff rather than leaving it to one side.
Mr Hawes: Absolutely. I think all of the major manufacturers are looking to launch vehicles and introduce vehicles into the market place which have to be mainstream. That means at the Motor Show having them on the stand, not off in the corner. I can assure you if you attend this year's Motor Show, the dates are . . .
Mr Everitt: 26 May to 6 June.
Mr Hawes: If you visit a range of stands you will see those vehicles on the stand.
David Wright: I do not own a Ferrari!

Q85 Joan Walley: In terms of support there could be from the Government, is the Government doing enough to give support? If you look at Japan and you look at the larger number, percentage wise, they will have by 2010, is that because the Japanese Government is doing more to make that possible?
Mr Hawes: Obviously it is the home base for a number of auto motor manufacturing companies who are investing significant amounts of money in to fuel cell technology. For that reason one would always look at one's home market first. I am sure American companies would say the same about the American domestic market. The United Kingdom Government is keen to attract much of that development into the United Kingdom and to foster those companies which are involved in research and development round fuel cell in the United Kingdom, that lies behind some of the initiatives Paul mentioned earlier.

Q86 Joan Walley: The Low Carbon Vehicle Partnership is that doing enough or is it a waste of space? How well is it doing?
Mr Everitt: It has been in operation for just over a year, given that a significant proportion of that time was taken up with adjusting the nuts and bolts and finding staff and finding accommodation I think it has made some reasonable progress. The big benefit of the Partnership is that it does bring people together and, if you like, builds trust and confidence within sectors of the market which would not normally discuss some of the key issues, certainly not in a non-commercial environment. I think the hope is that as the Partnership rolls on more and more initiatives which are essentially commercial initiatives run by individuals and companies within the Partnership take off and begin to roll forward the agenda rather than the Partnership being someone who tries to dictate.

Q87 Joan Walley: Going back to my earlier question about fuel cells, is the United Kingdom Government giving enough financial support? The second question is about 2008, including transport within the EU Emissions Trading Scheme, is that realistic?

Ms Bennett: On fuel cells I am just speaking purely on behalf of General Motors. General Motors have said they believe that Europe is behind, considerably behind.

Q88 Joan Walley: Behind where?
Ms Bennett: The US, Japan and Canada.

Q89 Joan Walley: What about the United Kingdom?
Ms Bennett: They have not specifically commented on the United Kingdom. They are very interested in the market because we are quite environmentally focused having talked through what we talked about, we are a very cosmopolitan and intellectual type of purchasing public. Fuel cells we think will have take-up in this country and we think the Government could be doing more.

Q90 Joan Walley: Have you made that clear to the Government?
Ms Bennett: Yes, we have.

Q91 Joan Walley: Is that information available?
Ms Bennett: Yes, I can certainly write to you with that.[3]

Q92 Joan Walley: Finally 2008, is transport going to be part of the EU Emissions Trading Scheme?
Mr Everitt: We have significant problems with the EU Emissions Trading Scheme related to our plants' facilities.

Q93 Joan Walley: Are you going to stop it?
Mr Everitt: I do not think we have the opportunity to do that. Given we have a voluntary agreement we think there is not the necessity for the transport sector to be within the Emissions Trading Scheme.
Chairman: We may have further questions about that point and about a number of others.[4] I am sorry we have been cut short. We are very grateful to you for the frank way you answered our questions. Thank you very much.

[3] Please see below, Ev. 22
[4] Please see below.

Memorandum from the Society of Motor Manufacturers and Traders Ltd (SMMT)

Response to specific questions from the Environmental Committee following the SMMT's Oral Evidence Session, 24 March 2004.

1. *For several years, fuel duties have only been increased by inflation and the real cost of motoring is still falling. Under what circumstances, if any, do you think the Government should consider re-instating above-inflation increases in fuel duties?*

SMMT does not believe that above inflation increases in fuel duty are appropriate. The fuel duty escalator proved a relatively blunt policy instrument for influencing tranport demand. Increased costs impacted negatively on industrial competitiveness and had a disproportionate impact on those on low incomes. By contrast incentives provided by differentiating rates of fuel duty have shown to be effective in encouraging the use of cleaner fuels.

2. *Do you consider that the Alternative Fuels Framework and the specific commitments on fuel duties contained in the Budget give sufficient certainty for investment?*

Ahead of Budget 2004 SMMT sought stability and greater certainty from the Chancellor in respect of transport taxation. The commitment within the Alternative Fuels Framework to a rolling three year period of fixed duty differentials is very encouraging. Industry would prefer to know the actual rates, but acknowledges that this is a substantial improvement on the year to year uncertainty that has traditionally prevailed. SMMT believes that companies do now have a sounder basis for investment decisions.

3. *What impact do you think the increases in LPG will have, given the fledgling state of the market for that fuel? If the LPG market does stall, would this have any impact on investment in other new fuels?*

Those companies offering LPG vehicles have been concerned about the uncertainty that has surrounded the future rates of fuel duty and purchase incentives offered through the Powershift Programme for LPG vehicles. The one pence per annum reduction in the fuel duty incentive for LPG should not undermine the market for this fuel. New fuels that require dedicated vehicles and distribution systems take time to establish a commercially viable market. The automotive industry has articulated a clear view about the potential for the use of renewable hydrogen in the future, this would suggest that Government should begin to consider how a supporting infrastructure might be developed.

4. *Is there a case for increasing the differentials for VED much more dramatically to promote increased take-up of small cars?*

SMMT's recently published report on new car CO_2 emissions shows clearly that consumers are purchasing a higher proportion of smaller cars. The combination of graduated VED and company car tax linked to CO_2 emissions is having the desired effect. SMMT does not believe that increasing rates for higher emitting vehicles would have a significant impact on the purchasing decisions made by new car buyers, but it could limit the choices of lower income motorists. It is important to remember that vehicles have a long life and the relative importance of VED increases as the value of a vehicle depreciates. Industry needs to be able to offer a full range of vehicles to ensure its long term economic sustainability and would oppose significant change to VED rates.

5. *Are there any specific measures which you would like to see the Treasury take to promote environmental objectives and the take-up of lower emission cars?*

SMMT would like the company car tax regime to provide clearer support for cars with very low CO_2 emissions. Currently some specific vehicle technologies that emit 20g/km CO_2 or more below the minimum threshold are entitled to apply the scale charge at less than 15% of list price. In most cases this involves a complex calculation and is open to relatively few vehicles. SMMT would urge the Chancellor to simplify the system so that all vehicles with low CO_2 emissions qualified for a reduced scale charge.

April 2004

Letter to the Clerk of the Committee from Katherine Bennett, Head of Government, Affairs and Policy Issues, Vauxhall Motors Limited

When I spoke at the select committee hearing in March I promised to supply you with further information regarding GM's work on hydrogen fuel cell technology and what the corporation is looking for from Governments around the world to support the implementation of this new technology.

To date GM's has spent over $1bn on research and bringing fuel cell vehicles to life. We believe that whilst technologies such as hybrids will go some way to solving environment and fossil fuel supply problems in the short term, these changes at the margins will not adequately address the issues of climate change in the longer term.

Some countries around the world, notably Japan and the USA have already started down the path and are providing substantial funding (US Government—$1bn, Canada—CA$215m, Australia—AU$1m). Governments are also providing opportunities for long-term demonstration programmes. For example in Japan, FedEx are using a fleet of hydrogen fuel cell vehicles for their parcel delivery service, with the support of the Japanese government.

This is exactly the type of initiatives that GM is looking for as they will result in three crucial outcomes;

1. Create a legacy i.e. leave behind infrastructure and structures for gaining planning permission.
2. Develop customer relationships—particularly with large fleet users
3. Enhanced reputation for the fuel and the vehicles that use them

The European Union is undertaking several initiatives to facilitate and accelerate Europe's transition to the hydrogen economy. The more practical of these include the EU Lighthouse projects (aimed at integrating the main components in the field of hydrogen production, distribution and use, and include all relevant actors in the field) and the CUTE project (which will use monies from its 6th framework programme to support efforts to overcome the barriers to production, distribution, storage and use of hydrogen as an energy carrier.) However at present this funding is "virtual" and these projects have not yet begun.

UK and Europe are in competition with other regions around the world in terms of investment flowing from the take up of hydrogen technology. Vauxhall and our colleagues at General Motors Europe are keen to provide support to the UK Government and European colleagues to ensure that Europe steps up to this challenge.

The UK could benefit significantly by being involved in major developments in the hydrogen economy. For example, the new technology and materials used in the production of fuel cells is driving rapid and lucrative developments in this area. GM is beginning to source and build relationships with new suppliers. There are numerous ways that the Government could help UK SME's to compete with other companies around the world and utilise the research and development of which the UK is so proud. In addition, government incentives to drive consumer interest (such as the Energy Saving Trust scheme) would be looked upon favourable by GM when, in the next decade, they introduce new cars to market.

In addition, the UK's role in the European Union means that it has a role to play in shaping the regulatory environment for the hydrogen economy. GM is engaged with stakeholders around the world to ensure that as technology moves forward, global codes and standards are developed in an orderly and harmonized way. This will allow automotive companies to ensure consistency in safety and cost which is important if GM is

to minimise the cost of this new technology and therefore ensure take up by fleet customers first and then the general public. The UK should be involved in these and other broader discussions on policy issues relating to hydrogen. Its impact is tremendous and GM/ Vauxhall are happy to work with civil servants and other stakeholders to ensure greater understanding across all aspects of this change.

The UK has already made advances with the plans to develop a Fuel Cell "Centre of Excellence" and the demonstrations of the hydrogen buses in the London through the Low Carbon Vehicle Partnership and we welcome these. GM hopes that the UK Government will continues with its commitment and will support a climate that will allow the UK and our European partners to develop the potential of a hydrogen economy and be a global leader in this area.

April 2004

Tuesday 30 March 2004

Members present

Mr Peter Ainsworth, in the Chair

Mr Colin Challen	Sue Doughty
Mr David Chaytor	Paul Flynn
Mrs Helen Clark	David Wright

Witnesses: **Professor Sir David King,** Chief Scientific Adviser to the Government and Head of Office of Science and Technology, and **Ms Claire Durkin,** Director, Head of Energy Innovation and Business Unit, Department of Trade and Industry, examined.

Q94 Chairman: Good morning, Sir David.
Professor Sir David King: Good morning, Chairman.

Q95 Chairman: Thank you very much for joining us. Could you introduce your colleague?
Professor Sir David King: Yes, I have brought Claire Durkin along, who is Director and Head of the Energy Innovation and Business Unit in the DTI.

Q96 Chairman: You are both welcome. We want to look today at the whole question of climate change and your approach to that, and also touch on energy policy as well. I will, if I may, open up by asking a question which I am sure you are expecting and have probably answered before, which is whether or not you stand by the remarks that you made in your article for *Science* magazine where you said that you believe climate change was a more serious threat than terrorism?
Professor Sir David King: And to add in the word that was included there, "even". I say that because I cover all of science in government and this, of course, includes our post-9/11 activities—setting up a working group to examine our resilience to post-9/11 type activities—and this became formalised as the Science Advisory Panel for Emergency Response, which I chair. So I work very hard on that front. Nothing I said was intended to underplay the importance of that agenda. My direct answer to you is no, I do not withdraw any of those comments, nor have I been asked to. At the same time, what I was trying to draw attention to was the severity of the warnings from climate change scientists at the moment. I will not spend too much time on this, but if we look back in time for the globe we probably have to go back 55 million years before we find carbon dioxide levels as high as we are now at, and, of course, our carbon dioxide levels are still rising. Fifty-five million years ago was a time when there was no ice on the earth; the Antarctic was the most habitable place for mammals, because it was the coolest place, and the rest of the earth was rather inhabitable because it was so hot. It is estimated that it was roughly 1,000 parts per million then, and the important thing is that if we carry on business as usual we will hit 1,000 parts per million around the end of this century. So it seems to me that it is clear on a global and geological scale that climate change is the most serious problem we are faced with this century. The science is telling us about it. We are beginning to put together what we have to do to meet the problem, and it is now a question of policy makers getting together internationally and dealing with it.

Q97 Chairman: You are absolutely clear that the cause of this lies with mankind's activities and not with some natural phenomenon?
Professor Sir David King: Yes. This is an extremely complex problem and there are at least 1,000 scientists who have, over the last 200 years, contributed to our understanding of the earth's climate system, but there is a very, very strong consensus that the 0.6 to 0.7°C global temperature rise that we have seen over the last 100 years is largely attributable to anthropogenic effects; it is attributable, largely, to increased production of carbon dioxide, methane, NOx, SOx, and CFCs—all of these larger molecules which are greenhouse gases.

Q98 Chairman: Going back to the comparison you made with terrorism, which I think has been criticised as an unhelpful comparison by government sources, what precisely prompted you to draw that particular comparison? Were you thinking in terms of the number of people who have already died as a result of global warming and rising water levels, or the potential number of people who may be affected in the future? Were you drawing a numerical comparison in terms of a scale of tragedy?
Professor Sir David King: Let me first of all respond by saying I join in the criticism of the response to that sentence, in the sense that it is not fruitful to discuss whether terrorism is a more difficult problem than climate change; I think we have to get on and deal with each of these major challenges. At the same time, I think I have just spelt out why I think that the climate change issue is such a tremendous challenge to all of our societies. Yes, 31,000 excess fatalities in Europe during last summer's heat wave. We have extreme events that we always have had and always will, but the frequency of these extreme events is going to increase with time, and is already increasing with time. So we can look at these events and say these are climate-change related events. Equally, the flooding that we had two years previously. Climate change scientists have made it quite clear that linkages between severe flooding and severe hot summers are climate-change anticipated effects.

Q99 Chairman: It was reported after your article appeared that No 10 attempted to gag you or to stifle your remarks—shut you up in some way. Were you aware of that?
Professor Sir David King: I certainly read about it in the papers but there was—

Q100 Chairman: Did you experience it as well as read about it?
Professor Sir David King: You will not be surprised to know that I am sometimes amazed at how the media report things as compared with how I actually experience them. For example, my trip to the United States was arranged through the Government, through the Foreign Office, through the Embassy in Washington more than one year in advance of that trip. The preparation included my article in *Science,* which is the official magazine of the AAAS (American Association of the Advancement of Science). That was a trailer to my presentation, and whole thing was deliberate and planned from the centre. I thought that we had a good plan in operation. I gave media briefings and I was quoted quite widely in the American press verbatim on what I said at those briefings. So to say that I was gagged is a misunderstanding. However, there was a leak of a particular document. I have to say my response to that is that everyone in my position, or minister in government, receives a briefing and advice on every appearance, such as I have for this appearance. I take it as useful back-up information to go through, but at the same time no more; it is not instructions but very useful to have professional advice, for example, from press offices.

Q101 Chairman: You were not discouraged from doing any interviews?
Professor Sir David King: In terms of the strategy of getting our message across, there was a clear piece of advice about whom I should speak to, in terms of the media. My focus was on the American media.

Q102 Chairman: I heard reports, for example, that the National Environmental Trust of America tried to get you to do some interviews and was told by government officials that you were not available.
Professor Sir David King: That really is the first I have heard of that. I find it very difficult to understand, in view of what I have just said. I gave three media briefings in Seattle and I took a team of UK and American scientists with me on that trip. One of the media reports was that not since the Beatles have the British had such an invasion of the United States. That was the headline on one of the newspaper reports. So to suggest that we were dong this under cover is rather contrary to what actually happened.

Q103 Chairman: Do you accept there may be a conflict between diplomacy, on the one hand, and driving home the very important powerful message that you had for the American Government?
Professor Sir David King: I do accept that. If we are working to achieve an aim, whether this is done in the public domain or not in the public domain is a critical question of strategy. Yes, your point is a very good one.

Q104 Chairman: Do you think in order to drive the message home, because it does not appear that the American Administration have quite bought it, that you will be going to America again and using further media opportunities to spread the word?
Professor Sir David King: Yes, I am going to America again to discuss issues with the American Government and since January have been back. I understand the thrust of your question, and in response I would say that my meetings did not indicate from the American Government side that the comments I had made had deterred them in their discussions. I would say far from it; the understanding of the importance of this issue is developing in the United States.

Q105 Chairman: So you think your visit there was a success; that you made some progress in converting hearts and minds?
Professor Sir David King: The presentation in Seattle was rather a surprise to me in the sense that it was made in one of these political arenas that they have in the United States. There must have been more than 1,000 seats in the congress hall, every seat was full and I was given an ovation at the end. I was speaking to movers and shakers in the United States, so the effort to trail what I was doing paid off, I think, very handsomely.

Q106 Mr Challen: Is that because, perhaps, they wanted to hear from you, an official representative of our government, something they are not hearing from their own government?
Professor Sir David King: I did not take the applause as a personal accolade to myself, so your question is quite right. I think it was an accolade for the British Government in taking a leading role in dealing with climate change. The fact that I was able to announce that the British Government is intent on reducing CO_2 emissions by 60% by 2050 and that we are not waiting for other countries to come with us, we are moving ahead on that programme, I think went down well. Interestingly, American comment from the scientific and technological community was "We mustn't let Britain get ahead on this game", meaning that if we start carbon trading we are going to get ahead on that and economic benefits will flow to us. If we start reducing emissions then carbon trading will necessarily benefit us but, also, the technologies that will emerge from our R&D programme.

Q107 Mr Challen: Was that a reaction from fellow scientists and environmentalists, perhaps, in that audience, or were there Administration officials who also felt that way? There seems to be plenty of evidence to the contrary; if you look at Dick Cheney's Energy Taskforce they seem to be unwilling to contemplate following our lead.

Professor Sir David King: Yes, and there are two forces at work, pulling in opposite directions, I believe. If we look at the Department of Energy in the United States they now have an enormous budget to work on their hydrogen economy and to work on carbon dioxide sequestration. The research budget to develop the technologies that are required is in place, and if, for example, the Department of Energy was then given an instruction from the top to join the British, I think they would have everything in place to do it.

Q108 Chairman: It is a question of political will, is it not?
Professor Sir David King: Absolutely.

Q109 Chairman: Do you, having had some success in persuading the Americans of the seriousness of the threat, believe that the British Government has fully seized and has the political will to take what may be very difficult decisions in order to address the problem?
Professor Sir David King: I am quite sure of that, yes.

Q110 Chairman: I only ask because when I asked the Prime Minister about your *Science* article at the Liaison Select Committee back in February he did not seem entirely on top of it.
Professor Sir David King: That comment rather surprises me, Chairman. I am not questioning your observation but, nevertheless, when I took this job I very quickly made it clear to the Prime Minister and the Cabinet that I saw this as the biggest issue facing us and, on the question of research and development in energy, I very quickly set up a working group to report back to the Government on the state of energy research in the UK and what was required, and the Prime Minister was fully aware of all of my thinking and programming on that.
Chairman: We will come on in a minute to the extent to which we are either meeting or failing to meet some of the targets which have been set.

Q111 Mr Challen: The latest IPCC research has suggested that the impact of climate change might actually be worse than previously thought. Has there been more recent research in terms of that?
Professor Sir David King: What I was asked by the Chairman was: "What is the scientific consensus on the issue of global warming and its relationship to anthropogenic effects?" There is an enormous effort still to understand in detail the earth's climate system. We need to understand it so that we can project forward with greater certainty than we can now so that we can prepare for the irreversible effects that are in place already. Adapting to the effects of climate change is going to be crucial as we move ahead. I do think that considerably more research effort is gong to be required to achieve that. Britain is in the lead in that process. The Hadley Centre and the Tyndall Centre together form a very powerful combination and the Americans, for example, at the Kennedy Centre (their leading centre), would acknowledge that our two centres are in the lead. I managed to sign an agreement with the Japanese that our Hadley Centre could work on the Earth Simulator, which is the world's biggest computer set up by the Japanese, and so we are moving to climate change modelling which is currently on a 275 x 275 kilometre pixel scale to a much smaller scale, bringing it down to 70 x 70, so that we can begin to make predictions on a local level to give governments of different countries advice on how best to act. Have I fully answered your question?

Q112 Mr Challen: Let us see if we can take it a bit further. Most lay people—and I think politicians always have lay people in mind when they are preparing their policies—think that climate change will be a gradual process, with a very long and shallow curve upwards. However, recent articles and reports have suggested that this might not be the case; there could be some very steep trajectories, if you like, with, perhaps, methane hydrates being released into the atmosphere, which have a far greater warming effect than carbon. How much effort is being made to look at those kinds of things and communicate the message to politicians, to governments, that that is a real threat?
Professor Sir David King: This was one of the issues that we raised on my trip to the States in January. What we know is that there are a number of effects that I will describe as non-linear, if I may, with large feedbacks going in the wrong direction. One such effect is that the melting of ice which contains no salt and the effect of melting the ice on the Polar caps (and, for example, the South Pole is now 40% as thick as it used to be, so we are losing a lot of that ice) is that fresh water going into the saline water around it could affect the thermohaline current—our Gulf Stream. If it turned off the Gulf Stream we would paradoxically go into a mini-Ice Age in Europe, so our temperatures would drop by around 5 to 10°C. That is an effect that could happen quite suddenly. These non-linear feedback terms, instead of just allowing a curve to continue on an exponential growth (which is what our predictions are now), will suddenly lead to a rapid change. The Indian monsoon is another effect which could quite suddenly be switched off. So we are faced with sudden climate change events. We do not know, though, theoretically, how to handle the predictions on these; they are extremely complex calculations and the modelling of them is very complicated. What I would say is it is best not to test the system. For example, we feel that if we could keep our carbon dioxide levels at or below 500 parts per million it is unlikely that we will go quickly into these sudden events, but they are real. Another one—and perhaps the easiest to understand—is the loss of the tropical forests. There could be a point, and it is quite likely, where temperatures rise too much for the forest to continue to survive, so they go from being net absorbers of carbon dioxide to net emitters as the wood decomposes. So this, of course, would give a very sharp take-off to carbon dioxide levels. There has been much discussion about what happened 55 million years ago, and it is now relevant for us to understand that. There are two theses: one is that it was methane clathrates—these methane deposits at

the bottom of the sea—that were heated up by the initial warming of the sea through climate change which suddenly bubbled up and gave rise to this hottest period in the globe's history back 200 million years, or it could have been the slow burning of peat forests around the globe, the simple burning of woody material, that produced masses of carbon dioxide. That second event is what we are in danger of reproducing now.

Q113 Chairman: When you use words like "sudden" and "rapid" in this context, what do you mean? Are we talking decades, centuries?
Professor Sir David King: Of course, in geological time centuries is quite sudden, so when we talk about temperatures rising to the point where the Greenland ice sheet will melt—the Greenland ice sheet has a large heat capacity which means that the process has a lot of inertia in it, so it will take some time. The ice on the Antarctic landmass is considerably bigger and would probably take about 1,000 years. The ice on the Greenland ice sheet is a more difficult one; it may take 50 to 200 years—we do not know. If the Greenland ice sheet melted, we are talking about a sea level rise of about 6 to 7 metres, so we would be withdrawing from London. The point is, it is not as if this is going to suddenly happen in 50 years' time; it is all happening now and it is all a process that has already begun.

Q114 Mr Challen: So it is very difficult to say how soon it might happen, but it could happen suddenly, which is leaving us, perhaps, in a very perplexing situation, not quite knowing how to deal with it.
Professor Sir David King: If I could interrupt, the best way of dealing with it is avoid testing it—do not go there. So keep carbon dioxide levels down to a reasonable level.

Q115 Mr Challen: If we are to limit global temperature rise to 2% we obviously are assuming that we are going to reduce our emissions to a certain level. When must global emissions begin to fall in order to achieve that level?
Professor Sir David King: I think that as time passes our ability to contain the carbon dioxide levels is passing, so this is, at the moment, a moving target. The political necessity for action across the globe on this issue is, I think, the slow point. The technological necessity to produce alternatives to fossil fuel burning is a secondary point. I think the first is probably more difficult than the second—the social and political problem of getting international agreement on such a tough issue.

Q116 Mr Challen: Do you think we have got the balance right? In most government documents and European Union documents you will hear discussion about sustainable development, trying to get the balance between economic growth and the issues we are talking about this morning. Do you think we have the correct balance in those documents?
Professor Sir David King: I think that the European Union is absolutely on target. I hope that we hold to the targets. I hope that there is not a weakening at the knees as we move forward. In other words, I think, for example, the critical thing is we go into carbon trading with the European Union next year. Prodi is very keen to see that we do that and I hope he does manage to sustain it. The European Union is ahead of the game. We need to take the United States on board and Australia and Canada, and we need to take China and India in the long term. As a matter of fact, I am in discussions with some members of those governments.

Q117 David Wright: Sir David, what is your perspective of the view in the developing world on these issues? Clearly there may be governments in the developing world who think we are pulling the ladder up in relation to technology; that we use high-polluting technology to advance our economies over hundreds of years and now we are turning round to the developing world and saying "Actually, guys, you can't join the club".
Professor Sir David King: I think I would turn your comment on its head, if I may. I was in India two weeks ago and I had a meeting with the Chinese here in London yesterday, and my intention in all those discussions was to say that we need North/South science and technology capacity-building in which we engage in knowledge transfer so that those countries can leapfrog into modern technologies and do not go through the development process that we went through. I think we have to understand that simply preaching to developing countries "you must cut back your emissions" is never going to work; we are simply going to get hackles up and rising, for understandable reasons. The West, as they call us, is responsible for most of the carbon dioxide emissions today; the United States is responsible for one quarter of the world's carbon dioxide emissions. At the same time, in China their emission per person (if I take the tonnes of carbon dioxide produced in China, divided by the number of people) comes to about 2 tonnes per person; the UK is at about 9 tonnes per person and the United States is 21 tonnes per person. Therefore, you can see some justification in the Chinese saying to me "Why should we tackle the problem?" They themselves yesterday were saying that "However, we recognise we have a multiplier of 1.2 billion times that tonnage per person, and this is a very big number and our economy is growing fast. We need your technologies to leapfrog across." I think this is one issue that is driving this very strongly. Of course, the other issue, across the world—and the Chinese were talking to us about it yesterday—is the issue of security of supply. All countries are looking to gas supplies around the world. All countries recognise that oil supplies are actually finite and we are using them up at a rapid rate. So looking for alternative energy sources is not only driven in these countries by the climate change issue, however important that is, but also because they need energy for their economy to grow. If we

can provide alternative energy sources, such as fusion power, then we have a means of going forward. I mention fusion power—
Chairman: We are coming to this later.

Q118 Mr Challen: You said in your January article that you were setting up a team to look at how the UK could mitigate its carbon emissions. I wonder if you could give us a progress report on that. In particular, whether you have had a chance to look at the cost to the UK of doing so, and whether indeed in its remit you might be asking it to look at the principle of contraction and convergence to see if that is a workable proposal?
Professor Sir David King: Can I take the second question first? Contraction and convergence has definite attractions, but there, again, we are talking on a global scale and we are talking about an alternative to the Kyoto process with carbon emission trading. Contraction and convergence is a permit system where you can exchange permits between countries. In essence it is a trading system but it does look at developing countries, so they can be brought on board by allowing them to build up their CO_2 emissions while developed countries reduce, but they should peak at a certain level. I can see the attraction in the whole process, but I have to emphasise that the only game signed up to internationally is Kyoto, and until we have those absent from the signatories coming forward and saying "We would rather discuss contraction and convergence", I think we have to work within the Kyoto agreement. That is the process that we are set on.

Q119 Chairman: If Kyoto does not make progress because of the reluctance of some countries (and we know who they are and where they live) to participate, contraction and convergence must be a viable alternative.
Professor Sir David King: I think it is a very interesting alternative, but as I say I think the key thing is that if those countries that are not satisfied that Kyoto is the way forward come to us at the negotiating table, I am happy for us to negotiate on that, and I believe our government is—as long as it is not seen to be a delaying tactic, because I think this is a matter of some urgency. The first part of your question I ducked, and this is really why I brought Claire Durkin with me. Would you like to take that?
Ms Durkin: You asked about the working group on climate change. We have set up, as a consequence of the White Paper, a cross-Whitehall group and a cross-Whitehall ministerial group, and as well as that an advisory group, which is looking the whole agenda of energy within climate change. It is specifically looking at energy—both, from my perspective, renewable energy, from Defra's perspective energy efficiency and, from the transport perspective, in terms of cleaner transport. So we have set up those groups and they are working well. In my experience it is the most effective joined-up working in terms of policy, but there is no question that it is a very long-term agenda and we have got a long way to go.

Q120 Mr Challen: Is there any point at which climate change, do you think, is going to become irreversible? If that is the case, how far off are we? Is it already, really, irreversible?
Professor Sir David King: It is already irreversible. Once you have got carbon dioxide in the atmosphere, again, the inertia of the system is such that it will stay up there. If we were to stop producing carbon dioxide net emissions worldwide, the carbon dioxide level in the atmosphere would not go down for many hundreds of years. So once it is up there it is very difficult to pull it down again.

Q121 Mr Challen: So, really, we should be doing a lot more than we already are. You might say that we are the leaders of the pack in Europe but even that is not enough. Would it not be better if we reacted, perhaps, as Roosevelt did? Professor Brown has written a book called *Plan B* (I do not know if you have come across it) referring to the way Roosevelt responded after Pearl Harbour, transforming the American economy to deal with a very clear threat, and that was achieved in 12 months. Why are we not doing that kind of thing ourselves if we are now facing an irreversible threat?
Professor Sir David King: I think your point is a good one, but it does require us to take the rest of the world with us. The UK, producing 2-3% of the world's carbon dioxide, is a mere small player in the whole carbon dioxide emissions scenario. What is critically important is that we take all the players on to the stage with us.

Q122 Mr Challen: We cannot wait for the slowest person to get on to the boat. So we are all holding ourselves back because, on the other hand, businesses will say that we are making ourselves uncompetitive, and that I think has a more powerful voice in government than what we are talking about this morning. I do not know if you would agree with that statement.
Professor Sir David King: I think the analysis that Claire's group produced was to indicate that actually the financial disadvantage to the UK was likely to be relatively small. Of course, what we have to build on is the financial advantage of being first on the stage, which is that we do the RD&D that is required to get us there. We are not quite first; the Danes got there first and they are busy selling wind turbines around the world. I believe their turnover is about £2 billion a year. However, if we look, for example, at tidal and wave energy, I think we are world leaders already in that area, and there is plenty of tidal energy around.

Q123 Chairman: Before we congratulate ourselves too enthusiastically—
Professor Sir David King: I did not mean to be.

Q124 Chairman:—it is worth remembering that CO_2 emissions in the UK went up by 3% last year. So we are not doing that brilliantly.
Professor Sir David King: As we move forward, I do not think any of us felt that we would be on a straight line down in carbon dioxide emissions. It is likely to

be a very bumpy ride. Certainly the fact of emissions going up last year is not a good omen, but at the same time we are really in the first year of a process; it is only after the next five to ten years that we are really going to be able to see the outcomes properly.

Q125 Chairman: Are you confident that we will hit a downward trend?
Professor Sir David King: We will get a downward trend; we have already seen the downward trend. If we go back to 1990, which is the Kyoto starting point, we are 12% down on greenhouse gases. We have already achieved our Kyoto objectives. As it gets further down the road it is going to get tougher. It is a very challenging scenario we have set ourselves.

Q126 Paul Flynn: You mentioned tidal power. Speaking from a constituency with the second-highest rise and fall in tide in the world in the Bristol Channel, it does seem to me we have neglected these renewables when there is enormous capacity for a whole range of ways of exploiting tidal power—not necessarily in big barrage things but also the lagoons and the mills and the wave power machines, and so on—and, also, eventually getting pulses of electricity around the coast at different times which will form a base load of electricity. This tidal power does not figure even now, as far as I can see, in the Government's planning. Do you think this is an area where there is a great deal more that could be done?
Professor Sir David King: We are doing as much as I think we could do at this early stage of tidal power development. There are three or four companies which have now spun out of the various research activities and are into demonstration phases. You mentioned the barrages, which we all saw models of before. Wind turbines are coming in for a lot of criticism because of what they are doing to the environment, but the tidal barrages came in for the same sort of criticism. The latest developments are all under water so you do not see a thing. These are all turbines that are placed under water with all of the power being driven on land beside the river- or the waterbed. The main advantage of tidal is not only the enormous amount of energy carried up and down the Bristol Channel, for example, every day, but the moon is rather reliable, so we know exactly how much energy we are going to get in a given 24-hour period from each of these turbines. With wind energy, Chairman, it is not quite so reliable, it is intermittent. So tidal is a very, very important source of energy. The problem is we are still in the early phase of development, but it would be very good if we could see tidal turbines—incidentally, the most interesting of tidal turbines with no moving parts under water, just big funnels that narrow down and produce a large stream of water which drives the turbine above the ground with, therefore, low maintenance costs. I think there are a lot of exciting things happening. For example, the Canadian Government Minister of Science came to discuss our developments in relation to their potential use of tidal energy. It may be five or ten years before we see the first commercial turbines. It is going to be a long development process.

Q127 Mrs Clark: Do you actually think that the majority of people outside, the public—people who are not in the Palace of Westminster and in this Committee and having this discussion—understand or even believe the likely impact of climate change? I would contend that to them it is just a phrase. I have been in here for seven years and I have never had it mentioned by a single constituent, and not even Friends of the Earth in the constituency have mentioned it.
Professor Sir David King: What you have mentioned there is the biggest challenge in relation to the climate change issue. Because it is happening on a rapid geological scale but a very slow scale in terms of our lifetime, we all adapt year-on-year to the effects and so it is not a major effect. If you contrast, for example, CFCs and the depletion of the ozone layer, there was an immediate understanding of the potential severity of the problem, and the solution was also very clear. In this case we have politically a much more difficult problem.

Q128 Mrs Clark: Whose responsibility actually is it? Is it the Government's, individual Members of Parliament, science, the media?
Professor Sir David King: All of us.

Q129 Mrs Clark: Are we not all passing the buck?
Professor Sir David King: I suppose the weight of the responsibility lies on my shoulders.

Q130 Mrs Clark: So it is all down to the Government, in that case.
Professor Sir David King: If I may say so, Mrs Clark, it is yours as well.

Q131 Mrs Clark: Would you like to develop your own role in promoting understanding for us?
Professor Sir David King: I have a wonderful job in government, but it does cover all aspects of science, engineering, medicine and technology in all government departments and, in addition, the science and engineering base—the research council funding. As much as I would like to take this on, I would need to be cloned in order to put the amount of effort into it that I think is required. At the same time—

Q132 Mrs Clark: Surely you have got to move out from the realms of, perhaps, rather obscure lectures and scientific journals, which the vast majority of people never see. I certainly do not see them.
Professor Sir David King: Of course you do not.

Q133 Chairman: Of course, it is not helped by the fact that quite a number of national newspaper editors do not believe it is happening at all. Whilst there is an opportunity for confusion, people will always take the easy course and treat the confusion amongst scientists as an opportunity to do nothing.

Professor Sir David King: Chairman, I was stunned by the response of the *Daily Mail* to my article in *Science*, where they had a two or three-page article—it was a very long article—in which they questioned my integrity and my ability to understand the science but, above all, stated that carbon dioxide is such a small constituent of our atmosphere how could it possibly have this effect on climate? That was very difficult to take.

Q134 Mrs Clark: Do you not also think that the general public are very, very turned off by constant messages of doom and gloom and soothsaying? How do we combat that?
Professor Sir David King: My own response to that is that I am not a doom-and-gloom person. I think this is an issue where the science is clearly telling us what is happening—there is a global consensus on that—but it is also very clearly telling us what we need to do to combat the problem. So let us be optimistic about it.

Q135 Mrs Clark: So it is a balance then?
Professor Sir David King: Yes. To say "Yes, there is a threat but we know what to do about it".

Q136 Mrs Clark: How consistent is the world of science on these issues? Is everybody speaking with one voice and singing from the same hymn sheet on climate change across the world? Are some countries and regions feeling that their interests are being damaged?
Professor Sir David King: It is very interesting that, for example, John Browne, the chief executive of BP Amoco clearly recognises climate change as the big issue that it is, and has announced that BP now stands for "Beyond Petroleum".

Q137 Mrs Clark: So everybody is being consistent, you would say?
Professor Sir David King: BP is now one of the biggest solar energy producers in the world. So they are moving ahead on this. I mention BP Amoco because not all oil companies are singing from the same hymn sheet.

Q138 Mrs Clark: What about Shell, for example?
Professor Sir David King: Shell has just set up Shell Hydrogen; they are fully on board, but there is an American based company which is, I think, paying consultants to question the science.

Q139 Chairman: This is Exxon, is it?
Professor Sir David King: Yes.

Q140 Mrs Clark: How counterproductive do you think that is?
Professor Sir David King: I think the scientists, in response to those consultants, in the United States have been making their voice heard much more clearly. Also, Chairman, the Intergovernmental Panel on Climate Change produced a Synthesis Report in 2001[1] which is the best current statement on the state of play of the science of climate change, and that really does represent 1,000 scientists. I think the world community of scientists has converged totally. The international inter-academies (that is the Royal Society in our case, the American academies and so on), which is the representative body of all the academies around the world, came out with a very clear statement about climate change to try and overcome those few lone voices who are saying it is not a problem.

Q141 Chairman: Just coming back to your own role, if I may, you appear to duck—for reasons of workload, which may be perfectly understandable—taking personal responsibility for selling the message to the public, although it is one of the responsibilities of the Office of Science and Technology to improve engagement between science and the rest of society. It is one of your core duties, in fact. If you are not going to do it, who is? I hesitate to make the suggestion but do we need a climate change tsar?
Professor Sir David King: Thank you for your question because I have clearly misled you by my previous answer. I do take the responsibility myself, and the Office of Science and Technology has now formed a Science in Society Directorate. This is a new directorate and part of the function of the directorate is to get this message across but, also, messages on the importance of science and technology to modern society generally. We have a problem in relation to younger people coming through our school system into university degrees, particularly in the physical sciences and engineering, where the need is greatest, and we have problems where not only the *Daily Mail* questions how important science is for our future development. So the Science in Society Directorate is critically important, we feel. We also have reformed the Prime Minister's Council for Science and Technology, which I now chair with a co-chairman. That council is going to play a very important role along the same direction.

Q142 Mr Challen: Are there any national science academies that are not fully on board, in respect of what you said to the previous question?
Professor Sir David King: The only academies that did not sign up to the original inter-academy statement were the American academies, but they subsequently came up with their own statement which fully backed the Synthesis Report of the IPCC. So the answer is no, at this time there are none.

Q143 Sue Doughty: As a Committee we have spent quite a lot of time looking at the aviation industry and the environmental impact of the aviation industry. When we have been looking at that, radiative forcing has been one of the key issues we have had to look at. Now the industry is saying that the science underpinning this is complex, and it is insufficiently understood and we should not base policies on it. We have got this problem here between the precautionary principles and the Government's insistence on evidence-based policies. How do we

[1] Details of IPCC Publications available at http://www.ipcc.ch/

resolve this conflict? You were talking before about not doing unnecessary experiments, yet we have got this problem writ large in our skies.

Professor Sir David King: The issue of aviation, I think, is a very important one. Of course it is complicated but I think you are right; I do not think because an issue is complicated we should avoid the consequences. Aviation around the world is a continually growing industry. Aviation depends critically on fossil fuel burning, so without going into the details we can see that there is a net negative effect in terms of global warming. There are complex factors arising from water vapour production at different levels. If we just look at carbon dioxide emission, that in itself is a major contributory factor to our net emissions problem. When we look at the Synthesis Report of the IPCC (since I have mentioned that) that does refer to the importance of the aviation industry in the global picture of emissions. Once again, I think, Chairman, we are talking about a complex issue because no single country can resolve this problem. For example, if an aviation fuel tax were introduced in one country 'planes would simply fly off to another to fill up. So it is another complex international issue. I am afraid as soon as I see a complex international issue we are against buffers and longer timescales.

Ms Durkin: If I might just add—though I do not want to pretend that anything I say will remotely be a panacea for everything that Sir David has said—we are attempting to explore the technologies in aviation as well as in all other transports in the DTI by brigading our aerospace research with our other environmental research, so that there is a concentration on cleaner aviation technologies. We are hoping, in that way, to solve some of the problems suggested in terms of businesses and how businesses react by trying to exploit the innovation opportunities nationally and internationally. So I hope we can make small pieces of progress.

Sue Doughty: I am rather worried about the whole direction of this. We have got this problem that we have had a lot of opposition from the aviation industry in accepting the size of the problem, and all our discussions previously in this Committee today have been about: do we believe there is a problem, and if we do believe it should we not be taking more radical steps? I understand what you are saying about technological solutions and, also, the problems about imposing a solution that covers boundaries, where we have got a problem, but in some ways I am still worried that the Government may be placing over-reliance on technological solutions when, in fact, the aviation industry seems not to want to accept the gravity of the risk which it, in itself, is posing.

Q144 Chairman: That sounds like a "yes".

Professor Sir David King: I think that was a nod in agreement. It is, perhaps, not unusual that the industry itself would like to continue in a relatively unregulated fashion.

Q145 Sue Doughty: It would, but is not the growth of aviation simply unsustainable, in what is happening in climate change terms?

Professor Sir David King: I think it is an issue of enormous concern, in terms of climate change, yes.

Q146 Chairman: Before you move on, this reliance on technological innovation seems to be a bit threadbare as well. We have had evidence to suggest that there is not much technological innovation going on, at the moment, which is actually going to have a meaningful impact on reducing the impact of aviation on the environment. Is it not a bit of a red herring?

Professor Sir David King: I think you are quite right to raise this. The issue of, for example, surface transport—cars—is already a very live technological issue with the potential of hydrogen fuel cells taking over from petrol-driven engines. I think it is a very real potential and I think we can say that in 10 or 15 years' time we will see massive penetration in the market. When it comes to aviation, you have a much more difficult problem. Quite simply, the power thrust required is considerably greater. Chairman, we are talking rocket science here, and rockets are often driven by non-fossil fuel engines. So there are alternatives available but they are technologically more challenging. This is not to say that it is not a science and technology agenda—it is.

Q147 Chairman: I just worry that politicians talk around the precautionary principle, and it sounds very comforting. We hear a lot from the Department for Transport about how they have built balance into the way they are approaching aviation when, quite plainly, they have not. I was wondering if you could think of a single example of the use of the precautionary principle which has not been based on evidence—that is genuinely based on taking a precautionary view about something which may happen?

Professor Sir David King: I suppose my one example may lead me into a collision with this Committee and that would be the approach the Government has taken on GM maize.

Q148 Chairman: I am tempted to say "Let's not go there"! This is far too stimulating already.

Professor Sir David King: I believe that that is a very good example of the precautionary approach in practice, and follows very, very precisely the detailed evidence that the Science Review Panel took, which I chaired with 26 scientists on board, and I chaired it over a period of approximately 50 hours. It is the most detailed review of the science addressing all of the questions raised by the public on that issue. Our advice was followed to the letter on that issue.

Chairman: If we go much further down this route we will part company very rapidly.

Q149 Sue Doughty: You were talking a moment ago about the increasing use of hydrogen-based technologies, and this is very exciting. However, there was an article last year in The *New Scientist*

which suggested that hydrogen itself posed a threat in terms of global warming. How seriously do you take this risk?

Professor Sir David King: What is, I think, referred to here is that the hydrogen economy may rely on fossil fuels for the derivation of hydrogen. It seems to me that that is to miss the whole point of the hydrogen fuel economy. What we need and what we are promoting is research into hydrogen production with no fossil fuel involved. Hydrogen storage and hydrogen transport are the key factors in addition to research into the development of the fuel cell, with lower platinum loading so as to reduce its cost. If it is referring to the use of hydrogen fuel cells in aviation, it is referring to the fact that water vapour itself is a greenhouse gas, and if we eject a lot of water vapour we may raise the amount of water vapour in the atmosphere. I believe that is incorrect; the amount of water vapour in the atmosphere is determined by average sea temperatures. It is an equation called the Clauisius-Clapeyron equation that determines water vapour pressure, and I do not believe that this would have much penetration. We need to look at the hydro-generation processes that avoid the use of fossil fuels to make that economy work.

Q150 Sue Doughty: Going on to the water vapour issue (just because I am not a scientist I would like to have it clear in my mind), we have been looking at your Zuckerman lecture and you referred to the environmental benefits of hydrogen fuel, but you added this caveat: "Provided that atmospheric water vapour pressure is unaffected". So, with that caveat, were there particular concerns when you actually made that statement?

Professor Sir David King: I have just dealt with that question.

Q151 Sue Doughty: Moving on, you have also touched on carbon sequestration as an area which needs research. Would you like to expand on what the possibilities are for carbon sequestration, and are there any associated risks?

Professor Sir David King: There is a massive drive for producing good sequestration technologies precisely because this is the way in which we can keep coal burning going as a source of energy and, at the same time, deal with the environmental problems. However, at this point in time the technology has not been developed and I certainly would not put my eggs in that basket alone. In other words, I think it is worth investing in sequestration technologies but I would not wish to raise hopes that this is going to produce results; it is an open-ended investigation. We can economically use carbon dioxide sequestration in oil wells that have become depleted—so there is a nice irony here that to improve the production of oil we can pump carbon dioxide into those wells. The value of the oil offsets the cost of the sequestration process. Whether we can seal the carbon dioxide into those wells is something that has yet to be tested, and that is one of the issues that I am referring to. A much more satisfactory sequestration process would be a cheap way of converting the carbon dioxide into solid materials such as calcium carbonate. These are technologies that have still to be developed.

Ms Durkin: It is, nevertheless, very important as we predict energy progressing up to 2050, particularly looking at China, and some of the other very big coal-producers. China is actively engaged jointly with us and other European communities in looking at carbon sequestration to see if that is one effective way of then multiplying the use of coal but effectively reducing CO_2. They were talking yesterday at the seminar of 2015, 2020, 2025 in terms of the time scale, certainly in DTI we are progressing as modestly as we are allowed but actively because of the impact it has globally.

Q152 Sue Doughty: That was very interesting. One of the reasons I am saying that is I think several of the answers we have had are all happier tomorrows but we have this problem here today. You went on about nuclear fusion at some length in the Zuckerman lecture and made some very interesting points, which I will not read out at length, the whole issue about nuclear fusion is going to take some time, and although it is going to have an attractive number of points it is going to take some time while you are looking at replacing some of the nuclear efficient plants with more modern technology. Do you think that is going to help with the Energy White Paper certificate-only solution we have within the context of energy products in the shorter term rather than the longer term, given that we are still waiting for some of the technology, for example tide technology and nuclear fusion?

Professor Sir David King: I think our agenda is the right answer. If I can give a very general answer to your question and then Claire may come in as well. I chair a high level R&D Energy Committee, by high level I mean I bring together all of the publicly funded bodies involved in that area. I think it is a very important aspect of our work that we are working on future technologies which can be put into the market place. We are not saying we know which of these technologies will come through and deliver but we have to deliver a broad based menu so that we can approach the problem and perhaps one or two of these technologies, or more or them, will begin to deliver at different periods of time, over the next five, ten to 35 years, for example going on to fusion. My own belief is that it is quite right we develop this very broad based approach. Trying to second-guess which technologies are going to be the winners in the market place of the future is a very difficult game to play and probably wrong. I apologise for defocusing your question but I do think there is a very strong defence of investment in research and development across the broad base of potential technologies, fusion is one of them, and given we are talking about a long-term issue of carbon dioxide emissions 35 years on that time scale is not hopeless but we need to start now.

Q153 Sue Doughty: Thank you. This is a thing which is not unwelcome to our Committee to hear because it is a criticism we have regularly made of

Government about backing winners. If you are saying, "let us identify more about possibilities" that is very good news. The good news about fusion is the opportunities are there but it is going to take a while and we have a consortium there. Is there any way we can bring that forward by throwing more resources at the problem, would it then bring that information forward for us or is it all going to take time for other reasons?

Professor Sir David King: There are ways of shortening that time scale. The best way to shorten it is to put more money into the programme. The European Union asked me to chair a committee a couple of years ago looking at the future of the fusion programme and my report is often called "fast-track to power stations", because that is what we really focused on, how do we bring the time scale down now between where we are now in fusion research and the fusion power station. That fast-track report has been accepted in the European Union and gathered momentum in other countries, which is why we now have six partners in the international programme, including China, Korea and the United States coming in to join the original partners of the European Union, Japan and Russia. How we can shorten it is to investigate not only the fusioning process—the Joint European Torus (JET) is the world leader in that process—we also need to develop the materials which will sustain the power station over a 20 year lifetime. I am proposing that we need to put the money in now to begin developing and testing those materials that will be used when the final power stations are developed. If we do these things in series it will take considerably longer but if we can do them in parallel it would be better. This is currently under discussion in the international programme.

Q154 Sue Doughty: How optimistic are you about making that case so that they get on and start to do parallel research?

Professor Sir David King: My ambition is that this programme to produce fusion power should be seen rather like the programme of landing a man on the moon was seen in the United States. I would like it to capture the international imagination as a key way forward to dealing with our energy requirements and at the same time in a sustainable environment. If we could achieve that then I think we could get on with this programme considerably more quickly. Are we likely to? I do feel optimistic but for pessimistic reasons. I think the effects of climate change are going to come through to populations round the world and are already in some areas. As that impact grows I think the need for change will come. In 1953 in London we had a terrible smog, scientists understood the cause of the smog before that happened but it took roughly 10,000 premature fatalities in London in that smog period for government action to be taken to stop coal fires, it was incomplete combustion of carbon that was leading to that. We stopped but it took a massive disaster to do that. I am rather hoping we do not have to go through that process to invest in fusion power.

Q155 Sue Doughty: You were talking about lots of exciting technologies to start addressing this issue of climate change or slowing it down, as I was saying sometimes technology can work out unexpectedly as well, and we are still learning about the environmental impact. Would it be a precautionary principle that we should start looking at our behaviour as well as putting our hope in these technologies?

Professor Sir David King: Your question is a very important one, we have been focusing on hard science, physical sciences in particular in this discussion today but extending out to our understanding of social and economic science is critically important in actually bringing these things through. What I have been very keen on in my time as Chief Scientific Adviser is not to draw too close a circle round what we mean by science. We have to extend out and understand society. When I came here I came from our latest foresight programme on brain science drugs and addiction and we are bringing together in that programme the scientists who understand at a molecular level how drugs currently work in the brain with social scientists and economists to see if we can bring forward advice for governmental action. I think it is absolutely important that we take that on board.

Sue Doughty: Thank you very much for that.

Q156 Chairman: Can I come back to something you said which was the reference to the 1953 smog, you seem to be implying it will take a disaster for much of what we have been talking about today to be considered seriously by politicians and by those who fund government programmes. It is very familiar to all of us because we know that you cannot get a road safety measure in until there is a body count, it is no good saying, "it is a dangerous road let us put in a barrier up" in the absence of any evidence of it causing fatalities. It goes back to the point I was trying to get to earlier about whether we ever really act on the precautionary principle or wait for the disaster to happen and then try to make good later on. You seem to be implying we are going to approach the whole issue of climate change in the latter way.

Professor Sir David King: The first person to understand what is currently happening to our climate was Arrhenius, he was picking up on the French mathematician Fourier—Fourier was the person who understood the greenhouse effect first, 1827—and Arrhenius, the Swedish theoretical chemist in 1896 said, "if our carbon dioxide levels were to grow because of our propensity to burn fossil fuel the temperature would rise", and he calculated doubling the carbon dioxide level which would lead to a five degree centigrade temperature rise round the globe. It was a brilliant piece of work. We have understood this process for a very long time and getting the message through, past all the resistance we have referred, for example from oil companies, is tough going. I am afraid, Chairman, that we are being realistic when we say, yes, it does seem to require disasters for it to be brought to people's attention. Am I going too far?

Ms Durkin: I wonder if I might offer an example of where at least it is a question of stepping in to opportunities: our change in energy portfolio is fairly dramatic and we cannot ignore that and therefore because we cannot ignore it and because we are moving from the happy position of net exporter to the fairly uncomfortable position of net importer we have to do something. It was in those circumstances the Government produced the first ever White Paper on Energy, so rather than facing disaster at least it was exploiting opportunities.

Q157 Chairman: It is very interesting that you should raise the question of the Energy White Paper in this context. It would appear, Sir David, that you have issued implied criticisms of some recommendations in the Zuckerman lecture. You said, "it is very difficult to see how we can continue to reduce fossil fuel consumption if we do not replace our ageing nuclear power stations, we are talking about efficient plants with more modern plants now available". That is not a recommendation in the White Paper.
Professor Sir David King: Let me say at once, I contributed quite considerably to that White Paper, you might even find some of material reflects the Zuckerman lecture that you are quoting from. I take some pride in the contribution I made to the White Paper. At the same time, to deal with your very specific point, I think it is quite right that we should be focusing at this point in time on energy efficiency gains which are a win, win and on renewable development. At the same time in the White Paper I believe there is a critically important statement which refers to keeping the nuclear option open. I think we must actively keep the nuclear option open so that when we evaluate how we are proceeding in achieving our 60% reduction by 2050 target at any point in time that is still an option that will be available to us.

Q158 Chairman: You do understand that actively keeping options open—whatever that may mean—is a deterrent to the investment in the alternative type of technologies we are seeking to encourage. Nuclear is always lurking, and it is a factor in the decisions that are being taken about investment and it is going to be an impediment towards investing in new technologies.
Professor Sir David King: I think you are appearing to criticise what I think was the wisdom of the White Paper words and I would defend them. I think faced with the size of the environmental problem I have described to you it would be wholly wrong to simply say, "we are going to cast aside a potential means of providing energy without adding carbon dioxide, even though we understand the problems associated with radio-active waste production from that source". I simply think it would have been irresponsible. May I just refer to one fact, something like 70% of our energy resource goes into the built environment. The way in which we construct new buildings is a massive means of reducing energy usage. That must be a more important programme at the moment than many of the others we might think of.

Q159 Chairman: I think the Committee would agree strongly with you on that. Just so that we are absolutely clear, you were not saying in the Zuckerman lecture that you do not see any alternative to investing in a new generation of nuclear power stations?
Professor Sir David King: If we move forward in time, at the moment we have something like 27% of our energy on the grid from nuclear power; 24% from our own power stations and 3% we import from France. As we move ahead if we close down nuclear power stations as they go out of commission we will reach a point round 2020 where this figure has dropped to 7%. That is a big gap and it makes the renewable and energy efficiency targets very, very tough to meet. It was that gap I was referring to in that article.

Q160 Chairman: You actually believe that it will be necessary to invest in new generation nuclear plants?

Professor Sir David King: You are trying to press me to say something I do not wish to say.

Q161 Chairman: I am trying to press you to get clarity.
Professor Sir David King: I am now in fear of repeating myself and I take pride in my clarity, Chairman. I am saying that at this point in time it is right to focus attention on energy efficiency gains and on renewables. Therefore I think it is counter-productive for us to dwell on this discussion for the very reason you gave, we need to give confidence to the renewables industry, in fact it has been stretched out in terms of wind power to 2015. I do not know if Claire would like to say something on that, precisely for that reason.
Ms Durkin: It is a renewables obligation. If I can pick up on the investment point, unless the Government can give a very coherent, very strong and very simple message that they are confident in the development of the renewables market we will not get the investment that is necessary for these very challenging targets. The renewables obligation would appear so far to have had a very big impact on that. There has been more activity in wind this year than there has been in the last ten. It would appear from the industries that are already in the market place, Centrica and Powergen, and the small innovative industries, particularly in wave and tidal, that industry does see there is sufficient encouragement from government to make sense of the renewable market. We did put the renewables obligation commitment up to 2015 in December just so that offshore wind would have the confidence that they would have their pay back by 2012. It was a signal from Government that was very well taken. Thus city and banks are talking to us far more enthusiastically than they were a year ago and I am very pleased to say that big investors from the States and big companies, such as GE, are talking to us very enthusiastically about the renewables market in the United Kingdom. Currently the signals for financial incentives are such that we are confident that we can reach the targets in renewable generation. I think Sir David is right in terms of

looking beyond sequestration. The White Paper did a number of scenarios up to 2050, some of them included nuclear, some included carbon capture and storage, which was mentioned earlier. We do not want to shut off any of those options for 2050 and beyond. I am comfortable for 2010 and 2020 we have mechanisms in place that mean that we can reach those targets, but they are very challenging
Chairman: Thank you.

Q162 Mr Chaytor: Without prolonging this point can I ask one specific question? I think the essence of the Chairman's line of questioning is that we know that the White Paper set out a series of alternative scenarios, Sir David in your Zuckerman lecture when you described the reduction in the share of electricity output from nuclear going down from 27% to 7% you then go on to say, "The alternative scenario is to build a new generation nuclear power station". Is there not a significant shift from the White Paper's position for a number of alternative scenarios to your assumption here that there is only one alternative? In the lecture you do not seem to mention energy efficiency at all.
Professor Sir David King: The Zuckerman lecture is a few years old and it certainly pre-dated the White Paper.

Q163 Mr Chaytor: You subsequently made a statement after the White Paper.
Professor Sir David King: I believe the Zuckerman lecture had quite an influence on the White Paper, in particular setting that target for CO_2 reduction. My own position has moved to what I have just stated in response to the Chairman's question. I do think it is critically important that we push renewables and energy efficiency gains as hard as we can but I equally think we must keep the nuclear option open.

Q164 Mr Chaytor: Okay. Are you saying your own position has shifted over the years?
Professor Sir David King: Yes.

Q165 Mr Chaytor: You seem to imply you are more interested in the renewable and energy efficiency option or is it the capacity to deliver?
Professor Sir David King: I understand much more clearly than I did then the economic imperative of getting the renewable development moving and the energy efficiency moving by taking the pedal off the nuclear alternative.

Q166 Mr Chaytor: The conversion gradually along the road to Damascus, if not a particular point on the road to Damascus.
Professor Sir David King: I believe I can respond to evidence when presented to me.

Q167 Mr Chaytor: Have the events of 9/11 had any influence on your thinking, the implication being that those aircraft could have flown in to a nuclear power station, has that affected your thinking?
Professor Sir David King: Yes, it has. I have been involved in giving advice to the Government on vulnerabilities.

Q168 Mr Chaytor: Thank you. Can I bring us back to the question of the advisory structures that we have to drive forward energy policy and climate change policy, you referred in your *Science* article to a team that you established that would report early in 2004. I cannot recall whether in your answer to Colin Challen you said if this team has reported yet?
Professor Sir David King: Can you read that out to remind me?

Q169 Mr Chaytor: "I have commissioned a new team to consider ways the United Kingdom can attempt to mitigate this threat and they are due to report early in 2004". My question is, who is the team and have they reported? If so, what have they said and how does that relate to the DTI Renewable Innovation Review or is it the same?
Professor Sir David King: Are we not talking about the flood and coastal defences team? Yes, sorry, you came at me from left field, I am with you, the threat we are talking about here is from increased flooding and increased coastal attack over the next 80 years. The team is a Foresight team and we have completed that work. I will be reporting to the Prime Minister on that in the coming months and it ought to be published on April 22. I apologise for that.

Q170 Mr Chaytor: It may be my confusion in quoting selectively. In addition to the forthcoming report on the impact of coastal erosion we had the report from the DTI Renewable Innovation Review recently which identified the issue of incentives and funding gaps. I am also looking at a quote here which refers to the need for consistency in the policy as well as strategic spending, and my question is, where are the most obvious current inconsistencies in policy? In respect of strategic spending what kind of bids are being submitted to this year's Spending Review? What is the balance between research on fusion and research on energy efficiency and research on renewables?
Ms Durkin: The Renewable Innovation Report was mine so I will answer that. What was very useful in the research was looking back over the last ten years. There had been a tendency to try and pick winners—that would be an over-statement—trying to pick likely contenders in the renewables world. With the renewables obligation we stepped back and hoped that the market could develop most economically and effectively. The Report showed quite clearly that as well as the obligation we would need research and development and that research and development needed to be more strategic. Interestingly it also showed that the biggest impact that the Government would make would be in policy, it would be in fixing the grid, in helping in terms of planning and in the classic DTI way in terms of business relations and making connections with businesses nationally and internationally and speaking consistently in policy terms. We have taken that forward and indeed in my patch we have realigned our activities so that we are concentrating more on where we can make the greatest impact.

Q171 Mr Chaytor: Are there any inconsistencies in policy which you have identified because this does imply that there are?
Ms Durkin: There are weaknesses. If one looks at the development of biomass, Defra has been developing work in terms of the farming community, we have been developing work in terms of generators and yet we were not making the connections that were needed nor were we making the connections regionally that we ought to. For the development of biomass we still have a long way to go and I think we need to tackle it in a different way and we need to tackle it regionally. That is a good example of what came out. What also came out was that we were treating similarly energies that are going to have a very different impact, for instance photovoltaics are not going to have a significant impact on the electricity supply, certainly in 2010 and probably 2020. They are of a different order to such as marine and wind and they ought to be treated differently. The review challenged us in our thinking and challenged us to treat the differently technologies more appropriately and to think outside the box of just R&D. I cannot possibly comment on the Spending Round.

Q172 Mr Chaytor: Without commenting on the Spending Round what do you feel should be a prioritisation in future research and development given that in the Chancellor's Budget two or three weeks ago he focused on science as one of his key themes in the budget?
Ms Durkin: We have used the Innovation Review that was referred to as the basis of our discussion with Treasury and I do think it points to in certain directions where we might put emphasis. I was very pleased to hear that was the Government was committed to science and innovation. There is nothing in that report that is not fundamentally science and innovation. I happen to think it is science and innovation in a fairly economically fundamental area because without energy innovation we are not going to have a particularly strong economy in any terms. I think that the Report has indicated in our discussions with Treasury that we need to have certain support beyond relying on the renewable obligations for the whole array of renewable technologies: but they need to be timed. The Report showed that onshore wind is economically viable now, offshore wind ought to be reducing costs dramatically by 2010, marine is still very much in the demonstration phase and we may need considerably more government support in three to five years' time than we do now. I think in both amount of support and timing, we were influenced by the review.
Professor Sir David King: Can I just add one comment, in terms of our preparation for the Spending Review 2004 in this area my High Level Energy Group is involved in pulling together all government departments on this issue. We do have a cross departmental approach to the Spending Review Round in terms of energy R&D, and that is quite a big breakthrough.

Q173 Mr Chaytor: Can I ask generally about the DTI approach to the climate change problem which sees market solutions combining with research in new technologies as the chief means of dealing with the threat of climate change, are you both still convinced that the market alone with a modest amount of Government intervention can deliver the solutions we are searching for? What is the role of fiscal measures in alleviating the threat of climate change and in changing human behaviour?
Ms Durkin: From the energy industries I would observe that it is not a question of the market alone in any sense: it is a fairly regulated market. All the influence that Ofgem has in terms of how the market develops will make a difference and Government policy makes a big difference. So it is not a *laissez faire* approach to the market. In terms of the market responding to the challenges set by the Ofgem structures and Government policy I have been very surprised in the last two years at just how rapidly the market has been able to respond and with what enthusiasm it has responded. I think currently as long as we get the policies right and get the incentives right I am confident that the market response in the energy field will be positive in the next 10 to 15 years.
Professor Sir David King: I have always argued that in terms of our energy research—again this corresponds with the answer I gave earlier on a different question—we need to be looking at research and development across the whole board, including fiscal policy, to drive the right behaviour.

Q174 Mr Chaytor: Have we got the right fiscal framework now or does that need further refinement?
Professor Sir David King: I think that when I say we need more research in that area the implication is that we can always do better. Yes, I think it could yet be improved. We have to see, for example, when Carbon Trading comes on board in Europe how that impacts on our own development.

Q175 Chairman: Thank you very much indeed, Sir David, indeed both of you, this has been a fascinating session. We may have a few more questions, if we may we will put them in writing to you.[2] Thank you very much it has been fascinating, as ever, with these issues. It seems that the problem, indeed possible catastrophic problems have been identified and the solutions are painfully slow in coming forward, it is not entirely reassuring but it has been very interesting.
Professor Sir David King: Chairman, thank you. I hope that your comments do not mean that you have not taken on board that Britain is taking the world leading position on this issue.

[2] Please see memorandum below, Ev 37

Memorandum from the Department of Trade and Industry

Response to specific questions from the Environmental Audit Committee following Professor Sir David King's oral evidence session, 30 March 2004.

INQUIRY INTO ENERGY EFFICIENCY AND RENEWABLES, AND THE EXTENT TO WHICH FUTURE TECHNOLOGICAL DEVELOPMENTS CAN BE EXPECTED TO MAKE GREAT STRIDES IN THE DIRECTION OF "GREENER POWER" FOLLOWING THE 2004 BUDGET

Q1. *The DTI Renewables Innovation study highlighted that the level of funding for renewable technologies is far less in both level and longevity than our main competitors. How much additional funding would be needed to bring us up to the level of our competitors, and where do you think the priorities for spending extra funding should lie?*

Whereas past funding for renewables in the UK has been less than for certain technologies in certain countries (eg PV in Japan, onshore wind in Denmark and wind in Germany), we believe that recent support through the Renewables Obligation and Capital grants programme at the pre-commercial and supported commercial stages of the innovation chain, compares well with funding in many other countries. We accept that, as highlighted in the Renewables Innovation Review, funding at the demonstration stage in certain areas may need to be expanded to reflect emerging priorities (for example, in support for wave and tidal technologies).

In the area of research, the priority given to RD&D investment in renewables, energy efficiency and low carbon technologies in general needs to reflect both the step changes in innovation that are required for the UK to achieve its emissions goals and the importance of the challenge that we face with climate change. The capacity clearly needs to be there for projects to be undertaken, however the quality of research and other investments matters as much as the quantity.

Future public sector support for renewables and wider energy research is of course the subject of discussion as part of the 2004 Spending Review.

Q2. *You sit on the Ministerial Committee which is overseeing progress made by the Sustainable Energy Policy Network. How many meetings of the Committee have you yourself attended? How does the Committee interact with the Sustainable Energy Advisory Board and the R&D Energy Committee which you chair?*

There have been four meetings of the Sustainable Energy Policy Network (SEPN) Ministerial Committee and I have attended two.

The Sustainable Energy Policy Advisory Board will help the Ministerial Group identify and focus on the key strategic issues and will provide a breadth of vision. It will have no executive role but will advise on the forward scanning of developments and on ensuring that work is carried out with an awareness of internal and domestic issues and the environmental dimension. The Advisory Board will have a key role in challenging the advice and analysis of officials and of professional experts.

Significant issues going to the Ministerial Group on which the Advisory Board is likely to advise include SEPN's work programme, reports on progress against targets and policy changes and the implementation of the Energy White Paper.

The chair is Sir John Collins, chairman of Dixons and former chairman of National Power and of Shell UK. The members are:

Dr Bernard Bulkin (Chief Scientist for BP plc)

Professor John Chesshire OBE (Honorary Professor, SPRU, Sussex University)

Eileen Claussen (Founder and President of the Pew Center on Global Change and President of Strategies for Global Environment)

Professor Paul Ekins (Head of the Environment Group at the Policy Studies Institute and Professor of Sustainable Development at the University of Westminster)

Dr Dieter Helm (Fellow in Economics at New College Oxford)

Professor Nicholas Jenkins (Professor at the Department of Electrical Engineering and Electronics, UMIST)

Margaret Mogford (Group Adviser, Corporate Affairs at BG Group)

Justin Mundy (Senior Consultant to Deutsche Bank's Global Markets Division).

The Energy Research Group that I chair brings together key policy makers and funders of public sector energy RD&D investment. It does not have an executive function but rather helps to facilitate dialogue and coordination on energy RD&D issues, including exploring and making recommendations on specific issues as appropriate. Outputs from the Group are shared with others as appropriate, including SEPN members (though many SEPN members are in any case represented on the Group), We are currently working to establish more formally the relationship between the Energy Research Group and the SEPN machinery.

Q3. *The DTI Innovation Review also suggested that "the current UK renewables funding landscape is complex and requires clearer demarcation of roles across the innovation chain". Do you think that the number of organisations involved in renewable energy is now a problem?*

The number of organisations involved in renewable energy reflects the large amount of interest in this area both at national and regional level and the multidisciplinary approach needed to the issues. DTI are working closely with Defra, the Carbon Trust, regional organisations, the devolved administrations and the research councils to make sure a coordinated approach is taken to renewables funding.

We have established the Sustainable Energy Policy Network as a vehicle for communication across government. SEPN ensures that our Energy White Paper commitments are met, departmental policy units, regulators, devolved administrations and delivery organisations are all involved and the Ministerial group chaired jointly by the Secretary of State for Trade and Industry and the Secretary of State for Environment, Food and Rural Affairs oversees the network's activities.

Q4. *Given the difficulties involved in trying to establish causal relationships between possible forms of pollution and socio-environmental impacts, do you accept that there is a potential conflict between the precautionary approach and the need for evidence-based policies? Can you cite any specific examples where such a tension may currently exist?*

I am not convinced that there is a conflict. Decisions clearly need to be made on the basis of the best evidence available, but it is also the case that decisions may need to be made in the absence of comprehensive information and 100% certainty. This is in the very nature of climate change as an issue, given that one is dealing with the hugely complex system of the earth's environment. The key issue is how can one best assess and manage the balance of risks and probabilities. The precautionary approach is enshrined in Article 3.3 of UNFCCC: "Parties should take precautionary measures to anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures . . .". Given this approach, the challenge for the Parties to the UNFCCC is to address the trade-offs between the level of scientific certainty about a threat, the seriousness of the damage that might arrive from a threat and level of associated uncertainty, and the costs of taking action to avoid the threat and level of uncertainty associated with these costs.

The challenge for science is to develop improved estimates of uncertainty, and to find better ways of communicating this uncertainty to the policy system; the challenge for the policymaker is better to understand the uncertainty estimates coming from the science and to integrate this into an appropriate precautionary framework.

The importance of communicating scientific uncertainty to policymakers is increasingly recognised by the IPCC, and will form a major feature of the next assessment report (the 4th Assessment Report). Indeed the IPCC attempted to formalise its treatment of uncertainty in its 3rd Assessment Report although in the end it was difficult to do this consistently. In the 4th Assessment Report it will also aim for consistent treatment of uncertainty between the different chapters of the report. This is a considerable challenge not least because the IPCC process is based upon assessment of the scientific literature and not through commissioning specific research, where the treatment of uncertainty can be defined in advance.

Q5. *In your evidence you stated that 70% of the energy resource goes into the built environment [Q158]. We would be grateful if you could cite the evidence on which this is based.*

This was taken from "Basic Research Needs to Assure a Secure Energy Future"—a report from the Basic Energy Sciences Advisory Committee, February 2003.

Chair: John Stringer, Electric Power Research Institute

May 2004

Wednesday 12 May 2004

Members present

Mr Peter Ainsworth, in the Chair

Gregory Barker	Mr Mark Francois
Mr David Chaytor	Mr Simon Thomas
Sue Doughty	Joan Walley
Paul Flynn	David Wright

Witnesses: **John Healey,** a Member of the House, Economic Secretary, **Mr Paul O'Sullivan,** Head of the Environmental Tax Team, and **Ms Fiona James,** Head of Environment Branch, HM Treasury, examined.

Q176 Chairman: Thank you very much indeed, Minister, for joining us again. Would you like to introduce your colleagues?

John Healey: By all means, Mr Chairman. This is Paul O'Sullivan. He heads our Environmental and Transport Tax Team in the Treasury. This is Fiona James, who heads the Environment Branch in the spending team that is responsible in a sense for looking after the Defra departments. If I may say so, I welcome the chance to come before the Committee again, in particular the way this Committee consistently follows the Pre-Budget Report, Budget Report and Spending Review publications that we do in the Treasury from the environmental point of view. I hope in general terms the Committee will see the development of policy through those staging posts for the Treasury in this area in which I am interested, and in which the Committee is interested, as policy work in progress. It is a question of considering measures, introducing them, perhaps evaluating them, and then refining them and developing them further. You can see a number of features of that in the Budget Statement, the Red Book and the Finance Bill we are considering at the moment in Standing Committee.

Q177 Chairman: Thank you. We do indeed take the Treasury seriously, as we should. Perhaps we can go straight into looking at some of these staging posts, because there are organisations which think the staging posts have been moving backwards rather than forwards in recent months. There has been an awful lot of activity around the whole agenda of energy and energy efficiency, as you know; not only the PIU report, the Energy White Paper, the two Treasury consultations, but your own commitment in November, when you were speaking to the Parliamentary Group for Energy Studies, that now was the time for action. Great expectations were raised, and what we find when the Budget finally appears is a reduction in VAT on heat pumps, a landlord's energy savings allowance, and a possible reduction on micro-CHP. That is not an awful lot, is it?

John Healey: Those measures, of course, are directed specifically at the question of household energy efficiency, but in a sense, as you indicated in your remarks there, the Budget and the Pre-Budget Report process are only part of the staging posts in the development of government policy. Very soon after the Budget, at the end of last month, we had publication of the Energy Efficiency Implementation Plan, a very significant extension of our commitment to the Energy Efficiency commitment, that will play a big part in improving levels of energy efficiency in the household sector and, of course, a similar period of the Spending Review, and the question of the Government's investment and relative priorities in this field is an integral part of the Spending Review. The Budget, I think, introduced three significant fiscal measures that will play a part, but they will only play a part in a much wider programme of energy efficiency, in part directed at households, but driven from different parts of government, so simply to concentrate on the Budget measures, I would submit, Mr Chairman, is to concentrate on an important but narrow part of the wider picture.

Q178 Chairman: Perhaps we have a difficulty, because our session is covering Budget 2004, Spending Review 2004, the Sustainable Development Strategy, and so we are looking specifically at the Budget today, and we will come on and talk about the Spending Review in a moment or two. You said that the fiscal measures introduced in the Budget were significant. I notice that in the Budget Report you have a table, table 7.2, page 173, the Environmental Impact of Budget Measures, but you have not there attempted to quantify the carbon reductions that you are expecting from the landlord's energy saving allowance, and you have not even included the reduction in VAT that you expect to see on ground source heat pumps. You have maintained just this afternoon that these are significant measures, but how can we measure them if you have not?

John Healey: On the landlord's energy saving allowance, because we are still developing, first of all, primary legislation in the Finance Bill, and the detail will follow in the regulation, to be able to quantify the potential carbon or carbon dioxide savings is quite difficult. To give you an indication of both the significance and perhaps the scale of this potential measure, the significance, I think, lies in the fact that we are directing this measure, a new tax relief, at what is by everybody's agreement the most problematic area, that is, private rented

accommodation, where it is very difficult to get any sort of leverage on the investments that private landlords make, a sector where the current energy efficiency rating of private rented properties is well below the average, and even further below the average for registered social properties. The significance of it is that we are offering through this tax relief the possibility of deduction against profits from leasing and rental income for capital investment in insulation. This is a very significant change, because at present there is, of course, relief for such capital investments, but only at the point at which the capital gain is realised, in other words, on the sale of the property. So for many landlords that rent their accommodation, this is not a relief that has a very direct incentive for them in terms of improving the energy efficiency and in this particular case the insulation of their properties. This should change the attention that landlords are prepared to give to that. We reckon the cost to the Exchequer, at first estimate, is about £10 million per year. We are doing our preliminary impact work on the basis that if we take the base of private rented accommodation which is not adequately insulated at present at somewhere upwards of 800,000 properties, if we are looking at an increase on the baseline of currently adequately insulated private rented properties of about 10%, that is the sort of nature of the impact that we estimate that we may have with this measure, but clearly, at the outset, before the legislation and the scheme being in place, it is only an estimate. We have not yet been able—and it is a relatively early stage at which to do it—to assess the likely climate change impact of those measures. The final factor to bear in mind, I think, is that once we get this relief in legislation and in operation, it would be possible, and certainly we are prepared to consider the case for extending the capital works that this might apply to beyond the question of any particular cavity wall insulation which this is designed to tackle.

Q179 Mr Chaytor: Could I just come in with a point on the relationship between the cost to the Treasury and the climate change impact? You have said that the impact on the Treasury will be in the order of £10 million per year, but you do not yet know what the climate change impact will be. Would it not be more logical to have worked out what the potential climate change impact of this particular set of measures would be before then translating that into a cost to the Treasury? If the overriding objective is to help the Government meet its CO_2 emissions targets, surely we need to know what contribution investment of this kind in insulation in private rented accommodation can do about it.
John Healey: The aim, Mr Chaytor, is certainly to contribute to the reduction in emissions that drive climate change. The objective of this particular measure is to try and influence change in the behaviour of private rented property owners. Our attention has been first on the sort of incentives that might play that part, and an estimate of the sort of impact that that might have. Clearly, if we achieve the objective of influencing behaviour and therefore investment levels of those that own property for private rental, then we will make the contribution that we need in broader terms to the aim you quite rightly want to keep at the centre.

Q180 Mr Chaytor: My point is, without a reasonable estimate of the potential CO_2 emissions savings, how does the Treasury know if this particular objective of influencing the behaviour of private landlords is a more worthwhile investment than the reduction of VAT on micro-CHP, for example? I accept your point that you want to change the behaviour of landlords, but changing the behaviour of landlords may not actually deliver the volume of emissions that an alternative measure like, for example, the relief on stamp duty for energy efficiency measures may have done.
John Healey: It may not indeed deliver the volume of emissions savings that we would like to see or that we may in due course need to see, in which case that would form an important part of our consideration about whether we extend it in any way, either extend it, as it have indicated, to different types of capital works, extend it perhaps in terms of the generosity of incentives, extend it or build on it in other ways. The factor at this point that makes us believe that this is a measure that is worth introducing is that, unlike a reduced rate of VAT on ground source heat pumps, here we have a measure which is specifically designed and targeted towards the sector that everybody with concerns in this area agrees is the hard-to-crack sector, hard-to-influence sector, and also the sector that most needs improving in terms of its general performance.

Q181 Chairman: The owner-occupier sector is also important as a major contributor to the problem of climate change and so on. The Energy Savings Trust and the Association for the Conservation of Energy and other organisations have come forward with a series of proposals, none of which, I think it is right to say, you have actually accepted, to tackle domestic energy use. To what extent are you planning to look at stamp duty rebate, for example, in relation to owner-occupied properties?
John Healey: If I may say so, the general point is not entirely correct because the Association for the Conservation of Energy and the Energy Savings Trust welcomed, for instance, the landlord's savings allowance that we have just been discussing.

Q182 Chairman: They did express enormous disappointment.
John Healey: Both made their views known to us as part of the consultation we ran last year, that they would like to see the use of stamp duty in order to encourage the private home owner to do more. It is fair to say—and the Committee may be aware of this—that when we published the results of that consultation, almost half of the 105 that responded to the consultation also mentioned this as a measure they would like to see. The difficulties that led us to set that to one side for the moment really revolve around, first of all, the fact that at present stamp duty is relatively straightforward to administer, it is straightforward to collect, and it does not require

much policing to ensure that it is not avoided and that it is collected effectively. Secondly, we have, as the Committee will know, introduced 100% relief from stamp duty for the purchase of residential properties up to a level of £150,000 in the 2,000 most disadvantaged wards in the country, therefore any mechanism that tried to use stamp duty for this purpose would have zero effect in those wards, where in many areas we have many of the properties that most need to be brought up to a more energy-efficient standard. So there are concerns about the complexity and the cost of policing if you tried to use stamp duty for these purposes. There is a concern that it would have no effect in certainly the 2,000 wards in many of which we have properties where this would arguably be most useful. The third reason, in a sense, is the flipside of the reason for which I think the Energy Savings Trust and ACE are interested, which is that the period of six months or so after the purchase of a new property is often the period during which people show the greatest interest in refurbishment, upgrading, re-doing the property they have just bought. The logic that leads them to say a tax incentive at that point might encourage them to do more of this leads us, looked at from the other point of view, to say the danger here, from the Treasury and Government point of view, is that actually you might be incentivising activity that many people would carry out anyway, in other words there would be a danger of a significant deadweight cost.

Q183 Chairman: Yet there remains a serious problem that is not being addressed. I accept the argument about deadweight cost, but if people were doing it already, we would not be having this conversation now.
John Healey: In terms of the areas where in our judgment the need for new policy instruments was most acute, it was the private rented sector. Those that own the properties have very little incentive at the moment to improve insulation and energy-efficiency. They do not generally at the moment, without the sort of new allowance we are putting in place, directly benefit from that.

Q184 Chairman: It will be interesting to see if it works. Can we move on to new housing? Obviously, there is a likelihood of significant new housing development, and the PIU Energy Report recommended that we should move towards zero space heating standards, which basically means hardly any energy output at all because of good insulation. Do you have plans to ensure that the whole standard of energy efficiency is levered up in new house building?
John Healey: Yes. This was touched on in the Barker Review. I think the main point of focus for the Government here is the earlier review of the Building Regulations that the Office of the Deputy Prime Minister is responsible for, where by the end of 2005 we look to have upgraded the Building Regulations, and as part of that there is the potential for ratcheting up the level or the standard of those buildings as part and parcel of that measure, and that is really the point at which we have the greatest purchase and influence on the system, and that is probably the most appropriate focus of attention.

Q185 Chairman: So you are not looking at fiscal measures, for example, which will encourage greater awareness of the benefits of energy efficiency and encouraging the building of more energy-efficient homes?
John Healey: As the Budget document—as this is a Budget inquiry—did indicate, we are interested in the notion of a "green landlord" scheme. In a sense, this is probably not a feasible proposition, at least until we have the home condition surveys more regularly produced, with the fuller range of information for purchasers and sellers, but at that point, where it may be possible to get a more routine assessment of the overall energy efficiency performance of a property, we will be in the business of looking at whether or not that could be underpinned by some of the fiscal measures that perhaps this Committee and others might be interested in.

Q186 Chairman: Are you familiar with the SAP rating system for the energy efficiency of homes?
John Healey: I am aware of it, but I would not claim to be familiar with it.

Q187 Chairman: The Treasury does not have a view, for example, on what would be an appropriate SAP rating for newly built homes?
John Healey: As far as I am aware, we have not taken a particular view about that. That would largely fall to the more expert parts of government, in particular the ODPM, I think.

Q188 Joan Walley: Just thinking about the debate which did not take place in respect of the new clause 3 in yesterday's Housing Bill, I wonder if you are considering having talks with the ODPM in the interests of joined-up government as the Housing Bill goes to the other place.
John Healey: You have the advantage over me, Ms Walley. You know what was in clause 3 of the Housing Bill.

Q189 Joan Walley: It was in relation to energy efficiency and energy efficiency standards.
John Healey: To the extent that these things are discussed and examined across government, we have dealings with the ODPM over this already. Officials are doing that, and in particular, as we look at the sort of policy proposals and programmes the ODPM might be interested in as part of the Spending Review, that degree of discussion is more intense at this stage of the cycle than it is at other stages, but that is not to detract from the general point I make, which is that the lead policy responsibilities and decisions really fall to ODPM rather than Treasury in this particular field.

Q190 Chairman: I do not sense we are getting very far with this, but can I suggest that when you next have discussions with ODPM about these issues, you do put on the agenda a debate about whether or not it would be appropriate to set a minimum SAP rating for newly built homes?
John Healey: I will certainly do that, Mr Chairman.

Q191 Gregory Barker: Minister, combined heat and power: a very, very sorry picture is emerging there. Installed capacity has risen from just under 4,000 MW in 1997 to 4,700 on the latest figures I have. What is even more worrying is that most of that growth was in the late Nineties and CHP capacity has actually declined in the last two years, although the Government has a target of 10,000 MW of electricity by 2010 generated by CHP. Not only has capacity actually declined in the last two years, but investment in further capacity has actually collapsed. Would you agree that the Government is way off beam now with its CHP target, and can you give us a clue as to what the Treasury is actually doing to rectify the collapse in investment?
John Healey: Yes. Mr Barker, I am not quite sure of the source of your data, but it may be helpful, Mr Chairman, to make sure the Committee shares the analysis that has recently been done by Cambridge Econometrics, which essentially has analysed the CHP strategy that we have in place.

Q192 Gregory Barker: DTI 2003.
John Healey: In that case, I will, if the Committee wishes, make sure that you have the details of the recent study that has been done by Cambridge Econometrics. This is an analysis of the CHP strategy that we have in place. It suggests that, as things stand, it will deliver savings of 8,100 MW per year by 2010. That does not take into account the introduction of the EU Emissions Trading Scheme in 2005, which is likely to add another 400 MW. So the assessment of the capacity to deliver of the strategy we have in place already is actually around double the figures that you suggest there, Mr Barker.

Q193 Gregory Barker: You are saying you will easily surpass the 10,000 MW?
John Healey: No. There is a difference still between 10,000 and 8,500.

Q194 Gregory Barker: You are going to reach 8,500, or an additional 8,500? We already have something around 4,000.
John Healey: The target, as you rightly say, that the Government has set is to see through CHP a saving of 10,000 MW per year by 2010. In terms of what we already have in place under the CHP strategy, if you take a mid point of the range, because there is obviously a degree of uncertainty in this sort of modelling, Cambridge Econometrics suggest that we have already in place elements within the strategy that would deliver just over 8,000 MW, 8,100 MW. If you add then something just under 500, round about 400 MW, that they estimate will come from the EU Emissions Trading Scheme, we still have a gap potentially as we look towards 2010 in hitting that CHP target, but it is not a gap of around 6,000 MW as your figures suggest.

Q195 Gregory Barker: So you are still under-shooting. Just so we are clear on the figures, because my figures only go to 2002, the current situation is that it has not changed; we are still at around 4,700 MW of current capacity in CHP. Is that correct?
John Healey: My principal concern in this field is whether or not we have in place the full range of what we need.

Q196 Gregory Barker: Strategies are possibilities.
John Healey: No, they are not, because what has been assessed is what is already committed to and is in place as part of the CHP strategy. This is not what notionally we might achieve if we did other things, because it does not take into account the introduction of new measures that we could bring in, some of which we know will come in, such as the EU ETS in 2005. All I am saying is that the picture may not be as bleak as your figures suggest, and if I can share the latest work with the Committee, the Committee can make a judgment based on the full range of information.

Q197 Gregory Barker: My question was: am I correct in assuming that the current capacity is 4,700?
Mr O'Sullivan: Can I just add to that? My understanding is that it has increased slightly. Obviously, when we provide the study, that gives the figures. Part of that is to do with some of the fiscal incentives we already have in place for combined heat and power that are starting to come through.

Q198 Gregory Barker: We are still less than halfway to the target as things stand, with existing, in-situ capacity.
Mr O'Sullivan: I think there has been an improvement over 2002, but we can provide the figures in the study.

Q199 Gregory Barker: But it is a small increment, ie probably around 5,000.
John Healey: We will provide the figures, but of course, your interest, like ours, is in 2010 and whether we will hit the target. We are sitting here in the early months of 2004.

Q200 Gregory Barker: Moving on to the issue of strategies, will you support the amendment to the Energy Bill exempting CHP from the Renewables Obligation, as indeed Powergen, Innogy, Scottish and Southern Energy all support?
John Healey: No. The Government's approach to this will be to ask the Commons to consider removing the amendment that the Lords made on this during the passage of the Energy Bill through the upper House.

Q201 Gregory Barker: Why?
John Healey: The main concern is this: that the amendment that was passed would take CHP out of the base of the Renewables Obligation. It would therefore give CHP an advantage over other forms of generation. It would reduce the amount of renewables capacity delivered by the Renewables Obligation, but we will revisit this issue as part of the review that we already have in train and planned of the Renewables Obligation and the operation of that in 2005–06.

Q202 Gregory Barker: Given that your strategy, by your own admission, is not going to meet the 10,000 target, would it not make sense to be flexible at this point? The figures that we have been supplied with—and perhaps you would comment on them—show that the cost of RO exemption would be in the region of £66 million. If renewables meet their target, 2.5 million tonnes of carbon will be saved. If CHP meets its target up to 1.5 million tonnes of carbon will be saved. That is 1.5 million tonnes of carbon for just £66 million. Perhaps you would like to comment on the economics of it, which seem compelling.
John Healey: Mr O'Sullivan may want to comment on the figures. I understand the case that you and others make from the narrow perspective of CHP. As I am trying to explain, the Government's approach to this takes into account the wider operation and future of the Renewables Obligation and the wider concerns about the energy market. It is not solely focused on CHP.

Q203 Mr Francois: You mentioned, Minister, a report by Cambridge Econometrics that basically says you are going to hit the target.
John Healey: No. I think I made that clear. The analysis by Cambridge Econometrics, if you take the mid range of the estimates they make, suggests that we have in the strategy already in place, the measures we have already confirmed or have put in place, plus the introduction in 2005 of the EU ETS, the measures that will deliver 8,500 MW. That is still short of the 10,000 target for 2010.

Q204 Mr Francois: So they are suggesting that you are pretty close to the target but will just undershoot.
John Healey: That is a better description.

Q205 Mr Francois: Who commissioned that report?
John Healey: Government.

Q206 Mr Francois: So you paid for a report that says you are just about going to deliver but not quite.
John Healey: Yes, but we went to Cambridge Econometrics because they are a respected, expert and independent academic outfit, and I do not know if by that you are suggesting that somehow they are compromised or have not done an objective job, because I think that is quite a serious suggestion to make.

Q207 Mr Francois: No, I am not suggesting that at all.
John Healey: We commissioned it because we are interested in an external, independent, academic assessment of whether or not we are on track and, if we are not, how far short we may be for the 2010 target.

Q208 Mr Francois: Minister, I am sure they are a fine and upstanding organisation, but it is important to have on the record who paid for the report. Part of the reason for that is because you have referred to the Renewables Obligation itself, ten% of our energy generated from renewables by 2010. This Committee looked into that whole issue in considerable detail last year, and we produced a report which was then debated in a fairly lively debate on the floor of the House. The Committee concluded that you are nowhere near it, and do not have a strategy for getting anywhere near it. So there are a number of examples where the Government keeps coming up with these very ambitious targets, that are always going to be achieved or nearly achieved just a few years away, yet when you look at them in detail, you find that actually, there is not really a strategy in place. Why do you keep doing this?
John Healey: I do not accept the contention that there is not a strategy in place. Once your fellow Members of the Committee have a chance to study the latest analysis by Cambridge Econometrics, you may take a judgment on how robust that is, but we are dealing, as this Committee will understand better than anyone else in Parliament, with very long-term challenges with climate change. That is why the targets and the time frames that we have set, in many ways, in historical context, quite unusual for any Government, given the sort of imperatives of the political cycle, are in this case set for 2010. As this Committee knows, the Energy White Paper also set out a trajectory that will take us through to 2020 and 2050, in part, I have to say, in the belief that we need to, and the hope that we can build some sort of cross-party consensus behind the imperative to act on this.

Q209 Mr Francois: It is a cross-party Committee that concluded a year ago that you were absolutely nowhere near it, and there was a cross-party consensus in this Committee on that. How confident are you that you will make up that gap between 8,100 and 10,000 specifically on CHP?
John Healey: I am pretty clear that at some point between now and then we have to do so. To be perfectly blunt, you ask me whether I am confident, sitting here on 12 May 2004, that we will make up that gap, and because I do not have in my back pocket to announce today the specific additional measures which would close that gap, I cannot in all honesty say to you "Of course I am confident." I could be confident more generally, though, that this will remain an important target for government, and as the evidence and experience demonstrates, if we are falling short of the target

that we have set, and we need to bring in extra measures in order to close that gap, we will do so. I can give you that degree of assurance.
Mr Francois: It could not be clearer, Minister. Thank you very much.

Q210 Joan Walley: I just wanted to come back to this issue about the Renewables Obligation and the reference that you made to deleting the amendment when the Energy Bill comes back. I wondered how, in the interests of consistency, the Government is taking this approach towards CHP when in respect of extending co-firing of biomass with coal it took a slightly different view. I just wondered how you can argue one way with one and the other way with the other. It seems to be an inconsistency and I would be grateful for some detail of the thinking behind that.
John Healey: I have tried to explain on this narrow issue of CHP and the amendment that was passed in the Lords that the view that we have taken is that it has a wider impact on the more general Renewables Obligation. It has a wider impact on the market and the playing field performance of generation, but when you take a broader view like that, this leads us to believe that this is not the right thing to be supporting from perhaps the narrowly drawn interest of simply wanting to see an extra advantage for CHP.

Q211 Joan Walley: Did that not apply to coal and biomass? Was that not giving that an advantage?
John Healey: Perhaps you could explain how you believe that there is a parallel argument or case around generation from biomass and from coal?

Q212 Joan Walley: It just seems to me that if you are changing the rules in respect of coal and biomass, it would be possible to change the rules in relation to CHP.
John Healey: I think, Mr Chairman, I will have to take this issue away and have a fresh look at it, in that I have not studied the detail of the passage of the Energy Bill or the relative treatment of biomass generation and coal. I will certainly look at that and come back to you.

Q213 Gregory Barker: I have two short questions to finish up on this particular topic, Minister. Given that we are adrift, and we can debate how confident you are or what measures will come up, on the 10 GW target for CHP, will you ensure that that target is incorporated in Defra's PSA?
John Healey: As you will appreciate, when we announce the outcome of the Spending Review, that is the point at which Government confirms the new Public Service Agreements for departments across the board. That is the point at which we will confirm whether or not that will be the case, but I can say to you that we are giving that very serious consideration as part of our Spending Review work, and as part of our assessment in discussion with Defra of what should be appropriate PSA targets for that department.

Q214 Gregory Barker: Would you agree that if you did not do that, it would cast doubt on the comments you have just made about the veracity of the strategy that you have in place?
John Healey: No, I would not agree that it would automatically undermine or cast doubts on the strategy, but I would say again that the Committee's interest is significant. I note that, and say to you that we are examining that as part of the Spending Review process at present.

Q215 Gregory Barker: Finally, what about a target for ODPM for CHP in new housing development?
John Healey: We would give that consideration on the same basis as I have just explained, and at this stage, a couple of months before the outcome of the Spending Review and the confirmation of PSAs, it is difficult for me to say much more than that.

Q216 Chairman: Just related to that, and before we move away from biomass, you are probably aware that the Royal Commission on Environmental Pollution produced a report yesterday making recommendations about the use of biomass in CHP projects. I do not know whether you have had a chance to see that.
John Healey: I have not, but I am aware they published it yesterday and I will certainly take a good look at that.

Q217 Chairman: I think you may find it instructive. They refer to the fractured and misdirected government policies for this important energy source, and they make the point that the strategy has failed to deliver the progress expected. One of their recommendations is that biomass-fired CHP should be installed in all new-build development. There are a few challenges there for you, Minister, and maybe once you have had a chance to absorb their recommendations, you might like to drop us a line setting out your thoughts on their report.
John Healey: Indeed so.

Q218 Mr Chaytor: Minister, could you tell us about your plans to amend the exemption criteria for the Climate Change Levy? Currently the energy-intensive users get the 80% exemption, but you are proposing something new.
John Healey: Am I right that you do not mean the exemptions from the Climate Change Levy but the eligibility for Climate Change Agreements for the 80% discount? Currently, as the Committee will be aware, there are some 44 industrial sectors that qualify for the 80% discount on the basis of the sector and sites agreeing climate change targets. The Committee will be aware that the assessment of the operation of these CCAs has demonstrated that they have been really rather more effective than we anticipated, or might have hoped, in delivering emission savings from those sectors, and that the outcome at the first evaluation suggested that the CCAs together, the contribution of those sectors, had exceeded the target almost threefold for the reduction in emissions.

Q219 Mr Chaytor: Do you have some figures on the net reductions in emissions?
John Healey: Yes, I can let you have those, but essentially, it is three times the targeted reductions as a result of the Climate Change Agreements covering those sectors. Clearly, therefore, they have a value and effectiveness based on that in achieving the climate change goals that we have. They are also popular with industry, and we have been under sustained lobbying and reasoned argument, and more general argument, from industry organisations to look at ways of perhaps extending the eligibility. Principally, our concern about the Climate Change Agreements was to allow those sectors which first of all had a high intensity of energy use in order to conduct their business and a degree of exposure to international competition as the main criteria for concern that would lend themselves to the eligibility. On the introduction of the Climate Change Levy and the CCAs, we found that there was not a perfect measure that allowed us to do this, and we used a proxy in a sense for the IPPC. That has worked well but it has been unsatisfactory to the extent that there are a small-ish number of sectors where the energy use is intensive and there are arguments about the degree of competition to which they are exposed. The introduction of the Energy Products Directive and the adoption of that in the European Union last autumn has now given us the framework to say that alongside the established criteria of eligibility for CCAs, we can introduce, as we announced in the Budget, a way of extending the CCAs to sectors that meet both the feature of energy intensive use and exposure to competitive pressures, but tie those criteria to the Energy Products Directive, which what we are proposing to do. We estimate that there may perhaps be 9-12 sectors that could become eligible if they choose to go down the CCA route rather than pay the full Climate Change Levy rate as at present.

Q220 Mr Chaytor: This is quite a turnaround in Treasury policy, is it not?
John Healey: No. We have been very clear really from the outset that we understand that there is an argument for sectors that were not previous eligible for CCAs but we had to find a basis that was consistent, that was legally well based, that met the criteria we had for it and, as I say, the implementation of the Energy Products Directive in Europe has now given us the framework through which we can do that, but that did not exist two years ago.

Q221 Mr Chaytor: What estimate have you made of the cost to the Treasury if all of these sectors currently outside the 80% exemption and outside IPPC now came within it? What is the cost of extending the exemption to these sectors? Equally, what are the likely savings of CO_2 emissions going to be?
Mr O'Sullivan: It was around 21 million pounds. The CCA savings we get in terms of CO_2 will partly depend on the negotiated Climate Change Agreements which Defra will have to make with up to a dozen sectors or so that might be eligible. We do not have a good estimate yet.

Q222 Mr Chaytor: Again, this relates to my earlier intervention about the landlord's tax allowance: does it not always make sense to have an estimate of what the likely CO_2 emission saving is going to be before changing the policy? You will then never know what the cost per tonne of carbon reduction will be, and this could be a hugely expensive way of saving carbon.
John Healey: It is impossible to make that assessment reliably at this point. If up to a dozen sectors become eligible under the new system or the additional system to negotiate Climate Change Agreements, and none of them choose to do so, which is clearly a matter for them, there will be zero impact. Depending, then, on the nature of the agreements that are then struck, and the sort of targets for greater efficiency and emissions reduction that Defra are able to negotiate as part of that process, once again, it will be an obvious feature in the climate change impact if they are in place. It is difficult to do what you are obviously principally interested in from an environmental policy point of view at this stage, except to say the evidence so far from the sectors that have taken this up leads us to believe that it is likely to be an efficient way of trying to make further progress.

Q223 Mr Chaytor: Could you tell us broadly how many installations or sites currently have Climate Change Agreements and what is the net reduction in CO_2 emissions that those agreements have brought about? You mentioned three times more than you anticipated, but in real terms, do we have figures, or could you let the Committee know?
John Healey: I certainly can. I cannot remember off the top of my head how many installations are covered by those 44 sectors. I think it is around 10,000 but I can certainly let you have that data, and the CO_2.

Q224 Mr Chaytor: When the Climate Change Levy was introduced, my recollection is that there was a special grant scheme for industrial and commercial users to provide grant aid to implement energy efficiency measures to offset the increased cost of the Climate Change Levy. What has been the take-up of that? My recollection is it was something like £150 million over three years or something of that order, and I vividly remember speaking to large companies in my constituency who were complaining about the Climate Change Levy and saying to them "Yes, well, the levy is the stick but here is the carrot. You can apply for this grant in order to improve the efficiency of energy use in your business." I know of one extremely good example of an engineering company in my constituency that did take up the grant. My question is: what has been the general picture on take-up and what is your general assessment of

how firms are responding to the need to introduce insulation measures and generally improve the productivity of their energy usage?

John Healey: I think we may be talking about the portion of the Climate Change Levy that was redirected not to the cut in National Insurance for employers, which, of course, the vast bulk of the levy was directed towards, but was to set up the Carbon Trust. One element of the Carbon Trust's services on offer is indeed grants. It offers a wide range of other ways of assisting companies assess their energy efficiency performance and improve it, including direct advice, including some grants, but also including, interestingly, having some investment capital available. So the Carbon Trust I think is probably the route that your company took.

Q225 Mr Chaytor: The point was that the selling of the policy at the time was that this Budget would be totally available for companies to bid for for energy efficiency measures. I admit this was before the Carbon Trust was established.

John Healey: The principle on introduction of the Climate Change Levy was that this was not about increasing the tax take to the Treasury, hence the across-the-board National Insurance cut to all employers and hence a part of the anticipated levy take being directed to set up the Carbon Trust, grants being part of what they had available. My general assessment, which is what you ask for, is that the Carbon Trust is now really beginning to take off. I think it is really rather an innovative body, that does more than just process grant applications from companies that want to see a slice of public money. It is gaining a greater credibility and profile in the business world. I can certainly let the Committee have the latest annual report from the Trust that would give the sort of data that you are interested in.

Q226 Mr Chaytor: In most companies, in most industries, other than the energy-intensive users, energy consumption will be a comparatively small proportion of total turnover. At the same time, the whole thrust of government approach, in particular DTI approach, I would imagine, as the sponsoring department for the main energy producers, is that maintaining cheap energy is the way to benefit industry. How, from the Treasury's point of view, can you reconcile, on the one hand, the fact that the pressure from one source of government is to constantly drive energy prices down, and thereby maintain them at an insignificant level in terms of the business's turnover, and on the other hand, draw attention to the significance of energy efficiency by fiscal measures to encourage them to implement energy efficiency measures? Is not the reality that the only way firms will start to take energy efficiency seriously is when the price of energy goes up and therefore it becomes a more serious issue for them in terms of their turnover? Is that not the dilemma?

John Healey: I do not think it is as crude as that, but you have very succinctly exemplified what is in many policy areas within government a question of identifying the tensions. The Climate Change Levy is a very interesting one. From the government point of view, you have an interest in seeing the energy consumption costs of industry being as low as possible. It makes businesses more productive, more profitable, more likely to survive, more likely to create jobs and play a part in the successful economy that we want to see. However, we have clearly recognised that competing with that outright economic objective is a concern for the environment, the threat of climate change, and therefore alongside that the rationale for introducing the Climate Change Levy and indeed, with that first-in-the-world economy-wide emissions trading system in the UK, pursuing at the same time an environmental objective. In the design of the Climate Change Levy, we have designed it not as a carbon tax, as some argued, but as a downstream energy tax, principally to avoid the domestic energy user having to pay a part of the levy, because certainly as we came into office in 1997 and considered these issues over the first couple of years, we had a major concern about levels of fuel poverty in the UK, in other words social concerns and objectives, and this is a very good exemplar therefore of the factors that in government and across government need to be balanced, economic concerns and objectives, environmental objectives and social concerns as well. People will take a different view as to whether or not we have struck the right balance, but the evidence suggests, I think, that the introduction of the Climate Change Levy with the Climate Change Agreements, and the operation of the Carbon Trust, has led to both an awareness within industry and an interest and incentive to tackle inefficient energy use, which does not hinge on driving the price up, because in fact the reforms we have made to the energy generation and supply have meant that for some time now we have had low wholesale energy prices. If one takes the research from the CBI on the operation of the Climate Change Levy and Climate Change Agreements, what this demonstrates is that, with the introduction of the Climate Change Levy, 42% of firms either have taken action to improve their energy efficiency or have plans in place to do so. For those that are under the Climate Change Agreement, interestingly, it is double that at 87%. So there are ways of achieving these environmental aims without crudely and simply trying to drive up the price and risk therefore pricing business and jobs out of the UK.

Q227 Mr Chaytor: So you do not accept that if it is not hurting it is not working?

John Healey: I do not accept that it is as crude as that, and I would argue to you that the task of government is to make a more sophisticated judgement that inevitably has to balance a number of competing and potentially conflicting objectives.

Q228 Mr Thomas: While we are on climate change, you will no doubt remember the concerns and interest of this Committee in aviation and the growth of emissions from aviation. How confident are you now that the Government's aim of having aviation as part of the Europe-wide Emissions Trading Scheme by 2008 is going to happen?
John Healey: It is too early to tell, and it is relatively soon after the Aviation White Paper, but we are working hard on that. We have identified it as a priority for the prospective UK presidency of the European Union in the second half of July 2005.

Q229 Mr Thomas: If you do not succeed in that aim—and I have to say that judging by when we recently as a Committee visited Brussels and talked to the Climate Change Policy Unit there we think you will not, but who knows?—what is your other plan? You will remember that the report of this Committee said that the increases in aviation emissions would out-do and outweigh the savings that we have spent the last hour discussing that the Government is achieving. So if you are not going to make 2008, and I sense a slightly cautious approach from you this afternoon, what is Plan B?
John Healey: I hope you are wrong. You will also remember that in the Aviation White Paper we did signal a commitment that we would carry on working and looking at the possibility of short-term instruments that might have an impact on the environmental performance of the aviation industry, and that work is going on.

Q230 Mr Thomas: Does it not strike you as slightly ironic that this week, of course, BA have slapped a surcharge on their tickets due to the fact that oil prices are going up anyway, yet the Government has shied away completely from any such aviation tax itself? Does it not show that the market can stand this after all?
John Healey: Not really. We do have an aviation tax, the Air Passenger Duty, which delivers £800 million a year to the public purse.

Q231 Mr Thomas: But it is not linked to CO_2 savings.
John Healey: Precisely. The problem is that it is an aviation tax. It is not actually an instrument which is directed at all to the environmental policy objectives that you and I both share, Mr Thomas, because it has no connection to the environmental performance of the industry. In its current form, it will not play the role that I think this Committee was originally interested in seeing. Some might argue for other reasons there is a case for raising it, but all I would say is that there is not a good environmental argument for looking at Air Passenger Duty as a mechanism to try and internalise the environmental costs of this industry and there is not a good argument for looking at that if one is interested in improving the environmental performance of airlines.
Mr Thomas: No doubt as a Committee we will return to this.

Q232 Chairman: I am sure we will, but just before we move on, you referred just now to some short-term fiscal measures that you were looking at in relation to aviation. Can you just give us a hint of what those might be?
John Healey: I think it is quite difficult for me to do at this stage. All I am saying to the Committee, Mr Chairman, is that that commitment was contained in the Aviation White Paper and that work is still being conducted within government and within the Treasury.

Q233 Chairman: What type of things are we looking at?
John Healey: Some have argued, for instance, the case for looking at Air Passenger Duty and seeing whether it might be reformable so that it could operate as an environmental instrument. There are some restrictions and constraints over our ability to do that, largely as a result, as this Committee will know better than anyone, of the legal framework that restricts the degree of taxation that can be levied on this industry, and a whole web of international agreements, but we have in principle made our position clear, first of all that this is an industry that should be paying its way in terms of its environmental impact, and secondly, the protection that is currently afforded by this web of international conventions and agreements over duty and other taxation on the use of fuel and other activity is no longer justified.

Q234 Chairman: This is, I think, a change of position as far as this Committee is concerned. We have not heard you speaking like this before, and it is intriguing.
John Healey: I think you will probably find the words in the Aviation White Paper. I am not, I am afraid, breaking any new ground here.

Q235 Chairman: We have got used to being told that you did not want to price people off planes.
John Healey: That does remain the case.

Q236 Chairman: Do you know when you might be in a position to say something more concrete about the work that is currently going on in the Treasury?
John Healey: No, but the general pattern and cycle on which the Treasury does this work is tied in general to Pre-Budget Report and Budget announcement.
Chairman: We will watch this space.

Q237 Mr Thomas: I wonder if you can recall a bloke called Brynle Williams.
John Healey: Yes. He is a member of your Assembly now.

Q238 Mr Thomas: Indeed he is, though not of my party.

John Healey: Nor mine.

Q239 Mr Thomas: You will recall that he was leader of the fuel tax protests and he has announced this week that he expects his campaign to restart. Does that not fill you with dread?
John Healey: I think what is interesting about what he is saying is that he is also rather at pains, as an elected politician for a mainstream party, to point out that he will play no part in leading it, unlike in earlier years. I meet very regularly with haulage associations and the haulage industry. I am conscious in particular for hauliers about the impact of fuel prices. At the moment they are clearly being driven by world markets and by the pressures there. They are not being driven by what government can directly control. I am well aware of the tensions and pressures there, but I have to say to you, if you look back at the press cuttings round about this time during the summer last year, you will see Mr Williams making very similar comments in the run-up to Bank Holiday weekends. Certainly I do not want to see any fuel protests. I do not believe they are justified. In a sense, the decisions of these oil companies and the world situation is quite difficult to demonstrate against, even if it is a cause for concern, but we have heard it before from him.

Q240 Mr Thomas: Can you assure this Committee that you will stick by the inflation-linked increases that are expected in September? Fuel tax will go up by those increases as expected, come what may?
John Healey: What the Chancellor announced in the Budget is there in the legislation, and the Finance Bill has been considered both on the floor of the House and the whole House Committee and in Standing Committee and agreed as part of the Finance Bill. All the provisions are in place to go ahead as planned and as announced.

Q241 Mr Thomas: The problem we have here and the interest of this Committee as well is in this link between fiscal incentives and penalties, if you like, and environmental goods. We have just had the report, a month or so ago, on the sustainable development index, which is the barometer that Defra produce, and you will be aware that air quality, pollution has shot up, and the Government acknowledge that. Air pollution is up, road traffic is expected to increase by 20–25% over the next five or six years and, of course, road transport carbon emissions. We have been focusing really on greenhouse gases and climate change here, which are continuing to rise. In the absence of the fuel duty escalator and the absence of any link now between the real cost of motoring and the environmental costs, what sort of strategy do you have now to make sure that the motorist is aware of his or her environmental cost, but also has the incentive to use alternative fuels and alternative methods of transportation?
John Healey: I think the short answer to that lies in the alternative fuels framework that we published in the Pre-Budget Report. That underlines the commitment to support the development of greener fuels and the take-up of those. It also outlines the principles and the process by which we will make judgments about the appropriate type and degree of support the Government is prepared to give. I think our experience, and also some of our plans suggest that the focus for this is not always most effectively at the motorist at the pump, on the garage forecourt. I would point, for instance, to the 0.5p per litre differential that from 1 September we will be introducing on sulphur-free fuels.

Q242 Mr Thomas: That would help pollution but it will not necessarily help emissions.
John Healey: It will. Its immediate impact will be on emissions, on air quality, because sulphur-free is an improvement on the fuel that it will replace, the ultra-low sulphur, but what it will do is to accelerate the development of new engine technologies. When sulphur-free fuel is combined with new vehicle engine technologies, we stand to gain quite a significant advantage in terms of fuel efficiency and therefore have some impact on the climate change emissions that you are also concerned about.

Q243 Mr Thomas: Let us look at some of the alternative fuels that you are trying to support in the Budget. If we start with bio-diesel—and I declare an interest as a diesel car owner—the genius was to invent an engine that ran on vegetable oil in the first place, and oil as such came much later. Any car on the roads today in the United Kingdom can have a mix of bio-diesel and so-called ordinary diesel quite easily without effecting any changes whatsoever. We have a 20 pence incentive in the Budget. I could drive down to London and I would not pass one bio-diesel garage. When can we expect this to be available, as it is already on the Continent, in the United Kingdom. Is 20 pence enough to incentivise the market?
John Healey: We introduced the 20 pence duty discount for bio-diesel in July 2002. At that stage the monthly production of bio-diesel on to the UK market was 150,000 litres. Generally, since then, in recent months, it has been well over 2 million litres, and the number of filling stations at which it is available is increasing.

Q244 Mr Thomas: There is not one in Wales.
John Healey: We are starting from a low base in Britain in terms of our bio-fuels industry in comparison with one or two of the other European Union states and other countries beyond that like Brazil. What we are looking at during this year is a significant increase in capacity of the production of bio-diesel. There is construction already under way of a new plant in Motherwell and plans were recently announced for a new plant in Humber, so I think this is a long-term challenge. The signs of progress are showing but what I have been clear about, and we were clear in the Budget documentation, is that those who simply argue for a greater duty discount in order to see a greater

take-up, and in particular the development of the UK bio-fuels industry, may be mistaken, and this was the view your colleagues on the EFRA Committee took. The danger of simply looking at the duty discount as the single instrument to encourage this is that you increase the duty discount and make the UK market more attractive to those that are already set up to produce, in other words, producers in other countries. It already is the case that round about a third of our bio-diesel use in this country is imported. What we need to do and are committed to doing alongside this is not necessarily simply looking at the duty discount, either for bio-diesel or bio-ethanol. We are prepared to look at the role of enhanced capital allowances for investments in this field, and we are already looking at the scope for differential taxation treatment based on the feed stocks for these fuels rather than the end product, which would be a significant departure in this area. Most recently, as part of the consultation that is being led by the Department of Transport, we have gone out to consultation on whether some form of bio-fuels obligation has a role to play in driving up the production in this country, therefore the market share that bio-fuels will take of UK consumption and inevitably then its more widespread availability to the motorist.

Q245 Mr Thomas: It is interesting and encouraging that you are looking at differentials based on the feed stock, because that could have a doubly beneficial effect, as you are no doubt aware, but one of the problems is not just about the price or the incentive; it is also about the market knowing and investing in that market. You have mentioned the fact that bio-diesel is coming from the Continent at the moment. The announcement in the Budget is to peg the incentives till 2007. Other countries do that slightly differently. For example, Germany has compressed natural gas. It is pretty clear the support is there till 2020. Should we not be giving, as you said earlier, longer term signals to these partner markets? It is not just about demand; it is also about sending signals that this is a long-term profession. For example, what proportion of bio-diesel the Government would like to be seen sold in 2, 3, 4, 5 years' time, whatever, and trying to make sure that the market is aware that incentives will be there so that we develop market in the United Kingdom and for motorists to be confident as well that they can make purchases of new vehicles on the basis that there will be available these alternative fuels.

John Healey: You are certainly right, Mr Thomas, in your general point that the greater degree of certainty about the commitment of government to support these sort of developments, the more attractive the potential investments may become to those who are looking to the UK as a potential location for such investments, because clearly it reduces the risk and therefore reduces the invest premium and the cost of doing so. The commitment to not perhaps pegging the discount, as you suggested, to 2007 but a three-year certainty that the level of support will be at least that until 2007, is in part to encourage the industry to believe that this is a long-term commitment. Cargill, for instance, which is one of the major potential investors and producers in this country, were very clear that they welcomed that move to give the three-year certainty, and the fact that that had an impact on the way that they looked at things. There is then an argument, I think, about whether or not there is a case for going beyond three years. I would just say to the Committee that traditionally in Britain we have done everything on an annual basis, and this marks a pretty fundamental departure in terms of government commitment to this scale of duty discount for three years ahead. It is not immediately synchronised with the political cycle, but it is a very important commitment to be making anyway.

Q246 Mr Thomas: The one area that will not be so happy perhaps with the announcement in the Budget is those producing LPG, because there the discount is coming to an end and the signal is of increases, albeit gradual increases. How confident are you that the LPG market will not now stall?

John Healey: Based on the reaction of those in the industry, not just the LPG Association but also some of the leading players like Calor, that have been in direct contact with me after the Budget, very confident. Just to be clear, and to correct you, if I may, this is not the signal of the end of the discount for LPG; quite the contrary. What we have signalled however is that if one assesses the environmental advantage and gains from LPG, the relative gains simply do not justify in environmental terms the scale of the support we are currently giving. That has been given over the last three years in part because we wanted to see the development of a new industry and infrastructure for road fuel gases in the UK and, unlike with bio-fuels, particularly when they are blended, which is probably the best way ahead for things like bio-diesel, they need a separate infrastructure, they need separate pumps on the forecourt, they need separate delivery for LPG, and it cannot be done in the same way. What the LPG Association are saying and companies like Calor about the judgment we took at the Budget, which is to reduce the duty discount by a penny each of the three years, is that this strikes the right balance in their view, accepting the case that the environmental advantages do not currently justify what is still by far and away the most generous support anywhere in Europe for the LPG industry, but nevertheless, this gradual scaling back of government support is sufficient that it will not jeopardise the investment both the industry and the government have made in building up the road fuel gas industry, where we obviously have to share an interest with them. We do not want to see the investment the government has made, just like they do not want to see their investments, come to nought by a collapse in the industry. That was a major factor in the judgement that we took about the appropriate scaling back but not the ending of the discount.

Q247 Mr Thomas: But are you not sending out a signal here that in the long term—and this might be the right signal, but it would be nice to have it out, if you like—you really think that the best way forward environmentally for alternative fuels is via ethanol, via diesel and LPG was an interim technology that probably will not have a long-term future?
John Healey: No, not at all. We are not really in the business of picking specific products as winners. What we have said very clearly in the Budget documentation and the pre-Budget report as well is that assessment of LPG, for instance, suggests that we need to scale back the level of discount on duty here to a level that is more consistent with the environmental benefits that it brings, and that is the declaration of principle. The decision taken at the Budget was about the appropriate rate of change over the next three years and that is what the Chancellor confirmed.

Q248 Mr Thomas: The other part of the armoury in the Budget as regards these was Excise Duty. You have frozen the rates again this year. It was interesting to hear you refer a little earlier in terms of differentials, because the differentials within the Excise Duty between diesel, petrol and the different emissions and so forth are quite small in real terms. They are not insignificant but they are fairly small. Has the Treasury modelled any different ways forward on this, but perhaps with more significant and more radical differentials coming into Vehicle Excise Duty. Would that have another beneficial impact? It is not just about the fuel that you put in the car; it is also the cost of owning a car on an annual basis, for example.
John Healey: I am not quite following your argument about more radical differentials.

Q249 Mr Thomas: Bigger ones. The difference between a triple A band . . .
John Healey: You are talking about Vehicle Excise Duty. I beg your pardon. I thought you were talking about Excise Duty, which of course is the duty on fuel.

Q250 Mr Thomas: The difference between £75 and £135 you might say is double but in real terms it could be bigger and have a bigger effect in terms of people's choices.
John Healey: I beg your pardon. I misunderstood your starting proposition. I think the significance of the reforms that were made to the Vehicle Excise Duty system and tying that for all cars that are produced after March 2001 is that it gives signals to the motorist about the sort of vehicles tied to improved environmental performance that we want to encourage. I think common sense would suggest when somebody is buying a new car, the level of Vehicle Excise Duty, even if one doubled the differentials, is likely to be fairly marginal, if not irrelevant to the decision to purchase a new car. Nevertheless, I think it is an important part of the range of features of the tax system we are trying to put in place that is directed towards encouraging people to think about measuring environmental performance. Whilst the impact of VED alone might not be sufficient, when you set that alongside the reforms we have made to company car tax and the impact it appears that has had on the environment, and some of the measures for alternative and greener fuels and the creative use of excise duty rates, for instance, to try and shift the market, as we plan to do for sulphur-free, then I think you build up a picture where across the board use of fiscal instruments where we can is having an impact on the sort of climate change challenges that road transport particularly presents.

Q251 Mr Chaytor: Minister, you say that in the context of the cost of purchasing a new car, which for a small car would be £6,000–7,000, and for a large car would be £20,000–30,000, this is marginal or irrelevant. It is, because the Treasury has made it marginal or irrelevant, and it is just not a factor. The question is, is it hardly worth levying Vehicle Excise Duty, because frankly, if you are writing a cheque for several thousand pounds to buy a car, whether you pay £55 or £95 or £115 a year to run it is absolutely irrelevant, and surely the issue is do we want a proper, progressive environmental vehicle excise duty, in which case the bands need to be bigger, or why not scrap it and put it all on fuel?
John Healey: Two things. First of all, I think it is an important signal within the system that is directed towards encouragement—

Q252 Mr Chaytor: But it is a signal that the biggest growth in new vehicles is these four-by-four trucks that are trundling round the place.
John Healey: I do not accept the case that therefore one should scrap VED and load it all on to fuel. There remains an important function for the vehicle licensing system. It is part of ensuring we get good registration and information about the vehicles on the road. It is a way of periodically, every 6 or 12 months, being able to run a check on MOT and insurance with all 29 million vehicles that we have on the UK roads. It has formed an important part of the Government being able over the last year or so to pick up more than 800,000 people that have not been following the rules.

Q253 Mr Chaytor: So the environmental dimension is really the least significant factor of it; it is about maintaining legal controls over tax and insurance and all the rest of it.
John Healey: I think the environmental structure is a useful part of the design of the VED. I think it was an important reform to make at the time. I think it gives a signal, but I would not argue that it is a strong enough influence over the purchasing decisions for new vehicles which, as you say, are a very significant investment, and generally turn more decisively on other factors than the annual road licence cost.

Q254 Chairman: The problem is that it is a signal that most people cannot see, and even if they do, they do not obey. I have one automotive-related

issue to put to you. It concerns HFCs, which are used in cooling systems. You will be aware, I think, of the various moves going on in Europe and the discussions about phasing out F-gases and so on and so forth. I just wondered whether the Treasury had given any consideration at all to taxing HFCs in a way which reflects the extraordinary damage that they can do in terms of global warming, often much greater than CO_2.
Mr O'Sullivan: Obviously, we have the interest in this across Europe. This is one where we have largely looked to Defra to advise us on whether a regulatory approach is a better solution to HFCs or whether this is something where tax might make a big difference. If we were advised that that was the case, and it would be a cost-effective way of tackling this, we would certainly want to think about that.

Q255 Chairman: Have you asked Defra, and are you in discussions about this?
Mr O'Sullivan: We are in regular discussions about what they can advise for their Budget submissions. I am quite happy to take this up with them.

Q256 Chairman: The answer is that the Treasury is not currently looking at taxing HFCs to reflect the contribution they make towards climate change?
Mr O'Sullivan: As I said, this is one where we would look to Defra to advise us on the best way of doing this.

Q257 David Wright: Minister, can I return to the Barker Review and cover the tax issues within Barker. Clearly, Barker envisages around about 23,000 new homes per year coming on stream if the process can be got right, and of course, the balance between greenfield and brownfield development is crucial, and the Government has made some moves forward, of course: 60% of properties are now being developed on brownfield land. That is positive. Could you touch briefly though on the difficulties around VAT treatment in relation to brownfield and greenfield development and why you have not considered a re-examination of those issues on VAT? What challenges do you think there are environmentally with such a large-scale development programme?
John Healey: In a way, I think the Barker Review bears reading for the assessment she made and the judgment she came to on this proposition on VAT as much as it does for the measures that she recommended. The reservations that she had principally on VAT as a measure to try and capture the profit or the gain as part of developing was that firstly, there is an issue that although VAT is a national tax, it is levied within quite a rigid framework that is set at the European level. When one looks at the situation in the UK, where the whole question of housing and land supply, relative costs, is very variable across regions and within regions, there is first of all a concern that simply looking at VAT to deliver this may not give us the flexibility that would suit us best. Certainly when you look at the regional differences in the gain that is there to be had from housing developments, if you had a flat rate of VAT, the proportion that that would be in south Yorkshire compared to south Devon, for instance, would be very different as a proportion of the total development gain, and indeed, the house prices at the end of it. It is not terribly flexible, nor is it likely to be a measure that is well suited to our particular circumstances in Britain. That is why she ended up recommending a planning gain supplement as the best fiscal measure for recovering for the public purse and, to follow her argument, therefore, funds to invest in housing supply, to take that in some way out of the gains that are made in the property development process.

Q258 David Wright: Do you see any difficulty in developing that proposal? I am assuming it would be levied when planning permission by consent was gained on a greenfield site. Is it going to be particularly complex to manage? It would be interesting to hear what you have to say about whether we could actually green it up in terms of a wider perspective, for example, if a developer were committed to providing very energy-efficient housing on a greenfield site, would there be a case for reducing the tax levy? Could we use that tax to incentivise developers who are committed to developing on greenfield sites to make the housing they build more sustainable?
John Healey: The short answer to your two questions is that our view of it as a proposal is that it is not going to be straightforward but that it is feasible to develop. Secondly, if you follow one of the arguments that Barker makes when she argues for flexibility in the way that it is designed and implemented, and she cites, for instance, the potential for flexible rates in some way for brownfield versus greenfield, then in principle, if the arguments for incentivising particular forms of development or particular locations for development were sufficiently strong, there is no reason in theory essentially why you could not design such a measure in a way that was flexible enough to build in those sorts of objectives.

Q259 David Wright: So the Government would examine a proposal, say, if you took a 10-hectare site, and there was a proposal to build large, very poor energy-efficient houses or an alternative proposal to build a high-density very sustainable development, you would see an opportunity to incentives the developer to go for the latter option by using this as a device?
John Healey: I would encourage this Committee, if it is interested, or any interest group that wants to pursue that sort of argument, to develop the case for that and put it to us as part of the consultation and discussions that we are now having on the feasibility of a planning gain supplement. If it is put to us, we will certainly consider it.

Q260 David Wright: Can I put it to you then, Minister?

John Healey: My word of caution would be this: you asked me before whether we saw any problems with doing this. The sort of problems that have bedevilled previous attempts to introduce such a fiscal measure as this include complexity, and the more finely tuned the objectives you want want to meet through this, the greater degree of complexity you risk in introducing it. There is a judgment to be taken there and clearly with complexity comes cost of administration. The other features that have tended to be the flaws of similar measures in the past or similar attempts in the past include setting the rates at a punitive level that discourages development rather than encouraging the right development in the right places. Secondly, there is the problem with hoarding and land banking based on the belief that the government that introduced it was not long for this world and that a change of government might bring a change of policy and therefore it was worth sitting tight on land rather than releasing it for development, which clearly would not help us very much, therefore, the importance of trying to achieve through this process some degree of political consensus. Finally, there was in the past a problem with widespread avoidance, and you would expect a Treasury and Customs Minister to say that that will inevitably be a feature of the judgment that we take about the feasibility and, if it seems sensible, the design for the planning gain supplement as Barker has recommended.

Q261 David Wright: What is the earliest point at which you could bring it in, Minister?
John Healey: Barker has set a range of recommendations and challenges here. I think she would argue and we would accept that they ought to be introduced as a package, and we are looking at a period of perhaps 18 months working through all this to the point where we might then be in a position to introduce these measures.

Q262 Mr Francois: Minister, with regard to the development land tax, Friends of the Earth were extremely critical of Barker. They did think this was from their perspective the one potentially valuable suggestion in the entire report. Where would the money go to? Would the suggestion be that revenue raised from it would go to the centre for redistribution by government or would the suggestion be that the revenue would go to local authorities, as it does in the current manner with section 106?
John Healey: The open answer at the moment, Mr Francois, is that that is a matter for discussion as part of the work and later decision. Kate Barker was very clear that her idea of a planning gain supplement was in her terms what she would regard as a fair means of releasing resources from the gains that come with development to local communities so they can share in the value of that development. That was essentially the rationale she proposed for it. It is an open matter at present. My own inclination is that if we can avoid a transmission via the centre, and it makes sense not to do so, that would obviously be an advantage. In terms of section 106, what she argued was that as you introduced the planning gain supplement, that was the fair and direct way of local communities benefiting from development and that should therefore be scaled right back. The understandable reaction from the industry is that conceptually this is a better way of doing it. At the moment the operation of section 106 is quite uncertain. It does not necessarily deliver to local communities significant benefit and does not necessarily produce a greater investment and incentive to develop more housing, which is ultimately where we come back to, which was the principal need that Barker identified and to which her recommendations are directed.

Q263 Mr Francois: I think it is very important that I declare my interest as an MP from the South East of England. Nevertheless, this is applicable in many other parts of the country too. If you were to go down the central route, and I think you are saying this afternoon that you realise there are dangers in doing that, if you were tempted, because there is a lot of revenue to be raised from this, I would try to make the point very strongly that we already have resistance in a lot of communities to what would be regarded as excessive house building, and if you were to add insult to injury, and on top of piling on the houses and the infrastructure that goes with that, you then take the revenue gain away to the centre so the localities get the pain but very little of the gain, you will come across quite serious resistance in some areas. I wonder if it is possible to make that point now, while you are still deliberating on this. As you have an official from the Treasury with particular responsibility for spending, I wonder whether, when you have made your comments, Minister, Ms James has anything she wants to add on that.
John Healey: Let me just say, the point is well made. It is the right time to make these points. I understand the fears for those in the South East. I would just say two things. Mr Wright mentioned we would retain that target to have 60% of the development on brownfield rather than greenfield sites, and secondly, the 120,000 extra homes, if we succeed in building them, will not all be built in the South East, quite clearly, and if they were, it would actually take up, according to Barker's case, less than one% of the land area available in the region. One understands the fears, but I think in many ways they are misplaced and/or exaggerated.

Q264 Mr Francois: It is not just 120,000 in the four sustainable communities developments. Because of regional housing boards, housing numbers for a whole swathe of counties in the South East have recently been significantly increased. In my own county in Essex we have to take another 20,000 by 2021. So it is not just those four areas by any means. We are looking at very large-scale housing, and you are now starting to get genuine resistance. What I am trying to say to you, in a relatively non-party manner, is if you were to give in to the

temptation to draw the money to the centre, that resistance would be even more fierce than it currently is.

John Healey: I understand the point you make. The bigger general point beyond the mechanism for routing the revenue of any potential planning gain supplement is the challenge we all face, which is that without more homes, particularly in those areas where the pressure on existing housing is greatest, in those areas of the country where the economy is performing best, including some of your own areas, if we are not building more homes, housing will not be available for people who either currently live or want to live or those that want to have access at some point to the housing market for themselves. So there is an important economic imperative here, and an equity imperative, I think, to set alongside the concerns that I do understand that Friends of the Earth and others raised about the potential threat they might perceive to development.

Q265 Chairman: These are all issues which this Committee will be looking at in the recently announced inquiry into housing. Does Ms James have anything to add to what Mr Francois has asked?

Ms James: Thank you for the opportunity. I should make clear what I really work on is departmental spending by Defra, and at this stage I do not think there is anything I can add to what the Minister has said.

John Healey: There is no spending commitment there.

Q266 Paul Flynn: For the 2004 Spending Review you have abandoned the requirement of departments to make separate sustainable development reports. Was the 2002 experience a failure?

John Healey: No, it was not a failure, but our judgment this time around is that we can do it in a better way. We can do it in a better way than essentially asking departments to consider the challenge of sustainable development and the relevance to their plans as something separate. The guidance, part of which the Committee has seen, for this Spending Review, and it will be a feature that we examine very closely, emphasises that they need to build into their explanation of the case for the mainstream and plans and programmes that they want supported through the Spending Review.

Q267 Paul Flynn: As you say, we have seen an extract from the main guidance from the department, but it does not encourage us to believe that this will become more important rather than less important. It talks about "As part of the programme departments may be asked to provide one or more of the following in their submission" and one of those, the main one, is an examination of the positive and negative sustainable development impact of the department's proposals. In particular, they should report where there is a significant direct impact, positive or negative, on one of the headline indicators: they may be asked to supply on one of the headline indicators. There are 147 headline indicators. How on earth can this be a strengthening of policy? "For which they may or may not be asked to provide"?

John Healey: The guidance is the general framework. What in practice is happening is that each department is having to agree with the spending team that we have in the Treasury. So in Fiona's case, the Defra department is having to agree with the Treasury as part of their submission to the Spending review areas on which they may be asked to report specifically on the sustainable development impact of their policies or their programmes. So in a sense the guidance that you are quoting from there is general and it is permissive. What is being followed up is the detailed work between the Treasury spending teams and the departments concerned.

Q268 Paul Flynn: The guidance is extremely imprecise and does not seem to place any obligation on the department. It says "they may or may not" and in a very tiny area. Of those 147 indicators, you have 15 headline ones, but again, they may not be called to report even on those.

John Healey: Where those headline indicators are central to the plans of particular departments, they are likely to feature very strongly as an integral part of the submission they are making in the Spending Review, but it clearly will not be relevant to some other department. In a way, that is another way of explaining the "may" that you point to in the guidance, because the guidance is there as general guidance potentially to cover all departments, but the particular relevance of the concern about sustainable development issues is more specific and more relevant to some departments in some of their areas than others.

Q269 Paul Flynn: I can understand how policy can be refined in that way, but you are replacing a mandatory requirement to produce a separate sustainable development plan of all departments by these vague recommendations that may or may not be imposed. Surely that is a weakening of policy.

John Healey: In my judgment it is not. It is making it the focus of these departments as part of their mainstream work rather than being able to set aside the sustainable development issues as an add-on, as they perhaps were able to do in 2002. In the end, I guess, the judgment about whether this process is strengthening the place of sustainable development in the Government's overall target setting and spending programmes will be on the outcome that we publish in the White Paper on the Spending Review rather than in the more general operational guidance that we publish beforehand.

Q270 Paul Flynn: I think perhaps the key words you used in your reply were "set aside". If we can look at how we are doing, the DTI Renewables Innovation study highlighted the level of funding for renewable technology, which they say is far less than both the level of funding and the length of

time the funding applies than all of our main competitors. Similarly, the Energy Efficiency plan stated, compared to other countries, the UK has a relatively low level of funding for energy efficiency research and development. Do you agree that the level of funding in these areas is inadequate?
John Healey: I myself am not in a position to judge whether or not those arguments are right, but if they are correct, and backed up by the evidence, I would half expect to see them made by the DTI as part of their bid in the Spending Review process.

Q271 Paul Flynn: Yes, indeed, but they have said these things now, and this Committee were struck by evidence that we had from Professor David King on the urgency of the cataclysm that could well engulf us on this. On these areas there does seem to be a lack of any urgency on the part of the Government or a lack of appreciation of what could happen if we keep polluting the atmosphere and poisoning the planet in the way we have done. Do you not feel there is a lack of attention by the Government to the scale of the problem?
John Healey: No, I do not actually. I think with the Energy White Paper we published in February last year and the follow-up with the implementation plans on energy efficiency at the end of April, the level of commitment we are making to this and indeed, some of the new policy instruments we have been discussing this afternoon all I think underline that we take these extremely seriously. One might argue that the UK is taking the threat of climate change and our responsibilities to contribute to try and solve that more seriously than many other countries. Certainly David King is a really important figure within government as the Chief Scientific Advisor. He is one of the most articulate and powerful advocates for developing government policy further in this area.

Q272 Paul Flynn: Finally, this Committee has previously commented on the dearth of environmentally related targets in the departmental service agreements. Can we expect to see more of the environmental targets in the future?
John Healey: It is hard for me this side of the Spending Review to answer that, because I simply do not know what the outcome will be, but I think, based on the fact that our approach to the Spending Review now makes the question of the environment and sustainable development integral to the Spending Review process, the Committee ought at this stage to be confident that that will be reflected in the PSAs and the investment programmes that we publish in the Spending Review, and will make its judgment based on the outcomes from this process.
Chairman: We will be looking for them.

Q273 Sue Doughty: On the issues Mr Flynn was referring to, I get the feeling sometimes we are dancing in the dark in knowing which bit of policy is actually delivering. Some years ago the DTR told us it could not evaluate separately the impact of each different policy instrument, such as the enhanced capital allowances and the Climate Change Levy on reducing emissions. Just two months ago the Carbon Trust could not tell us what the take of the ECAs was because the Inland Revenue did not think it was worthwhile to collect the data. How do you think you can assess the impact of a policy instrument or choose which ones you are going to use if you cannot monitor the impact?
John Healey: I started this session by saying I hoped the Committee would see the whole question of the environment and economic instruments as policy work in process. We are in the continuous process of improving our ability to monitor and evaluate what we are doing and develop fresh policy as appropriate. You will see in the Budget documentation we improve the degree of reporting of what our assessed impact of some of the environmental policy measures is. That is based on two things. It is based on what is undoubtedly, compared to two or three years ago, a better data set and evidence base on which to do that, and which we strive to improve all the time. Secondly, it is based on the fact that with some of these measures they are relatively recently introduced. They have only been in place for a couple of years. For instance, with company car tax, we have done an initial evaluation of that, including its apparent environmental impact, but clearly, the full evaluation and the conclusions that we can draw from that are difficult to tell at this stage, but in another two or three years they will be clearer. We will be able to make our estimates or our assessment of the impact with greater confidence and accuracy.

Q274 Sue Doughty: Are you collecting the relevant data then? I come back to the fact that the Inland Revenue did not seem to be collecting the data. How do we know?
Mr O'Sullivan: Perhaps I could pick that up. It has been a difficulty that to cut down the compliance costs we have not required people claiming capital allowances to provide all the detail, but we do have a valuation of the role of enhanced capital allowances that has been undertaken working with the Carbon Trust and is using surveys and other sources of data. That will be undertaken this year and there is work already in hand on that. We are collecting data from other sources than just Inland Revenue to evaluate that. Cambridge Econometrics are doing work evaluating that, which will come to fruition towards the end of this summer, and on the Aggregates Levy. It is a big concern that we collect the data and evaluate these policies and have a clear idea about the cost-effectiveness of them, and we will put a lot of this together in the Climate Change Programme. We will be looking at the major policies and the cost-effectiveness of these policies in thinking about how we are going to take forward that programme.
John Healey: I should say that we actively encourage and are open to suggestions to us from wherever they come about improving our ability to assess, evaluate and improve the evidence base on

which we can work. Our experience over the last two to three years is that interest groups, whether they are green lobby groups, industrial concerns or academics have played quite an important part in helping us to improve this.

Q275 Joan Walley: Following on from that last remark, Minister, could I take it that in view of the merger of Inland Revenue and Customs and Excise, now being merged with the Treasury, that that invitation that you just set out could be an opportunity for you to be telling us how you are looking at perhaps dealing with some of the failures in the past to properly monitor what was going on in respect of Inland Revenue and collecting data in order that you can do the very monitoring that you talked about much earlier on, for example, although it was in relation to to CHP? Are you looking at this opportunity that is presenting itself with the merger to re-think your approach towards sustainable development with those merged departments?
John Healey: In all honesty, Ms Walley, we are not yet looking in that degree of detail, but what is very clear is that the integrated revenue department that we propose to set up gives us the opportunity to do precisely that. It gives us the opportunity, whether that is in relation to the design, the monitoring, the evaluation of business taxes across the board or indeed specific measures for charities, which are currently maybe in part the responsibility of Customs and in part Revenue, or indeed in pursuit of environmental objectives, by having a single revenue agency, it certainly gives us the opportunity to do just what you are urging on us. At this point, I have to say to you, having only announced the integration of the two revenue departments in March, the serious work is at a much higher level at present. No doubt that is something that we will come on to.

Q276 Joan Walley: Can I put it to you that the whole thrust of the environmental green concerns are that things should be put in place at the very beginning, at the earliest possible opportunity, so if these discussions are taking place only at the very highest level at the moment, that is precisely the time when the opportunities for sustainable development, particularly in view of the review of the Sustainable Development Strategy, should really be looked at by the most senior people within the Treasury, working, of course, to you on that.
John Healey: Yes, and it will, but just at the moment the sort of issues that we are examining—

Q277 Joan Walley:—are not as important as sustainable development?
John Healey: No. We are not yet at sustainable development. We are looking, for instance, at who should be appointed to lead this agency, and we are looking at the appropriate governance arrangements by which it should report to Parliament and to Ministers. Those are the sort of higher level issues at present that are the focus of detailed attention. I understand your interest in sustainable development, but it gives us the opportunity to come to that. All I am saying to you is we have not yet reached that point.

Q278 Joan Walley: No, but what I am saying to you is that you did invite us to comment, and given that the review of the Sustainable Development Strategy is taking place now, I would say that this is precisely the time, because in the very person who you appoint you will presumably be looking at some kind of criteria. It may well be that if you do not pinpoint the importance of somebody with an overview of this subject, you would end up with somebody who would be unable to relate to this whole agenda. It is precisely weaving this in at the very earliest opportunity that gives you that wonderful opportunity in the merger of these departments to really go down a new, green route in terms of sustainable development, and that should be linked as well to the review that is taking place at the wider level across government. In respect of the new arrangements that you will be having, will there be a duty to promote sustainable development? We have seen with the setting up of the regional development agencies from within the DTI that that duty was not there from the very beginning. Is there going to be a duty in respect of this new agency now?
John Healey: You have seen the way that the sustainable development and the environment has been incorporated into the PSAs that the Treasury has accepted and set for themselves as part of the Spending Review process. I mention that as hard confirmation of the interest that we take in this, and our readiness to commit ourselves to it. I think at this stage I cannot go any further in anticipating precisely how the remit and future PSAs for this integrated revenue department will be set.

Q279 Joan Walley: Can I turn briefly to the review of the Sustainable Development Strategy and just ask by who, how and when that is being done within the Treasury?
Ms James: The review of the Sustainable Development Strategy was launched on 22 April, and we were involved in a lot of discussions with Defra but also other Whitehall departments in the run-up to that in the introduction of the consultation document. We will also continue to be involved as that goes forward in the coming months and in the second stage as that part of the consultation closes.

Q280 Joan Walley: Given the importance that the Prime Minister is placing on the G8 presidency next year in relation to climate change, and the importance that the Government attaches to the role of climate change, would you like to see and are you taking steps to see a greater focus on this within the Sustainable Development Strategy? Has that been part of those talks you have been having with Defra on that subject?
Ms James: This is one of the questions which is raised in the consultation, as to whether the UK's Sustainable Development Strategy should focus on

some priority areas, and climate change is one of those where already the Government's strong commitment is very demonstrable. We will wait and see what the consultation results come up with.

Q281 Joan Walley: Does that mean the Government does not have any views on it; they are just waiting to see the response to the consultation? Are you not going to say, for example, that if we have a 60% 2050 target, that departments should be required to set that in as part of the Sustainable Development Strategy? Surely the Treasury has a view on that, rather than waiting to see what comes in from the focus groups.
Ms James: The Government's views on climate change generally are well set out, and it has a clear strategy there to deal with them. What the review of the Sustainable Development Strategy is looking at is not just government activity but how the whole community and society, from business to voluntary organisations to individuals, respond to the sustainable development agenda.

Q282 Joan Walley: So in terms of the climate change, how are you going to be driving that forward in terms of the Sustainable Development review?
Ms James: I am not quite sure I understand the question.
Chairman: What systems have you put in place? What lines of reporting or what initiatives?

Q283 Joan Walley: It goes back to the point made earlier on, in a slightly different context, in relation to CHP. What you said, Minister, in response to that was that if there was going to be a need to do more, if it was falling short of the target, obviously measures would be put in place. What we are really wanting to see is how we are going to get from here to where we need to be in respect of different targets. That route map, whatever it is, in relation to all of these different targets comes into focus in respect of the Sustainable Development Strategy. So without having those opportunities to see where the targets are, where the information is, where the monitoring is, where the audit is of that, we cannot see how far along the route we are actually getting. It is how that is woven into the discussions which are going on now in relation to this timely and very welcome review of the Sustainable Development Strategy.
John Healey: The review of sustainable development is important, but perhaps, if I may say, you may be looking for it to carry too great a load. If one takes the interest that we have discussing that as part of the Energy White Paper, or climate change programme, we review the Energy White Paper and the progress against the targets every year. As Mr O'Sullivan has just mentioned, we have a formal review of the climate change programme coming up, which is going to be very thorough and focused on the extent to which those measures are meeting the scale of the challenge and the targets we have set. Those are separate, and probably really important to carry out rather than looking for the sustainable development review itself to be a vehicle that we can use for all such monitoring right across the policy range.

Q284 Joan Walley: Perhaps it would be helpful if you could let the Committee have a note on the way in which the Treasury is planning to contribute to that review.
John Healey: I will certainly do that if the Committee would find it helpful.
Chairman: Thank you very much indeed. Thank you for being so generous with your time. We are very grateful to you. There are a number of points to follow up. We look forward to continuing the dialogue with you on Barker and on the sustainable development review, and indeed the Spending Review. Minister, thank you very much for this afternoon.

Supplementary memorandum from HM Treasury

Response to specific questions from the Environmental Audit Committee following the Economic Secretary's oral evidence session, 12 May 2004

Could you set out the expected levels of investment in CHP in 2004, 2005 and 2006 (excluding the one-off very large Conoco development)?

The Cambridge Econometrics Study *Modelling Good Quality Combined Heat and Power Capacity to 2010: Revised projections* published in November 2003 suggests a figure of 6,350 GW for qualified power capacity for 2005. Cambridge Econometrics were not asked to examine projections for 2004 and 2006 as it was the 2010 projection that was of the most interest. In addition, the work was done to inform the Emissions Trading National Allocation Plan calculations, which used the UK Energy Model for which the generators' part is generally run at five-year intervals. A copy of the report is enclosed for your information.[3]

Does the Treasury consider that CHP could be exempted from the Renewables Obligation in such a way as to have either no effect, or only a beneficial effect on renewables?

[3] Not printed here.

Could the Treasury (a) confirm the cost of exempting CHP from the Renewables Obligation; (b) set out the carbon savings arising from the current level of CHP (4.8gw); and (c) set out the forecasted savings in 2010 if the CHP target were met?

Do you accept that the Government has already made a significant change to the Renewables Obligation in relation to co-firing, and that it is inconsistent to argue against a small change to benefit CHP?

The changes to the co-firing rules under the Renewables Obligation were designed to encourage the uptake of energy crops, In this context, co-firing of energy crops was seen as a transitional measure to get energy crops grown in this country for electricity generation. More time was needed to allow this to happen—our original timescales under the Obligation (which required 75% of the biomass element to be energy crops from 1 April 2006, and under which co-firing would have ceased to be eligible for the RO after 31 March 2011) had been too tight and needed to be relaxed.

It is also the case that only the biomass element of co-firing receives ROCs. There is no support for the coal-fired element.

We made these changes following the technical review of the Obligation, which was carried out last autumn. To support the review, we used independent consultants to assess the implications for energy crop development (and for the Obligation more widely) of adjusting the co-firing rules. In their analysis, the consultants did not believe that (on the basis of revenue streams from co-firing modelled for their study and the low margins anticipated co-firing would have a material effect on whether Flue Gas Desulphurisation equipment should be installed to meet the sulphur constraints on a coal generating station under the Large Combustion Plants Directive or on whether to retire the plant.

The changes to the co-firing regime will have a positive benefit to bringing forward more renewable energy through the greater use of energy crops. By removing CHP from the Obligation base we would be acting to reduce the amount of renewables capacity expected to be brought forward as it would mean we would be expecting 10% renewables from a smaller base ie excluding CHP electricity. It would mean providing some assistance to the development of CHP at the expense of the development of renewables. The Government is seeking to support both CHP and renewables in a coherent way, rather setting one against the other. The Government is also already supporting CHP using a range of measures including the tax system—through enhanced capital allowances and an exemption from the climate change levy.

DTI estimates (based on modelling work by Cambridge Econometrics) suggest that exemption of CHP from the Renewables Obligation is likely to result in around 284MW of new build CHP by 2010. The carbon savings arising from this element of new build CHP would be minimal (some 0.02 million tonnes of carbon). The cost of this would in fact be very high. On the assumption that the fuel displaced by the new CHP capacity would be gas, the cost of carbon saved would be some £440 per tonne, considerably more than the cost of carbon saved through the Renewables Obligation and much higher than the cost of carbon saved through most other measures designed to reduce carbon emissions. The Government acknowledges that there is some uncertainty around some of these figures and that others will have different views. The 2005–06 review of the Renewables Obligation will offer a further opportunity to consider these issues.

We estimate that compensating measures for renewables would cost some £80–90 million pa by 2010 (depending on the level of CHP achieved by then, in particular whether it met the Government's targets) with this additional, cost of the Renewables Obligation being borne by the consumer. This level of support cannot be justified for an already mature technology. And the level of support would continue to rise in line with the level of support for renewables. There is no economic justification for such a link given that renewables are generally new technologies which, with support now, can expect to reduce their costs over time. CHP, a mature technology, is not in the same position which makes it difficult to see an economic rationale for such a measure being taken.

Please set out your thoughts on the potential role of CHP and biomass for new developments, in the light of the latest RCEP report on this topic and its criticism that government policies for this important energy source are fractured and misdirected

The Government found the RCEP report on the role of biomass including the potential link with CHP interesting and helpful. Defra are leading on this and have had initial contact with other Government Departments on the feasibility of some of the recommendations. They expect to be submitting a Government Response within the next few months.

The Energy White Paper stated that consideration would be given to creating a business target for energy efficiency; and that the Government would consult on requiring applications for power stations to give more consideration to CHP. What progress has been made in these areas?

The Energy White Paper did not consider the case for a specific business target for energy efficiency. It did state that the Government would consider extending the Energy Efficiency Commitment (EEC) beyond the domestic sector, perhaps to businesses that do not pay the climate change levy. The EEC consultation document, published last week by Defra, explains why we have so far rejected a business EEC.

Defra commissioned studies into the feasibility of an EEC for the business sector and on issues surrounding the possible extension of the domestic EEC to those business that do not pay the Climate Change Levy. The work included consultation with interested bodies and the results were further discussed with stakeholders. However, a number of concerns were raised—practical and administrative difficulties of crediting energy savings for business energy efficiency under the domestic EEC; equity issues, including the possibility that domestic consumers might in effect pay for business energy efficiency improvements; the potentially high cost of addressing the business sector through the domestic EEC for what appeared to be a low carbon return.

The Government has therefore concluded that the inclusion of small business within the domestic EEC is not practicable at this point. Options continue to be considered, but in the immediate period support for energy efficiency improvement in this sector will continue via other programmes, notably those of the Carbon Trust. In addition, we will consider the feasibility of an EEC for business consumers more widely as part of the review of the Climate Change Programme later this year.

The Energy White Paper included a commitment to review existing guidance to developers seeking consent from DTI for large power stations, setting out the steps they need to take to ensure economically viable opportunities for CHP are fully considered. The existing guidance can be found at:

http://www.dti.gov.uk/energy/leg_and_reg/consents/powerstation_eng.pdf.

The review will aim to make the guidance clearer about the information and evidence required from developers to show opportunities have been properly explored.

Work to review the guidance is well advanced. Publication of the re-drafted guidance for consultation, expected earlier this year, has been delayed by wider policy questions around power station consents. But a consultation paper is expected in the next two months.

You promised to provide figures on the installations covered by Climate Change Agreements, and on emission reduction. In doing so, could you set out the baselines, targets, and total reductions which have been made in each sector. Could you also comment on the extent to which reductions can be analysed by each policy instrument (especially the extent to which the impact of IPPC regulations can be separately identified)?

The existing Climate Change Agreements (CCA) scheme currently covers some 10,500 installations. It was originally expected to deliver 3.3 MtC per annum (including the revision of targets) by 2010. In fact the CCAs have already delivered substantial carbon savings, almost three times more than the original target and future savings will depend upon the agreements set for future years. We estimate that a further reduction of 0.5 MtC per annum will be delivered through the extension of the CCAs into new sectors. The CCA scheme is not mandatory and it is up to businesses to decide if they wish to participate in it. However, the cost of the extension to CCAs is estimated to be £25 million and it is also estimated that in excess of 1,000 installations may benefit by new CCA eligibility.

I attach a copy of Defra's "Climate Change Agreements—Sectoral energy efficiency targets" and "Climate Change Agreements and the Climate Change Levy: First target-period results".[4] These give a breakdown of targets and reductions, this information is also available on the Defra website: www.defra.gov.uk/environment/ccl

Could the Treasury set out what work is currently being conducted on the possibility of short-term instruments that might have an impact on the environmental performance of the aviation industry, and what specific policy instruments are being considered?

The Government published *The Future of Air Transport* White Paper December last year. This stated that:

> "We must do more to reduce the environmental effects of aviation. The UK will take action both internationally and here at home, as well as meeting air quality and other environmental standards and minimising environmental damage. Emissions trading is the best way of tackling the aviation industry's greenhouse gas emissions. Those responsible for emissions must keep within set limits by reducing their own emissions and/or buying additional 'allowances' from others who reduce their emissions."

The White Paper also said that the Government would continue to explore the role of further economic instruments. Following discussions with stakeholders in light of the Government paper "Aviation and the environment: using economic instruments", one key constraint in designing effective economic instruments designed to improve the environmental performance of the aviation sector is international legislation, particularly in EU legislation. Budget 2004 announced that the Government would therefore discuss with the European Commission options for introducing greater flexibility in European legislation regarding the application of economic instruments to aviation.

Work on these policy measures in underway, though the key priority is getting aviation into the EU ETS, where the Government is working proactively with the Commission and EU partners to develop a proposal.

[4] Not printed here.

Has the Treasury undertaken, with Defra, any specific evaluation of alternative policy instruments for reducing F-gases, including the scope for some form of tax or charge? If so, please provide details.

F-gases are a greenhouse gas and are covered by the Kyoto protocol, which the UK has ratified. The UK is committed to meeting its Kyoto target of reducing greenhouse gas emissions by 12.5% by 2008–12 from 1990.

At present in light of the proposal for a regulation of the EU Parliament and of the Council on certain fluorinated greenhouse gases (COM(2003)492), the Government is focusing on this proposal. This is currently under active discussion in Working Group and the Dutch Presidency is likely to be seeking a common position by the end of the year.

The proposal is intended to assist the European Community to meet its objectives under the Kyoto Protocol by introducing cost-effective mitigation measures to reduce emissions of these gases, and to prevent distortion of the internal market that could result from differing national measures. This proposal covers provisions on the containment, reporting, marketing and use of F-gases and includes dates for phasing out certain uses of F-gases.

The UK is seeking the outcome that maximises the environmental benefits in the most cost-effective way and also minimise the burden on businesses and give them enough time to adapt to new requirements.

When will the remit, aims and objectives of the new revenue department be made public? Will the objective of promoting sustainable development be incorporated within the new remit?

Considerable work is required to prepare for the creation of the new combined revenue department, including preparation of the necessary legislation. Work on the new framework document and the annual remit is being taken forward as part of that. A draft of the framework document will be available by the time that the legislation is introduced. Consideration will be given to the content of the first annual remit in light of progress on setting up the new department and the outcome of the current spending review.

How is the Treasury planning to contribute to the review of the Sustainable Development Strategy? Does it have any views as to how the strategy could be improved?

The Government launched its review of the UK Sustainable Development Strategy on 21 April. HM Treasury, along with other Whitehall Departments, contributed to the preparation of the current consultation exercise for the Strategy Review. As part of the Strategy Review, the Sustainable Development Commission prepared a paper on the Government's progress on integrating sustainable development in its activities. This piece of work has provided a shared challenge to both Defra in completing the Review and to other Government Departments.

With reference to HM Treasury the Commission report noted the progress made in recent years with regard to environmental taxes but highlighted the need for continued progress in this area. It also called for the 2004 spending review to take sustainable development into account. The outcome of the spending review will be announced shortly. One of the cross cutting themes that we have been considering is sustainable development and it is our intention to use this process to further inform the Strategy Review.

June 2004

Wednesday 19 May 2004

Members present

Mr Peter Ainsworth, in the Chair

Mr Colin Challen	Mr Malcolm Savidge
Mr David Chaytor	Mr Simon Thomas
Paul Flynn	Joan Walley
Mr Mark Francois	David Wright

Witnesses: **Mr Tom Delay,** Chief Executive, **Mr Michael Rea,** Director of Strategy, and **Dr Peter Mallaburn,** Head of Government and International Affairs, the Carbon Trust, examined.

Q285 Chairman: Welcome. Welcome to a very hot Committee Room, hot but probably environmentally friendly, we will find out later. Thank you very much for coming back to the Committee. It is a pleasure to see you again. When we saw you last, in February, you referred to a carbon gap, which you put at, I think, around six million tonnes, if I remember rightly, by 2010, between the aspiration and the likely achievement. That was the thing that worried you and obviously the gap which needed to be filled. At that time you stressed the importance of the forthcoming implementation programme in mapping out the measures needed to fill that gap. We have now had that Implementation Programme, and of course we have had the Budget as well, and there is a feeling that really neither contains the sorts of substantial measures which are needed to make the leap which you identified before. Do you share in that view?
Mr Delay: I am going to suggest that Michael here answers more fully, but I think the answer may not be the one we all want to hear. It is not clear. I think the Implementation Plan, in itself, is not a bad plan and it does cover a great deal, but an awful lot of it is still aspirational and has not been anchored in precise terms. If all the measures in the Implementation Plan were to be put into action effectively then I think there would be a very realistic chance of addressing the gap and setting the course for 2020. I think the big question is are they going to be put in place with anything like the rigour that would be required reasonably to address certainly the uncertainty around meeting that 2010 target, and the whole issue of building a platform for 2020? It is not as clear maybe as we would all have liked to see. I think the elements are there in the Implementation Plan but probably not in sufficient detail to give any definitive view.
Mr Rea: I think that is right. I think when we wrote back we talked about the overall gap in business and the public sector being in the order of 16 million tonnes, and we said that effective implementation of Plan measures could deliver a further ten to 12 million tonnes. The things which are correct in the Implementation Plan, if implemented to the full degree, would deliver that extra 10 to 12 million tonnes, but there would still be a gap, I think, in our view. It is two things. To pick up on Tom's point, one, it is implementing everything in here to the nth degree. I think that things like that are the right things but we need to get on and do them. Even doing that there is still a gap, in our view, so we need to bring forward new measures to fill that to 2010 and beyond.

Q286 Chairman: I wonder if you could help us a little more by giving some examples of where this lack of clarity lies?
Mr Rea: One I would pick out would be that the Plan talks about public sector leadership in terms of building procurement, so it talks about procuring buildings that are top quartile in terms of energy efficiency performance, which we think is absolutely the right thing to do. What it does not talk about is how we are going to do that, how we are going to make that happen, what is the methodology which defines how we measure top quartile, how that links to the EU Buildings Directive and what would be a sensible timescale to roll that out across the government estate. As ever, the devil is in the detail, and I think that is one good example.

Q287 Chairman: I heard what you were saying earlier—sorry to interrupt—about if it is all implemented fully probably you will be okay, but if it is as vague as that how on earth can it be implemented at all, let alone fully?
Mr Delay: My sense is certainly that the timing of the plan was difficult for Government, in that it was pretty much a year after the publication of the Energy White Paper, allowing for a period of reflection, so that one could reflect on one full year, but it was before the current spending round has been discussed and agreed. It is before the Climate Change Programme has been reassessed, which is in the plan for this year. Therefore, it is quite difficult to be precise around the numbers when neither the funding nor the gap has been confirmed by Government's own analysis, which is due to be carried out this year. I think there will be a case to say this is a Plan which, for various reasons, was published maybe six months earlier than would have been ideal.

Q288 Chairman: Presumably, it is also a problem that we have not yet seen the revised UK energy projections?
Mr Delay: Indeed.

Q289 Chairman: It might have been logical to have had those before debating any of this, might it not?

Mr Delay: That is a reasonable view.

Q290 Chairman: That is a cautious answer, but I take it that you agree?
Mr Delay: Yes.
Mr Rea: The numbers we quote are our numbers. That is what we try to model. We try to take our view on where we think emissions are going over the next ten years. Clearly, Government have much wider access to data than we have, and I think it would have been helpful to have that earlier in the debate. I think, from our perspective, the debate now shifts, in a way, to the Climate Change Programme review and I think we need to be realistic about what is the real level of gap and therefore what we need to do to close that gap.

Q291 Chairman: When do you expect the energy projections to be published?
Mr Delay: I think that would have to be a question for the government departments responsible.

Q292 Chairman: You have not heard anything?
Mr Delay: No, we have not.

Q293 Chairman: Do you think that, in a sense, too much is being left to future reviews? It all seems to be being pushed off. It was going to be the Implementation Plan then it was going to be the Budget, and now we are looking at the Climate Change Programme later in the year, the Buildings Directive, the changes to Building Regulations. It is always something which is going to happen at some point in the future and you never quite get there?
Dr Mallaburn: I think there is an issue which we have not mentioned, a very general point, which is partly encouraging and partly discouraging. There is a link between the Government taking strong policy decisions and cost-effective responses by programmes like ours and those of our colleagues behind, and this is a nettle that they are starting to grasp but really they do need to grasp that quite firmly if this Plan is going to work. I think they need to do the same in the Climate Change Programme review. I think, in a sense, they have started to think about that, and this leadership in public procurement is a very welcome step forward but that needs to be rolled out much more widely across the Programme than currently it is.
Mr Rea: There is quite a good forcing mechanism, in that we have a 2010 target for a 20% reduction in CO_2. Target or aspiration, I think you can debate the language, but let us call it a target. I think, actually, sticking to that in terms of the Climate Change Programme review would be a very good forcing device, really to say, "This is the gap and this is what we'd need to do to close the gap," because, in effect, time is running out.
Mr Delay: Certainly, all the work that we have done suggests that there is a real complementarity between strong policy measures and the kinds of support measures that we and others can put in place essentially to address knowledge gaps and small financing gaps, but which nevertheless are pretty sterile unless they are on the back of very strong policy measures. All the analysis we have done suggests that the stronger the policy measures in their entirety the easier it is, relatively, to find support measures, and find support measures to fill the gap. If we end up in the situation where, for various reasons, the policy measures are not as strong as they might be, then one's only alternative, if really one is to address the gap, is to start funding and subsidising measures which are in themselves cost-effective. This is Government subsidising NPV positive measures, which does not make a lot of sense. I think there is a very strong imperative to come up with the strongest possible set of measures, be it around standards, building regulation and labelling, Climate Change Agreements, Climate Change Levy measures, and so on, essentially to make it as cost-effective as possible to meet the target and address the gap which is there. The alternative is a very difficult situation where in two or three years' time we will find ourselves with an even bigger gap and facing really little other option than basically to subsidise the measures required.

Q294 Chairman: It was interesting, in fact, that the Implementation Plan differed from the White Paper in terms of the targets set. Actually, overall, it increased the amount of carbon savings that the Government say they are expecting, and, given that the domestic target was cut, the whole of that increase now is expected to come from the commercial industrial sector. Have you identified where that is coming from, and I am talking here about the increase to 12.1 million tonnes of carbon coming from the commercial sector?
Mr Rea: I am looking at one of the pages from the Plan itself. The main changes that we can see pre and post the White Paper are around extending CCAs to other sectors, extending CCA targets and extending the deliverable from the Carbon Trust in 2010 from half a million to a million tonnes. I think that the three big changes in terms of meaningful numbers are, one, extending CCAs to other sectors, two, increasing CCA targets and, three, extending the deliverable from the Carbon Trust from half a million tonnes to a million tonnes in 2010. I think the other measures are swings and roundabouts. The deliverable from UK ETS has gone down but that has been brought back up again by the EU ETS.
Mr Delay: I think you may well ask is that a credible shift?

Q295 Chairman: Yes. Were you asked about it before it was announced, because you are going to have to deliver quite a lot of this?
Mr Delay: With appropriate funding, and nevertheless focusing very much on what is cost-effective, I do not think it is unreasonable for us to deliver our share of that new target by 2010. I think the element on which certainly we gave a view, and which I think Government has taken note of but is probably less well-known, is the Climate Change Agreement success. Climate Change Agreements, very broadly, have overdelivered by a factor of three on what they were supposed to deliver. I think that does reflect the real meaning which many businesses

attribute to a legally-binding commitment, built nevertheless around a voluntary target, between a business and Government. I think that is something which most businesses involved took very seriously, and as a result they overdelivered. Therefore, I think there is significant scope for both increasing the targets of Climate Change Agreements and extending their sectoral coverage. That was a view which we shared with Government before the Implementation Plan was published.
Chairman: Thank you.

Q296 Mr Chaytor: Within the Carbon Trust's own contribution to the targets, what is your estimate of the contribution of the Action Energy programme, in terms of emission reductions?
Mr Delay: I suppose it is a question of how much we feel sure about and are prepared to back. We would say that to 2010 our contribution to effective emissions reduction is almost entirely Action Energy. It is our programme to reduce carbon emissions now. Our other activities are there very much to support early-stage technologies which will have real meaning in 2020 and thereafter, but relatively few of them will be material by 2010. In essence, Action Energy is what we will be delivering at 2010, with developments that we will be putting in place to ensure that it has as full an impact as it can. We will be looking particularly at how we can extend the potential for SME loans for working with very large companies on a partnership basis, and so on. If we take what we believe we can achieve and we attribute a sensible probability to achieving that, I think we feel reasonably comfortable with the figure that is in the Plan.

Q297 Mr Chaytor: What are the figures in the Plan?
Mr Delay: They are basic Action Energy figures and we see potential to go beyond that if the funding was available.

Q298 Mr Chaytor: Can you remind the Committee what the figures are?
Mr Rea: It is a million tonnes of carbon to 2010.

Q299 Mr Chaytor: How reliable are these figures? I want to move on to the methodology, because obviously the Government's figures have changed, a reduction on the domestic side, an increase on the business side, but are you absolutely certain that there is a reliable methodology used to calculate these emissions figures, or are there competing ideologies and can people pick and choose? Who does the calculation? Who do you rely on? Do you have your own experts, does Defra do it, do they contract it out to some university department? How is it done?
Mr Rea: In effect, we have developed the methodology to assess the impact of our programmes. We have a fairly rigorous process for Action Energy where we go out and survey the customers that we work with in terms of what is the overall impact in terms of emissions, have they gone up and have they gone down. In cases where they have gone down we have a number of questions where we try to assess our impact in terms of helping them to deliver those reductions. Depending on the size of the customer we have different methodologies. For customers with energy bills of more than £1 million we survey each and every customer we work with. For customers with energy bills of less than £1 million, we do it on a sampling basis and we do it on a statistically robust basis that statisticians will recognise as being sensible. We use an independent market research company to gather the data and then we use a technical consultant to consolidate the data and scale it up and give us the answer, so to the extent that we can have one, it is an independent view. As I have said, we developed the overall methodology about how actually you would do it.

Q300 Mr Chaytor: You are confident in terms of your own Action Energy programme, but in terms of the UK Emissions Trading Scheme or the EU Emissions Trading Scheme how confident are you in terms of the projections put forward for the savings there?
Mr Rea: Based on our assessment, again it is an independent assessment to Government, I think the figures are sensible and achievable.

Q301 Mr Chaytor: In terms of the Enhanced Capital Allowances which have been operating for some time, am I right in thinking that you were due to have some survey of the impact of this and evaluation of this within the last few weeks? Have you done that work?
Mr Delay: We have done a draft of it, which has not been completed.

Q302 Mr Chaytor: Can you give us just a flavour of what the value of it has been?
Mr Delay: Certainly, I can give you a flavour, but I think we should note that this is very much draft work. As yet it has not been fully shared either within our own organisation or with our partners in Government. I think what it shows is that, very broadly, there is a market for equipment broadly in the categories as defined by the Energy Technology list for about £4 billion per annum. A little less than a quarter of that is equipment which qualifies for an ECA by being energy-efficient. Probably about a tenth of that is actually an uptake of the ECA scheme, which means that the ECA uptake is something of the order of £100 million per annum. That is the value of equipment against which ECAs are claimed. We still have to work on those figures and be absolutely sure of them. At the moment, we do not attribute to them the same certainty that we would put around some of these other figures, but, very broadly, those are the figures that we are getting out.

Q303 Mr Chaytor: In terms of the costing of the ECA, but in terms of the net benefit of emissions reductions as a result of this equipment, what is the projection there, what are we getting for the £100 million?

Mr Delay: I think the first thing to point out is that if £100 million is the number that is not actually what the policy cost of the measure is, because to make Enhanced Capital Allowances available on £100 million worth of equipment costs probably five, six or seven million pounds, so any cost-effectiveness has to be based on that figure and not on the £100 million. I do not know the precise figures.
Mr Rea: We are still working through that for carbon savings now. We will happily write to you on that.

Q304 Mr Chaytor: Are you broadly confident that this is a cost-effective way of cutting carbon emissions?
Mr Rea: Yes.
Mr Delay: Yes, and let me say, quite simply, why. The most cost-effective way of achieving an energy efficiency objective is to do it entirely through knowledge and just making information available and making change happen with no financial expenditure. In a sense, the least cost-effective way is to pay for the measure in its entirety through a grant. Whether it is loans, whether it is reduced rates of VAT on equipment, whether it is Enhanced Capital Allowance, that is only a small proportion of the capital value of the item that you are trying to incentivise. Loans, ECAs and VAT reductions that are round this programme all will be significantly more cost-effective, and therefore, in our view, will be reasonably cost-effective in comparison with other programmes that are available. I think your questions are absolutely right, and when we have completed the work we will be very happy to write to you with the conclusions.

Q305 Chairman: That will be very helpful. You did tell us originally, I think, that it would be ready in April. Do you have a feel now for when it will be completed and available?
Mr Delay: At the moment we are discussing the draft, and it is only because we are putting a number of burdens of proof into the process. I would have thought, within three to four weeks.

Q306 Chairman: So within the lifetime of this inquiry, which would be very helpful?
Mr Delay: I am not sure when the inquiry finishes, but, yes.

Q307 Mr Chaytor: If I could move on to another related issue, one of the questions which are preoccupying many of the companies with which you are doing work at the moment is the rising price of oil. Are you going to make representations to Government as to the best way of dealing with this dilemma? I appreciate, for example, that fuel costs for fleet vehicles is not necessarily my responsibility, but there is an emerging debate about what should happen to the fuel duty rise planned for the autumn of this year. Will you be saying something to Government about that, as to whether they should stick with that rise, or hold off, to assist business to cope with the rising cost of fuel?
Mr Delay: I think, when it comes to fleet costs and particularly fleet fuel costs, we do not do as much work in that sector as our colleagues in the Energy Saving Trust, and I think it might be appropriate for them to respond more fully. What I would say is that most of the customers that we deal with, be they commercial or large industrial, have moved away from oil as the primary source of energy, so fuel oil is a relatively small market these days in the UK relative to gas and electricity. Therefore the direct impact of oil price as an industrial cost factor is relatively muted, and indeed its impact on transport fuels is very much also within the fiscal regime as opposed to a direct impact of oil price. No, we have not had a huge amount of response from the customers and companies that we are dealing with.

Q308 Mr Chaytor: If the Treasury consulted you about whether they should hold off on this planned rise in fuel duty, what would you say to the Treasury, given the brief you have got for reducing carbon emissions?
Mr Delay: I think the key issue is one of competitiveness. If there is a serious threat to competitiveness because there is a differential between the fuel duty and the impact on UK businesses versus European counterparts, then I think there would be something to say on the issue of competitiveness. I think, if it went beyond the issue of competitiveness, probably we would not say anything at all.

Q309 Chairman: Just before we move on, can I come back to the question of the research that you are doing on the efficacy of the Enhanced Capital Allowances. Is not one of the problems you have got, in identifying the cost/benefit outcome of that, that there are all these other things going on at the same time which presumably are having a bearing on what is happening to carbon use and carbon emissions? It is not just Enhanced Capital Allowances, is it? There is the Climate Change Levy, the Climate Change Agreements, the Emissions Trading Scheme, there is a whole plethora of things. How do you disentangle the impact of one of those from the impact of the totality, assuming that there is an impact?
Mr Rea: As best we can. You are right, it is extremely difficult to do and I think that the figures we came up with are robust estimates. It is very hard to strip out the pure effect of, let us say, the Climate Change Levy over a period of time. What we can measure is the impact of a particular measure in any one year and be relatively confident about the number. You see also an accumulation effect, and ECA is a good example of that, in that, on one side, ECAs stimulate companies to invest in energy-efficient equipment, but, on the other side, they stimulate manufacturers of equipment to get on our Technology list. What is the cause and what is the effect here and isolating those effects is difficult to do. As we move forward, as an organisation, we are becoming more expert. In effect, this is the second year that we are doing a very detailed impact assessment on our programmes. Last year we learned a huge amount, and I think this year, as I

said earlier, I am very confident about the robustness of the results, but I think as time goes on we will get better at this. It is something that, in terms of the Climate Change Programme overall, we need to take what we are learning and take what the EST are learning and Government is learning more generally and feed it into a hopper and think about what causes the overarching methodology, so that we do this in a consistent way across Government.

Mr Delay: As you say, it is a very complex set of factors which drive behaviours and at the moment we are talking about behaviours and that is where it gets difficult. It is conceivable to look at the Climate Change Levy and attribute all the benefits to the Climate Change Levy and say simply the Climate Change Agreement is just a discount on that and actually it is a bad thing. All the anecdotal evidence that we have suggests that it is the Climate Change Agreements, because of their forcing mechanism, in terms of behaviours, that are the effective bit and that the Climate Change Levy, as a pure price signal, is a relatively weak price signal. It does depend very much on how you look at the methodology, how you look at the assessment, and different approaches will give you very different answers. I think it is quite important also to look at the overall impact in the round, and this comes back down to the credibility of the overall package as opposed to any one individual measure. To my mind, at least, Enhanced Capital Allowances are a little different from the debate around Climate Change Levy and Climate Change Agreements. I think this is a case of providing a list of energy-efficient equipment and incentivising people to buy off that list. I would not see any real double counting between that and the Climate Change Levy.

Q310 Mr Challen: We have heard about the plethora of different instruments dealing with climate change. I wonder if you might agree with me that there is a plethora of organisations dealing with climate change and that perhaps we ought to have something called a Carbon Saving Trust, combining the two organisations and making it simpler for the public and for industry and everybody else to understand to whom they need to go?

Mr Delay: In your question, I think you might have said something about my response. You talk about public and industry and I think the two Trusts work in a very focused way. We are very outward-focused, we work with the markets in which we are active, in our case that is business, the commercial sector and the public sector, as a large energy consumer. For the Energy Saving Trust, it is the public, both in terms of domestic energy consumption and also transport.

Q311 Mr Challen: Who would best influence house-builders?

Mr Delay: Are we talking about new technologies?

Q312 Mr Challen: We do not know really.

Mr Delay: I would say, the Energy Saving Trust.

Q313 Mr Challen: It might not be. It could be you, by your industry. That is the point I am making, that there are areas where there could be enormous confusion?

Mr Delay: I do not believe there is any confusion in the markets that we serve. I think the most important thing is that we focus resolutely on those markets in meeting their needs. I am not sure if Philip would share this view, but after two or three years in this position I am surprised by how few times anybody has said, "Hang on a minute, I'm not quite sure who I should be going to." I think both organisations are well represented in the markets which they serve and are recognised as doing work in those areas.

Mr Rea: I think it is interesting that we have not had any customers saying this is an issue.

Q314 Mr Challen: They are not yet customers at that point?

Mr Rea: We have had NGOs saying this is an issue, and you can understand intellectually why they might say that, but, practically, on the ground, it is. We are focused on our own end-use markets and that is very effective.

Mr Delay: I can add two things to that, very briefly. The first is, I think there is a trade-off between what might look simple institutionally and what is effective organisationally, and I think it is very important that we have staff and resource focused very, very much on the needs of our customers. If that is the case then I think actually the institutional structure becomes much less relevant, and it is much more relevant that actually we are doing what we should be doing in the market-place. The other is that there are a number of areas of interface, and we recognise that and we work on them together and in a very coherent way. The examples I would give would be our approach to SMEs, where at the very small end SMEs are remarkably like a large domestic consumer. Some aspects of CHP development, including community energy or district heating, where clearly there is both a domestic and an industrial/commercial aspect. The work that we are doing on advanced technologies around, for instance, micro-CHP, which is an advanced technology, as a business proposition but eventually will find its home into domestic applications. In all three of those cases, essentially, we run programmes together and we sit down and agree what we are going to do and we run them as joint programmes. I would reiterate what Michael has said. I am surprised how few people have ever asked us, or appear to be confused.

Q315 Joan Walley: You are very confident about that, about how people would not be confused. I wonder if you would be so confident in terms of if you were to come to my constituency and be confident that SMEs would know of your existence, know what you could offer them and know how to access what it is you have got to offer them. I find that most SMEs have not heard of you?

Mr Delay: That is not surprising. There are 3.7 million SMEs in the UK.

Q316 Chairman: There is only one of you?
Mr Delay: There is only one of us, but 3.2 million SMEs in the UK have five employees or fewer. I think it is fair to say that, in the way in which we target our services and market our services, we do not target specifically those 3.2 million SMEs, so, on simple representation, I am not surprised.

Q317 Joan Walley: Coming back to Mr Challen's point, in terms of the need to get across and have a great public awareness about carbon saving and the whole role of energy saving, if you look at how best to get a message across and how to access and how to get people engaged with this, would it not be better to have one overall? Even if you are working closely together now, would it not be better to have one agency where people would know that there was a body which did that, then the details of it could be looked at?
Mr Delay: I think the point you mentioned about awareness-raising is very relevant, and let me give just a couple of examples from our own organisation, but is also something which I know we share with EST as a general view of how this could be managed. Even within our own markets, we use very different approaches to awareness-raising, so for SMEs, typically small SMEs, who regard energy efficiency as a cost saving, we ran the Lifeblood TV and press campaign, and that was targeted very clearly at relatively small businesses who see this as a cost saving. We ran a very different campaign, the Smart Companies campaign, targeting essentially very large organisations which see CSR benefit and who see peer group benefit in being responsible, and very much want to think in terms of energy efficiency as carbon emission reduction and risk management. Very different markets, very different messages and a very different approach to marketing our services to those companies. Lastly, we ran a campaign called Carbon Rationing earlier this year which was a much less positive campaign. It was a fairly clear call to alert to the investor community, raising the issue of the Emissions Trading Scheme and environmental legislation coming in across Europe to the investor community as something that they should take notice of in their dealings with large corporates. So three complementary but very different messages which we think targeted appropriately three very different audiences with which we work. In all of those cases we referred to the business consequences of climate change. I think there is a case for saying that public awareness of climate change as an issue, and the fact that energy consumption is linked to climate change, is something that will benefit all of us, be it the Carbon Trust, the Energy Saving Trust, be it Government at large, be it business at large, in trying to make change happen. I do know that the Government at the moment is looking at options around raising awareness at this higher level, which does indeed go across the work of both Trusts and, I would argue, most government departments involved in this, trying to raise awareness of climate change as a major issue with the public, be it the working public or the consumer. I think that is a very fair point. I think there is a point at which it all comes together but, interestingly, the work that we do is targeted very much at the markets that we service and, as such, I think is appropriate to those markets. I think you are right on that.
Chairman: We are all looking forward to going and seeing "The Day After Tomorrow;" or perhaps not.

Q318 Paul Flynn: Do you accept that the investment in Combined Heat and Power has collapsed, and if we are going to get on track to achieve the target of 10GW by 2010 we need some radical change in direction?
Mr Delay: I think it is fair to say that the market for Combined Heat and Power generally has slowed down pretty dramatically, and that it collapsed is a view many people would take. I think the prime cause of that is the spark gap, which at the moment means that the combination of electricity and gas prices is just not favourable to the economics of Combined Heat and Power. I think it is very hard to see how that spark gap is going to develop over time. We are seeing electricity prices rise and gas prices rise. It is how that gap actually starts to develop that I think will drive the fundamental economics of CHP. I think really we have two choices. Either we leave it to the market and say, "Let's wait and see what the spark gap does and see what CHP can do on the back of that," or we say, "We need to have a far more interventionist programme to support CHP in its development and its capacity development," which probably would take a very different approach.

Q319 Paul Flynn: What is your role? Do you have a role to be interventionist on this?
Mr Delay: Principally, because we are looking at value for money, and I think that is absolutely key, we have not provided direct market support to Combined Heat and Power to try to address issues of economics in the spark gap. Where we are focused very much is on developing future technologies and advanced technologies for Combined Heat and Power, so I would include micro-turbines, biomass-fired CHP, micro-CHP, all of which we have invested in, which are technologies for the future, in anticipation of a more favourable economic regime. We have not ever launched a deliberate campaign to try to address an economic return issue, which we feel would be very expensive indeed.

Q320 Paul Flynn: Do you see any other measures which can be introduced by either yourselves or Government? Are the other measures you are suggesting going to get us anywhere near the target for 2010?
Mr Delay: At its crudest, you could have a CHP Obligation.

Q321 Paul Flynn: There is an amendment to the Energy Bill which exempts CHP from the Renewables Obligation, which would give them a small financial benefit but possibly a significant one. Do you think that would work, or that could be used in any way?

Mr Delay: It may well, but I do not think it will be the only thing. I think also the treatment of CHP within the European Emissions Trading Scheme and how that pans out eventually in the detail of the Scheme is equally important.

Q322 Paul Flynn: Any more financial incentives?
Mr Delay: I think financial incentives need to be looked at very carefully because of their cost.

Q323 Paul Flynn: After we have looked at them very carefully, what conclusion will we reach?
Mr Delay: I think we would find that, in many cases, CHP is a very expensive way of achieving an environmental aim under today's market conditions. That does not mean that in future CHP does not have a great role to play. Every scenario we have of a low-carbon economy has CHP central to the delivery of that end.

Q324 Paul Flynn: The report last week on biomass by the Royal Commission on Environmental Pollution has some very trenchant things to say about the Government's policy on biomass and describes it as being fractured and misdirected. They pointed out that it was an important energy source, they suggested also that the Government were not achieving anything like as much progress as our fellow European neighbours. "I am disappointed," they say, "the energy environment has not developed as quickly in the UK as elsewhere in Europe." Is this a matter of concern to you?
Mr Rea: I would say, yes. I think, as well as CHP, their future scenarios of how you get to a low-carbon economy biomass play a key part, so you need biomass as well as wind, and so forth. I think generally it is recognised, at least among the people I talk to in Government, that the approach we have taken to biomass over the past few years in the UK has not really worked. I think people are trying to think about, "Well, why is that and what can we do differently?" I think our own view is that in the past we have tried to create a biomass industry on a big scale and that has left real disconnect between the growers of biomass crops and the developers of biomass projects. What we would advocate as a potential approach going forward is to start on a much smaller scale to develop biomass supply chains, feeding into, say, two megawatt plants as opposed to 10 or 30 megawatt plants, and actually use that foundation to grow a supply chain in a consistent way over time.

Q325 Paul Flynn: Just to echo what you say, and what the Royal Commission said also, they looked at 14 different grant schemes and found not a single one of them had any national co-ordination with it. Is this typical of your experience and, certainly it is not working, do you have any further ideas on how to fix it?
Mr Rea: I think actually taking a more local approach to biomass developing and thinking really about a local area.

Q326 Paul Flynn: How can the Carbon Trust be involved in this? How can you help to promote biomass?
Mr Rea: Biomass is one of these issues like offshore wind for us, in that with our current funding in this area of, say, £25 million a year we could put that into wind/biomass schemes. The approach that we take in terms of biomass is to say, "Well, let's invest £100,000 to understand how a policy regime might be put in place which would move the whole debate forward." That is one of the things that we have in mind to do this year, building on the work of the Government.

Q327 Paul Flynn: Did you try a scheme for intervention?
Mr Rea: Actually, what we want to do is take a step back and think of some of the ideas we had about what regime we would need to stimulate biomass, as opposed to investing in specific biomass projects at scale.

Q328 Paul Flynn: The step back will be followed by a couple of steps forward, I presume?
Mr Rea: Hopefully, it will be followed by some insights into how we could overcome some of these barriers to biomass.
Mr Delay: I would like just to qualify that. I think biomass is quite interesting, along with CHP, in that, in many cases, it is a relatively mature technology. It is unlike many renewables, where we are investing today to see the cost of the technology come down to the point at which it is fully competitive. There are new technologies in biomass but many of them are well-tried and proven and the difficulty is finding a way of making them economic. I think there is a view that the complexity of the supply chain, having to get the growers and the buyers and the processors and the energy consumers all in a row, is actually where the challenge lies. That is why taking too large a scheme is fraught with risk and tends to fail, and why there may well be much more success, and indeed it will be following many of the European models, in having smaller biomass schemes, where there is a much closer alignment literally between the grower of the crops and the consumer of the energy.

Q329 Paul Flynn: Does any of this explain why we are so far behind our European partners? Why have they been far more successful than we have, according to the Royal Commission's report?
Mr Delay: I am not sure, is the simple answer. Certainly my understanding is that there has been greater investment in community-scale renewables, including biomass, in Europe than traditionally there has been in the UK. To some degree, that ties in with what I said I thought was the issue. To be honest, we do not know, and probably that is why we would like to spend some time and a very small part of our resource this year trying to understand it, because it does seem to us that there are some very differing views and we would like to get a firm fact base before, as you put it, we can take one step back and two steps forward.

Paul Flynn: Thank you very much. I am grateful to you.

Q330 Chairman: Can I try to pin you down on just one specific issue. You are aware that the Energy Bill, as currently drafted, contains an amendment which exempts CHP from the Renewables Obligation. Do you think that should remain the case?
Mr Rea: I think it is something that needs to be analysed pretty carefully, because, from the numbers I have seen, the carbon benefit of doing it is relatively low. You have to look also at the knock-on impact, in terms of the broader renewables market.

Q331 Chairman: Does it have to be done in a way which impacts on other renewables?
Mr Rea: There are ways you can get around it, you are absolutely right. One of the things we hear a lot from the investment community is that, historically, and particularly over the past two or three years, the rules in the energy market have changed quite a lot. Therefore, investors will tell you, they attach a high degree of political risk to investments in UK energy. One of the things they advocate quite strongly is, going forward, actually to minimise changes. That is why, when we look at changes like this, we say you have to look at it in the round. You have to look at the benefit to CHP stacked up against what might be the negative impact on the renewables market more broadly.

Q332 Chairman: If it is done in a way which did not impact on the renewables market more broadly, it is a net gain, is it not? The only thing the market has to react to is a rather more enhanced environment for investing in CHP, which is something which is sorely needed?
Mr Rea: I suppose the thing you would have to look at then would be the cost to consumers. Obviously, the cost of such a change would have to be borne by somebody, and in this case it would be the consumer. Again, I think you would have to come across to one of the things that we are pretty passionate about, which is, would the investment be cost-effective relative to other things you could do with that resource? That is the key question. If we were looking at this as Government I think really we would want to understand the cost and the carbon benefits and the trade-offs, and once you were confident of those facts I think then you could make the decision.
Mr Delay: I would like to add to one point Michael was making there. The economics of most renewables, under the Renewables Obligation, depend very, very strongly on the value of a Renewables Obligation Certificate (ROC) and on forward estimates as to the value of a ROC. Anything that casts doubt in the investor's mind as to how long that ROC will be of that value is a real barrier to investment, and, given investment returns recently in the energy sector in the UK, it is a very, very sensitive issue. I think, all the analysis that needs to be done, you are absolutely right, there are ways in which you can do it without directly affecting the rock market. I think one needs to be able to explain that to the investor sector in a way that they accept is not tinkering with the rules, which ultimately might upset the returns they have seen on previous investments.
Dr Mallaburn: In a sense, it is the same point that was made earlier about confusing people by changes and discontinuities in service provision, so it is slightly back to that. The investor community needs the confidence to be able to invest long term.
Chairman: I did say I was going to try to pin you down. I do accept, I am not always successful in anything I say I can achieve.

Q333 Mr Challen: Just following on from that, really I am getting a bit confused. Some people put too much blind faith perhaps in the future of renewables. As to what weight you put on the market, what weight you put on financial incentives, to what extent you pay heed to the Government's declared policy of not picking winners, and I think sometimes we do not pick any winners at all, this is all a very complex process. Obviously, NETA did it for CHP, you have mentioned that, and biomass is terribly complex, and we know the problems with offshore wind and onshore wind. Really, how do you weight these different factors? Should you not be saying to the market, "This is where we're going and you should just follow and pay heed to what we're doing," as it were?
Mr Rea: I think there are lots of levels to your question, but if I start by talking about the 2010 renewables target and its deliverability. We have done some work looking at deliverability of the 2010 renewables target and in our view it is deliverable, primarily through onshore and offshore wind. There are a number of barriers to overcome that we all know of, around planning, investment, it is great around public acceptance, and so forth. I think our view is that, largely, Government have put in place a pretty good framework, in terms of the target and the Renewables Obligation. Our view is shared, I think, by investors and by industry, that Government should be working to overcome these barriers, and if they can then business and investors will come in and support the target and deliver the target. If you start looking then to 2020 and beyond and at earlier-stage technologies, such as wave and tidal, it is a completely different picture, and I think that is the area where we will focus more of our activity.

Q334 Mr Challen: Is that an area where the Government should focus more of its attention as well, and funding?
Mr Rea: In short, I would say, yes. We have looked at a number of early-stage renewable technologies and wave and tidal is a good example, but we think the UK is very well positioned in terms of developing a technology with terrific economic potential. There are uncertainties about whether the technology would work or not but, based on what we know today, we think that it would be sensible for the UK to invest a lot more in this technology, to move it

down the cost cover and test if it can become cost-effective. We have done some benchmarking work, looking at what the UK puts into energy R&D research, and typically we are putting in about a quarter of what other major developed economies put in, so we are starting from a pretty low base in terms of overall level of funding. Going back to your "picking winners" point, we prioritise very much our investment, in terms of the low-carbon technologies, going back to our £25 million of funding. We do not try to be fair and equitable and give some to every technology. We take a view. So we say which technologies we think have the most carbon-saving potential and in which technologies we think the UK has a potential competitive advantage and then we prioritise our investment in those technologies.

Q335 Mr Challen: The Renewables Innovation review which you did with DTI obviously has brought out many of these features about the lack of funding and the short-term nature of it. When the DTI saw those results, did they say, "Oh, we've got to do something about this. Let's turn this around quickly because we're lagging behind"? What was their reaction?
Mr Rea: It was not so much a reaction because literally we did it together, it was a joint exercise, so we were learning as we went. At the end of the process, we and they were fully behind the conclusions of the review. So, the things I have just said about lower levels of R&D resource in the UK and focusing on those technology areas where we can make the most difference, I think there was complete alignment between ourselves and DTI.

Q336 Mr Challen: What sort of extra funding would you be looking for in the Spending Review 2004?
Mr Rea: That is where the process changed a little bit, in that we did the review jointly with the DTI in terms of setting the overall direction. We came up with some estimates of what we thought were sensible and then the DTI took those forward and put in a bid to the Spending Review, but that was not something in which we were involved. To give you a sense of scale, we were talking in the order of, for earlier-stage renewable technologies, between £100 million and £200 million over the period of the Spending Review.

Q337 Mr Challen: Would you be seeking more PSAs (Public Service Agreements) as well during this period?
Mr Rea: In what context?

Q338 Mr Challen: For example, getting government departments to be doing more in this field, promoting more energy efficiency, and so on, getting businesses to improve?
Mr Rea: The short answer is, yes. Going back to our work in terms of energy efficiency, we think there is a lot more we could do with further resources.

Q339 Mr Challen: In your supplementary memorandum you stated, and I quote, that: "Our performance targets for 2004–05 for CO_2 savings and other metrics are due to be presented to our Board for agreement in March as part of our annual business plan process. Target-setting is dependent on a budget which for 2003–04 has not yet been agreed with our funding partners." Have your performance targets for 2004–05 been agreed now by your Board?
Mr Delay: We have a Board meeting actually next week at which we will sign off finally those elements of our business plan and the funding. The funding agreement has been reached now with our funding providers—Defra, Scotland, Northern Ireland and Wales—and, very broadly speaking, our targets will be adjusted to suit. I think it is fair to say that we will put a strong emphasis in our own deployment of resource internally on tangible, reasonably short-term delivery of carbon savings, but nevertheless maintaining our activity in some of the very early-stage technologies that we believe have a long lead time but very real potential for the future. We will balance it between those two, and our Board meeting is actually next Thursday.

Q340 Mr Challen: Did you spend up your entire budget in the last financial year and are you seeking an increase in this one?
Mr Delay: Yes, we did.

Q341 Mr Challen: Are you seeking an increase? Did you run a deficit or are you balancing the budget?
Mr Delay: Basically, we have to get as close as we can to spending all of the monies allocated to us, and clearly some of our activities are held within one country's jurisdiction, other activities are spread across. It is almost impossible to hit precisely the amount of money that is allocated by the Scottish Executive, the Welsh Assembly, Northern Ireland, and so on. To within a very small margin we have spent all of our available funds last year, and we have made it clear that we have the capacity to invest a significant, but not very significant, increase on that next year. We do not believe it would be appropriate to ramp up, as it were, on investment ahead of our ability to deliver valuable and cost-effective savings.

Q342 Chairman: Can you give us a figure for the amount by which you hope your budget will increase?
Mr Delay: Our overall budget has increased by about 15%, between last year and this year. I have not got the exact figures here.

Q343 Chairman: Can you remember what it was last year?
Mr Delay: About £60 million. It is about 69.
Mr Rea: Yes, it has gone from about 60 to 69.

Q344 Chairman: How much of this comes from the Climate Change Levy?
Mr Delay: Thirty-three. Again, we can confirm those figures to you in writing, but I am pretty sure it is 33.

Chairman: Thank you. That will be helpful.

Q345 Mr Thomas: I wondered if there was a correlation between whatever the figure is and the carbon reduction that you are seeking to achieve as well. If your budget is going up 15%, is the target for CO_2 reduction also 15%, or more?
Mr Delay: It depends whether you are talking about carbon reduction in the short term or carbon reduction in the long term. Certainly I think it is appropriate to say that the carbon reduction in the short term should reflect the increased budget in the activities that deliver carbon reduction in the short term, absolutely. I think the danger is that we end up chasing short-term benefit and we do not invest sufficiently in the long term. We do have real concerns about meeting 2020 targets, about the UK's ability to look for 2020 targets, and so it is important that we keep a balance. Essentially, that is the key decision that our Board makes, in looking at our funding, what the balance should be between the pursuit of relatively short-term objectives and the medium term. At the moment, our resource is balanced pretty much 50-50 between those two areas. You are absolutely right, our targets for this year will reflect the fact that we have an increase in funding over last year.

Q346 Mr Savidge: Is the funding you get from the devolved parliaments and assemblies roughly proportionate to what you are getting from the UK level, or how does it operate exactly?
Mr Delay: That is a very complex question, down to the legislation under which the funding is provided is different, country by country. Yes, very broadly, the funding is in proportion to originally the Barnett Formula and, going on from that, an allocation of funding. It is not precisely that year on year, because different administrations are able to provide funding up to a certain level one year and not going forward. That is the broad picture, and again we will be happy to provide you with any details.[1]
Chairman: Thank you. That will be helpful as well.

Q347 Joan Walley: Just picking up something that Mr Challen said and, at the very outset, our Chairman said about what more could be done, and Mr Challen was asking possibly about Public Service Agreements. Can I ask you to comment about the issue that you raised at the very outset about public procurement and whether or not you are involved with the Round Table which has been set up by Jacqui Smith, Minister at the DTI, looking at public procurement, and whether or not you have got a direct input into that, saying how carbon savings can be linked directly to this whole debate which is taking place across Government on public procurement policy?
Mr Rea: We are not linked into the review directly *per se*.

Q348 Joan Walley: Do you think that you should be?
Mr Rea: I think we should be, yes.

Q349 Joan Walley: Have you made representations about that?
Mr Rea: Today is the first that I have heard about it. Historically, we have done quite a lot of work on procurement both in terms of buildings themselves and the equipment within buildings. We have been involved in previous Government reviews, in terms of procurement, and I think we have some good material in terms of how we would like to see this evolve. I think we would want to be involved very much in this review, in terms of sharing with both sides.

Q350 Joan Walley: Presumably, in terms of the work that you are doing to advance the technology and change the way of working, that could be geared very much into that Round Table debate that the DTI are having?
Mr Rea: Absolutely. Government procurement, in our view, is a lever which is very much underutilised, both in terms of doing the right thing by Government's own stock, as it were, but also in terms of having an influence on the market more broadly. Also, I think, both in terms of existing energy efficiency technologies and future renewable and low-carbon technologies, if used in the right way they could be a very cost-effective way of making a real difference.
Joan Walley: Chairman, maybe we could ask the Carbon Trust if they could update the Committee on the progress they make in contributing to that review?[2]
Chairman: Indeed; assuming that they can get themselves in the door.

Q351 Joan Walley: I am sure that this must help.
Mr Delay: I am sure it will. Thank you.
Chairman: Yes. We look forward to hearing of progress.

Q352 David Wright: I want to turn briefly to the Sustainable Development Strategy and how you will contribute to the review of the Strategy. Will you be submitting a memorandum to Defra, for example? What is your overview on that review?
Dr Mallaburn: We have been approached by Defra and we are happy to work with them in a limited way through our programmes. In terms of engaging in any material way, I think the answer is, no. I think our view of the Strategy is that currently it is operating at such a high level as to be really an issue that is beyond our remit. It is an extremely high level. In our final analysis, the work we do probably is too detailed for it to be put before the Committee.

Q353 David Wright: It causes me some concern, in the sense that surely we should be drilling down priorities from that kind of material into practical proposals that you can implement, a small number

[1] Please see memorandum on Ev. 70–72

[2] Please see memorandum on Ev. 70–72

of practical proposals which can feed out of a strategy like that, which people like yourselves can be implementing?

Mr Rea: I think you are absolutely right. That is our view. I think what Peter was referring to, in terms of the current framework, it is too high a level. Therefore, actually to have impact you need to take it down to a level that is actionable. I think, within the latest Government consultation document, the area of climate change has a reasonable amount of flesh around the bone about what is happening and what is being done, but I think, over time, we can flesh it out more through the Climate Change Programme review. I think, in some of the other areas, they still remain at a very high level of abstraction.

Q354 David Wright: That means they will not get implemented, does it not?

Mr Rea: Taking the business point of view, I think one of the things about sustainable development is that the Carbon Trust and the business world generally think it is absolutely the right thing to do. The issue is translating that into a language or a set of actions which, as businesses, you can take forward. I think that is the challenge for us all in terms of taking what is absolutely the right thing to do or translating that into something that is actionable.

Q355 David Wright: Where will that happen then and what forum will be used for you to meet in the middle, if you like, with Government to formalise some targets and priorities?

Dr Mallaburn: In a sense, the work that we do in our day job is linking the environmental pillar of sustainable development with the economic pillar. I think that works because we make it both tangible, which is Michael's point, and in people's interest. We can have a debate with Government about how it operates and the lessons that we learned, and we have that debate with them now, but I think, as Michael said, probably that will take place through the Climate Change Programme review, which is looking at those issues in great detail. I think the problem about making things relevant and in people's interest is what we are about.

Q356 David Wright: You said you are going to submit to Defra. Are you confirming that you are going to submit to Defra on the review with some proposals?

Mr Rea: We have not taken a view on that. As ever, we will talk to Defra informally and feed in our thoughts and we will take a view on whether submitting a formal consultation would add value beyond that in due course.

David Wright: I am sure the Committee would be keen to see any submission that you would make, so that we can match perhaps what you are putting in with what kind of response comes out of the review, so that would be helpful.

Chairman: Thank you very much. I think that concludes our questions. Thank you very much indeed, we are grateful to you. There are a number of points arising which we look forward to hearing from you about. Thank you.

Memorandum from the Carbon Trust

Response to specific questions from the Environmental Committee following the Carbon Trust's oral evidence session, 19 May 2004.

1. *In your evidence, you suggested that there remains a gap of 4 to 6 MtC in terms of achieving the 2010 target, even taking account of all the measures included in the Energy Efficiency Implementation Plan. Could you confirm the figures involved, and explain how this relates to the gap you referred to when you gave evidence in February? [Q 285]*

The gap we referred to in May is the same as the one that we referred to in February.

In the business and public sectors it is becoming clear that there is a carbon gap between what the current Climate Change Programme (CCP) is expected to deliver and Government's goal to reduce CO_2 emissions by 20% versus 1990 by 2010. Changes to Government's baseline projections (largely driven by higher GDP growth, more coal burn and a small under delivery of the existing CCP) mean that the existing package of measures in the Climate Change Programme may no longer be sufficient to keep the UK on track to deliver the expected absolute emission levels.

Based on the existing CCP the overall gap is around 16 million tonnes of $C0_2$ (4 million tonnes C). However, this does not take into account planned measures eg EU ETS, extending CCAs, increasing CCA targets etc as outlined in the Energy Efficiency Implementation Plan. Effective implementation of planned measures would deliver an additional 10–12 million tonnes of CO_2 leaving a gap to 2010 of around 4 million tonnes of CO_2 (not C) assuming the 20% goal is applied specifically to the business and public sectors. Clearly, this gap could be still be closed by ramping-up existing measures and introducing new ones. This should be a key issue for the review of the CCP later this year.

2. *The Committee would be grateful if you could forward full details of your analysis of ECAs and the results obtained. [QQ 302–303]*

Unlike our other programme areas were we have overall accountability, for ECAs we only manage aspects of the programme and in particular the Energy Technology list. Defra, Inland Revenue and HM Treasury, have overall responsibility for the scheme. Decisions relating to the release of the results from the review are a matter for Government.

3. *In carrying out the analysis of the impact of ECAs, have you attempted to identify and evaluate the extent to which measures adopted by larger companies would in any case have been required under the IPPC regulations (BATNEEC)? [QQ 308–309]*

The study estimated attribution by asking companies if they would have implemented measures in the absence of the ECA scheme. However we did not address this level of detail in relation to IPPC.

4. *The Committee would be grateful if you could provide further details (ie additional to the material in the published Renewables Innovation Study) of your benchmarking analysis for comparative levels of R&D funding. [Q334]*

During 2003 we carried a rough benchmarking exercise to compare the quantum of public funding for energy R&D research in the UK versus comparable countries and in particular the US, Germany and Japan. This information was fed into the Renewables Innovation Review. The conclusions of this work was that Japan and the US put roughly four times more public funding than the UK into energy R&D per unit of GDP. Germany invests roughly twice as much as the UK again on per unit of GDP basis. The Committee may also want to look at the Chief Scientific Advisor's recent review of UK energy R&D and the references contained therein to get into more depth on this issue. This report can be found here:

http://www.ost.gov.uk/policy/issues/csa—errg/index.htm

5. *In your response to Q 336, you mentioned the level of increased funding you considered might be appropriate in the light of your work. Could you confirm the figure and clarify the funding period it covers.*

Based on a combination of market demand for our services and our ability to ramp up our activity we think that we could double the size of our activity over the next 3–4 years without reducing the cost effectiveness of our programmes. This would raise our annual funding from £50 million to £100 million.

6. *Can you confirm what targets have now been set? [Q 339]*

Our key metric is reducing carbon emissions in the short, medium and long term in the most cost effective manner possible. Our overall targets for 2004–05 are as follows:

Performance Measure	*Current Status*	*Target for 2004-5*
Actual CO_2e saved		
— Action Energy	0.6–2.9 mtCO_2e pa	0.6–3.2 mtCO_2e pa
— Interest Free Loans	0.02 mtCO_2e pa	0.03 mtCO_2e pa
— Energy efficiency Enhanced Capital Allowances	Is currently being assessed	Is currently being assessed
Cost Effectiveness of CO_2 saved Action Energy	£8–£39/tCO_2e	£8–£39/tCO_2e
Innovation Programme		
Cost Effectiveness of CO_2 saved	£15–£47/tCO_2e	£15–£47/tCO_2e
— 2010	£7–£19/tCO_2e	£7–£19/tCO_2e
— 2020	£3–£7/tCO_2e	£3–£7/tCO_2e
— 2050	RD&D = 1:2	RD&D = 1:2
Ratio of funding leveraged (CT:other)	VC = 1:1 − 1:3	VC = 1:1 − 1:4

Please note the cost effectiveness numbers are not directly comparable between programmes given that Action Energy is focused on saving carbon "today" ie short to medium term. The Innovation Programme is investing to deliver carbon savings in the medium to long-term.

The current status numbers for Action Energy are based on an in-depth impact assessment exercise with the customers of the programme. Current status numbers for the Innovation Programme are based on modeled estimates of the cost effectiveness of the programme over time. As our investment come to fruition over the coming years we will measure actual carbon saved as per the Action Energy programme.

7. *Can you confirm the figures quoted for budgetary increases and the amount derived from the Climate Change Levy? [QQ 342–344]*

Our outturn in 2003–04 was £59 million and in 2004–05 our allocation is £69 million. Of this latter figure £51.5 million derives from Climate Change levy funding.

8. *You agreed to provide details of funding arrangements for the Carbon Trust. [Q 346] (NB: a reference to publicly available material would be sufficient.)*

Our funding allocation for 2004–05 breaks down as follows:

	£ million
Defra	59.6
Scottish Executive	4.0
Wales	2.5
Invest NI grant	2.1
Invest NI loan fund	0.47
Total	68.7

The NI number is currently under review.

9. *You agreed to provide an update on the progress the Carbon Trust is making in contributing to the review of the Sustainable Development Strategy. [Q 350]*

We welcome the Government's work on sustainable development and in particular the central role given to climate change. We will continue to work closely with sustainable energy policy officials on the role of business and the public sector in accelerating the transition to a low carbon economy. However, we do not feel that we can add much value to the broader/high level sustainable development policy agenda and therefore do not intend to formally submit a specific response to this consultation. By working closely with energy policy officials we believe that we will be able go into the level of detail required to move the policy framework forward on climate change.

June 2004

Witnesses: **Mr Philip Sellwood,** Chief Executive, and **Dr Nick Eyre,** Director of Policy and Development, the Energy Saving Trust, examined.

Chairman: Good afternoon to you. You are no strangers to this Committee. Welcome back, it is good to see you.

Q357 Mr Francois: When you saw us in February, you expressed considerable hope that the Budget would include a raft of measures to promote energy efficiency. How far short of your expectations, if at all, did the Budget fall?

Mr Sellwood: I think, broadly speaking, we asked for three sorts of measures to be brought forward in the Budget. One set were around VAT reductions. The second set were around introducing inefficiency charges for inefficient products. Thirdly, a bit more far-sightedly, we were looking for something around linking a financial instrument with the Home Condition Report, as and when it becomes available. I think it is fair to say that we have a pretty mixed view of how we fared. We were surprised, and pleasantly surprised, to discover that actually a VAT reduction was brought forward on heat pumps, which was not expected. We were disappointed that we did not get a clear mandate, so to speak, on micro-CHP. We are concerned that the Treasury still take the view on the imposition of inefficiency charges as being retrogressive for the poorer members of society, which is a view we do not take. We believe that the savings over the lifetime of efficient products more than outweigh the upfront cost, which, in fact, now, has virtually disappeared. We are still a bit confused as to why we were not successful on that particular measure. We have detected a thawing, I think would be the way I would describe the Treasury's response to our suggestion of linking fiscal instruments to the Home Condition Report. Certainly that has been a theme, and one of the things that we are going to be spending some time on in policy terms this coming year will be trying to flesh out some of the detail that is necessary to persuade Treasury of the merits of that particular approach. We have pretty mixed feelings, frankly, about the Budget.

Q358 Mr Francois: Thank you. That was a very detailed reply. We know you welcome the landlords' energy saving allowance. How much impact do you think that particular measure might have?

Mr Sellwood: When I thought about it first, I thought actually it would be quite significant, but then I talked to some landlords. What do I mean by that? I mean that, a significant rebate, if you are implementing energy efficiency measures, clearly this is a good thing. What I am concerned about and what landlords are telling us is that it will not bring forward investment, because if you can get 60% rebate on something that is fine, but if you can get 100% rebate by doing nothing in the first place that is even better. That is actually the response of many of the landlords to this particular option. Having said that, broadly we welcome it because we think

there are quite a lot of responsible landlords out there with whom we can work in order to use this as a decent financial lever.

Q359 Mr Francois Can I bring you back to the comments you made about the proposals to reduce VAT on heat pumps and the related point about micro-CHP. Firstly, the point about VAT and the domestic installation of ground-source heat pumps. Can you tell us a little bit more about your perspective on that particular measure and the significance of that?
Mr Sellwood: It is significant but then you have to look at the upfront capital cost of putting in heat pumps, which, typically, and these are pretty much averages but none the less for that, for a new-build would be anywhere upwards of £4,000, and for implementation in a refurb considerably more than that. A reduction is significant, but in our view the reduction on VAT, and hopefully the inclusion in the next Energy Efficiency Commitment of micro-CHP, is much, much more significant, and we say that for one reason. When somebody is looking already, and unfortunately there is not much choice on the market at the moment, to buy something that looks like a micro-CHP product, they are comparing it with a boiler. Therefore, the comparison is between spending perhaps £2,000 on a highly-efficient condensing boiler or £3,000 on a micro-CHP plant, and broadly that is where we are at the moment. A reduction in VAT compared to that thousand pounds is quite significant, because there is a direct comparison being made, but frankly we do not expect a rush to the barricades for heat pumps on the basis of a reduction in the VAT. Having said that, I would add one caveat. I was looking at some figures today. We manage the small-scale renewable programme in Scotland and in the last two years heat pumps, along with solar heating, have been the number one choice, as it were, both of small-scale householders and small businesses, which actually we found quite surprising.[3]

Q360 Mr Francois You highlight CHP there but, as I understand it, a decision is going to be dependent upon fuel trials, which could last for up to two years. You have intimated that you think potentially it is quite important, but there does seem to be quite an element of jam tomorrow in all of this. What are your thoughts on that?
Mr Sellwood: I think it is somewhat unfortunate, in that, through various means we managed eventually to get this decision from Treasury on micro-CHP, unfortunately just at the point at which the arrival of micro-CHP on the market seems to have moved further away from us. I think really it is just unfortunate timing. Having said that, and obviously colleagues behind me who are managing the field trials, we are absolutely clear, because we are working closely with the Carbon Trust on this, that it is absolutely essential that we get that right before we start giving too many significant price signals to the market. Nonetheless, it is a welcome move.

[3] Please see further information in memorandum on Ev. 79

Mr Challen: I did see you shaking your head when I asked the question about whether the two organisations should be joined together. Presumably the answer is no, from your point of view. I will ask you if you want to say anything about that when we return.
Chairman: We will break for the division.
The Committee suspended from 5 pm to 5.10 pm for a division in the House.
Chairman: We can now recommence.

Q361 Mr Challen: If I were an architect working for a large housebuilder, to whom should I go for advice on designing houses, would it be you or would it be the Carbon Trust, or both?
Mr Sellwood: Actually, if it were managed housing probably it would be us, but probably it is neither. It would be CIBSE, probably, or CABE would be the organisations which would best advise on thermal energy efficiency, or possibly even BRE. We are not experts in that field.
Mr Challen: I will not pursue that point.

Q362 Chairman: Does not that illustrate one of the points which Mr Challen is making, which is that there are too many organisations, it is confusing for the public and it is confusing for business?
Mr Sellwood: I do not agree. I think that the level of functional specialism that is required, in terms of delivering on the message, so, for instance, your example, the level of technical excellence that is required in housing, means that really if you did take your thoughts to the common conclusion we would have one absolutely enormous organisation with functional specialisms sitting within it. I do not think necessarily that is really what people are looking for. All I can say is, reflect, in a sense, because, obviously, we have talked about it in a very general sense, that we do not have lots of customers saying to us, "Why aren't you merged with the Carbon Trust?" If we get the focus wrong, if we approach the wrong audience with the wrong message, or we do not get the message right, then they are very quick to pick us up and say, "This is not actually what we want." We are clear this is less an institutional issue and more an issue about having the appropriate knowledge delivered to the appropriate audiences.

Q363 Chairman: You do not think there is scope for a one-stop shop?
Mr Sellwood: I think the one-stop shop would dwarf Tesco's, it would be enormous, because there are so many different audiences that need those functional specialisms. I am not saying it is impossible but it would be a very, very unwieldy organisation.

Q364 Chairman: Can I return to the question of heat pumps. I am intrigued by this. It came sort of from nowhere, this Budget proposal, and I just wonder whether you have done any work since the Budget on the size of the market for domestic ground-source heat pumps?
Mr Sellwood: The answer is we were as surprised as you were, because we had not put forward a particularly strong case for heat pumps specifically.

We have done two things since then. One is that we have started to undertake some serious work, as I said, in Scotland, where we have a presence already in managing programmes around heat pumps. We do not manage that programme in England, unfortunately, which is an interesting observation compared with the last question, where I would agree there are some issues. Nonetheless, we are finding that there is clearly a significant market in certain localities, and those certain localities have a certain commonality—rural, off gas—so we are seeing already some interest in Northern Ireland, as I say we have got quite a lot of interest in Scotland. If you were to ask me how big the market is, we have no idea how big it is at the moment.

Q365 Chairman: I looked at a website, because I am a diligent sort of chap, this is a little out of date, it is 2002, and I discovered that the Director of IEA Heat Pump Centres, making a speech in the Far East, I think in Beijing, said that probably there were between 100 and 200 installations of ground-source heat pumps in the United Kingdom. That does not sound like an awful lot to me. This sounds so marginal, so peripheral, that for the Chancellor to announce it as one of the key planks of his Budget, in relation to the whole question of climate change, frankly is insulting?
Dr Eyre: I would not be as negative as that.

Q366 Chairman: It is not your job to be.
Dr Eyre: Let me remind you that the Chancellor removed excise duty from hydrogen when there was no hydrogen at all being used in UK vehicles. In the sense of giving the right signal to a future technology, it is important, but, yes, one might be slightly cynical and say, well, it is also rather cheap for the Treasury.

Q367 Chairman: It will achieve the square root of nothing, in terms of reducing carbon emissions?
Dr Eyre: If it were sufficient to make the market take off then it would do. The data we have got from our Scottish scheme is that in average applications it is saving two tonnes per household per year, and it is saving consumers about £250 per year. For the additional cost that Philip talked about earlier, that is unlikely, in our judgment, to make it attractive in the short term. Clearly, if somebody could bring down the cost and produce a cheaper heat pump then the market opportunity would be there, and in that case the VAT reduction would be welcome.
Mr Sellwood: It is also just worth considering, and again without overstressing the point, in those areas, for instance, and it is to an earlier question that was asked, where gas is not freely available and people are relying on oil then suddenly this becomes a much better commercial proposition. Certainly, when you have got the combination of oil, rural and off gas, I do not think anybody is saying that this is the answer to the low-carbon economy.

Q368 Mr Challen: Putting aside for one moment the major expansion in the Energy Efficiency Commitment, what other significant measures in the Plan would you identify?
Mr Sellwood: I may dwell for one minute on the Energy Efficiency Commitment. We welcome the Plan, broadly, I suppose, because it delivers on some of the practical means of delivering on the policies, and with the exception of the absence of some of the fiscal measures we are pretty happy that the policies are in place. Where we are less happy, and no doubt we will come on to this, is the change, as we see it, in the post-2008 EE Commitment, which currently is still due to run at double the existing level to 2011. It was our contention, and still is, that, in order to make the step change necessary in terms of meeting the original targets, that needed to be three times the existing level if it was to deliver on the Energy White Paper original targets, and we may well come back to that, in terms of how the targets have changed. The second area where we are concerned is, even though there is a commitment in the Implementation Plan, just to give it some context, the Plan depends, in terms of delivering for the Energy Efficiency Commitment, 70% depends on delivery of cavity wall insulation, four and a half million cavity walls. I have to tell you that the last three years have seen a 3%, a 5% and, with all that we and others have done, a 13% increase, in the last three years, so in the last three years that market has seen a 20% increase. Actually it has to double every three years between now and 2010 in order to meet the overall target, so we believe there is still a lot to do in terms of incentivising that market.

Q369 Mr Challen: Then what should the Government do to incentivise the market to achieve those levels?
Mr Sellwood: There are some who would say this is all about a fiscal incentive or a tax incentive. We think there is room for linking some of those fiscal incentives, but, if you look at it commercially, the truth of the situation is that there is no real market in cavity walls, it is a subsidised market. You can go out into the market-place today and buy cavity wall insulation at a 90% discount. The reality is that the barriers to entry in the market are customers' ignorance, and I mean ignorance in the sense of knowing what it is for. There are a lot of myths around how much it costs and also the sort of damage it does to your house. I think the answer is, and one of the things that we are actively involved in, this has got to be about a hard-fought, public education campaign, using the supply chain, using installers and using the big manufacturers.

Q370 Mr Challen: Have you made representations to Government about that, and what has been the response?
Mr Sellwood: We have. You will remember that we had a similar concern about condensing boilers, which has yet not gone away in its entirety. I am pleased to say that, as a result of what we talked about last time, in terms of persuading a combination of DfES, the Treasury and others, we

have been able to put together a fairly detailed training programme. We have some confidence, growing confidence but I would not say certainty at this stage, that we will be looking to train upwards of 50,000 heating installers and plumbers in the next 15 months, ahead of the change in the Building Regulations. Government and the private sector and ourselves are working together to deliver that. The biggest problem that we have with something like cavity wall insulation, which is such a key measure, is that actually there are 1,500 installers. The average installer is one man and a white van, and they do not have, in the same way that gas installers have, to belong to a trade association, so it is very difficult to access these individuals within the supply chain, but it is a pretty key job.

Q371 Mr Challen: It sounds like a good opportunity for some Polish craftsmen to come across and do the job for us. The Government has revised down its domestic energy efficiency savings from 5MtC to 4.2MtC. Do you have any explanation for why that has happened? Were you consulted on it? What representations did you make about that, if any?
Mr Sellwood: We were very involved in developing the Plan, as you can imagine, on the basis that we are one of the major delivery vehicles for delivering the Plan. We have to say that we did not have the final decision, in terms of the figure, and we have to say also that we do not agree with it, for three reasons. For those who are not fully conversant, it has moved from five to 4.2 and we take issue with three things. One is, you will remember that a significant part of the first Energy Efficiency Commitment is the delivery on appliances and white goods. There is something called the market transformation effect, ie if we subsidise or give grant aid through EEC to only 50% of white goods, what it does not take into account is the other 50% which are not subsidised by energy suppliers and retailers. This is a recurring annual saving, and for some reason that has not been taken into account. Certainly we would like to make, and have made already, additional representations to Defra to look at those figures, because we are not convinced they are correct.
Dr Eyre: The assessment that we made, in advance of the Energy White Paper, was that the scope for carbon savings in the white goods sector was approaching one million tonnes in this decade. Although we have not got access to the way that Defra have come up with their calculations of 0.1 million tonnes, ie 10 times smaller, I think, even without access to that information, we are fairly sure that it is a serious underestimate of what actually will be delivered by the policies which are set out in the Action Plan. We are not saying in this case that more policies are needed to deliver the carbon savings, we are saying the converse of what is often the problem, that actually the policies are there but the carbon savings have not been counted.

Q372 Chairman: Mr Sellwood, you had some other reasons?
Mr Sellwood: The second I have referred to already, which is the gap, in a sense, between 2008 and 2011, at double, as opposed to treble, which was what originally we said needed to happen in order to deliver an additional 700,000 tonnes of carbon. We do not have an answer as to why that has changed. It may be that, with the onset of emissions trading, there is a view which says that when that becomes available the Energy Efficiency Commitment will be less effective. We do not know that, but certainly it was our contention, in order to meet the original target, it would need to be at triple status. The third thing is, again, I have referred to it adjacently, that there are a number of measures which have not been factored into the Plan, even though certainly they are going to be within the lifetime of this Plan. The first one I mentioned was the advent of the Home Condition Report, which will require every home to have an energy rating. It is our view that if we could link that energy rating to a stamp duty rebate and/or surcharge then this would be a powerful financial motivator for the 1.2 million people who move every year actually to do something about energy efficiency, and that is not in the Plan. We think those three things together would more than reach the target that was set out originally.

Q373 Joan Walley: I would like to come back on that first point, in view of the Energy Bill, and the implementation, if you like, of the Energy White Paper into the Energy Bill, and the bearing which what you have just said has on not just the Budget but on the work which is being done to legislate for those reduced savings. You said that you have been very much involved in developing the Plan and that you were going to be the delivery vehicle. I wonder what talks you have had with the DTI about the way in which there is going to be legislation now to implement that?
Mr Sellwood: Obviously, we talk to the DTI, Defra and, with our other hat on, DfT constantly about the development of the Plan, or both Plans, the Transport Plan and the Energy Plan. At the moment it is quite a timely meeting. Literally, we have come fresh from this, in terms of the Implementation Plan being published last week, so as yet we have not had any further discussions, but obviously, through SEPN and others and talking direct to DTI, we will be making our representations.

Q374 Chairman: Presumably, to the extent that the target for domestic carbon saving has been reduced, your job has just got a lot easier?
Mr Sellwood: It is not, actually, because we are in the process of putting into place quite sophisticated partnering arrangements within supply chains, and you could say, well, we could take our foot off the accelerator and coast a bit. But, because, as I said earlier, there is so much emphasis on two or three major things which need to be delivered, our concern is that if one or two of those major things are missed, like the cavity wall insulation target, we could run round and create huge amounts of activity in other areas but it would not make up the shortfall. I suppose, in the short term, the answer to your

question is, yes, it would, but actually sitting here reflecting back on the target then I think it would not be easier.
Dr Eyre: I think, Chairman, we will want to take a more helpful approach to Government. Reflecting on the points which were made by colleagues in the Carbon Trust about the likely gap in the Climate Change Programme, I think we will want to stand ready to help Government raise this target back up to five million tonnes, or higher, when it feels that is necessary, when it reviews the Climate Change Programme.

Q375 Chairman: I am sorry, I do not understand this. The target has come down, you are worried about a whole lot of issues which are going to make it very difficult to fulfil the ambitions which you set yourselves. If the target had remained where it was you would have missed it, if you were going to miss it, by an even wider margin than you are likely to miss the reduced targets, surely?
Mr Sellwood: No. That is assuming you think the figures are correct in the first place.
Dr Eyre: No. We are very confident that the policy measures are in place to deliver the 4.2 million tonnes, the new aim in the Action Plan. Indeed, because of the issue about white goods, we are confident that the policy measures in place will deliver more than 4.2 million tonnes. If it were still at five there would be challenges and it would require the Energy Efficiency Commitment to be increased and some additional measures to be put in place. We think that is the sort of challenging but achievable target that Government should be setting within the Action Plan if it is to deliver on its broader goals that are set out in the Energy White Paper.

Q376 Joan Walley: You still have not said, in reply to Mr Challen's question, why you think Government has reduced it from five to 4.2?
Dr Eyre: That is because honestly we do not know.

Q377 Joan Walley: Have you made any attempts to find out? Have you spoken to the civil servants about it?
Dr Eyre: We are beginning to do that, yes.

Q378 Joan Walley: You have not got any theories of your own as to why this has happened?
Mr Sellwood: My view is that we want to operate only on the facts, and the facts are that until we were sure of our own facts I think it would have been a bit previous to be talking to Government about how wrong they had got the figures. Certainly, now that we are confident of the figures that we have, we will be going back to Government to help them readdress that target.

Q379 Joan Walley: Am I not right in thinking that this is going to be considered in legislation tomorrow?
Dr Eyre: We do not think that any more primary legislation is needed, other than the legislation which is being discussed on the Home Condition Report within the Housing Bill. The primary legislation for Building Regulations, the primary legislation for the Energy Efficiency Commitment is already in place.

Q380 Mr Challen: Can I sort out just exactly what these figures are. Are they targets or are they forecasts?
Mr Sellwood: As far as we are concerned they are a target, but as far as Government are concerned they are an aspiration.

Q381 Mr Challen: You made them a target yourselves?
Mr Sellwood: It is not for us to say that five million is the target, that is not our role and Government would not give us that role. Our role is to ensure that when we say something can be delivered the facts back it up. It is a bit like Tom was saying earlier, or Michael, we like to think that these are targets. If you talk to Government, they will say that they are still aspirations, but our view is that, in order to measure them, we want to see them firmly as targets.

Q382 Mr Challen: Of course, in order to achieve them you have to be given the support, the finance and all the rest of it, to do so, and if their aspirations are set lower than what your aspirations are, if you like, then where do you find the money to finance the gap? Are you able to do that?
Mr Sellwood: The answer is, we will not be able to.

Q383 Mr Challen: The impact then is going to have a concrete effect, this gap?
Dr Eyre: Can I add to that, and hopefully not confuse the semantics even further, but I think, technically, the English component of the 4.2 million tonnes is the energy efficiency aim which Government is required to set under the Sustainable Energy Act which was passed last year. The distinction between a target and an aim and an aspiration I do not want to go any further on, I think.

Q384 Mr Challen: We are getting to the stage where we could fuel a power station with all these different reviews, aims, objectives and aspirations. There is another aspiration in the business and public sector then to achieve 7.9. Do you think this increase is based on a robust analysis, or is this an easy target?
Mr Sellwood: I think I can only defer to my colleagues behind me. I do not think we are qualified to comment in the level of detail on business and the public sector in the way that we would on the household sector. I think that would be speculative. There is no reason to believe that it is not robust, let us put it that way.

Q385 Mr Challen: The Plan includes, in its list of future commitments, the need, and I quote, "to review, once the revised UK energy projections are available, the scope for increased activity to promote business energy efficiency . . . by the end of 2004." How much of a problem has the delay been in producing the revised UK projections caused?

Mr Sellwood: Again, I do not think it is squarely in our field.
Dr Eyre: As I said before, we are confident that the policies in place deliver the savings that are set out, of 4.2MtC. The issue of the energy projections is against what baseline are those savings to be measured? Until you can answer that question then you cannot say what the national level of carbon dioxide emissions will be. That is why it will be an issue within the Climate Change Programme review, in the context of the Government's aim for a reduction of 20% by 2010. These numbers are about the savings but we do not know quite from what they are savings.

Q386 Joan Walley: I want to carry on the question that we had about the architect and to whom the architect would go for advice. I wonder about the area of the Sustainable Buildings Task Group and what that has done, and your work on that, whether or not that is setting out, if you like, the framework which would provide the architect with the answers about how to deal with this issue?
Mr Sellwood: It has been absolutely central to that Group. I chaired the Energy Group and was very much aware, as were other colleagues from water and waste, that the issue which has been raised here today, in terms of the number of organisations, the number of codes, and so on, is even more of an issue within the construction industry. What we sought to do really was three things within the Task Group in the report. Firstly, to say to Government that it is entirely appropriate that one organisation only, and you will smile as I say this, should be responsible for the development of a single code for sustainable building, whereas at the moment we have got, I could not tell you how many, many different codes which address the building issue. What we have sought to clarify is who should be doing this and what that code should include, although we have not determined the code because clearly that is a matter for more expert advice. Thirdly, we have given Government a series of options, some of which we have touched on here today, in terms of fiscal incentives, labelling, information, more demand-led instruments, which will assist and bring consumers forward into demanding sustainable buildings going forward, not just in terms of the new-build that is going on in Thames Gateway and elsewhere but also in terms of the refurbishments which need to take place in a vast majority of the stock in the UK.

Q387 Joan Walley: In the light of Spending Review 2004, where we are waiting on every indication from the Chancellor as to what money is going to be there, what do you think needs to be there in that announcement to satisfy your hopes that will come out of the Sustainable Buildings Task Group? Also, can you give some indication of the implications for skills and training, in terms of the new construction skills that we need, in the light of the money which is needed for the further education programme?
Mr Sellwood: Just to answer the second one first, obviously the Egan Report has addressed the issue of skills and skills in construction, but it was quite interesting that early on in the work of the four groups, energy, water, waste and building materials, skills was a common theme that ran throughout. That might be about lack of skills of the existing workforce, or in some cases it might be the fact that apprenticeships, for instance, just do not exist in some parts, so it has been very much a common theme. One of the things that we have been talking about is the sort of scheme to which I was referring earlier with regard to plumbers and gas installers, where there is, I think I am right in saying, a unique combination of private sector, public sector and Government working together to deliver training modules which are City and Guilds accredited. That is the sort of model we think might be appropriate to deal with the issue of skills shortages in some of these areas. In terms of the first piece, the interesting thing is that we realised very soon, probably after the first plenary session of this Group, that what we did not need to do was invent anything to solve the issues that we were facing. There are no great technological silver bullets necessary in order to deliver sustainable energy in buildings. There are no large sums of money, necessarily, that need to be made available. There is no reason why many of the issues of thermal efficiency cannot be addressed within the existing building footprint. Frankly, our biggest problem is that the standard of housing which is being built currently is not very good, and that is why we have moved towards a single, enforceable code of practice. The answer to your question is that the report does not command or need hundreds of millions of pounds of resources, it needs the bringing together of existing legislation and codes under one body, effectively mandated, in terms of being enforced.

Q388 Joan Walley: Are you confident that is being done, and who is leading on this?
Mr Sellwood: I am not confident it is being done at the moment, clearly, because we know the work that we, BRE and others have undertaken is that if we were to want the code of practice to be enforced tomorrow, and I do not mean at the very best of standards, I mean at the just above Building Regulations standards, currently two-thirds of housing built today would fail the code, and 90% would fail on thermal efficiency. To you and me, that means leaky windows and doors.

Q389 Joan Walley: That is quite an alarming statistic. On that note, may I wish you a safe journey back. I realise that you have to leave shortly.
Mr Sellwood: I have to go to talk to your Welsh colleagues in Cardiff, but I can stay for another few minutes.

Q390 David Wright: You will not be surprised by my questions because you will have heard them from the gallery a few moments ago. They relate to the review of the Sustainable Development Strategy. What role will you be playing and what submissions will you be making there?

Dr Eyre: I am tempted to say you will not be surprised by my answer. We share the analysis that you heard from colleagues in the Carbon Trust, which is essentially that sustainable development is a very helpful framework for people to think in and it is important that Government is committed to it. Certainly we are pleased that energy and climate is proposed as a major theme within the consultation, but as a strategy it is not a driver for what we do. It has got two pages on energy and climate and there are one hundred pages here on energy efficiency, on its own. It is at this level of detail of Government document that we find our practical drivers. We will be responding to the Strategy and taking part in an innovative online process that Defra have got, but we do not see it as being an earth-shattering event for the energy and climate sector.

Q391 David Wright: Will you be going back with a small number of targeted ideas to try to influence the Strategy, to break it down to something which is deliverable?
Mr Sellwood: I think what we will be seeking to do, and this is not ideal from a strategic point of view, but in fact what I think will happen, effectively, is that the Strategy will become bottom-up rather than top-down, what we want to do is make sure, and one of your colleagues made the point earlier, that the Strategy relates to reality. What we will do is feed in some very clear, focused priorities on which we wish to deliver, to make sure that Strategy reflects those priorities. Ask me if that is how it should be done, perhaps not, but that is the reality with which we are working.

Q392 David Wright: It would seem to me that your replies earlier about new house-building, for example, are crucial issues, are they not, about how you need to contribute to the strategy at a high level given that we are not meeting targets on such a large number of new build units?
Mr Sellwood: Yes, I agree.
Chairman: Given the number of new houses that the Government wants to build, it assumes an even greater significance. That is the subject of our next inquiry.

Q393 Joan Walley: We were talking earlier on about the heat pumps and the huge amount of savings that there will be as a result of that. There is something in the Budget about rented accommodation. What do you think the impact will be of the measures of the energy saving allowances scheme in respect of rented accommodation, and do you think that there should have been a greater emphasis on the owner-occupied sector?
Mr Sellwood: The sector is an important one, representing about 10% of the total sector, so it is not insignificant, and really it is quite important that instruments are used to incentivise landlords. I think I said earlier that what it will do is, for those enlightened landlords it will be a very good measure, but our general view is that we find this particular category quite difficult to motivate. I suspect that we would want to see more stick and less carrot, frankly, in this particular area, because all the evidence before us, from many years, is that it is a notoriously difficult area to get people to invest in when they are not seeing a direct relationship to their own earnings. We welcome it but we are not expecting it to change the sector.

Q394 Joan Walley: I wonder whether Dr Eyre would like to comment on the potential in respect of the owner-occupied sector, because I realise that Mr Sellwood has to catch the train?
Mr Sellwood: Thank you, Chairman.
Dr Eyre: I think I agree with the thrust of your question, which is essentially that there are seven times as many owner-occupied properties as private rented sector properties, their energy efficiency is better, but not hugely better, and therefore we need policy instruments to address that sector as well.

Q395 Joan Walley: What would you suggest?
Dr Eyre: The one that we flagged earlier. We think that the information which will come out of the Home Condition Report should be linked to an incentive. I think it echoes what you heard from the Carbon Trust earlier, that often it takes more than one policy instrument to achieve a goal and that trying to have a combination of information programmes and financial incentives working together can be more effective than either of them could be individually.

Q396 David Wright: Chairman, the problem here is that some of these policy measures will lead to house price inflation, will they not, because costs will just be passed on down the line in the sector? That is the problem. There is also an issue which John Healey, the Minister, raised with us when he gave evidence the other week, in that some areas have no stamp duty now and some of those areas will cover communities where some of the worst energy-efficient domestic properties will be. How do we tackle that?
Dr Eyre: I was very encouraged by John Healey's response, which I have read, not obviously the corrected minutes, because I think if those are the two best arguments that can be found against this sort of measure we could well win the argument. The argument that, essentially, you cannot use the incentive in some properties because the tax does not apply in others does not seem, to me, to be a very good argument, it means just that you need to think of another measure to address those. As those are in regeneration areas, I think there is a whole range of different tools which should be applicable.

Q397 David Wright: Then what we need, Chairman, is a surcharge policy, do we not, to penalise low-quality domestic properties, in terms of energy efficiency?
Dr Eyre: Whether the stamp duty incentive should be a surcharge for not doing something or a rebate for doing something is a decision I would be quite happy to leave to politicians. I think that is a

political choice. You could do it either way. All we are saying is that you need to make it cheaper to do the right thing than the wrong thing.

David Wright: That is very helpful.

Chairman: Thank you very much indeed. We are very grateful to you.

Letter to the Clerk of the Committee from Nick Eyre, Director of Policy, Energy Saving Trust

Response to specific questions from the Environmental Committee following the Energy Saving Trust's oral evidence session, 19 May 2004.

Your committee requested further information on the deployment of heat pumps within the Scottish Community and Household Renewables Initiative (SCHRI).

The SCHRI is jointly managed on behalf of the Scottish Executive by EST and Highlands and Islands Enterprise. It provides grants and support to community organisations and households installing renewable technologies in Scotland. EST delivers the scheme outside the Highland and Island area, with the exception of the household component (see below), which the Trust delivers Scotland-wide.

SCHRI has three components. The first consists of development officers and associated support structures (website, training etc) who provide advice and support to community groups who are interested in developing renewable projects. EST has five development officers, based at the following Energy Efficiency Advice Centres (EEACs) in Aberdeen, Ayr, Edinburgh, Glasgow and Dundee. HIE has a separate team of 6 development officers covering the Highlands and Islands.

The second component of the SCHRI provides grants to community organisations to assist them in implementing renewable projects. The definition of community groups is drawn widely, including NGOs, local authorities and housing associations. Grants may be for either technical assistance (feasibility studies, etc) or capital expenditure, have a value of up to £100,000 and may be at any proportion of total project cost up to 100%. Community component grants are delivered through the SCHRI development officers, providing a "one stop shop" service.

The final component provides grants to households (ie home owners) who wish to install renewables. Here the grant is set at a flat rate of 30% of the capital costs. This component is administered centrally by EST for the whole of Scotland with the EEACs providing an information service for household renewables.

The SCHRI explicitly supports the following technologies:

- solar water heating;
- solar space heating;
- heat pumps (all types);
- small-scale wind;
- small-scale hydro;
- biomass; and
- energy from waste.

The list is not intended to be exhaustive, applications involving other technologies are considered on their merits. Only photovoltaics are excluded as this technology is supported under the DTI's Major Demonstration Programme (also managed by EST). The SCHRI scheme has been running for more than two years (since January 2002) with a total budget of c £2.7 million annually.

Since the start of the scheme, three heat pump projects have been approved under the community stream by EST and five by HIE, seven were ground source, one water source. This is not however, the most common technology in the community stream.

Within the EST managed area for the community stream, a total of 29 capital grants approved of which:

- 5 solar water;
- 5 solar space heating;
- 3 solar water and space heating;
- 7 wind;
- 2 biomass;
- 3 heat pump (one in combination with hydro);
- 3 solar water/wind; and
- 1 solar water/wind/hydro.

In the household stream, there have been 157 applications in total to date, of these 26 have been ground source heat pumps and 103 solar energy. Of the 62 measures that have already been installed, there are three ground source heat pumps and 53 solar.

In households, the most common application of ground source heat pumps is in "off gas network" areas to supply 100% of space heating. The heat pump will also supply hot water, although there will often be an immersion heater to top up water heating. The heat pump therefore supplies the majority of all the final energy delivered to the house.

The SCHRI operates only in Scotland. In England, Wales and Northern Ireland, the DTI Clear Skies programme supports similar small scale renewable energy technologies. Data for this programme should be available from DTI or the scheme managers, BRE.

June 2004

Written evidence

APPENDIX

Letter to the Clerk of the Committee from Mr Alan Onslow, the Insulated Render and Cladding Association Ltd

OUR COMMENT UPON 2004 BUDGET MEASURES (ON ENERGY EFFICIENCY)

We request your kind consideration to including, in your proposed comment upon environmental aspects of the Budget, the following points:

(a) the insulation industry welcomes the tax relief granted for low cost insulation measures installed by private sector landlords: but is concerned that this relief is not allowable for other energy efficiency measures such as external wall insulation. It appears unfair that cavity walled rented accommodation is treated more favourably than solid walled rented accommodation, where the need (and energy efficiency savings) are potentially greater.

(b) Little incentive was provided to encourage householders in general, to insulate. Such encouragement is a prerequisite for the successful implementation of the Energy White Paper strategy.

(c) The very small business sector remains without real incentives for energy efficiency, as does the non-intensive business sector.

(d) The value of building fabric insulation measures is obviously not fully recognised by the Treasury (as detailed in our letter of February 20th to the Economic Secretary—see Annex A). We request consideration be given to commissioning an economic study to assess all the benefits offered by the Energy White Paper strategy: to include carbon and energy savings, the potential savings in energy infrastructure and security of supply, the value to the Balance of Payments position and the support of Sterling, the retained value in improving the condition of the housing stock, the potential value to the Treasury in revenue terms (more revenue, less expenditure), and the value in social terms (see Annex B)

March 2004

Annex A

Letter to Mr John Healey MP, Economic Secretary to HM Treasury

We trust this letter is somewhat different from the many proposals you receive for either expending or increasing Government revenue. Instead we wish to draw your attention to:

(a) what we believe is incorrect targeting of a major Government initiative;

(b) a very substantial under-rating by Government, of the aforementioned initiative.

We believe that a re-rating of this initiative would:

(a) assist in conserving Treasury funds;

(b) assist in highlighting an opportunity to tax;

(c) contribute positively to the UK's Balance of Payments position to a highly significant degree, and over a long period: and in so doing contribute to maintaining the value of Sterling;

(d) lessen the need for investment in infrastructure and security of supply, in terms of billions of pounds, and in land necessary to support that infrastructure; and

(e) highlight huge cost savings for both householders, and the rest of the economy in terms of usage of buildings.

Our proposals are contained in the document attached, which we would request you kindly refer to your economic advisors for their assessment.

Our interest in this matter is to ensure that Treasury and Government has maximum knowledge of the advantages of the Energy White Paper 2003 proposals, so that our industry may play its full part in assisting Government in meeting the various objectives which are relevant.

We thank you for your consideration.

We would very much welcome the opportunity of presenting our contentions to your officials, and to suggest ways in which the Treasury can guide the whole programme of carbon reduction, energy efficiency and eradication of fuel poverty—to the advantage of the UK and with reference to our own industry.

Alan Onslow
Insulated Render & Cladding Association Ltd

Annex B

GOVERNMENT UNDERATES ITS OWN ENERGY WHITE PAPER STRATEGY

Policy Benefits Not Widely Understood Otherwise Treasury Would Play a Key Role

PROPOSITION

If the numerous prospective benefits of the proposed Energy White Paper strategy were fully appreciated Government would prioritise the strategy with the Treasury playing a leading role.

WHAT ISSUES DOES THE ENERGY WHITE PAPER EMBRACE?

Main ones are future energy supply, security of supply, reducing carbon emissions and obviating fuel poverty. Energy efficiency is relevant, as is cost effectiveness of measures. Government funds are involved, as well as costs to householders and the general economy.

ARE BENEFITS MEASURED CORRECTLY?

Government initiatives, upon which the Energy White Paper is based, have targets. These targets appear to be the criteria upon which decisions are formulated. We are unaware of any overview (or published figures) which is taken to highlight multiple benefits. We feel this is a grave omission, of disadvantage to Government, and to the Treasury in particular.

A main initiative is the Energy Efficiency Commitment (EEC): this targets carbon emissions, almost solely. This is measured by the combination and make-up of the energy used.

As the UK swings to being an importer of energy in more significant volumes, out of necessity and not by choice, EEC1 measurement formula would become inappropriate and misleading. We make this statement on the basis that there are, and will continue to be, substantial disadvantages in importing energy rather than using our own indigenous supplies, if the latter were available in sufficient volume and at economically acceptable prices.

We are tending to presume that energy imported will:

— be more costly most of the time;

— may well have a higher carbon content (than our North Sea supplies);

that this higher carbon content will be expensive to reduce to a lower level, for distribution and use;

— that such importation will require huge investment in energy infrastructure, security of supply, and in requiring greenfield land resources; and

— that growing importation will in time seriously effect the UK's Balance of Payments position and affect the value of Sterling.

OUR CONTENTION

Our contention, therefore, is that any decrease achieved in the UK's demand for energy—achieved by way of the Energy White Paper strategy—should be judged in simplistic terms as a direct reduction in importation of energy (and not in any way a reduction across the board as in the EEC1 formula).

It is, we suggest, quite irrelevant if importation is currently modest. Once importation occurs, because of necessity, of more costly energy of perhaps lower quality, then all the disadvantages of that importation should be costed and calculated for the credit of the energy efficiency measures outlined in the Energy White Paper. So, as the EWP strategy proceeds in reducing the UK's use of energy at the rate of, say, 1% per annum, that means that that energy saved is represented by an equivalent reduction in importation in volume terms.

INSULATION IS THEREFORE UNDER-RATED

The contention detailed above should therefore result in the value of building fabric insulation being considerably upgraded (by Government). EEC1 already valued insulation incorrectly and considerable changes are afoot to address this (in terms of a lower discount factor, the "social cost of carbon", the "heat replacement effect", and other factors previously omitted).

Our trade association represents the external wall insulation industry which has played a small part in upgrading UK energy efficiency. We have a major interest in the value of insulation being adequately recognised. We already suffer from a lack of recognition—within key energy efficiency programmes—of the value of external wall insulation in improving the life of the housing stock by its weatherproofing, visual appearance and acoustic benefits. To suffer a double undervaluation—within EEC—is extremely frustrating. Government targets should ideally be accommodating in crediting the benefits that measures,

chosen for the carbon reduction programme, have in other areas of Government policy. External wall insulation has such benefits in upgrading the housing stock—a key Government objective—and, in particular, assisting "fuel poor" households into a better quality of life.

Renewable Energy

The cost of renewable energy, including subsidies from Government, should, we contend, be taken into account within the EEC2 calculation, were the calculation formula to continue to focus on "the energy mix used". However, we are optimistic that our contention that calculations should be reoriented to concentrate on "reducing importation", will prevail.

Analysis

Every £1 of householders, or Government, spend now on key energy efficiency measures will by 2050:

(1)	Have saved households:	£8
(2)	Have potentially increased tax revenue by:	£8
(3)	Have potentially conserved tax revenue by:	£4
(4)	Have reduced importation of energy by (at domestic retail prices):	£8
(5)	Have obviated expenditure on energy infrastructure, etc, by:	50p
(6)	Have reduced carbon emissions at NIL cost:	—
(7)	Have produced side benefits of increased living standards and home comfort, improved condition of property and its value, reduced call on NHS facilities due to unhealthy home conditions, etc:	Value Unknown
(8)	Assisted in the maintenance of the value of Sterling by minimising importation of energy:	Value Unknown

A chart is attached to demonstrate the true advantages of insulation.

THE VALUE OF THE ENERGY EFFICIENCY MEASURES WITHIN THE ENERGY WHITE PAPER STRATEGY: DOMESTIC (HOUSEHOLD) SECTOR ONLY

Estimated figures to 2050

Cost of measures to householders (@ £1,000 per household average)	*Cost of measures To Govt (@ £1,500 per household average)*	*Saving to all households*	*Opportunity to tax*	*Opportunity to conserve Govt revenue*	*Reduction in imported energy converted to retail tariff*	*Reduction in energy infrastructure & security of supply required plus saving of greenfield sites*
£20 BILLION (Mainly via EEC)	**£7 BILLION** (Mainly via Fuel Poverty Programme)	£200 billion 2005 to 2050 (£200 million in 2005 raising by £200 million per annum to 2050 when annual savings are £10 billion)	The £200 billion savings to householders—via a tax on energy to assist the EWP strategy	Winter Fuel Allowances less important Fuel Poverty Obviated Lower Household spending on necessities means State Benefits marginally less important.	£200 billion at retail prices (Same as saving to all households)	Say **£10 BILLION**
Reduction in carbon (Using imported energy as sole criteria) A larger saving pro-rata than that calculated within the EEC1 formula.	**Value to balance of payments position & maintenance of value of sterling**					

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