



House of Lords
House of Commons

Joint Committee on the Draft
Climate Change Bill

Draft Climate Change Bill

Volume I

Report together with formal minutes

*Ordered by The House of Commons and The House of Lords
to be printed 24 July 2007*

HL Paper 170-I
HC 542-I

Published on 3 August 2007
by authority of the House of Commons and House of Lords
London: The Stationery Office Limited
£0.00

The Joint Committee on the Draft Climate Change Bill

The Joint Committee on the Draft Climate Change Bill was appointed by the House of Commons and the House of Lords "to consider and report on the draft Climate Change Bill presented to both Houses on 13 March and to report by 25 July 2007".

Current membership

Ms Celia Barlow (Labour, Hove)
Mr David Chaytor (Labour, Bury North)
Helen Goodman (Labour, Bishop Auckland)
Nia Griffith (Labour, Llanelli)
David Howarth (Liberal Democrat, Cambridge)
Mr Nick Hurd (Conservative, Ruislip-Northwood)
Mr David Kidney (Labour, Stafford)
Mark Lazarowicz (Labour, Edinburgh North and Leith)
Mr Graham Stuart (Conservative, Beverley and Holderness)
Dr Desmond Turner (Labour, Brighton, Kemptown)
Dr Alan Whitehead (Labour, Southampton Test)
Mr Tim Yeo (Conservative, South Suffolk)

Lord Puttnam (Labour), Chairman
Baroness Billingham (Labour)
Earl of Caithness (Conservative)
Lord Crickhowell (Conservative)
Lord Jay of Ewelme (Crossbench)
Lord May of Oxford (Crossbench)
Baroness Miller of Chilthorne Domer (Liberal Democrat)
Earl of Selborne (Conservative)
Lord Teverson (Liberal Democrat)
Lord Vinson (Conservative)
Lord Whitty (Labour)
Lord Woolmer of Leeds (Labour)

Powers

The Committee has the power to require the submission of written evidence and documents, to examine witnesses, to meet away from Westminster, to meet at any time (except when Parliament is prorogued or dissolved), to appoint specialist advisers, and to make Reports to the two Houses.

Publication

The Report and evidence of the Joint Committee are published by The Stationery Office by Order of the two Houses. All publications of the Joint Committee (including press notices) are on the Internet at www.parliament.uk/parliamentary_committees/climatechangeefm

Committee staff

The staff of the Joint Committee were drawn from both Houses and comprised Charlotte Littleboy (Commons Clerk), Kate Lawrence (Lords Clerk), Simon Fuller (Legal Specialist), Eric Lewis (on attachment from the National Audit Office), Richard Douglas (Committee Specialist), Oliver Bennett (Committee Specialist), Judy Wilson (Inquiry Manager), Frances Allingham and Anwen Rees (Committee Assistants), Lisette Pelletier (Team Manager) and George Fleck (Office Support Assistant)

Contacts

All correspondence should be addressed to the Clerks of the Joint Committee, House of Commons, 7 Millbank, London SW1P 3JA. The telephone number for general enquiries is 020 7219 8383; the Joint Committee's email address is scrutiny@parliament.uk

Contents

Report	<i>Page</i>
Summary	3
1 Introduction	5
Call for evidence	6
Policy Background	7
International targets	8
Domestic target	8
2 Targets	11
International shipping and aviation emissions	13
The 60% target	17
The interim target of a 26% to 32% reduction by 2020	21
Revisions to statutory targets	22
3 Carbon budgets	25
The five year timeframe	25
The setting of carbon budgets	27
Factors to be taken into account in setting budgets	27
Sectoral budgets	29
The revision of budgets	29
The inclusion of foreign credits	30
Borrowing allowances from subsequent periods	35
Banking allowances for use in subsequent periods	35
Annual reporting	36
The deadline for the first three budgets	37
4 Enforcement of the legislation	38
Possible compliance mechanisms	41
The role of the Committee on Climate Change	43
Duties of the Secretary of State	44
5 The Committee on Climate Change	45
Remit	45
Advising on targets	46
Sectoral targets	46
Transparency of work	47
Policy evaluation	48
Advice from the Committee to the Government	49
Monitoring progress	50
The independence of the Committee and its resources	50
Appointments	52
Representation	53
Budget	55
Advising on the first three carbon budgets	56

6	Emissions trading schemes	58
	Types of trading scheme	59
	Personal carbon allowances	60
	Parliamentary scrutiny of order-making powers	61
	Allocation of allowances	62
	Use of carbon credits from one trading scheme in another	63
	Other policy instruments	65
7	Adaptation	67
8	Local government and behaviour change	70
9	Devolution	73
	Conclusions and recommendations	75
	Annex 1: List of acronyms	85
	Annex 2: Summary of online consultation	86
	Annex 3: Note on visits undertaken by the Committee	91
	Annex 4: Analysis of estimated costs of the Committee on Climate Change	101
	Annex 5: Schedule of comments on the draft Bill	106
	Formal minutes	129
	Witnesses	160
	List of written evidence	162

Summary

We warmly welcome the introduction of a Climate Change Bill. It is heartening to see the UK continue to take a lead in tackling critical global issues relating to climate change by providing the world's first comprehensive legislation in this area. We hope that this Bill will provide a framework for other countries to commit themselves to substantial reductions in carbon emissions.

The Bill currently aims to reduce the net UK carbon account by at least 60% from the 1990 baseline by 2050, some of which may be accounted for by the net purchase of foreign carbon credits. It is clear to us that climate science suggests that this figure may not be adequate to prevent global temperatures rising above dangerous levels, which is why we have welcomed the Government's emphasis that this is the minimum level of reduction to be considered; there should be no mechanism for lowering this target and it should be possible to increase it by either a super-affirmative order or an amendable affirmative statutory instrument. We are pleased that an interim target for net UK carbon emissions for 2020 has been set, but see no compelling reason why an upper limit has been imposed – this should be removed.

We have concerns about the legal enforceability of the targets and budgets; we have proposed a system of annual milestones and a compliance mechanism which we believe would create a strong legal framework, and require the Government immediately to make clear to Parliament and the public how any slippage in the targets and budgets will be seriously addressed. To reflect what we believe to be the paramount importance of this legislation across the whole of Government, we think that the legal duties of the Bill should be placed on the Prime Minister, rather than the Secretary of State. Also for this reason, we recommend that an annual Parliamentary debate on the progress reports prepared by the Committee on Climate Change and the Government's reasoned response is essential.

The Bill sets a target to reduce only carbon dioxide emissions; while we accept that this is a priority, we would like to see close monitoring and reporting of other greenhouse gases, to ensure that complacency does not set in where they are concerned, and to prompt target-setting in that area if necessary.

We are concerned at the exclusion of international shipping and aviation from the carbon budgets and consider this a weakness in the legislation.

The new Committee on Climate Change has the potential to be an extremely influential and important body. We therefore feel the Government needs to pay great attention to its funding, the way its membership is appointed and its role in advising the Government on a range of issues. It is vital that the Committee is not weakened by inadequate resourcing, or lack of credibility; this would threaten the UK's chances of working towards, and reaching, the necessary reduction in carbon emissions by 2050.

We are satisfied that the regulatory provisions made for emissions trading under the Bill are broadly correct, but feel that the super-affirmative resolution procedure should be used, to ensure the fullest possible Parliamentary scrutiny.

Although the draft Climate Change Bill is an extremely encouraging sign that the UK Government intends to take the issue of climate change seriously, it is clearly the first of

what is likely to be a series of legislative measures regarding climate change issues. In particular, we think that adaptation policies need to be addressed, along with the role of local government. Significant carbon reduction cannot be achieved without widespread public support, understanding and consequent behaviour change, and the Government must consider how best this can be achieved.

1 Introduction

“We are in a state not only of crisis but of creeping danger ... If the danger were obvious, then I believe we should get to it, make sacrifices, work and think. But in fact it is one of those dangers of which the greatest possible peril is that you do not know it until it is too late...

The only recourse ... is for us to use, with every bit of intelligence, will and imagination we have, the resources of science in its widest sense. That is all we can count on...It is more imperative that we should use every scrap of the wits we possess and really make technology work for us as we have not done since the early days of the industrial revolution. This is our task. There is no other task anything like so imperative, and if we fail in this then it is hard to see how this country can have a future which any of us would envisage with any pleasure”.¹

[Lord Snow (C.P. Snow), 1964]

1. The draft Climate Change Bill was published on 13 March, accompanied by a partial Regulatory Impact Assessment.² The document also contained a Government consultation paper, which had a deadline for responses of 12 June 2007. On 11 July, the Prime Minister announced that the published Bill would be introduced in the next Parliamentary Session (2007-08).³

2. The Joint Committee was appointed on 23 April 2007 to “consider and report on the draft Climate Change Bill presented to both Houses on 13 March 2007” by 25 July 2007. We held eight public evidence sessions, hearing from 24 sets of witnesses representing 39 organisations, Ministers and officials from the Department for Trade and Industry, the Department for Transport, HM Treasury and the Secretary of State for the Department for Environment, Food and Rural Affairs. We received over 100 written memoranda. Evidence was also taken from representatives of the State of California and the People’s Republic of China. Members of the Committee visited Oxford, Woking and Edinburgh during the course of the inquiry. We also held an online consultation on the role of local government and the draft Bill, a summary of which is appended to this Report.⁴ We are grateful to all those who have taken the time to contribute to our inquiry and who hosted our visits. We have also been assisted by our Specialist Advisers, John Newbigin and Professor Paul Ekins, to whom we record our thanks.

3. The House of Commons Environment, Food and Rural Affairs (EFRA) Select Committee has also carried out pre-legislative scrutiny on the draft Climate Change Bill. This Committee published its Report on 4 July 2007.⁵ The evidence taken by the EFRA Committee, and its final Report, have been useful in framing our conclusions, and we are

1 Lord C.P. Snow, HL Deb, 18 November 1964, regarding the UK’s Skills Shortage

2 *Draft Climate Change Bill*, 13 March 2007, Cm 7040 (hereafter Cm 7040)

3 *The Governance of Britain – The Government’s Draft Legislative Programme*, Office of the Leader of the House of Commons, Cm 7175, published 11 July 2007

4 See Annex 2

5 *Draft Climate Change Bill*, Environment, Food and Rural Affairs Committee, Fifth Report of Session 2006-07, HC 534 (hereafter HC 534)

glad that this particular piece of draft legislation has been subject to such thorough Parliamentary scrutiny.

4. The House of Commons Environmental Audit Committee (EAC) has looked at the contents of the draft Bill in more than one inquiry, but it featured most prominently in its Report *Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill*, which was published on 30 July 2007.⁶

5. The Government set a deadline for us to report by 25 July. This meant we had only three months to carry out our inquiry (the minimum 12 week period recommended by the Joint Committee on the draft Charities Bill in 2004).⁷ We are disappointed that it was not possible to establish the Committee sooner, as this meant our inquiry was more hurried than we, and those who gave evidence to us, would have liked. It is especially puzzling that there should have been such a long delay between the publication of the draft Bill and our appointment.

Call for evidence

6. On 1 May 2007, we issued a call for evidence on the following issues:

- i) What the main aims and purposes of the Bill are and why it is needed.
- ii) To what degree is it appropriate to legislate regarding carbon targets and budgeting, and how should a balance between compulsory and voluntary action best be achieved and assessed.
- iii) Whether the omission of the role of local government from the draft Bill will hinder public support for, and engagement with, the aims of the legislation, and what measures should be included in the Bill to secure a change in public behaviour.
- iv) Whether statutory targets should be set only for carbon dioxide; and the extent to which the proposed 60% emissions reduction by 2050 is adequate, based on the most recent appropriate evidence.
- v) What difficulties face the Government in controlling total UK carbon emissions and determining the optimal trajectory towards the 2050 target; and whether a system of five-year carbon budgets and interim targets represents the most appropriate way of doing so.
- vi) The extent to which carbon sequestration and the use of credits from overseas investment projects should be permitted; and whether the Bill should specify the maximum amount and type of carbon credits from such sources which should count towards the target.

⁶ *Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill*, Environmental Audit Committee, Seventh Report of Session 2006-07, HC 460

⁷ *Draft Charities Bill*, Joint Committee on the draft Charities Bill, First Report of Session 2003-04, HL 167/HC 660, paragraph 398

- vii) Whether the proposed constitution, remit, powers, and resources of the Committee on Climate Change are appropriate; and the extent to which its function may overlap with, and be partially dependent on, forecasting and analytical activity within departments.
- viii) The legal consequences of the Government failing to meet the targets set in the Bill, including whether the Secretary of State should be subject to judicial review and, if so, whether it would be an effective enforcement mechanism.
- ix) How the provisions of the Bill will relate to the devolved parliament and assemblies and their administrations.
- x) Whether the provisions of the Bill are compatible or appropriate within the framework of European Union targets.
- xi) How the contents of the Bill will affect international climate change activity.
- xii) Whether the delegated powers contained within the Bill are appropriate and adequate.

We did not restrict our inquiry to these issues.

Policy Background

Box 1: What is climate change?

Energy coming from the sun as visible radiation (or sunlight) is re-emitted back from earth to space. The greenhouse effect is a natural phenomenon whereby some of this energy remains trapped, absorbed by naturally occurring gases in the atmosphere, thus maintaining the temperature of the earth's surface at a temperature some 33°C warmer than it would otherwise be and enabling life as we know it to exist.

As a result of human activities, the atmospheric concentrations of some of these 'greenhouse gases' (GHGs)—including carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O)—have increased, predominantly since the start of the Industrial Revolution in the 1750s. Since that time, changes in the global climate have also occurred, and a statistical link has now been established between human activity and observed climate change phenomena.⁸

Greenhouse gases

The term 'greenhouse gases' as defined by the Kyoto Protocol includes

- carbon dioxide (CO₂)
- methane (CH₄)
- nitrous oxide (N₂O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF₆).

The Kyoto Protocol requires a percentage reduction in the total 'basket' of these six greenhouse gases. The UK's domestic targets are specifically to reduce emissions of CO₂.

Global Warming Potential (GWP)

This is a system of multipliers devised to enable warming effects of different gases to be compared. The cumulative warming effect, over a specified time period, of an emission of a unit of CO₂ is

assigned the value of 1. Effects of emissions of a unit of non-CO₂ greenhouse gases are estimated as multiples. For example, over the next 100 years, a gram of methane (CH₄) in the atmosphere is estimated as having 21 times the warming effect as a gram of carbon dioxide; thus methane's 100-year GWP is 21. Estimates of GWP vary depending on the time-scale considered (eg, 20, 50-, or 100-year GWP), because the effects of some GHGs are more persistent than others.

The GWPs of CO₂, CH₄, and N₂O are presently estimated to be 1, 23 and 296, respectively.

Some industrially produced gases such as sulphur hexafluoride (SF₆), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs) have extremely high GWPs. Emissions of these gases have a much greater effect on global warming than an equal emission (by weight) of the naturally occurring gases. Most of these gases have GWPs 1,300 – 23,900 times that of CO₂. PFCs and HFCs are 'families' of gases, so have a range of GWPs attributed to them.

International targets

7. The UK already has emissions reductions targets, set both internationally, through the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC), and domestically, through the UK Climate Change Programme (UKCCP). Neither are recent: the Kyoto Protocol was adopted as an amendment to the UNFCCC in 1997, and ratified by the UK in 2002. Under Kyoto, the UK must reduce greenhouse gas emissions by 12.5% below 1990 levels by 2012, and the UK Government is confident that this will be achieved. At the G8 summit at Gleneagles in 2005 it was agreed that a new Dialogue on Climate Change would be opened in 2008 with China, India, Brazil, Mexico and South Africa, and report to the G8 in 2008.

8. The EU is also pushing for action. In March 2006, EU ministers concluded that developed countries should reduce greenhouse gas emissions by 15-30% by 2020. At the Spring European Council in March 2007, a wide range of emissions targets for Europe was agreed, with a binding target to reduce European greenhouse gas emissions by 20% from 1990 levels by 2020. This may be increased to 30% as part of a broader international agreement.⁹

Domestic target

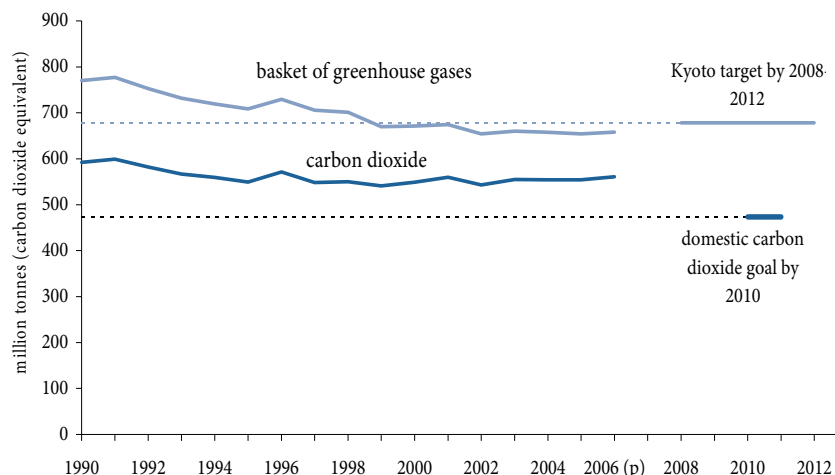
9. The Labour Party manifesto for the 1997 General Election set out a target to reduce CO₂ emissions by 20%, from the 1990 baseline, by 2010. The first UK Climate Change Programme was published in 2000, and included this target. The Government conceded in 2006, when it published its Review of the Climate Change Programme, that it will fail to reach its domestic target for 2010 by quite a substantial margin.¹⁰ As the introduction to the draft Bill states "recent years have not seen the fall in carbon dioxide emissions needed to move the UK to a truly low carbon economy".¹¹ Figure 1 illustrates the UK's progress since 1990. Emissions of the 'basket' of six greenhouse gases fell by around 15.3% between 1990 and 2006. Emissions of carbon dioxide alone fell by around 5.25% between 1990 and 2006. (Carbon dioxide (CO₂) is the main greenhouse gas, accounting for about 85% of the 'basket' of greenhouse gas emissions in 2006.)

9 Cm 7040, Consultation Document p.14, para 3.8

10 *Climate Change, The UK Programme 2006*, published March 2006, Cm 6764

11 Cm 7040, p 13, para 3.1

Figure 1: UK annual emissions since 1990



Source: Defra, 'Emissions of greenhouse gases: 1990-2006 (provisional) United Kingdom', May 2007, <http://www.defra.gov.uk/environment/statistics/globalatmos/kf/gakf05.htm>

10. In 2003, the Energy White Paper *Our Energy Future – Creating a Low Carbon Economy* announced the Government's commitment to making a 60% reduction in CO₂ emissions by 2050 and "real progress" by 2020.¹² In July 2005, the Chancellor of the Exchequer announced a review by Sir Nicholas Stern, to examine the economics of moving to a low-carbon global economy, the potential of different approaches for adaptation to changes in the climate, and specific lessons for the UK in the context of its existing climate change goals.¹³ The Stern Review was published on 30 October 2006. It concluded that "the benefits of strong, early action considerably outweigh the costs" and "income, historic responsibility and per capita emissions all point to rich countries taking responsibility for emissions reductions of 60-80% from 1990 levels by 2050" in order to reach even a 50/50 likelihood of stabilising the world's temperature rise at no more than 2°C from pre-industrial levels.¹⁴ Drawing on both these sources, the draft Climate Change Bill enshrines in legislation the target of the 2003 Energy White Paper.

11. Although targets are in place, there is at present no cross-government 'climate change' policy. The environmental impacts of climate change are long-term in nature and require a long-term policy response. If the UK is to achieve the 2050 carbon reduction target set by the draft Bill, a sustained focus on moving towards a low-carbon society and sustained investment in low-carbon technologies is necessary. Yet companies and markets can only operate within the policy and regulatory framework defined by governments, and in recent years it has been perceived – particularly within the energy sector – that the framework has failed to provide sufficient long-term certainty to encourage the necessary investment. In the Explanatory Notes to the draft Bill, the Government spells out the need for "concerted action" on climate change.¹⁵ The Government has recognised the need for a regulatory

12 *Our Energy Future – Creating a Low Carbon Economy*, Department for Trade and Industry, February 2003, Cm 5761 (hereafter Cm 5761)

13 *Stern Review: Change to The Economics of Climate Change* (hereafter Stern Review), HM Treasury, October 2006, p i

14 Stern Review pp ii, xxiii

15 Cm 7040, Explanatory Notes para 7

framework both to facilitate policy decisions across government departments, and to provide a hitherto absent degree of certainty for business and industry, to allow them to make investment and development decisions for the medium to long term future. The draft Climate Change Bill aims to set up “a framework for the UK to achieve its long-term goals of reducing carbon dioxide emissions”.¹⁶ The importance of the draft Climate Change Bill, and the extent of interest in it, partly reflects the fact that it aims to develop a longer term framework by providing a greater degree of confidence to business and industry on the scale of the emissions reductions required.

12. The draft Climate Change Bill represents only the first steps to developing a long-term framework which will provide cross-party consensus and a greater consistency and transparency in long-term policy making. It is clear that it is not so much the scale of the emission reductions required which is politically contentious, but the mix of policies by which these are to be achieved.

13. In the course of this Report, we examine the provisions of the draft Bill, looking at the targets it contains, the provisions made for achieving these targets, and the establishment of a Committee on Climate Change, a new non-departmental public body, which is set up to advise the Government on how best to progress towards 2050. We also look at the fundamental issue of how enforceable this legislation is, given the unusual nature of its contents.

14. While, of course, the UK cannot tackle climate change on its own, one of the potential benefits of the draft Bill would be to demonstrate international leadership, and set a practical example which would help to galvanise action on an international scale. In this respect we were interested to note the complimentary terms with which Dr Lu of the Chinese government spoke of the Bill:

Actually we appreciate very much the efforts made by the United Kingdom, in particular your Parliament, to consider this. ... It is my observation or my personal view that these views have a significant influence not only on China but the world. They show that the United Kingdom is continuing to take the lead in addressing climate change. Actually, I have been involved in this for some time, and I really appreciate the leadership that your government is taking, or has been taking in the past 17 years, or more than 17 years. This law I guess will be number one in the world. ... We say, in the opinion of a developing country, for developing countries, actually your action today will be the action of those countries tomorrow. So I think this action, this will be my belief, will have a really good and significant, positive influence on the world. Maybe if I can add this, this view will also give very strong signal to the business community, that they should develop a low carbon economy”.¹⁷

16 Cm 7040, Explanatory Notes, para 4

17 Q 785

2 Targets

The scope of the targets and the 'net UK carbon account'

15. Clause 1 of the draft Bill sets a duty on the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 60% lower than the 1990 baseline. This reduction is framed in terms of carbon dioxide emissions. Clause 2 requires the Secretary of State to set five-year carbon budgets, beginning in 2008. Clause 3 requires the carbon budget by 2020 to be “at least 26% but not more than 32%” lower than the 1990 baseline. Clause 15 states that international aviation and shipping emissions are currently excluded from UK emissions for the purposes of this Bill, although there is provision to change this situation. We will return to the issue of carbon budgets and the level of the targets further on in this Report. We will also consider the enforcement of targets and budgets in Section Four.

16. The scope of the targets raises two distinct issues:

- the extent to which it focuses on reducing carbon dioxide exclusively, insofar as the targets it contains are expressed solely in terms of CO₂ rather than a wider basket of greenhouse gases.
- the exclusion of emissions from international aviation and shipping within the concept of the 'net UK carbon account'.

These two issues are discussed in turn below.

17. The Government has set out, in both its consultation document and in its evidence to us, why it has focused on carbon dioxide.¹⁸ Its argument is essentially that carbon dioxide constitutes 85% of all greenhouse gas emissions, that less progress has been made in reducing this gas than other greenhouse gases, and that this is where the primary effort therefore needs to be made. It points out that emissions of non-CO₂ greenhouse gases have fallen by 44% since 1990, that further reductions may be very difficult and/or costly, and that regulation may in their case be a more suitable policy instrument. It also suggests its approach is justified by the fact that the EU Emissions Trading Scheme (ETS) is based only on CO₂, though it acknowledges that this might change after 2012 and that “there may be merit in the UK taking on a wider greenhouse gas target” similar to the Kyoto Protocol itself which is framed in terms of greenhouse gases.¹⁹

18. The Government does, however, intend to keep under review the question of moving to a broader system of greenhouse gas targets and budgets. Indeed, Clause 22(2)(c) of the draft Bill obliges the Committee on Climate Change, established by Part II, to provide advice to the Secretary of State on whether to bring forward legislation providing for targets and budgets for emissions of greenhouse gases other than carbon dioxide – though only in response to a specific request from the Secretary of State.

¹⁸ Cm 7040, Consultation Document, paras 5.9 to 5.13. See also CCB 102, and Qq 643ff

¹⁹ Cm 7040, Consultation document, p 5.13

19. Much of the written evidence we received, including memoranda from energy companies, environmental non-governmental organisations (NGOs), and a range of other organisations, explicitly supported the approach adopted by the Government. Both EDF and British Energy warned that any move to incorporate greenhouse gases should not compromise existing CO₂ targets and should be based on separate targets for different gases.²⁰

20. Some expert bodies considered that the scope of the draft Bill was inadequate. Professor Shine of the Royal Society for instance stated:

“The view of the Royal Society is that the other greenhouse gases should be included. They have already done so under the Kyoto Protocol, so the targets are already there. Whether there should be one single target covering CO₂ equivalents or individual targets for each gas is a slightly different question. The studies and the literature certainly indicate it may not be specific for the UK because it is cheaper to have a multi-gas approach than it is to just regulate on one gas”.²¹

He was supported by the Royal Academy of Engineering, and by Dr Terry Barker of Cambridge Econometrics, who provided some further information on the extent to which it might be more cost-effective to include other gases.²²

21. In considering the Government’s approach, we have some concerns. First, there does appear to be a certain degree of inconsistency within the draft Bill itself insofar as it allows for foreign emissions credits, which could be based on greenhouse gas reductions rather than CO₂ alone, to count towards the net UK carbon account under Clauses 16(2) and 18. Secondly, it is not only the Kyoto targets which are expressed in terms of greenhouse gases but also the EU 20% target set in the Spring Council of 2007. The constant need to translate between UK carbon targets on the one hand, and EU and international greenhouse gas targets on the other, is potentially confusing. Thirdly, the Government has itself acknowledged that its approach would need to be modified if the EU ETS were expanded from 2012 to incorporate other gases.

22. More generally, the failure to include non-CO₂ greenhouse gases in target setting and monitoring could be viewed as amounting to the absence of a strategy for reducing them further. In this respect, the scope of the draft Bill appears to be somewhat surprising given that it is designed to provide a strategic framework for future climate change mitigation policy. It seems curious, for example, that any expansion in the coverage of the EU ETS would immediately require further primary legislation to complement or amend the draft Bill.

23. On the other hand, to recast the draft Bill to encompass all greenhouse gases might risk diluting the focus on CO₂. It would also raise issues in relation to

- the treatment of non-greenhouse gas emissions which nevertheless contribute to global warming (eg the greater impact of high-altitude emissions of water vapour by planes); and

20 EDF, CCB 62; E.ON, CCB 44; British Energy, CCB 60

21 Q 457

22 Qq 458, 460

- whether a single target and trading system should be set across all gases, rather than specific targets and policy instruments for each.

These issues are complex and, in our view, cannot easily or quickly be resolved. Expanding the Bill in this way might therefore jeopardise its coherence and the extent of support which it might command.

24. We agree with the Government on balance that it is reasonable for the Bill to focus on reducing emissions of carbon dioxide, and we therefore accept its overall architecture. However, this in no way relieves the Government of its responsibility to continue to reduce other greenhouse gases (both by reason of domestic necessity and our international obligations). Accordingly, it is essential to monitor all greenhouse gas emissions, in part so as to provide greater transparency when comparing UK performance against EU and Kyoto targets. **We recommend that the Bill should be amended to require both the Government and the Committee on Climate Change to include within their monitoring and reporting a clear analysis of all emissions which contribute to global warming, including non-CO₂ greenhouse gas emissions. We further recommend that this be done with the explicit intention of providing a stepping stone to a more comprehensive approach to setting targets across the whole range of greenhouse gases, were that approach to emerge as a result of future international negotiations.**

International shipping and aviation emissions

25. Emissions from international aviation and marine transport are not currently included within the scope of the draft Bill on the grounds that there has been no international agreement on how they should be allocated to individual countries. The UK government does, however, report on emissions from these sources.²³ Over the last four years, there has been widespread concern about the impact on global warming of the forecast growth in these sectors.

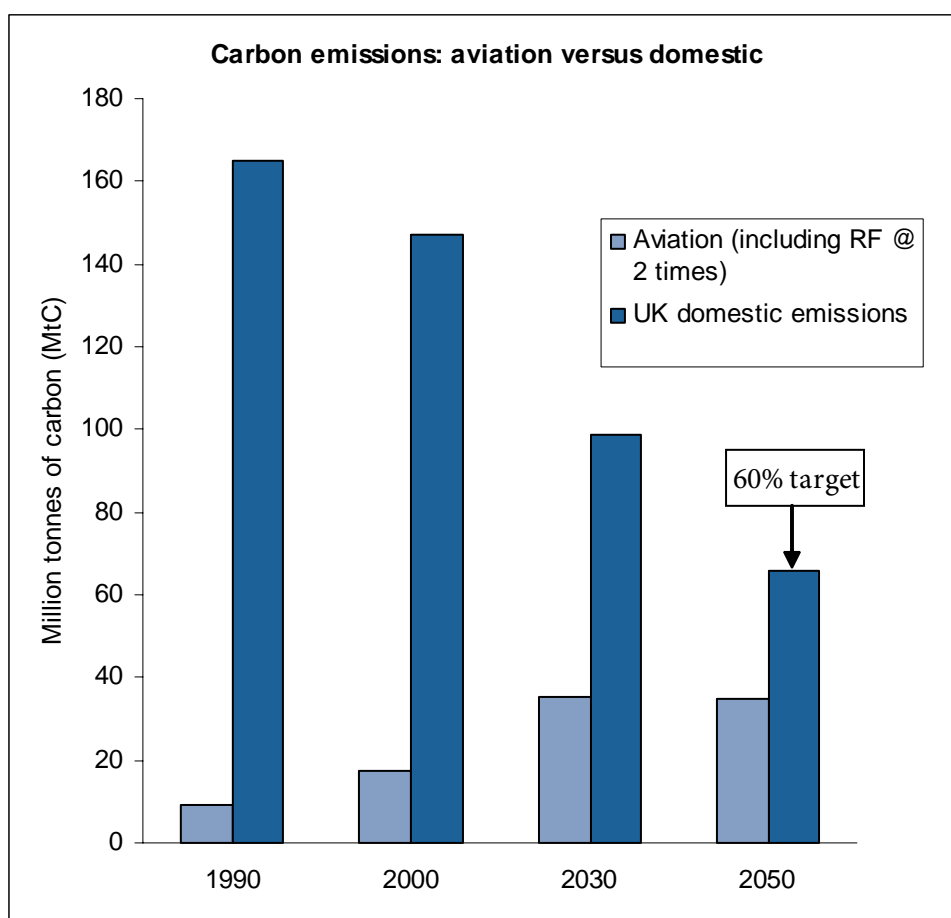
26. The position is particularly dramatic in relation to aviation. The Department for Transport (DfT) is predicting a growth in carbon dioxide emissions from UK aviation, from 8.8MtC (million tonnes of carbon) in 2000 to 17.4MtC by 2050.²⁴ These figures need to be considered in the light of the 2050 carbon target, which will require the UK to reduce its net carbon budget to around 64MtC by 2050. Moreover, they do not take account of the additional ‘radiative forcing’ effect of aviation emissions (including the effects of high level emissions of water vapour). Estimates for this effect vary, but the DfT told us that recent academic research suggested that radiative forcing from aviation was probably about double that of carbon dioxide.²⁵ Even on the basis of this relatively conservative estimate, the overall impact of the forecast increase in aviation is highly significant, As **Figure 2** illustrates, if we accept DfT’s projections and the multiplier of two as the value for ‘radiative forcing’, emissions would be equal to over half of the UK’s entire net carbon budget, under the current terms of the Bill.

23 Emission estimates (eg. for UNFCCC purposes) are based on supplies of bunker fuels, though in other contexts (assessments of the impact of future growth in aviation) the government has based them on the assumption that emissions should be distributed equally between the country of departure and the country of arrival.

24 CCB 99, para 15, table

25 Q 401

Figure 2: Projected aviation emissions and the UK projected net carbon budget



Note: Aviation emissions are based on DfT forecasts for CO₂ multiplied by a factor of 2 to account for the increased radiative forcing impact.²⁶ Total carbon emissions projection for 2030 calculated by assuming a straight line trajectory between 1990 emissions and a target 60% reduction in 2050.²⁷

27. In response to our queries on this point, the Department for Transport sent us a note, giving another version of what impact international aviation emissions would have on the UK carbon budget for 2050. Contrary to our analysis, the table sent to us by the DfT suggests that in 2050 aviation will be making up a third of UK net emissions, rather than just over half. The main reason the DfT's conclusion is different is that, in calculating the proportion of the 2050 budget which will be made up by international aviation, the department has chosen to add its projection of emissions from international aviation on top of the UK's target carbon budget, thereby creating a new and expanded emission cap, rather than fit these international emissions inside the original cap. The results, in effect, are that the 2050 carbon budget is widened by exactly as much as it takes to accommodate international aviation; and that the 2050 carbon budget is increased in absolute terms by 43.5MtC above where it should be – were it to meet a 60% cut from the UK's emissions in

26 *Pre-Budget Report 2004: Aviation follow-up*, Environmental Audit Committee, Third Report of Session 2003-04, HC 233 (hereafter 233)

27 UK domestic emissions projections for 2030 and 2050 are more accurately described as projections for the UK carbon budget: that is, actual emissions in the UK may be higher or lower than this, but, as provided for under the terms of the draft Bill, offset to this level by the purchase or sale of carbon credits. Projected aviation emissions depicted here, however, are projections of simple emissions, and do not reflect any use of carbon credits.

1990.²⁸ This raises important questions as to the Government's understanding of how international aviation (and shipping) emissions are to be included within the UK's carbon budgets when this moment comes.

28. In an influential report published in 2004, the EAC argued that the predicted growth in aviation was clearly incompatible with maintaining an overall target of 60%. At the time, the DfT admitted that the target would need to be reconsidered if aviation were included in domestic inventories:

“...if...it is decided that international aviation emissions should be allocated to states, say split 50/50 between country of origin and country of destination so you are bringing international aviation emissions into domestic emissions inventories, then, other things being equal, you would need to look at your overall domestic emissions reduction target because you are adding in a whole new set of emissions. In that sense, yes, you are right. You would probably want to look at that overall target”.²⁹

The Secretary of State also acknowledged this and went on to suggest that any subsequent decision on how to deal with this would be a political matter, and that it would be premature to consider these things now.³⁰

29. A range of organisations and witnesses argued that the exclusion of international aviation from the draft Bill represented a serious weakness. For example, ClientEarth said “the omission of carbon emissions from aviation and shipping from the ambit of the new Climate Change Bill is unacceptable. The current Bill gives the misleading impression that it embodies a thorough approach, while ignoring industry sectors that greatly contribute to the problem”.³¹ The TUC felt “it would be consistent to include them in the CO₂ target and budget now, rather than lock in a higher emissions reduction challenge for future generations”.³²

30. The EU, supported by the UK government, is planning to include CO₂ emissions from all intra-EU flights within the EU ETS from 1 January 2011, to be expanded to encompass all international flights arriving at or departing from EU airports from 1 January 2012. However, when the departments gave evidence to our inquiry, there appeared to be some disagreement between the DfT and the Department for Environment, Food and Rural Affairs (Defra) about the feasibility of using this as a basis for including such emissions within the net UK carbon account. The Parliamentary Under-Secretary of State for Transport argued strongly that it would be impossible to do so due to the way in which, under the EU scheme, aviation emissions would be allocated to registered airlines rather than to member states.³³ However, the Secretary of State for Defra clearly indicated that he

28 For reference, changing the original 1990 baseline to include international aviation and shipping emissions would make relatively little difference to the size of the 2050 carbon budget. These emissions combined were 6.2MtC in 1990. Adding these to the UK's 1990baseline takes it from 161.5MtC to 167.7MtC. A 60% cut from this level would result in a total of 67.1MtC as opposed to that of 64.6MtC without them. Environmental Audit Committee, Ninth Report of Session 2005-06, Reducing Carbon Emissions from Transport, HC 981-I, Figure 1

29 HC 233, para 46

30 *Ibid*, para 47

31 CCB 23 para 7

32 CCB 78 para 3.2

33 Q 398

would expect aviation to be brought within the scope of the Bill once it had been included in the EU ETS.³⁴

31. We are concerned that the Department for Transport appears to have done so little to update its analysis of predicted growth in aviation emissions since the information it provided in 2003-04 to the Environmental Audit Committee. Although officials told us that updated forecasts would be made available later in the year, we would have expected this to have been carried out before the introduction of the draft Bill. It is also disappointing, in view of the importance of the topic, that the DfT has not carried out any analysis on the impact of including international aviation within the scope of the draft Bill.

32. The draft Bill currently does not include within the scope of the targets, and the net UK carbon account, emissions from international aviation. We consider this to be a serious weakness which, in view of the significant likely growth of such emissions, has the effect of reducing the credibility of the 60% carbon reduction target. Given the clear expectation of the Secretary of State that international aviation emissions could be included in the net UK carbon account once they are incorporated within the EU ETS, we expect the Government to take all necessary steps to ensure that this is achieved. The draft Bill should be amended in such a way that it requires both the Government and the Committee on Climate Change to include separately international aviation emissions within the scope of their monitoring and reporting, including projections of future emissions – in a manner similar to the parallel reporting we are recommending in relation to non-CO₂ greenhouse gases.

33. The Bill should clearly provide for the inclusion of international aviation emissions in the carbon budget once EU agreement is reached on the measurement and allocation of such emissions.

34. The Government must also clarify whether it intends, when bringing international aviation within the regime established by this Bill, for aviation emissions to fit within the UK's existing targets and budgets (thereby increasing the pressure on other sectors to reduce emissions), or for the targets and budgets to be inflated so as to accommodate it. If the latter, the Government must publish at an early stage, a proposed baseline for the inclusion of aviation emissions, an analysis of how this would affect the UK's share of global cumulative emissions, and the basis on which it decides the level of its 2050 target.

35. International shipping emissions have received much less attention, both within the UK and internationally. While projections of future growth are not quite as steep as in the case of aviation, and shipping does not give rise to the added contributions to global warming caused by flying at high altitude, the maritime sector is still a major and growing source of emissions. The British Chamber of Shipping (BCS) rather downplayed this in telling us “[the International Energy Agency] estimates that the share of CO₂ emission from international marine bunkers will remain approximately 2% at least until 2030”.³⁵ We would observe that this is a relative measurement; and, given that the International Energy

34 Q 693

35 CCB 81

Agency is forecasting a rise in global emissions to 2030, an equal relative share would imply a rising absolute total. Indeed, according to research cited by the European Environment Agency, emissions from maritime transport are projected to grow by 35–45 % in absolute levels between 2001 and 2020.³⁶

36. Separately, the BCS also stressed the practical difficulties in finding the right policy levers to reduce shipping emissions, were they to be voluntarily incorporated into the UK's target, in advance of an international agreement. Mr Ashdown of the BCS, for instance, outlined the difficulties in establishing the nationality of a ship: “the UK can compel flag ships to perform certain measures. However, this is an intensely globalised industry and the ships are free to reflag to whichever state they choose”.³⁷ We also heard of the inherent difficulty in predicting fuel usage for ships (as opposed to aeroplanes). Furthermore, it is clear that discussions on the future of international shipping emissions are far less advanced than in the aviation field.

37. We recognise that both the methodology required to allocate international shipping emissions to individual countries, and the policy mechanisms which individual governments could use to constrain emissions from this sector, may need further thought. We do not want to see progress held back by any coupling of ‘aviation and shipping’, and therefore recommend that the Government press on with plans to include international aviation within the UK’s targets, even if issues remain to be resolved over international shipping. At the same time, the Government should make it a priority to address these issues, and both it and the Committee on Climate Change should include international shipping emissions within their annual projections and reporting processes.

The 60% target

38. A key feature of the draft Bill is the long-term target of a 60% reduction in carbon dioxide by 2050. This target was first announced in the Energy White Paper of 2003, and, as the Government acknowledged in its oral evidence to us, was in response to a recommendation by the Royal Commission on Environmental Pollution (RCEP) in its influential report, *Energy: the Changing Climate*, published in 2000.³⁸

39. The 60% target which the RCEP recommended was based on the adoption of the ‘contraction and convergence’ approach first advocated in 1990 by the Global Commons Institute. Contraction and Convergence involves calculating the maximum global level of emissions which could be regarded as ‘safe’, and apportioning these emissions to countries on an equal per capita basis. Some countries, in particular the carbon-intensive developed nations, would currently be well in excess of their apportioned amounts and would need to radically reduce their emissions, while less developed countries would be allowed to increase their emissions.

40. Since the RCEP made this recommendation in 2000, understanding of climate change has increased significantly. Research carried out in recent years, most notably, as far as

36 *Transport and Environment: Facing a dilemma*, European Environment Agency EEA Report No.3/2006, p 16

37 Q 368

38 *Energy: The Changing Climate*, Royal Commission on Environmental Pollution, 22nd Report, June 2000, Cm 4749

many of those submitting evidence are concerned, the Tyndall Centre, has indicated that the risks of climate change are greater than previously assumed, and that the 'safe' level of carbon dioxide in the atmosphere is lower than previously thought. **Box 2** highlights research in the Stern Review which places the UK in the context of a division of global emissions targets by different blocs of nations; it suggests that the UK and other developed countries need to cut their emissions by at least 60%-90%. Indeed, much of the evidence we received from experts consequently indicated that the target of 60% was insufficient, and that a target of up to 80% would now be more appropriate. Amongst witnesses, with the solitary exception of Lord Lawson of Blaby, there was a remarkable degree of consensus on this point across environmental NGOs, scientific institutions, and even the Government itself.

Box 2: The international context of the UK's 2050 target

Chapter 22 of the *Stern Review on the Economics of Climate Change* cites research which attempts to break down the worldwide effort required to stabilise global atmospheric concentrations of greenhouse gases into different but equitable national targets, banded together in blocs of nations according to their GDP and production of emissions.

Stern's verdict is that: "In the end what matters is that total global effort matches the scale of the problem, that the parties perceive the distribution of effort to be fair, the accompanying goal of efficiency is not prejudiced, and public opinion across a wide range of countries is able to sustain co-operation on those terms over a long period".

Reviewing the different methodologies for distributing emissions targets among different countries, he concludes:

There is no single formula that is likely to capture in a satisfactory way all relevant aspects of an equitable distribution of effort between countries across the various dimensions and criteria – but the criteria tend to point in similar directions.

[F]or all developed countries, action to meet a 450ppm CO₂e goal would require quotas to be set in line with a reduction in emissions of 70-90% on 1990 levels by 2050, and for a 550ppm CO₂e goal the reduction would be at least 60%. It is a similar story for the middle-income economies of Latin America, Central and East Asia and the Middle East, where all methodologies allow for a modest increase or very small decrease over current emissions by 2050.

We would note that for the high end of this range, 550ppm CO₂e (carbon dioxide equivalent), Stern gives a 63-99% probability of exceeding a warming of 2°C; in fact, he describes this as "a dangerous place to be, with substantial risks of very unpleasant outcomes". This underlines the evidence which points towards 70-90% being the required range of emissions cuts for the UK and other developed nations.

Note: The range which Stern refers to includes all greenhouse gases, expressed as carbon dioxide equivalent (CO₂e). In Stern's calculations 450-550ppm CO₂e would contain around 400-490ppm CO₂.

Source: Stern Review on the Economics of Climate Change, pp 474-5

41. Mr Mark Watts, of the Greater London Authority (GLA), stated "Where we would wish to see change is really on the scale of the ambition. We do not think the targets are consistent with where the science is at at the moment. Whilst a 60% reduction by 2050 is rather aggressive compared to what other national governments are doing, it is not actually consistent with where science has now got to".³⁹ The Secretary of State told us "the science has gone only in one direction since 2000, which is to say that the situation is more grave and that the need is more urgent, and it is absolutely right, therefore, that we say "at least

60%” to signal that we know that, frankly, if the target is going to change it is only going to change in one direction, and that is upwards”.⁴⁰

42. Business and industry were, however, more cautious and generally supported the target as currently drafted, although also emphasised the provision in the draft Bill for moving above 60% if necessary. The Association of British Insurers (ABI) said “We believe it is important to make a start as soon as possible towards this, already ambitious, target and to make any further adjustments with sufficient long term signals to enable new technologies and investments to deliver the revised reduction”.⁴¹ Mr Michael Roberts of the CBI told us “there is a balancing act from the point of view of business which is that, whilst trying to ensure a degree of stability and certainty, there needs to be an element of responsiveness to changing knowledge and science, changing circumstances of the international scene”.⁴²

43. In considering these arguments, we note that some consider the achievement of even a 60% reduction a challenge, and query the implications for society. Others suggest that we would be able to come close by maximising the potential in every possible policy area and encouraging change on a significant scale. There is also an argument that we cannot at present judge how achievable this, or any other target, is as we are unable to predict what technology will develop to address carbon reduction. Dr Terry Barker, of Cambridge Econometrics, told us “We are seeing already major opportunities being taken by business even at low carbon prices, so there is an awful lot of potential there”.⁴³ We note that the Kyoto target has been criticised for being too low, which failed to stimulate any high level of action.

44. We understand, and sympathise with, the argument in favour of setting a higher target for the long-term reduction of carbon dioxide emissions. But recognizing how very demanding the target set out in the draft Bill for 2050 is, and facing up to both the complexity of domestic budgeting and international requirements, we conclude that the approach adopted by the Government is appropriate provided that it is understood that this is but the first step along a path towards a low-carbon future for the UK. We make further recommendations later about reinforcing this direction of travel. We also recommend that the long title of the Bill should be amended to state explicitly, as the Environment Secretary of State emphasised several times in his evidence to us, that the target should be at least 60% and subject to review.

45. Bearing in mind however the weight of scientific evidence before the Committee that a target of more than 60% is likely to be necessary, we believe that as soon as possible after it is established, the Committee on Climate Change should review the most recent scientific research available and consider to what extent the target should be higher than 60%, with a view to making recommendations on the appropriate amendment to the long term target.

46. A number of witnesses made the important point that the exact level of the 2050 target mattered less than the shape of the trajectory and the level of the interim targets which

40 Q 659

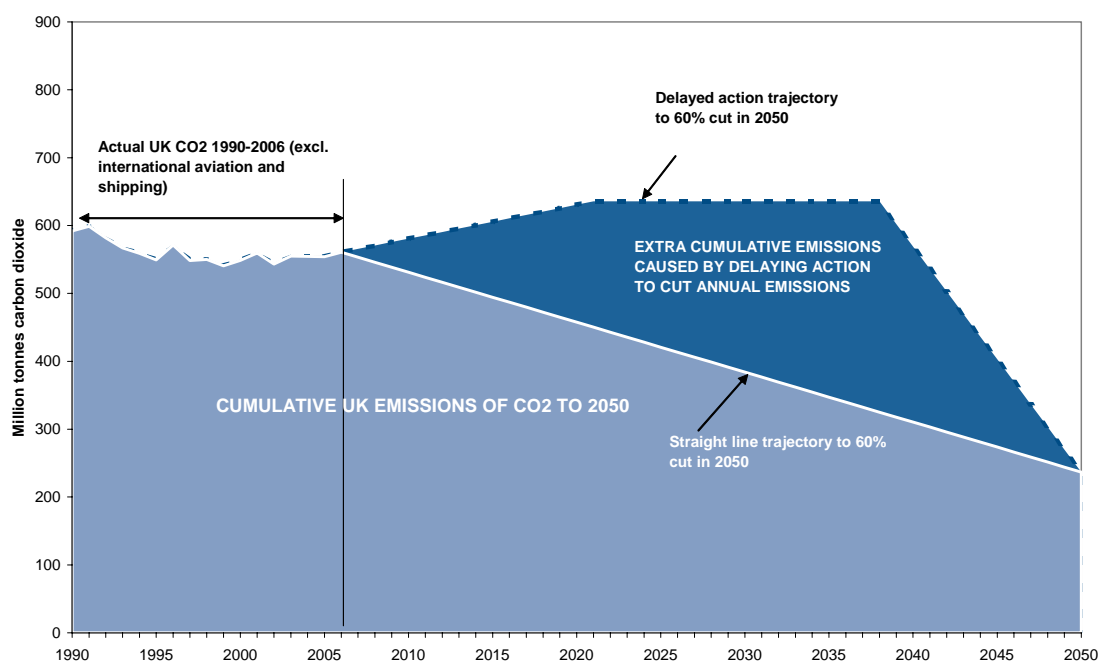
41 CBB 59, para 11

42 Q 251

43 Q 476

define that shape. Dr Kevin Anderson of the Tyndall Centre argued persuasively that the crucial issue was the cumulative amount of carbon emissions over the period from now to 2050, rather than the exact level of the 2050 target itself and performance against it in that year. He pointed out that the Government could in principle meet the target by maintaining emissions at their present level until 2049 and reducing them in the final year; and that this would therefore have no impact on reducing global warming.⁴⁴ **Figure 3** illustrates the importance of cumulative emissions in the context of the UK's targets.

Figure 3: Some ways of reaching a 60% cut are worse than others: delaying cuts until later years will lead to greater emissions overall



Note: This graph illustrates the fact that delaying action to cut annual emissions will lead to higher cumulative carbon in the atmosphere – even if the UK still reaches a 60% reduction target in 2050.

The shaded areas under the trajectories represent the volume of carbon emitted by the UK.

The darker shaded area represents the extra cumulative emissions that would be released by delaying action to cut annual emissions, as opposed to following a straight line trajectory in annual emissions cuts from 2007 to 2050.

Making even steeper cuts in early years would reduce the cumulative emissions from the UK still further.

Higher cumulative concentrations of carbon in the global atmosphere will increase the probability of global warming rising above 2°C, and with that the risks of very serious and irreversible impacts.

47. The draft Bill places responsibility on the Committee on Climate Change to determine the optimal shape of the emissions trajectory to 2050, but it does not include any target or specific provision for monitoring the level of cumulative emissions over that period. We recommend that the Bill should be amended to require the Committee, in recommending carbon budgets, to publish a forecast of the cumulative amount of

emissions implied by the emissions trajectory it is recommending; and for the Government to set out the impact on cumulative emissions if it fails to follow the advice of the Committee.

48. Some witnesses suggested that it would be more appropriate for the 60% target to be replaced by a target to contain global temperature rises to within 2°C on the grounds that this is the desired outcome, and forms the overall objective on which EU climate change policy is based. Climate science suggests that above this level of warming there would be increased risks of triggering irreversible events – such as the melting of the Greenland ice cap, and the burning of the Amazon rainforest – which would not just have very serious consequences in themselves but would also accelerate further climate change.

49. In practice, it makes sense for the targets in the Bill to remain expressed in terms of reductions in the UK's net emissions budgets, given that this is something which the Government can deliver through the introduction of various policy measures, and thus also be judged against. At the same time, these targets must be informed by the overarching objective of reducing UK emissions in line with a relatively 'safe' global stabilisation target. **To ensure that the UK's statutory targets remain in line with the best scientific understanding of the level of effort required, the Government should publish the rationale behind them. This should make clear the stabilisation target for global atmospheric concentrations of greenhouse gases, and the resulting projected temperature rises, which the Government is aiming for, along with the central assumptions used to correlate between these goals and the UK's targets. The Bill should also state that if the Secretary of State proposes to revise the 2020 or 2050 targets, he or she must publish the rationale for the new target.**

The interim target of a 26% to 32% reduction by 2020

50. We have referred above to the role of the Committee on Climate Change in terms of determining the 'optimal pathway' to reaching the long-term 60% carbon reduction target. The consultation document places considerable importance on this aspect of its work, and indeed the determination of such a pathway is integrally linked to the main function of the Committee in recommending the levels of carbon budgets for up to 15 years in advance.

51. We were therefore surprised that the draft Bill includes an interim statutory target of "at least 26% but not more than 32%" reduction in CO₂ by 2020. This would appear severely to compromise the independence of the Committee on Climate Change in terms of determining the optimal trajectory and the level of successive carbon budgets. In explaining why they had adopted this approach, the Government emphasised the need to provide a useful signal to business and industry of the level of ambition required. Given the lack of progress over the last seven years in reducing carbon emissions, we note that the interim minimum target is also extremely challenging (though this depends crucially on the extent to which the use of foreign carbon credits is restricted, an issue we return to in paragraphs 78-93 below). On balance, therefore, **we support the inclusion of a minimum interim target to reduce the level of uncertainty about the direction of travel and to stimulate investment in low-carbon technologies.**

52. However, we were not convinced by the Government's arguments over the need to set a limit to the maximum carbon savings which could be achieved. We see no need for such a

limit in view of the fact that the Government will itself be setting the first three carbon budgets – including that covering the 2020 interim target – soon after the legislation is enacted. In addition, should the EU greenhouse gas target which the UK is asked to take on be increased to 30%, this could conflict with an interim target of 26-32% (see paragraphs 60 and 61 below). It is therefore not obvious to us why the Government should wish to restrict the maximum carbon reduction in this way.

53. Although we support the inclusion of a minimum interim statutory target for 2020, we note that it raises troubling issues about the independence of the Committee on Climate Change in determining for itself the optimal emissions trajectory. We also note that the target – as currently drafted – places a maximum level on the carbon budget which might be set for 2018 to 2022. We see no compelling reason for such a limit and therefore recommend that it be deleted from the draft Bill.

Revisions to statutory targets

54. The draft Bill allows for statutory targets to be revised subject to two conditions – significant scientific developments in the understanding of climate change, and significant changes in international circumstances. The draft Bill, in Clause 1(5), provides for revisions to be made by an Order subject to the affirmative resolution procedure.⁴⁵

55. Given the weight of scientific opinion and for the reasons set out above, it is clear to us that the draft Bill should include provisions to increase the statutory emissions targets for 2020 and 2050. However, to allow for reductions in the target seems to us seriously to undermine the fundamental purpose of the Bill in terms of providing greater certainty to business and industry on the scale of reductions required and incentivising investment in low-carbon technologies. We therefore recommend that the Bill be amended to restrict the order-making power in Clause 1 to increasing the target. This could be achieved by replacing “amend” with “increase” in Clauses 1(3) and (3); any reduction of the target for 2020 or 2050 should require primary legislation.

56. We are concerned that the affirmative resolution procedure contained in Clause 1 does not offer a sufficient level of Parliamentary scrutiny, since it provides only a limited opportunity for debate and no opportunity to amend. Any increase in the 2050 target could have far-reaching implications for the economy and society as a whole. There should be an opportunity for Parliament to consider the scientific or international reasons that the Government considers are sufficient to justify a change and to reach a decision on whether a different target to that proposed may be more suitable. The same applies to the power to amend the target for 2020.

57. The “super-affirmative” resolution procedure provides for a higher level of Parliamentary scrutiny of secondary legislation. It gives Parliament, including designated committees in each House, an opportunity to scrutinise proposals contained in secondary legislation and to recommend changes before the Government introduce a final order for approval. The procedure is held to offer “all the advantages of pre-legislative scrutiny: detailed, evidence based scrutiny and analysis; wide consultation and public access to the legislative process; and the testing and amendment of proposed legislation to produce a

⁴⁵ Clause 1(5)

better quality of outcome”.⁴⁶ The procedure has mainly been used to scrutinise the power to amend primary legislation.⁴⁷

58. Alternatively, the draft Bill could allow Parliament to amend any Order that will amend the targets for 2020 and 2050. Amendable statutory instruments of this kind are fairly rare, but there are recent examples. For instance, section 27 of the Civil Contingencies Act 2004 allows the amendment of statutory instruments that introduce emergency regulations, and there are a number of older precedents where such a power is provided.⁴⁸ Either way, **we recommend that the power to amend the target for 2020 and 2050 is made subject to a greater level of Parliamentary scrutiny than is offered by the affirmative resolution procedure.**

59. While the power to amend a carbon budget can only be exercised after consulting the Committee on Climate Change, there is no obligation on the Secretary of State to consult the Committee before amending the targets for 2020 and 2050. The Head of the Bill Team at Defra justified this apparent anomaly on the basis that Government alone has power to set the targets and the Committee’s role is confined to advising on the most suitable trajectory.⁴⁹ We feel that the Committee would be ideally placed to consider whether such an increase was appropriate. In the interests of producing a draft Bill that has maximum credibility and a Committee that we hope will develop a level of respect that could lead to a long-term consensus, **we recommend that the Secretary of State be required to take account of the views of the Committee on Climate Change before exercising the power to amend the targets in Clauses 1(3) and 3(3).**

60. We were particularly interested in the relationship of the interim target to the target set by the EU at the 2007 Spring Council of a reduction of 20% in greenhouse gases by 2020 (or 30%, subject to the agreement on action by developed countries). We asked the Office of Climate Change (OCC) what the UK share of this target might be if the EU employed a similar approach to burden-sharing as it had previously done. The OCC pointed out that the UK interim target of a 26 to 32% reduction in carbon dioxide would translate into a greenhouse gas target of 32% to 37%. OCC officials expressed the view that this would be within the burden-sharing target the UK would take on, but they were unable to provide a definitive answer.⁵⁰ We also raised this issue with Mr Moser from the EU Commission. While appreciating the potential conflict, he expressed the view that there would be no difficulties provided that any domestic statutory targets exceeded those set by the EU.⁵¹

61. It is unclear how the interim target will relate to the EU’s overall target of a 20% cut in greenhouse gases by 2020 (or 30%, subject to other developed countries adopting similar measures). It is possible that a burden sharing agreement could result in the UK being asked to adopt a higher target than the maximum currently proposed within the

46 *How Parliament Works*, Rogers and Walters, Sixth Ed, page 262

47 Examples include the Northern Ireland Act 1998 (s 85), the Human Rights Act (Sch 2), the Local Government Act 1999 (s 17), the Local Government Act 2000 (s 9), and the Regulatory Reform Act 2006 (s 13 and 14).

48 Report from the Joint Committee on Delegated Legislation, Session 1971-72 (HL 184, HC 475) page 181; Erskine May, 23rd Ed, page 675.

49 Q 719

50 Q 619 (Mr Mortimer)

51 Q 134

draft Climate Change Bill. It will be important to ensure that any domestic targets set will be at least as challenging as EU targets or those set internationally.

3 Carbon budgets

62. A central feature of the draft Bill is the proposal to create a system of carbon budgeting based on a five-year budgetary period. On advice from the Committee on Climate Change, the Government will set carbon targets for three future budgetary periods covering up to 15 years in advance. These proposals raise various issues, including one of the most important aspects of the entire Bill: the extent to which foreign carbon credits can count towards the proposed UK budgetary targets. Carbon budgeting is covered mainly in Part 1 of the Bill (Clauses 2 to 18), and in paragraphs 5.14 to 5.46 of the consultation document.

The five year timeframe

63. The Government has advanced a number of arguments for adopting a five-year budgetary period:

- The timescale of the first period (2008 to 2012) aligns exactly with the Kyoto Protocol first commitment period and with the second phase of the EU ETS;
- It allows for unexpected annual variations in factors such as fuel prices and weather conditions which have a direct effect on CO₂, and it therefore promotes a more continuous and cost-effective process for reducing carbon emissions;
- The concatenation of three budgetary periods provides an appropriate degree of assurance to business and industry, balancing the need for long term targets against the need to ensure a degree of certainty of progress in the short to medium term.

64. Organisations expressed a range of different views on the concept of a five-year budgetary period. Some expressed reservations and argued for annual targets.⁵² Others suggested shortening the budgetary period to three years, or else creating a system of annual targets based on a five-year moving average.⁵³ A number of witnesses emphasised the need for a strong focus on annual monitoring and reporting, given the urgency of reducing carbon emissions and the fact that the adoption of a five-year cycle means that the first full report from the proposed Committee on Climate Change would not become available until July 2014.⁵⁴

65. In general, however, many organisations seemed to be content overall with the five-year timescale proposed, provided it was combined with strong annual reporting. Indeed, Friends of the Earth (FoE) and WWF-UK – both of which had previously campaigned for a system of annual targets – have changed their stance and now acknowledge the need for some flexibility. This was summed up in the views expressed by FoE:

We are perfectly happy to admit we have changed our position and thought that a combination of this budget, which would do the averaging work for you, does away

52 CCB 23, para 9

53 World Development Movement CCB 26, para 3; Dr Fleming CCB 74, para 10

54 Friends of the Earth, CCB 58, para 3.2; Environmental Industries Commission, CCB 21; WWF-UK, CCB 63

with the need for variability, but you need to hold the government to account each year on whether it is on track for meeting that budget.⁵⁵

66. While we accept that a system of statutory targets based on five-year budgets appears reasonable, we do have a number of concerns. First, it will inevitably be the case that external organisations will analyse future budgetary targets and calculate the proposed trajectory in terms of annual emissions. These figures would become *de facto* annual targets. Rather than leave this process to external forces, it would be preferable for the Government to agree indicative annual milestones, based on the advice of the Committee on Climate Change, against which performance could be assessed. This would also assist both the Government and those scrutinising its work to check that progress towards the five-year targets is satisfactory.

67. Secondly, no guarantee that future EU or international agreements will conform to a five-year timescale is in place, and indeed Mr Moser acknowledged the degree of uncertainty in this respect.⁵⁶ The draft Bill allows for the possibility of altering future carbon budgetary periods accordingly, and the Secretary of State stated explicitly that it would be essential for the UK to maintain the alignment between carbon budgets and international trading periods.⁵⁷ However, any lengthening of future trading periods would mean that comprehensive reporting on UK achievement and the Government's own reports on its carbon reduction strategy would become less frequent. This should give considerable cause for concern.

68. Thirdly, and arising from such considerations, it is apparent that the Government's view of carbon budgets is integrally linked to the concept of carbon trading. Given the extent to which the Government anticipates relying on foreign credits (a subject we discuss later in our report), it may become less meaningful to assess progress on an annual basis. In this respect, it will be crucially important to ensure total clarity when setting budgets and monitoring performance against them in terms of the reductions to be achieved by domestic effort. We therefore welcome the fact that the draft Bill makes adequate provision for this.

69. We support the proposed system of five-yearly budgets provided there is a strong system of annual reporting on progress. We recommend that, in setting the level of future budgets, the Government should also provide indicative annual milestones to help assess progress on an annual basis. More generally, we would be concerned if the budgetary period were lengthened to maintain alignment with international reporting and emissions trading periods, given that this could reduce the frequency of the Government's strategy reports and outturn assessments. Clause 12(4) gives the Secretary of State power to make "necessary or expedient" amendments to the proposed Act where the length of the budgetary period is altered in line with similar periods under any international agreement. We recommend that the draft Bill compels the Secretary of State to make an order under Clause 12(4) that requires strategy reports under Clause 6 to be prepared at least every five years in the event that the existing five-year budgeting period is lengthened. The Government's desire to maintain this alignment appears to be

55 Q 204 (Mr Williams)

56 Q 131

57 Clause 12; Q 704

based on an expectation that emissions trading and the use of foreign credits will provide a substantial proportion of the effort required to achieve UK carbon reduction targets.

The setting of carbon budgets

70. The draft Bill envisages the setting of three future carbon budgets covering a period of up to 15 years. Some organisations, such as EDF and the Energy Saving Trust (EST), were concerned that the overall length of time envisaged was too short. Ravi Baga, the Director of Environment and Market Regulation at EDF, told us:

“If you look at a number of low carbon technologies that we are going to be investing in, they are not going to be online before 2017 and they will be operational for 25 or 26 years after that. We think the Bill should allow for five five-year budget periods so that we have some visibility of a 25 year timespan”.⁵⁸

However, most organisations appeared content with the proposed length of the framework.

Factors to be taken into account in setting budgets

71. The draft Bill sets out a range of economic, social, and environmental factors which are to be taken into account by both the Government and the Committee on Climate Change in setting and advising on successive carbon budgets. The consultation document, published alongside the draft Bill, explains that: “The aim in considering all such relevant factors when setting carbon budgets is to achieve the optimal pathway to the 2020 and 2050 targets; a pathway which is consistent with the environmental outcome we want whilst maximising benefits and minimising costs”.⁵⁹

72. Conceivably, there might be some danger in such use of the phrase ‘optimal pathway’ (or trajectory), if this were interpreted by the Committee on Climate Change as being dependent on the calculation of the ‘Social Cost of Carbon’ (SCC). The SCC is a concept much used by environmental economists in the attempt to work out what would be the most cost-effective trajectory of carbon reductions, i.e. one which follows the best available trade-off at all times between the costs of carbon abatement and the future costs which would be avoided by reducing the extent of global warming. We would not want the Committee’s advice on the level of carbon budgets to hinge on its use of the SCC, however, for the reason that it is intrinsically difficult to calculate, and might provoke controversy given that it would involve assessing the future damages of global warming in purely economic terms. We are therefore reassured that the draft Bill itself does not mention the SCC, nor the phrase ‘optimal pathway’. **The draft Bill has it right in simply instructing the Secretary of State and Committee on Climate Change that they must take a range of issues, including climate science and economic and social circumstances, into account when considering the level of UK carbon budgets, without prescribing the means with which they do so. At the same time, in order for the statutory injunction that these disparate factors be taken into account to be meaningful, both the Government and the**

58 Q 229

59 Cm 7040, Consultation Document, para 5.18

Committee on Climate Change should clearly document how in practice they have balanced these issues in making their decisions.

Box 3: The Social Cost of Carbon

A recent report by the National Audit Office defined the Social Cost of Carbon as follows, and explained why the Government chose not to rely on it in choosing which carbon reduction policies to implement as part of the 2006 Climate Change Programme Review:

The social cost of carbon is a value which aims to quantify the damage to health, environment and the economy caused by each tonne of carbon emitted – for example through poorer health outcomes, loss or damage to biodiversity, and economic impacts on agricultural, timber, water and energy industries as well as the loss or damage to coastal resources. The key point about these costs are that they are not felt by the immediate parties to any economic transaction – they are “externalities” in economists’ terminology – but are borne by wider society. ...

In theory, at least, the indicator could be used to assess whether society will be better off if the policy is undertaken (if the cost per tonne is lower than the primary benefit – i.e. the social cost of carbon). So if a social cost of carbon of £70 per tonne is accepted, a policy that reduces emissions by one tonne at a cost of more than £70 would be rejected.

However, the social cost of carbon has been criticised as being too uncertain to provide the basis of policy decision-making. It has been argued that monetisation of climate change damage, such as loss of ecosystems and large-scale population displacement, cannot be assessed because an upper limit of the cost is so difficult to establish. Recent research carried out on behalf of Defra concluded that a single monetary estimate of the social cost of carbon should be avoided for policy decision-making.

In practice, the 2006 Review placed little outright or explicit reliance on the social cost of carbon to inform policy choices: the data was just part of the information available to policy makers. Policies were not selected purely by comparison with the social cost of carbon, although policies which came at very significant cost were rejected.

Source: National Audit Office, Cost-Effectiveness Analysis in the 2006 Climate Change Programme Review, January 2007

73. Some environmental organisations, notably the RSPB, have criticised the range of factors that the Bill sets out that the Government and Committee on Climate Change must take into account, on the grounds that these do not place enough weight on sustainable development, and that an exclusive focus on carbon reductions might lead to adverse effects in other environmental areas.⁶⁰ For instance, when deciding on major renewable energy projects, such as wind farms and tidal barrages, certain trade-offs may need to be considered, between the need to reduce carbon emissions, the impacts on local wildlife, and the financial costs of minimising such impacts. We were interested to note that the Californian state government will be required to report on the wider environmental impacts of its emissions reductions policies.⁶¹ While we have some concerns that the tasks allotted to the Committee are already complicated enough, we have some sympathy with this view – especially given that, as the draft Bill stands, the Government and Committee will be required to take the economic impacts of carbon budgets into account. Therefore **we recommend that impacts on the environment, especially biodiversity, be added to the list of factors which the Secretary of State and the Committee on Climate Change must take into account.**

60 CCB 49

61 Q 295

Sectoral budgets

74. The draft Bill also provides for a limited breakdown of the overall target into one target for those sectors covered by emissions trading schemes and another for all other sectors. But it was initially unclear to us whether the latter would be broken down any further into, for example, targets for transport, domestic housing, etc. Some witnesses clearly assumed that this was the intention. For example, Professor Sir David King told us:

“I am not in a position to give you chapter and verse on the difficulties sector by sector in setting targets 15 years ahead. I would say that I think setting targets 15 years ahead is critically important. Each sector needs to know where it is expected to go and that justifies private investment funds going into these sectors”.⁶²

75. However, the Office of Climate Change told us that it was not the intention of the draft Bill that either the Committee on Climate Change or the Government should set sectoral targets, though it acknowledged that the Committee would be free to publish any detailed analysis on the basis of which it had recommended an overall target.

76. If budgetary targets are to have any credibility, they must be based on a detailed analysis of the scope and potential for carbon reductions in specific sectors. To that extent we recommend that the Government, as a minimum, both makes publicly available the detailed analyses and forecasts which underpin the targets which are recommended and set, and lays out indicative figures for reductions in each sector.

The revision of budgets

77. Clause 13 allows the Secretary of State to alter a carbon budget where there has been a significant change affecting the basis on which it was set. We accept there may be circumstances where it is necessary or desirable to amend a carbon budget, particularly where there have been scientific or international developments in the years that will pass before the budgetary period begins. However, the House of Lords Delegated Powers and Regulatory Reform Committee was troubled that Clause 13(5) permits a budget to be amended retrospectively up to 15 months after the period has come to a close.⁶³ The Head of the Bill Team told us that an ex-post power to amend carbon budgets was necessary given that final emission figures will not be known until after the period comes to a close.⁶⁴ Nevertheless, we feel that any alteration after the close of a period would undermine investor confidence and the credibility of the draft Bill. Should the Government fail to hit a five-year target for clear reasons, we would expect this to be explained to Parliament, and made up for in the next budgetary period, rather than see the budget changed to reflect the reduction actually achieved. **We recommend that Clause 13 be amended so as to prohibit any alteration to a carbon budget after the budgetary period has ended.**

62 Q 110

63 CCB 19, para 3

64 Q 716

The inclusion of foreign credits

78. A central feature of the budgetary process is the concept of the ‘net UK carbon account’. This is introduced in the very first clause of the draft Bill, as it is the basis on which the long-term target is set. Clause 2 goes on to equate it to the concept of the carbon budget and the budgetary target for a five-year period. Clause 18 formally defines the net UK carbon account for a period as:

“...the amount of net UK carbon dioxide emissions for a period: (a) reduced by the amount of carbon credits used in accordance with regulations under section 16 to offset those emissions; and (b) increased by the amount of carbon debits that in accordance with regulations under that section are to be added to those emissions”.

79. The term ‘net UK carbon dioxide emissions’ is defined in Clause 14 of the draft Bill. It corresponds to the internationally agreed basis for reporting CO₂ emissions and takes account of removals of CO₂ through land-use, land-use change, or forestry. Carbon credits and debits are defined in Clause 16 for the purposes of this Bill, and involve three elements:

- a reduction in an amount of greenhouse gas emissions;
- the removal of an amount of greenhouse gas from the atmosphere; or
- an amount of greenhouse gas emissions allowed under a scheme or arrangement imposing a limit on such emissions.

80. The key difference between credits and debits is that carbon credits relate to sources, and removals occurring, *outside* the UK, whereas carbon debits relate to sources in the UK. But, as the Explanatory Notes to the draft Bill make clear, both debits and credits need to be understood in relation to the use of international emissions trading, including the use of the EU ETS.⁶⁵ To illustrate this practically, if UK entities purchased EU ETS allowances or Clean Development Mechanism (CDM) credits from other countries, this would count as a carbon credit. If, however, they sold UK allowances which had been allocated to them to entities in other EU member states, this would count as a carbon debit. (We consider the provisions in the draft Bill which deal explicitly with trading schemes in detail in Section 6. Here we consider the principle of allowing international credits within UK carbon budgets.)

81. Paragraphs 5.26 to 5.35 of the Government’s consultation document discuss the use of foreign credits and the extent to which they should be eligible in contributing towards UK emissions reductions. In referring to the Kyoto flexible mechanisms and the EU ETS, the Government states: “It is important that the targets and budgets in this Bill do not restrict the UK or UK organisations from using these mechanisms. We therefore propose that the Bill should allow emissions reductions achieved overseas but paid for by UK entities to be counted towards the targets and budgets”.⁶⁶

82. We note that the draft Bill represents an important development in the nature of UK targets for carbon reduction. The concept of the net UK carbon account includes

⁶⁵ Cm 7040, Explanatory Notes, paras 66 to 68

⁶⁶ *Ibid*, Consultation Document, para 5.28

emission reductions arising from non-UK sources; therefore, the carbon targets for budgetary periods which the Bill defines cannot be regarded simply as UK *domestic* targets. This contrasts with the original definition of the Government’s 2010 target, to reduce UK CO₂ emissions by 20% from a 1990 baseline.

83. There are several potentially positive aspects of providing for the use of international carbon credits in this way. As the consultation document on the draft Bill explains:

“the Stern Review pointed to the environmental and economic advantages of international carbon trading in ensuring that ambitious reduction targets can be delivered at least cost, and noted the advantages of distinguishing between the overall level of responsibility for reducing global emissions that each country undertakes, rather than the emissions reductions that are required to physically occur within its borders, commenting that this distinction can drive investment flows globally that can make it possible for developing countries to limit their emissions far below the levels they would otherwise be expected to reach. This is one of the reasons the Government believes it appropriate to adopt a target based on the “net UK carbon account”.”⁶⁷

Indeed, the Partial Regulatory Impact Assessment on the draft Bill suggests that the costs of mitigation could be reduced by around 25% if one third of the effort required was met by purchasing credits from overseas.⁶⁸ Additionally, purchasing credits from abroad would be an important source of funding for projects to forestall the growth of emissions from the developing world.

84. At the same time, we have some concerns about the use of carbon credits as provided for under this legislation. The first regards transparency: it is essential that the contribution of carbon credits in meeting UK targets is clearly reported, otherwise this risks fostering a false sense of assurance as to the progress in reducing emissions from within the UK. The issues over transparency can be illustrated by the way in which the Government has reported the contribution of the EU Emissions Trading Scheme to its 2010 carbon reduction target. When the 2010 target was first established, it was clearly understood to refer to emissions reductions taking place within the UK. As late as the 2003 Energy White Paper the Government was projecting that this target would be met almost in full, and this wholly through domestic measures. Only since the revised Climate Change Programme was published in 2006 has the Government begun to count the use of carbon credits purchased from abroad (through the EU Emissions Trading Scheme and Clean Development Mechanism) against this target, and those in the future. The Environmental Audit Committee (EAC) has been very strong in its commentary on the transparency with which this has been reported:

“without the expected contribution of Phase II of the EU ETS, UK carbon emissions in 2010 are projected to be only just over halfway to the 20% target, a very significant shortfall. Treating Phase II as though ... all 8 million tonnes of carbon reductions are going to take place within the UK, therefore makes a very significant difference to the credibility of this target.

⁶⁷ *Ibid*, Consultation Document, para 5.32

⁶⁸ *Ibid*, Partial Regulatory Impact Assessment, para 5.1.37

... [C]onsidering the political capital that the Government has made out of its 2010 target, and the fact that it has featured as a repeated manifesto commitment, the Government has a democratic duty to be more transparent in its reporting of progress against this and future targets. As it stands, presentation of the UK's progress towards its carbon reduction targets is apt to mislead.⁶⁹

85. The EU Emissions Trading Scheme also illustrates a second major concern: the robustness of the schemes which issue such credits, and thus the extent to which they actually represent a genuine contribution to reducing global emissions. In Phase I of the EU ETS (2005-2007) all 25 Member States were able to set their own cap (National Allocation Plan, or NAP) on the emissions allowed from their industries. Some Member States were more generous in allocating allowances to their industries than others, and the United Kingdom has proved to be one of the few Member States whose NAP has been set below its actual emissions. In order to cover the emissions in excess of its cap, the UK was a net buyer of some 34 million allowances from the rest of the Scheme in 2006. However, because most Member States over-allocated their industries, there is an overall surplus of allowances across the Scheme throughout Phase I. Thus it appears that, rather than funding emissions reductions elsewhere, the UK's purchase of ETS credits has merely bought what has been described as "hot air" – a notional saving that does not actually represent any reduction in global emissions.⁷⁰ Notwithstanding this, the Government has decided to treat these credits as representing real carbon reductions, and furthermore to report them as reductions of emissions taking place within the UK. For instance, a recent Defra press release states:

"Our provisional estimate of CO₂ emissions in 2006 is that they were about 5.3% below 1990 levels. However, when the effect of the EU ETS is taken into account, UK emissions were about 11.0% below 1990 levels, the same as in 2005."⁷¹

86. The Environmental Audit Committee concluded that Phase II of the EU ETS (2008-2012) looks set to be more robust and to deliver some real carbon reductions.⁷² However, Phase II will also allow the use, within limits (which vary by Member State), of credits generated under the Clean Development Mechanism (CDM) or Joint Implementation (JI) mechanism. One issue here is that CDM credits are issued against emissions saving projects in developing countries which do not themselves have binding emissions caps under Kyoto; thus one cannot be certain as to their overall contribution to reducing global emissions. Even more than this, the EAC drew attention in particular to concerns over the robustness of certain CDM projects. These applied especially to projects which involve reductions in greenhouse gases other than CO₂ (so-called "exotic gases") such as hydrofluorocarbons (HFCs). Not only does such investment not do anything to forestall the growth of carbon-intensive energy infrastructure in the developing world, but, as the EAC heard, there are suspicions that many of these HFC reduction projects are essentially bogus. For instance, the economic incentives offered by the CDM appear actually to be encouraging the building of refrigerant plants in the developing world, simply in order that

69 *The EU Emissions Trading Scheme: Lessons for the future*, Environmental Audit Committee, Second Report of Session 2006-07, HC 70, (hereafter HC 70), paras 60, 82

70 HC 70, para 76

71 Defra press release, 17 May 2007, available at www.defra.gov.uk/news/2007/0705176.htm

72 HC 70, para 35

the HFC by-products from the plant can be incinerated, and the credits generated from this sold at a large profit.⁷³

87. Given our concerns about the use of international emissions credits to meet UK carbon budgets, we are to some extent reassured that Clause 21 of the draft Bill imposes on the Committee on Climate Change a duty to report on the amount and type of credits that were used in each preceding budgetary period. However, we believe that these provisions should be strengthened, and therefore **we recommend that Clause 21 be amended, to give the Committee on Climate Change a duty to report annually on the use of carbon credits in the preceding year. In doing so, the Committee should be required to give an opinion on the robustness of the schemes under which these credits have been issued, the effectiveness of these credits in reducing global greenhouse emissions, and the transparency with which the Government has reported their use. Additionally, regulations (under Clause 16) which define the types and values of different carbon credits, and the circumstances in which they are to be set against the UK carbon budget, ought to be added to the features subject to the super-affirmative resolution procedure.**

88. A third issue is that an excessive use of credits could, by forestalling the pressure on the UK to reduce its own emissions, enable ‘Business As Usual’ decisions on major infrastructure projects to continue, and thus in effect lock us into a high carbon economy for decades to come. The Government partly acknowledges this concern in the draft Bill consultation document, which, having set out that international credits may be set against UK carbon budgets, stresses: “This does not mean that all (or an unlimited amount of) emissions reduction effort should or would be achieved overseas”⁷⁴. To this end it acknowledges the principle of supplementarity set out in the Marrakesh Accords – namely that “...the use of the [Kyoto project] mechanisms shall be supplemental to domestic action and ...domestic action shall thus constitute a significant element of the effort made by each Party...”⁷⁵

89. However, the consultation document points out that there is a lack of clarity over what precisely the supplementarity principle means in terms of a quantitative limit on emissions reduction effort which can be achieved overseas, and that the principle does not in any case apply to EU ETS allowances. Indeed, it specifically acknowledges that “there is no limit on the degree to which organisations within the EU ETS system can reduce their emissions through purchasing allowances, many or all of which could come from other EU Member States”⁷⁶.

90. At present, the draft Bill does not include any limit on the use of foreign credits, though it does provide for the Committee on Climate Change to advise the Secretary of State on the extent to which targets should be met by the use of carbon credits. The consultation document makes it clear that “the Government is seeking authorisation in the Bill to spend money on overseas credits and allowances, to help the UK to remain within budget if necessary”.⁷⁷ Evidence presented by the Environment Agency also revealed that the

73 HC 70, paras 71-2

74 Cm 7040, Consultation Document, para 5.29

75 Decisions 7/CP.4 and 14/CP.4

76 Cm 7040, Consultation Document, para 5.31

77 *Ibid*, para 5.33

Government is anticipating that 70% of the savings to be achieved by the UK in Phase 2 of the EU ETS are expected to come from the purchase of foreign credits.

91. Organisations and individuals expressed a considerable range of views on this issue in their evidence to us. Climate Change Capital, for example, along with other witnesses suggested that, while there was no formal definition of the supplementary principle, it was widely interpreted as implying that the use of foreign credits should not exceed 50% of a country's target savings.⁷⁸ A number of organisations called for the government to set a specific limit on the proportion of the UK carbon budget that could be delivered by the use of overseas effort. The Environment Agency proposed 30% as a possible cap.⁷⁹ The NGOs we spoke to felt that even this was too high, although Mr Kronick from Greenpeace suggested it could be a good starting point for negotiations, while emphasising "what is important to remember is the whole point of the exercise is to reduce emissions, it is not to buy in the credits that show the emissions were reduced somewhere else".⁸⁰ We were also interested to note that the Californian state government is likely to set a limit on the amount of emissions credits which it would accept against its targets; as Mr Skopec put it: "we will most likely have an element of that, but it will not be overwhelming".⁸¹

92. Regarding the issue of 'supplementarity', it is important to bear in mind that the fundamental basis of the Kyoto protocol is the principle that developed nations should take primary responsibility for the problem of climate change and should lead the way by setting themselves targets to reduce emissions. However, by not specifying an absolute cap on the use of foreign emissions credits in order to meet UK carbon budgetary requirements, the Bill as currently drafted would still theoretically allow all the savings to be made externally to the UK, notably in developing countries, and thereby postponing the decarbonisation of the UK economy. We are somewhat surprised that the Government appears to be relaxed that 70% of the UK emission savings anticipated under Phase 2 of the ETS are likely to be derived from international credits. As the Environment, Food and Rural Affairs Select Committee says, there would be "serious implications of over-utilising this facility in terms of the UK's credibility on the international stage".⁸²

93. We are somewhat reassured that Clause 20 gives the Committee on Climate Change a duty to advise the Secretary of State on the extent to which each carbon budget should be met by the use of carbon credits. However, we recommend that these provisions be strengthened, with the Secretary of State being given a duty, under this advice, to set caps on the use of international credits against the UK's carbon budget for each budgetary period.

94. We still remain concerned by the absence in the Bill of any firm principles to guide the Committee's advice in this respect. As we understand it, the scope for the use of international credits should reduce, tending towards net zero as we move towards 2050 under any successful global emissions reduction regime, given that in order for any

78 Q 139

79 Q 186

80 Q 213

81 Q 287

82 HC 534, para 64

nation to have surplus credits to sell it must be over-achieving its own targets – something which will prove necessarily more and more challenging for all nations as binding caps become ever more stringent. Therefore, in addition, we recommend that the Bill should place a duty on the Secretary of State, on advice from the Committee, to publish the rationale on which the cap on the use of international credits is based. This should make clear the proportion of emissions cuts that must be made from within developed nations such as the UK – or to put it the opposite way, the extent to which richer nations can buy their way out of making emissions cuts – in order for the world as a whole to stay within its global emissions budget to 2050.

Borrowing allowances from subsequent periods

95. The draft Bill currently allows the Government to borrow up to 1% of the current budgetary amount from the next period in order to avoid missing its target by a very small amount. The Government explained in evidence that it regarded the borrowing provisions as a minimalist measure designed simply to prevent the Government from missing its target by a very small amount, due to an unexpected variation in weather patterns in the final year of the budgetary period, or as a result of small changes in validating data. Ministers also clearly confirmed that the 1% borrowing proposal is not cumulative. There was little specific comment to us on the borrowing provision, and there appeared to be a general acceptance of the government approach. **We therefore consider that the borrowing provision should be retained in the Bill.**

Banking allowances for use in subsequent periods

96. The draft Bill also allows for unlimited ‘banking’ of credits between successive borrowing periods.⁸³ Banking is defined as the carrying forward of any part of the carbon budget that exceeds the UK net carbon account for that period. The evidence we received did not, in general, oppose the power to ‘bank’ emission reductions for use in later budgetary periods, although some witnesses were concerned that an unlimited power to bank could be damaging to long-term progress; for instance, the Environmental Industries Commission stated, “[l]arge scale banking has the potential to reverse trends away from a path that reduces emissions and towards one of stagnation or reversal that may not become apparent until after the banked units have been used”.⁸⁴ The ABI raised similar concerns and argued that banking should be limited to a rolling five-year period in order to balance the incentive to take early action against the risk of stagnation or reversal.⁸⁵

97. The Environment Agency stated: “The possibility of banking should be a sign that the budget-setting process has been insufficiently ambitious, and that should not be a reason to reduce ambition in a subsequent period by spending from the bank”.⁸⁶ The Mayor of London went further and suggested that borrowing should be limited to individual years within a budget.⁸⁷ The position with regard to banking is more complex than that relating

83 Clause 8; Cm 7040, Consultation Document, paras 5.36-5.38

84 CCB 22

85 CCB 59, para 15

86 Environment Agency response to Government Consultation, para 2.2.1

87 CCB 10, para 5.2

to borrowing. The Government argues that the reduction of domestic emissions beyond what was initially targeted in one period might balance a degree of overshoot in the next. To this extent, the banking of excess domestic reductions might be justified. It would also, in the view of the Government, provide an incentive to achieve continuous emissions reductions and avoid penalising participants for over-performance.⁸⁸ **The banking of credit purchased by the Government from overseas should be explicitly excluded from the banking provisions in the Bill.**

98. However, there remains a possibility that a Government could purchase carbon credits cheaply in one period to offset against emissions incurred in the following budgetary period. Indeed, the complete collapse in price of Phase 1 EU ETS allowances demonstrates how easily this could now be done. **While we support the principle of banking of domestic over-achievement for use in a subsequent budgetary period, we recommend that the draft Bill be amended so as to place a limit on the extent to which carbon credits can be banked for use in this way.**

Annual reporting

99. The provisions in the draft Bill for annual reporting require the Government to produce an annual report some 15 months after the end of each reporting year. Following this, the Committee on Climate Change will itself compile a report, to which the Government is obliged to respond within three months. After each five-year budgetary period, the scope of these reports will be expanded to include a more comprehensive analysis of performance against the budgetary target, which will include the impact of carbon credits on meeting the target. These provisions appear adequate, though they do call into question the role of the Committee on Climate Change's report. We discuss this issue in the context of the Committee's role in Section 5 below.

100. Clause 7 of the Bill also allows for the reporting of UK domestic emissions reductions separately from the carbon credits.⁸⁹ This should therefore allow progress in meeting the domestic component of the target to be clearly assessed.

101. Clause 6 calls for the Secretary of State to report as soon as reasonably practicable after the budget period is set on the policy proposals of the Government to meet the target. Unlike the other provisions in the draft Bill that impose a duty to report, there is no specific deadline for the laying of this Report. It is up to the Government to determine what counts as "as soon as reasonably practicable". In order to ensure that no future Government is tempted to abuse its power in this respect, **we recommend that the draft Bill be amended to include a deadline of six months from the date the budget period is set for the Government to lay its policy proposals for meeting the target before Parliament with only a limited power to extend this period by an order subject to the negative resolution procedure**, thus making Clause 6 consistent with other similar provisions, such as Clause 11, concerning the deadline for the Government's response to the Committee's progress report.

⁸⁸ Cm 7040, Consultation Document, p.33 paras 5.36-38

⁸⁹ Clause 7(2) and 7(4)

102. The Bill does not include any provision for an annual Parliamentary debate. FoE argued for annual debates in Parliament, with the Committee's report being approved by MPs "rather than simply lying on the table and perhaps being ignored. These requirements could be made more onerous in cases where the Government were falling behind their planned trajectory, and less onerous if they were on track".⁹⁰ The European Communities (Amendment) Act 1993 requires, under section 5, "an assessment of the medium term economic and budgetary position in relation to public investment expenditure" to be approved by Parliament. Originally part of the process for assessing convergence criteria for a single currency, this mechanism is now used to facilitate a debate on the pre-budget report. This is an interesting precedent. However, any motion put before the House to agree the Committee on Climate Change's report should be substantive and amendable – we do not wish to see such an important issue relegated to an adjournment debate. **We recommend that the Bill ensure that the Government must table substantive, amendable motions for debate in each House to allow Parliament to consider and approve the report of the Committee on Climate Change.**

The deadline for the first three budgets

103. The draft Bill currently proposes that the Committee on Climate Change should provide its advice on the first three carbon budgets by 1 September 2008, and that the Government should set the first three carbon budgets by 31 December 2008. Given the timescales involved, this appears to be unrealistic – particularly in respect of the important and independent role to be played by the Committee on Climate Change. We discuss this issue in greater detail in Section 5 below, in the context of the role and establishment of the Committee.

90 CCB 58, para 4

4 Enforcement of the legislation

Legal enforcement of the targets and budgets

104. The draft Bill imposes a range of duties on the Secretary of State. They include the duty to set carbon budgets,⁹¹ to report on policy proposals,⁹² and to make as well as respond to statements on emissions and progress.⁹³ There is also a duty to consult the Committee on Climate Change on specific matters,⁹⁴ in addition to a duty to consult in relation to the introduction of regulations on trading schemes.⁹⁵ We are content that these duties are legally enforceable.

105. We do though have serious concerns about the legal enforceability of the duty of the Secretary of State to meet a series of targets and five-yearly budgets aimed at reducing the UK's carbon dioxide emissions against 1990 levels. In particular, the Secretary of State is required by Clauses 1(1) and 2(1)(b) to “ensure” that there is at least a 60% reduction by 2050 and that each of the five-yearly carbon budgets is not exceeded.

106. The draft Bill does not set out the consequences of the Secretary of State failing to achieve a target or budget. Where this happens there will, no doubt, be public and political pressure placed upon the Secretary of State but judicial review is the only mechanism by which the duty in Clauses 1(1) and 2(1)(b) can be legally enforced. We also see a role for the Committee on Climate Change to contribute to the enforcement of the targets and budgets, as discussed below in paragraph 127.

107. The Government has stated: “[t]his legal duty would mean that a Government which fails to meet its targets or stay within budget would be open to Judicial Review”⁹⁶ and “in such instance, the Government could be required to take remedial action by order of court”.⁹⁷ The Head of the Climate Change Bill Team at Defra told the EFRA Committee, “it is not clear ultimately what the courts would do in those circumstances. It is a fairly new type of duty... so the courts may indeed mandate particular action, although we could not predict that”.⁹⁸ The Financial Secretary told us there is a “very strong pressure for meeting these legal duties which, in our view and our advice, would ultimately be enforceable through the courts”.⁹⁹

108. The evidence that we have received has been, for the most part, extremely sceptical about judicial review being an effective mechanism to enforce the Secretary of State's duty to meet the targets and budgets. For instance Professor Forsyth, of Cambridge University, stated,

91 Clause 2(1)(a)

92 Clauses 6 and 37

93 Clauses 7 and 9 and 11

94 For instance, clauses 8(4) and 13(2)

95 Clause 30(1)

96 Cm 7040, Consultation Document, para 5.44

97 RIA, para 8.2

98 HC 534, Q 395

99 Q 653

“[A] target is not something that you can guarantee...it is something you would like to happen but you are not sure it will. So the duty of the Secretary of State to achieve the target is at best a duty to use his or her best endeavours to achieve that target, it cannot guarantee that the target will be achieved. The consequence that has for legal enforceability of this duty is that a failure to achieve the target does not, it seems to me, imply a breach of the duty, so there is nothing for the court to enforce even were it minded to do so. I am of the clear view...that this is a duty that is unenforceable in the courts”.¹⁰⁰

He felt that the same was true of the duty to meet the carbon budgets.¹⁰¹

109. Professor Forsyth suggested the court may declare a breach of duty if it could be demonstrated that the Secretary of State had failed to use his best endeavours or had acted in a way that was clearly unlawful, for example by taking into account an irrelevant consideration, but the limited prospect of demonstrating such a breach led to him characterising Clauses 1(1) and 2(1)(b) as political rather than legal duties, leaving it to Parliament and the general public to hold Government to account.¹⁰²

110. A similar view was expressed by Mr Wilson of Cambrensis and Burges Salmon to the Environment, Food and Rural Affairs Select Committee:

“There are some circumstances in which a court might intervene in a judicial review challenge; for example if the Secretary of State was acting wholly inconsistently with the targets and budgets, or (if there was a requirement written into the Bill for a more detailed action plan), by failing to take specific steps. But the real accountability and sanctions involved here are the risks of adverse public opinion, a bad press and Parliamentary pressure”.¹⁰³

We will return to Mr Wilson’s reference to an action plan procedure below, although we note that Professor Forsyth also stated to us that such a procedure may be enforced by the courts.¹⁰⁴

111. On the specific issue of the court compelling the Government to take remedial action in the event of a missed target or budget, Professor Forsyth stated,

“[T]he court cannot order the Secretary of State simply to ‘ensure’ that a target is met (especially if at the time the order is sought it was impossible to meet the target). The court would obviously need to be more specific in what was ordered. But the English courts lack the power (and the inclination) to enter into the detail of government. It is unthinkable that, in the absence of specific legislation granting such powers, that the court would order the Minister, for instance, to close coal fired power stations or make similar difficult decisions to secure the target”.¹⁰⁵

100 Q 4

101 Q 12

102 CCB 92

103 HC 534, Q 97 (Mr Wilson)

104 Qq 12 and 13 (Professor Forsyth)

105 CCB 92

Similar doubts were expressed by Mr Christopher Norton of Baker McKenzie, as well as by the legal witnesses who appeared before the EFRA Committee. For instance, Mr Woods of Stephenson Harwood, and Council Member of the UK Environmental Law Association, stated to the EFRA Committee that:

“I do not think it is very enforceable in practice... Judicial Review is designed for challenges in relation to public bodies which act unreasonably. It is not an appeal tribunal that is supposed to have an over-arching approach to bigger picture politics, political decisions and targets such as this. What will happen is if there is a flawed decision then certainly a challenge could be brought, but in all likelihood all we would find is that, as happened recently with the Energy Review, the Government has to go back, have another look at its figures and then reproduce its paper or its legislation or its rules. The judicial review challenge would not actually change anything”.¹⁰⁶

112. We are also aware of more general concerns about the draft Bill attempting to place a duty on successive Secretaries of State to reduce emissions that are beyond their control. Professor the Lord Norton of Louth told us:

“[i]t is not unusual to impose statutory duties on a public authority to meet specified goals but these are duties that the authority is deemed able to fulfil within the powers and resources vested in it... The problem is not one of target setting, nor of embodying a target in statute, but rather the imposition of a duty to meet a target, the fulfilment of which relies on circumstances beyond the control of the body vested with that duty”.¹⁰⁷

113. Some outside commentators have been even more trenchant in their criticisms. For example, Rodney Austin, Senior Lecturer in Law, UCL, stated that “governments should not pretend that they are establishing a legally enforceable regime of carbon emission reductions, thereby falsely laying claim to the credibility and legitimacy which the principle of legality, the cornerstone of the rule of law, confers”.¹⁰⁸

114. Although the type of legal duty that is envisaged by the draft Bill does seem to us novel in its scope and significance, particularly in relation to the target for 2050, it is not entirely without precedent. Article 3(1) of the Kyoto Protocol places a duty on the Annex 1 countries to “ensure” that emission targets are achieved by 2012. Mr Wilson drew our attention to comparable examples in European and domestic law. For instance, the Fourth Air Quality Daughter Directive,¹⁰⁹ as implemented by the Air Quality Standards Regulations 2007,¹¹⁰ places a duty on the Secretary of State to “ensure” that the concentration of various metals in the atmosphere is reduced to target levels by either 2010 or 2012 and maintained at that level from then onward. We have not however received any evidence to suggest that this type of duty can be enforced by the courts. It seems all the less

106 HC 534, Q395 (Mr Woods)

107 CCB 91

108 Parliamentary Brief, March 2007

109 Fourth Air Quality Daughter Directive 04/107/EC

110 Air Quality Standards Regulations 2007 (S.I., 2007, No. 64)

likely in the context of the draft Climate Change Bill given the broad range of policy options that could be pursued and the financial implications involved.

115. We have concerns regarding the legal enforceability of Clauses 1(1) and 2(1)(b), which impose a duty on the Secretary of State to ensure targets and budgets are met. We believe, therefore, that these provisions need to be altered or strengthened.

116. One option is to replace the Secretary of State’s duty to “ensure” with a duty “to take steps with a view to ensuring” the targets and budgets are met. This type of purpose clause would reflect the likelihood that the courts are unable to enforce the existing form of duty.

117. An alternative, which is our strong preference, is to introduce a compliance mechanism within the Bill that will give both meaning and strength to the duty to “ensure” by compelling the Secretary of State to redress any failure to meet a target or budget, where necessary through court intervention based on the compliance mechanism. There are appropriate compliance mechanisms that can be introduced to fulfil this role and we address this issue below.

Possible compliance mechanisms

118. A number of witnesses have emphasised the importance of including an enforcement mechanism that is independent of the courts. For instance, the Environment Agency (EA) told us, “[a] clear and credible mechanism for compliance is essential if the Bill is to leverage the desired investment and behavioural response”.¹¹¹ The EA proposed that the Government be required to make up for excess emissions by purchasing a capped amount of overseas carbon credits, surrendering EU ETS allowances, or paying money to a “domestic carbon reduction fund”.¹¹² They envisage the fund distributing money to domestic emitters that competitively bid to make additional emission reductions.

119. The Secretary of State and the Head of the Bill Team were reluctant to include in the draft Bill a mechanism that prevented the Government from responding in a flexible way by pre-determining the type of remedial action that can be taken. We would not want a mechanism that prevented the most effective policy options from being pursued.

120. We recommend that Government introduces into the draft Bill a similar type of compliance mechanism to the arrangements under the Kyoto Protocol.¹¹³

111 CCB 69

112 *Ibid*

113 Decision 27/CMP.1, December 2005

Kyoto Protocol Compliance Procedure¹¹⁴

Under this mechanism, where a country exceeds its emissions limit it is under a duty to make up for this in the next “commitment period” and to prepare a “compliance action plan” within three months.¹¹⁵

The action plan has to explain the reasons for the non-compliance, identify the policy measures that will be implemented to remedy the situation, and set out a timetable for their introduction.¹¹⁶

During the period of non-compliance the eligibility of the country to transfer carbon credits under the Protocol is suspended.¹¹⁷

121. The Scottish Executive intends to introduce elements of this type of procedure in the forthcoming Scottish Climate Change Bill by imposing “a requirement on Ministers to identify the compensating action to be taken to remedy any failures to perform”.¹¹⁸ There are also examples of similar compliance mechanisms in our domestic law. For instance, the Air Quality Standards Regulations 2007, referred to above, require the Secretary of State to prepare an action plan where the atmospheric concentration of target metals reaches a prescribed limit or, under certain circumstances, where there is a risk that the limit will be exceeded.¹¹⁹ A key reason for our support of annual milestones, at paragraph 69 above, is the need for early recognition that existing policies are not having sufficient impact.

122. The EAC recently criticised the length of time that was taken by Government to review the Climate Change Programme.¹²⁰ We would not want a situation where poor performance during a carbon budget did not lead to changes in the measures being taken until near the end, or worse still after, the period came to a close. The annual report by the Committee on Climate Change will help to increase accountability, but it may not lead to changes in policy. We believe this risk would be minimised if an action plan had to be prepared upon the failure to meet an annual benchmark, as well as where a carbon budget is exceeded. This should also allay concerns that five-year budgets could prevent an outgoing government from being held to account and, at the same time, lessen the impact of a reporting delay at the end of a budgetary period.

123. It would not be difficult to introduce an action plan procedure into the existing framework of the draft Bill. In effect, it would simply extend the duty to report on policies and proposals under Clause 6. More significantly it would, in the opinion of Professor Forsyth and Mr Wilson, impose a duty that is sufficiently precise to allow the court to

114 Part XV of decision 27/CMP.1

115 Part XV, paras 2 and 5

116 Part XV, para 2

117 Part XV, para 4

118 Statement by the Cabinet Secretary for Finance and Sustainable Growth, Scottish Parliament, 21 June 2007, available at <http://www.scotland.gov.uk/News/This-Week/Speeches/Greener/climatechangejun21>

119 Air Quality Standards Regulations 2007, (S.I., 2007, No. 64), Section 11

120 *Beyond Stern: From Climate Change Programme Review to the Draft Climate Change Bill*, Environmental Audit Committee, Seventh Report of Session 2006-07, HC 460

compel its preparation and, potentially, implementation following a judicial review.¹²¹ For these reasons, **we recommend that failure by the Government to meet a carbon budget or an annual milestone should trigger a duty to prepare a report explaining the reasons for the non-compliance and an action plan for remedying the situation. The action plan should cover any necessary policy changes, legislative proposals and resources needed to implement it; any public funds identified should be paid into a ‘climate change compliance fund’.**

124. The process should be co-ordinated with the Government’s reporting obligations and to our recommendation for an annual Parliamentary debate (see paragraph 102). This type of mechanism has received support from a number of stakeholders. For example, Friends of the Earth told us

“the Bill could place duties on the Ministers to submit additional policies to Parliament if emissions were falling behind. It would not be possible to specify [in the draft Bill] exactly what those policies [should be] ... – but the Bill should require that they were in the Government’s opinion sufficient to make up any shortfall. Parliament could then judge whether or not they were sufficient and vote on them”.¹²²

125. The duty to prepare an action plan is not enough in itself. While it will make the Government reconsider its policies, there remains a risk that further failure will stop excess emissions being caught up as the UK moves into a new budgetary period. If the UK is to limit its cumulative emissions to its appropriate and internationally agreed share, there should be a duty to make up for failure.

126. This principle is recognised in the Kyoto Protocol compliance mechanism.¹²³ We believe it should be reflected in the draft Bill. **If a carbon budget is exceeded, we recommend that the excess emissions are deducted from the carbon budget for the subsequent period.** It will then be a matter for Government to determine how the extra effort is to be achieved and to publish an action plan setting out its strategy. **We also recommend that serious consideration is given to suspending the sale of carbon credits and debits by the Government during a period of default, in a similar way to paragraph (5c) of the Kyoto Protocol compliance procedure.**¹²⁴

The role of the Committee on Climate Change

127. While the Committee on Climate Change has no direct role in enforcing the duties of the Secretary of State, there are two ways in which it may contribute. First, the Committee is under a duty to prepare an annual progress report – and we refer to our comments in paragraph 151 below in relation to the extent to which the Committee may be critical of the Government’s policies. Secondly, we recommend at paragraph 148 below that where the Government fails to follow the advice of the Committee on Climate Change there should be an obligation to publish a statement containing the reasons for reaching that decision. We feel this would increase the Government’s level of accountability within

121 Qq 12 and 13 (Professor Forsyth)

122 CCB 58, para 4

123 Section XV, para 5(a).

124 Section XV, paras 4 and 5

Parliament and, depending on the circumstances, may be used to support judicial review proceedings.

Duties of the Secretary of State

128. The draft Bill places duties upon “the Secretary of State”. In principle this means any Secretary of State because they are each appointed to a unified office.¹²⁵ In practice the duties will be allocated at present to the Secretary of State for Environment, Food and Rural Affairs, and it will be that Secretary of State alone who is legally responsible. The wording of the draft Bill (which is standard in legislation) does not mean that Ministers collectively will be responsible. Other departments and agencies that are not headed by a Secretary of State, including the Treasury, will not be subject to the duties that are placed on the Secretary of State, even as a matter of principle.

129. The then Prime Minister, Tony Blair, in the foreword to the draft Bill, stated “the threat from climate change is perhaps the greatest challenge facing our world”.¹²⁶ Such a threat can only be addressed through action at every level of government, across each of the main departments and agencies, and by all nations, regions and local authorities in the UK. This is underlined by the decision to publish the draft Bill on behalf of Government collectively rather than an individual department. The level of co-ordination and co-operation required both domestically and internationally is, in our view, unprecedented in recent times. We feel this justifies an equally unprecedented approach by placing the duties in the draft Bill on the Prime Minister, whom we consider is best placed to fulfil them. **We recommend that the duties in the draft Bill are placed on the Prime Minister instead of the Secretary of State.**

¹²⁵ Interpretation Act 1978, section 6(5) and Schedule 1

¹²⁶ Cm 7040, Consultation Document, p.4

5 The Committee on Climate Change

130. We have already referred to some aspects of the work of the Committee on Climate Change established under Part 2 of the draft Bill. The Committee will be a non-departmental public body that has a duty to advise the Government on the level of carbon budgets, the methods by which the reductions should be achieved and the contribution that should be made towards meeting the budgets by sectors of the economy. The Secretary of State can also request advice on a range of other matters connected to climate change. The Committee must produce progress reports annually, setting out the final emissions figures for the period just passed, and more important, its view on how the Secretary of State has carried out his or her duties.

131. Details of the Committee are set out in Schedule 1: it will have no more than eight members, in addition to a Chairman, and represent expertise in:

- a) economic analysis and forecasting,
- b) business competitiveness,
- c) financial investment,
- d) technology development and diffusion,
- e) energy production and supply,
- f) climate science,
- g) emissions trading, and
- h) climate change policy, and in particular the social impacts of such policy.¹²⁷

Remit

132. It is the inclusion of the Committee that makes this Bill distinct from a purely technical framework Bill for the setting and monitoring of carbon reduction targets. The precise role the Committee will play, however, generated a great deal of debate amongst our witnesses, who regarded this as a vital issue. Professor Sir David King, the Government's Chief Scientific Adviser, told us:

“I certainly do not think it is going to be a wishy-washy committee because this committee has an enormously important remit on which to deliver. I think it is a very challenging remit and I think the committee members will have to work very hard to deliver on that remit. I do not see the political decisions being crucial to its operation. It has been given a very clear remit in operating. It is advisory but I am rather expecting that its advice will be adhered to most of the time”.¹²⁸

¹²⁷ Schedule 1, paragraph 1(3)

¹²⁸ Q 111

133. On the other hand, Malcolm Wicks MP, the then Minister for State for Science and Innovation, saw the Committee as having a narrower role:

“I think we see the Committee as undertaking a, when I say "narrow", I do not mean that pejoratively, but a narrow technical task to help us achieve this target of reducing CO₂ emissions against a 1990 base of course by 60 per cent by the middle of this century, probably the most ambitious target ever set by a government certainly in this country. We see them as giving technical advice to us on how to achieve that, helping us to monitor it. I do not see the Committee as a kind of substitute government that would wax wide and lyrical about the whole range of issues, nuclear, renewables and so on, so I think it has more of a technical task rather than the broader one that some might wish for it”.¹²⁹

134. This range of views reflects the drafting of the Bill, which gives no clear guidance on the precise role to be played by the Committee. When we questioned the Secretary of State about the Committee, he said “I think there is value in institutions like the Committee on Climate Change having a pretty clear remit and they are in the carbon budgeting, emissions reduction business”.¹³⁰ We agree with the Secretary of State on his first point, but this does not seem to us anything like a clear enough remit for such a vital body. Given the confidence that will need to be vested in the Committee across the board, this uncertainty represents a significant weakness in the draft Bill. **The Government needs to ensure that it sets out a clear idea of the role it envisages the Committee on Climate Change playing over the next forty and more years.**

Advising on targets

135. The first major role of the Committee, set out in Clause 20, is to advise the Secretary of State on the level of carbon budgets, and how they should be met. This is a great responsibility to place on a non-governmental source, and we have carefully considered how the Committee might best discharge its duties.

Sectoral targets

136. As we noted in paragraphs 74-76 above, the draft Bill includes some reference to sectoral targets. Clause 20 requires the Committee on Climate Change to advise on “the respective contributions towards meeting the carbon budget for the period that should be made by –

- i) sectors of the economy covered by trading schemes, and
- ii) other sectors of the economy”.¹³¹

137. We found this drafting somewhat unclear, as did many of those who submitted evidence to us. Professor Michael Grubb, of the Carbon Trust, said “one should ensure the Committee has the analytic capacity and the expectation that it is not only giving out a national number but it is giving some indication of at least a sectoral break down of how it

129 Q 301

130 Q 732

131 Part 2, Clause 20 (1) (c)

believes it can credibly be done. Otherwise, it seems to me, the value of its advice at a departmental level is significantly weakened”.¹³² It is not evident whether the Committee will be expected to provide figures for each sector of the economy, or merely paint a broad picture of the division between the sectors covered by trading schemes and ‘others’. Charlie Kronick of Greenpeace welcomed the idea: “If there is the capacity for adding some sensible strategic overview to the way that the Government looks at reducing carbon emissions across sectors as opposed to playing them off against one another that has got to be a positive thing”.¹³³

138. Mr Robin Mortimer, Head of the Bill Team, explained:

“the Committee will have to look sector by sector at what it considers possible across the economy, and it will be open to the Committee to make transparently available the assumptions that are included, if any, in its recommendations on the aggregate contribution. The Bill simply stipulates that it should at least specify the contributions between those sectors covered by trading schemes and those which are not, for the important reason that there is a particular instrument to be used in relation to the trading sectors – i.e. a cap – which the Government will want to take into account the Committee’s advice on. That is the reasoning behind that broad split. Having said that, it would certainly need in its analysis to look sector by sector, and it could make that publicly available”.¹³⁴

139. The Committee on Climate Change will be unable to fulfil its statutory duty to advise if it does not investigate in full the scope for sector-by-sector carbon emissions. There is otherwise no way that the overall target will be seen as credible by business, or potentially by politicians or the public at large. The legislation must be unambiguous when it sets out the duties of the Committee in advising on sectoral targets. **We recommend that the Bill explicitly set out that the Committee on Climate Change is required to advise the Secretary of State on contributions by each sector towards meeting the carbon budget.**

Transparency of work

140. The Head of the Bill team told us that the Committee’s analysis relating to sectoral targets should be made public. The Secretary of State said “I think it is very hard to imagine a situation where the Committee is not transparent about its working. If it has tallied up a figure for sectors covered by the trading scheme, I would have thought they would want to show some of their working. The choice is for them but I would have thought some degree of transparency makes sense”.¹³⁵ We disagree that the degree of transparency should be left to the Committee’s choice: the Committee should be required by legislation to make its workings public.

141. Under the terms of the draft Bill, the Committee is not required to publish any of its work apart from the progress reports, which must be laid before Parliament. Although the Committee is tasked with advising the Government, there is no duty to lay this advice

132 Q 169

133 Q 226

134 Q 641

135 Q 680

before the House: this is a lacuna which we believe should be closed. It is now standard practice for bodies such as the Committee to publish their formal minutes, and it would ensure transparency of the Committee's working to place a duty to this effect in the Bill. **We recommend that the draft Bill place a statutory duty on the Committee on Climate Change to publish the analysis that supports its recommendations on sectoral targets. More broadly, we recommend that the draft Bill be amended to require the Committee on Climate Change to publish the advice and analysis it gives to the Government, and its formal minutes.**

Policy evaluation

142. Under the current provisions of the draft Bill, the Committee on Climate Change must advise the Government on the best way to achieve the budgets it is recommending. This seems to us by definition to involve making policy suggestions, or at the very least, outlining possible policy instruments. This is something that witnesses welcomed. Mr Michael Roberts, of the CBI, said

“we feel that the areas on which it should advise should perhaps be rather wider than are at least implicitly suggested in the Bill, so, for example, they should be advising on the merits of perhaps trading schemes that might be brought into place under the enabling powers that are envisaged under the Bill, they should be looking across the range of government policies that might interact to deliver on the targets”.¹³⁶

143. Jonathan Brearely, from Defra, suggested that the Committee needed to “make recommendations to Government that are sensible and cost-effective”.¹³⁷ This in itself would require a thorough examination of a policy mix. Nor can the Committee make sectoral recommendations, or carry out modelling work, without also evaluating the policies necessary to achieve the carbon reductions. It will need to analyse the effectiveness of existing policy, and of potential policy instruments and ways in which these might be improved.

144. There is no question that this sort of work will lead the Committee into areas which are more political than the current framework of the Bill provides for. When we put the prospect of the Committee having a policy role in this way to Jonathan Brearely, he replied: “I think the Committee on Climate Change are going to have to take into account existing policy, and what they are going to have to ask themselves is how much we think the existing policy is going to deliver”.¹³⁸ Greater clarity in the statutory duty of the Committee on Climate Change would assist both the Government and the Committee itself. It is essential for the legislation to give the Committee a wider policy evaluation role, and therefore **we recommend that the draft Bill include a power for the Committee to carry out an evaluation of current and potential policy when advising the Secretary of State.**

136 Q 271

137 Q 629

138 Q 636

Advice from the Committee to the Government

145. The draft Bill places no duty on the Secretary of State to accept the advice of the Committee. We explored with our witnesses whether such a duty should be included in the legislation. The nearest comparison for a Committee with this type of role is the Monetary Policy Committee of the Bank of England, which has had the power to set interest rates since 1997. The idea that the Committee on Climate Change should have this kind of autonomy, independent from Ministers, was suggested to us in some of the written evidence we received, and was seen as a way of strengthening the role of the Committee. For instance, the Environmental Industries Commission stated: “it is appropriate for an independent Committee on Climate Change to set, monitor and enforce statutory targets for reducing greenhouse gas emissions, similar to the role of the Bank of England in setting interest rates”.¹³⁹ We questioned witnesses on this proposal, to a mixed reception. Mr Wilson, for instance, was unconvinced: “it would be preferable to have a really authoritative, scientific advisory committee, but in that case I think you need to separate out very clearly what the responsibilities of the committee are as opposed to what the responsibilities of the government are”.¹⁴⁰

146. In oral evidence to both our inquiry and that of the Environment, Food and Rural Affairs Committee, the Defra Bill Team preferred a different model to that of the MPC. Mr Mortimer likened the Committee instead to the Low Pay Commission, which advises the Government on a policy area in which a broader range of facts must be taken into consideration.¹⁴¹

147. Overall, the idea that the Climate Change Committee should have analogous powers to the MPC, while attractive, would probably be unworkable. The Monetary Policy Committee has a very specific role, and can gauge the success of its policy decisions within a short timeframe. Moreover, the wide range of the areas that the Committee on Climate Change must address would mean the Government devolving significant policy decisions to an unelected body.

148. Nevertheless, there is room for strengthening the Committee’s advice. Given that the Committee must be independent and thorough, we think that the Government should be required to give a reasoned response should it decide to reject the advice the Committee gives. At present there is not even a requirement in the draft Bill for the Government to respond to the advice it receives. The Government, by convention, responds to select committee reports within two months. Were the Committee on Climate Change’s advice made public, and the Government obliged to respond within a given timetable, on the model of response to select committee reports, the public would be able to see whether or not the Government had followed the Committee’s recommendations. This would increase the transparency of the relationship between the Committee on Climate Change and the Government, and give more authority to the conclusions of the Committee. The annual debate that we recommend in paragraph 102 would also ensure scrutiny of the Committee’s work and the Government’s response to it. **We recommend that the Government be required to respond within two months to the advice of the Committee**

139 CCB 22

140 Q 7

141 HC 534, Q 408

on Climate Change, setting out how it intends to act upon the recommendations and, in the event that the Committee’s advice is rejected, giving a full explanation of the reasons for reaching a different decision.

Monitoring progress

149. Clause 21 of the draft Bill sets out the Committee’s other main role: to report annually on the progress made by the Government towards meeting both the individual carbon budgets and the 2050 target, and the “manner in which the Secretary of State’s functions [towards meeting the 2050 target] were performed during the period”.¹⁴² This report must be made by 30 June in the second year after the end of a budgetary period, which means it is likely to be published three months after the Government’s own assessment of the same period.

150. The progress report will clearly have two elements. The first will be fact-based, and draw entirely on the same statistics as the Government will use. Indeed, it appears to us that there is considerable duplication of effort between the Government’s annual emissions statement, as set out in Clause 7, and the Committee’s progress report under Clause 21.

151. The second element will rely far more heavily on what might be termed ‘opinion’. In addition to reporting on the ‘manner’ in which the Secretary of State has carried out the statutory functions, the report must contain “the Committee’s views on the progress made towards meeting –

- a) the carbon budgets set under Part 1, and
- b) the target in section 1 (the target for 2050)”.¹⁴³

The current wording leaves the Committee with an uncertain role. There is potential for the report to be highly critical of the Government’s policies, or the performance of an individual Secretary of State. If, as the Government appears to think at present, the Committee is intended merely to carry out analysis of the carbon reduction performance against targets, this part of the Bill would seem to contradict that impression. **It is important that the legislation gives the Committee on Climate Change a clear indication of which factors it is expected to consider when making its progress report.**

The independence of the Committee and its resources

Modelling and forecasting

152. A central issue for the Committee on Climate Change is the extent to which it would be expected to, or have the capacity to, develop its own modelling and forecasting capacity, in order to provide analysis that is recognised as truly independent. We received evidence from several sources which emphasised the need for the Committee to have the ability to produce its own modelling in order to have the credibility necessary for its effective functioning. For example, the RSPB told us that it was concerned about “the possible dependence of the Committee for Climate Change on existing Government tools and

¹⁴² Clause 21 (2) (b)

¹⁴³ Clause 21 (1)

analysis”, noting that a recent report from the Environmental Audit Committee had highlighted “the optimism bias of most Government forecasts, and the partial nature of the cost effectiveness analysis applied to potential mitigation measures”.¹⁴⁴

153. When we raised the issue of the proposed Committee’s capacity for independent modelling with our Government witnesses, we encountered a distinct lack of clarity. Lord Truscott, speaking on behalf of the DTI, said “They can take on board the DTI modelling but it will also be open to them to bring in groups like Cambridge Econometrics and, of course, we have also got the Office of Climate Change, which is independent as well”.¹⁴⁵ We are not convinced that the Office of Climate Change, a body governed by a Ministerial Board chaired by the Secretary of State for Environment, Food and Rural Affairs, can genuinely be described as independent of the Government. Gillian Merron MP, then Parliamentary Under-Secretary of for State at the Department for Transport, claimed that it would be for the Committee itself to decide where to obtain modelling and forecasting capacity.¹⁴⁶ The Financial Secretary told us

“On the implicit assumption that somehow the modelling and analysis in Defra or the DTI or in Government is somehow suspect, this is work which is painstakingly built up, it is developed very closely with a lot of external experts and academics, it is often tested and improved. Actually, if the Committee is finding that in some way it is flawed or got gaps, then we would expect the Committee I think to press those parts of Government which have got some of the analytical modelling responsibilities to up their game and improve what they do”.¹⁴⁷

154. Not only do we have reservations over the independence of a Committee on Climate Change that is only able to reference government modelling, we are also aware of criticisms of the accuracy or reliability of such modelling. Dr Sue Ion, of the Royal Academy of Engineering, pointed out “We have a real concern that there has been no real engineering assessment within any of the modelling which has been done either in the Climate Change Bill, the Energy White Paper or the Planning White Paper about the practicality of delivery of the engineered assets which will be required to achieve these climate change objectives”.¹⁴⁸ Dr Keith Maclean of Scottish and Southern Energy told us “At the moment, the model that has been used for energy projections is very limited in what it can do”.¹⁴⁹ In order for the Committee to give informed advice based on thorough analysis, it must be able to access a wide range of data. It is worrying that the Government does not appear to be clear about what sources it expects the Committee to consult when carrying out its analysis. **It is essential that the Committee should have access to whatever form of truly independent modelling it feels necessary to fulfil its remit, and that its budget should be sufficient to allow this.**

155. Although we are wary of the Committee being forced to restrict its analysis solely to government sources, we nevertheless believe it should make extensive use of existing

144 CCB 49

145 Q 309

146 Q 427

147 Q 751

148 Q 446

149 Q 235

government modelling. Commissioning forecasting work on a large scale could merely duplicate, at public expense, work that is already being done in government departments. We asked the Secretary of State whether government energy modelling, for instance, was, or should be, open and accessible to researchers, in the way that Treasury model was. He assured the Committee he was happy to look at that possibility.¹⁵⁰ **We recommend the Government consider a role for the Committee on Climate Change in assuming oversight for government energy and transport modelling, in order to ensure that it is transparent to climate change researchers.**

Appointments

156. The Committee will have a Chair, five to eight Committee Members, a chief executive and staff. The appointment process is set out in Schedule 1. The Secretary of State is given the power to appoint the Chair and Deputy Chair, and the first chief executive.¹⁵¹ While we understand the need for the Secretary of State to appoint the first Chair, it is unacceptable that the power to appoint the first chief executive is also vested in him or her. The Chair will need a close working relationship with the chief executive and this makes it important for the Chair, at the very least, to have been consulted on who should hold that position. When we put our concerns to the Secretary of State, he pointed out that it was possible that the first chief executive would be appointed *before* the Chair.¹⁵² We do not see why this situation need occur. **The provision for the Secretary of State to appoint the first chief executive should be removed from the Bill.**

157. For similar reasons, we do not understand why the Secretary of State is entitled to appoint a Deputy Chair without consulting the Chair, particularly given that the Secretary of State must consult the Chair before appointing other members of the Committee. The position of Deputy Chair should be a Committee decision, made once all Committee members have been appointed. **We recommend that the Deputy Chair be appointed by the Committee, and that the Bill be amended to reflect this.**

158. We suggested to the Secretary of State that a shadow Committee should be put in place before the first Committee was formally appointed, in view of the tight timescale the Committee will be working to once it is established. We were surprised when the then Secretary of State confirmed that such a shadow authority would in fact be set up in the summer of 2007. The Financial Secretary confirmed that this is a practice the Government is increasingly following in such situations.¹⁵³ Defra later told us: “we have explored and agreed the approach to setting up a shadow body with the Cabinet Office, and with the Office of the Commissioner for Public Appointments (OCPA). In order for the Chair and Members of the non-statutory Committee to roll over into the statutory body they will have to be recruited “as if” they were being appointed to a statutory body, following the full public appointments procedure”.¹⁵⁴ **We are pleased that the Committee will benefit from the work of a shadow Committee, and that this Committee will be appointed in**

150 Q 755

151 Schedule 1(1)(1) and (5), Schedule 1(12)(2)

152 Q 735

153 Qq 733-34

154 CCB 97

accordance with OCPA and Cabinet Office guidelines. However the transparency of the Committee’s appointments, and its independence, must not be compromised by the existence of such a body, or the haste with which it is established.

159. The appointment of a committee such as the proposed Committee on Climate Change appears to us to be an ideal candidate for Parliamentary scrutiny. The House of Commons Liaison Committee’s Annual Report for 2005–06 stated “committees do not routinely carry out prior scrutiny of appointments and have no role in the selection procedure – in other words, there is no scope for “confirmation hearings” on the model of the US Senate. However, committees can and do hold formal evidence sessions or other meetings with the holders of major posts soon after their appointment”.¹⁵⁵ For example, the House of Commons Science and Technology Select Committee holds hearings with the heads of the Research Councils.

160. In a statement to the House of Commons on 3 July 2007, the Prime Minister announced plans for enhanced Parliamentary scrutiny of certain high level public appointments, including members of the Monetary Policy Committee.¹⁵⁶ The supporting Green Paper states: “The Government...therefore proposes that the Government nominee for key positions...should be subject to a pre-appointment hearing with the relevant select committees”.¹⁵⁷ The Chair and chief executive of the Committee on Climate Change are ideal positions for this new, higher level of Parliamentary scrutiny. **We recommend that the appointment of the Chair, Deputy Chair and chief executive of the Committee on Climate Change be subject to Parliamentary scrutiny.**

161. The Bill does not specify any length of appointment for Committee members. When we suggested to the Secretary of State that five years would be an appropriate period, matching as it does the budgetary periods currently contained in the Bill, he replied “Five years makes sense but you might want to have a term limit of ten years, two five-year terms”.¹⁵⁸ This is a sensible suggestion. It would however be undesirable for the terms of all Committee members to end at the same time, and for that reason we feel that appointments to the Committee should be for five years, but with the possibility of phasing terms of service. **The Bill should specify a minimum five-year appointment term for Committee members, renewable once.**

Representation

162. The proposed membership of the Committee lists eight specialist interests which must be represented. Inevitably there have been calls for representation of other specialisms on the Committee. It is not for us to determine what the best mix of expertise on the Committee should be, but we note with concern that there is potential for the Committee to have just five members to cover all eight statutory specialist areas. This would be undesirable, and threaten the credibility of the Committee. We cannot see why the Bill provides for the Committee membership to be as low as five; other Committees, including the Monetary Policy Committee, operate effectively despite a larger membership. **The**

¹⁵⁵ Annual Report for 2005–06, House of Commons Liaison Committee, First Report of Session 2006–07, HC 406

¹⁵⁶ HC Deb, 5 June 2007, col 816

¹⁵⁷ The Governance of Britain, Ministry of Justice, Cm 7170, July 2007

¹⁵⁸ Q 736

Committee on Climate Change would suffer if its members could not cover all required areas of expertise, and therefore the membership should be set at a minimum of eight people. We recognise however the value of keeping the Committee to a manageable size and therefore recommend that it have a maximum of twelve members.

163. During our visit to Edinburgh, we heard how important it will be for the Committee to co-ordinate with the work of the Devolved Administrations, and the legislatures which hold them to account. This is of particular relevance to Scotland, where the Executive has announced its own target for an 80% reduction in Scottish CO₂ emissions by 2050; this would seem to create a demand for expert analysis and auditing, equivalent to those the Committee is to provide to the UK Government and Parliament, to be tailored specifically for the needs of the Scottish Executive and Scottish Parliament. In any case, the Committee must have a detailed understanding of the policies and progress made under different devolved administrations if it is to have a complete picture of the future pathway which UK emissions are projected to follow, and the size and timing of measures needed as a result. The draft Bill (Schedule 1, paragraph 16) provides for the creation of sub-committees; one way in which expert advice could be tailored to the needs of the devolved administrations, and this work co-ordinated with that of the Committee, might be for sub-committees to be formed for Scotland, Wales, and Northern Ireland. We discuss issues of devolution in more depth in Section 9 below.

164. It is understandable that every sector wishes to feel that its interests will be recognised by the Committee. The potential membership of the Committee is clearly very large, if each and every specialist area were to be represented. However, it is clear that **if the Committee is to advise in detail on sectoral targets, as we have recommended, it will require a broader base for formal consultation than currently envisaged.**

165. There are areas in which we feel the Committee would benefit from added knowledge. At present, there is no mention in the draft Bill of a need for either engineering or environmental expertise. These are clearly both key areas for the Committee, and should be represented on the Committee. It may be that both or one of these is implied in the existing criteria. For example, engineering could be included in 'technological development and diffusion', but **we recommend that the Government should ensure that both engineering and environmental expertise are included in the required Committee specialisms, and that this is made explicit on the face of the Bill.**

Budget

166. A proposed budget for the Committee is set out in the Regulatory Impact Assessment:

Function	First Year Costs*	Ongoing Annual Costs
Secretariat	£830,000	£820,000
Committee	£270,000	£460,000
Research Budget	£750,000	£500,00
Additional	£150,000	£175,00
Corporate Identity and Set Up Costs	£250,000	
Total	£2,250,000	£1,955,000

* First year costs reflect the fact that the Committee's secretariat and Board (Committee) will only be in place part-way through the year.¹⁵⁹

167. It is essential that the Committee's budget is large enough to provide a secretariat of the right size and calibre to ensure it can carry out the work required of it. **The budget for the Committee on Climate Change must be large enough to enable the Committee to have sufficient, well-qualified staff to support its work.**

168. The Secretary of State, in evidence to the Environment, Food and Rural Affairs Committee, told that Committee that he did not expect the Committee to bid up this budget.¹⁶⁰ However, the Financial Secretary told us "It would be quite wrong and rather foolhardy, would it not, to design constraints and design failure into the start, either by somehow omission or commission, by appointing the wrong people or setting them a budget they could not work to?"¹⁶¹ Further, when we suggested to the Secretary of State that the shadow Committee be permitted to comment on any proposed budget, he replied "That is a very helpful suggestion. I am great believer in having a mature and strategic relationship with the vast numbers of members of ... the Defra network. They have to be engaged in a serious, adult way; the suggestion is a good one".¹⁶²

169. When we looked at figures for comparable bodies, which carry out substantial research, it became apparent that £500,000 per annum would be woefully small for any Committee that wishes to carry out or commission substantial independent research, which we believe the Committee on Climate Change undoubtedly must do. Dr Terry Barker, of the Royal Society and Cambridge Econometrics, told us

"I do not think the Committee's budget is nearly large enough for what it needs to have in order to do the job properly. If you were to ask me to give you a reasonable budget for it, it would be several times what is being proposed. I am a bit concerned that the Committee would be set up and then it would find it is basically having to rely on other work when it should be doing its own work if it is going to give a proper, independent view".¹⁶³

¹⁵⁹ Cm 7040, Partial Regulatory Impact Assessment, Cm 7040. See also Annex 4 for an analysis of the estimated costs of the Committee.

¹⁶⁰ HC 534, Q 562

¹⁶¹ Q 739

¹⁶² Q 740

¹⁶³ Q 464

We recommend that the Committee have an annual research budget that is substantially higher than the £500,000 per annum currently proposed in order to carry out truly authoritative and independent advice and to ensure that it establishes the greatest possible credibility with government, local government, business and the general public.

170. The Secretary of State expressed understandable reservations about any major increase in funding being accommodated by the Defra budget. When asked about potential funding arrangements, he replied “I am not sure if you were suggesting we should fund it through the Lottery or that Parliament should fund it. All suggestions to get it off the Defra DEL [departmental expenditure limit] gratefully received”.¹⁶⁴ Departmental budget allocations should not be allowed to prevent the Committee working effectively. We are concerned at the implications of placing the Committee entirely within the Defra budget. It would be unacceptable for the funding of the Committee to suffer through spending-round vicissitudes, nor are we confident that funds could be ring-fenced adequately within the departmental budget. It would also give extra weight to the Committee’s independence from government departments if it received its funding from another source. **We recommend a funding mechanism is established for the Committee outwith the Defra budget.**

Advising on the first three carbon budgets

171. The draft Bill requires the Committee on Climate Change to produce its advice on the first three carbon budgets (from 2008 to 2022) by 1 September 2008, along with a more detailed analysis of the cost-effectiveness of setting the first budget at a level to enable the UK to meet its domestic target of a 20% carbon reduction by 2010.

172. The Bill is unlikely to receive Royal Assent before spring 2008, and the appointment of the Committee and its secretariat cannot be done before that time, regardless of the prior existence of a shadow body. If, as we recommend, the Committee appointment process is subject to some level of Parliamentary scrutiny, this could take a substantial period of time.

173. It appears to us, and to many of our witnesses, extremely unlikely that Committee could both meet the September 2008 deadline and carry out the substantial analysis required to make authoritative recommendations on the three budgets. When we put this to the Secretary of State, he replied that it was possible and practical “as long as we get on with it”.¹⁶⁵ The Financial Secretary added “they will be good people, they will have the resources within Government to draw on and they will have a budget to be able to do it”.¹⁶⁶ Defra subsequently told us “the Government has also decided to establish a shadow Secretariat to the Climate Change Committee ahead of Royal Assent. This will allow the analysis necessary to inform the Climate Change Committee’s advice to be commissioned as early as possible ... A team of four analysts has already been recruited as a project team to begin the work of the shadow Secretariat. Their initial priority is to look at the analysis

164 Q 738

165 Q 757 (Mr Miliband)

166 Q 757 (Mr Healey)

the Climate Change Committee will require to inform its initial advice to the Government, required by 1 September 2008”.¹⁶⁷

174. It concerns us that this scenario may prevent the Committee from using any analysis or research other than that provided for it by Government. It also more or less ties it to following the work done by a shadow Committee. This could weaken the Committee’s ability to perform, with the required degree of independence and credibility, the first task required of it.

175. We recognise that it is important to set carbon budgets as soon as possible, and we support the Government’s desire to ensure that action is taken at the first opportunity, in order that the UK can start to plan its carbon reduction strategy almost immediately the Bill is passed. But we do not want to see decisions taken in haste threaten the viability or credibility of the first three carbon budgets. Given that much of the analysis required to set the first budget must already be in place, we consider that this initial target will be more easily determined than the subsequent two. With this in mind, **we recommend that the Bill be amended so that the September 2008 deadline applies only to the carbon budget for 2008-2012, and that the Committee be required to advise on the subsequent two budgets by September 2009, with the power to revise the 2008-2012 budget if this is necessary to ensure the coherence of the 15 year period.**

6 Emissions trading schemes

176. The draft Bill provides extensive delegated powers for the Secretary of State to set up and revise trading schemes related to greenhouse gas emissions through secondary legislation. Separate provisions are set out for two different types of trading scheme. The draft Bill also contains a range of provisions concerning the administration and enforcement of such schemes.

177. The first type of trading scheme provided for is designed to limit activities which emit greenhouse gases. An already existing example of this type is the EU Emissions Trading Scheme, under which the CO₂ emissions of power stations and other large emitters are capped. Those participants which emit less than their capped allocations are able to sell their surplus allowances to those which exceed their allocations. The second type of scheme is designed to encourage activities which reduce emissions or remove greenhouse gases from the atmosphere. A variant of this type which already exists is the Renewables Obligation, under which UK power suppliers must provide an increasing proportion of their energy from renewable sources, for each megawatt-hour of which they receive a certificate. Companies which fail to meet their targets pay a buy-out price, with the resulting funds distributed each year among the suppliers who presented certificates.

178. The Government has indicated that trading schemes have particular attractions. The consultation document on the draft Bill describes a key advantage as being that trading “allows participants to reduce emissions where it is cost-effective to do so and trade where it is cheaper for others to do so therefore reducing emissions at least cost”.¹⁶⁸ It also gives as another clear advantage that such schemes provide “certainty about the level of carbon dioxide emissions that will be achieved as the outcome is fixed and mechanisms are in place to avoid the outcome not being achieved”.¹⁶⁹

179. Beyond this rationale for introducing trading schemes, the Government’s specific justification for including wide-ranging enabling powers to establish them in this draft Bill is that of speed:

“The scale and long-term nature of the challenge and continuing evolution in understanding of how to tackle climate change ... means that new policies and changes to existing policies are likely to be needed over the coming decade and beyond. Some elements of policy can already be introduced and reviewed relatively quickly. The Government reviews taxation policy every year in the Budget, followed by an annual Finance Bill. But the Government is not able to act equally quickly in relation to other measures. ... These proposed enabling powers would enable other climate change mechanisms to be established (or adjusted) to a similar timeframe”.¹⁷⁰

180. The Government has underlined this point by arguing that legislation to establish trading schemes tends to be lengthy and technical; and that, once passed, it may need to be regularly amended in order to streamline the schemes in the light of experience. For these

¹⁶⁸ Cm 7040, Consultation Document, para 5.63

¹⁶⁹ *Ibid*

¹⁷⁰ *Ibid*

reasons the Government believes this subject matter is best dealt with through secondary legislation.¹⁷¹

181. The Secretary of State already has powers to establish trading schemes under a number of different pieces of legislation, and thus these enabling provisions would not confer a wholly different kind of power from those the Government already possesses. Defra argues that the provisions in the draft Bill would bring together and supplement elements of all these existing powers, thereby giving the Secretary of State more flexibility in designing new trading schemes; and also making it easier to consolidate and rationalise existing and new schemes at a later date.¹⁷² The consultation document stresses that this will “not mean less analysis, scrutiny or consultation before a decision to implement a new scheme but will reduce the time and cost to the UK of developing and scrutinising the same building blocks again and again. This frees up time to consider the policy itself”.¹⁷³ Indeed, the Secretary of State, and the Financial Secretary, both stressed to us that they envisaged that there would always be significant public consultation on any proposal to introduce a new trading scheme, so that these were “probably significantly amended during the process before they even got to Parliament”.¹⁷⁴

Types of trading scheme

182. In examining the principle of including enabling powers in the draft Bill, we were interested to learn more about the types of trading scheme which the Government planned to bring in. The only current concrete proposal is for a Carbon Reduction Commitment (CRC), which would set caps on the CO₂ emissions from the energy use of medium to large energy-intensive businesses and public sector bodies. The 2007 Energy White Paper states explicitly that: “We will seek enabling powers under the draft Climate Change Bill to introduce these new trading arrangements”.¹⁷⁵ A proposal for the CRC was first made by the Carbon Trust in 2005;¹⁷⁶ consultation on the scheme was announced in the 2006 Energy Review, and is still ongoing. Beyond this, the Government’s hints as to what these enabling powers would be used for are quite vague. The consultation document on the draft Bill states that:

“it is possible that in coming years the Government may consider implementing upstream schemes to supplement the EU ETS, implementing schemes for emissions on downstream energy use and implement schemes to support cleaner technologies and fuels. Government is also likely to need to make improvements to existing schemes as our understanding of climate change develops”.¹⁷⁷

171 Defra, Draft Climate Change Bill, Memorandum on Delegated Powers, para 112

172 *Ibid*, paras 113-114

173 Cm 7040, Consultation Document, para 5.72

174 Q 725 (John Healey)

175 *Meeting the Energy Challenge: A White paper on Energy, Department for Trade and Industry*, Cm 7124 (hereafter Cm 7124) May 2007, para 2.19

176 *UK Climate Change Programme: potential evolution for business and the public sector*, Carbon Trust, December 2005

177 Cm 7040, Consultation Document, paras 5.60 and 5.72

183. The Financial Secretary said that the Government might also use these powers to extend the existing Energy Efficiency Commitment (under which electricity and gas suppliers are required to achieve targets for the promotion of improvements in domestic energy efficiency). The Secretary of State also suggested that heating was a sector which might be covered by a new trading scheme.¹⁷⁸

Personal carbon allowances

184. A more controversial possibility discussed during our inquiry was that the Government might use these enabling powers to introduce a system of Personal Carbon Allowances (PCAs), under which individual citizens would be allocated tradable quotas of emissions permits (possibly covering purchases of household energy and transport fuel). We heard some evidence which was very supportive of the principle of personal carbon trading, the Sustainable Development Commission remarking of such schemes: “Of course there are all sorts of issues and problems but ultimately they do transparently demonstrate that we have to live with carbon rationing. They do bring people face to face with the consequences of the decisions they make”.¹⁷⁹ Brian Samuel of the Energy Saving Trust thought in addition that any practical obstacles to introducing personal trading schemes were quite surmountable: “we do have the technology, through mobile telephony, etc., to actually make the systems work. We do have store cards already. The technology is actually out there. People understand loyalty cards and club cards, etc, so I think it is practical”.¹⁸⁰

185. At the same time, it is clear that this proposal could have very far-reaching implications, in terms of the numbers of people affected, the extent to which it would intrude on individual lives, its potential financial and welfare effects, and the demands of its administration. For these reasons, we believe that these factors would make such a scheme unsuitable for introduction under secondary legislation. The Secretary of State agreed, but at the same time thought that it was theoretically conceivable that the draft Bill’s enabling powers would enable Government to introduce a PCA scheme. However, he thought this very unlikely in practice, and that there was no need to offer an explicit safeguard against it in the legislation:

“Technically I suppose you could smuggle it in under one of these provisions but frankly that is not the real world. It is inconceivable that a Government would do that. ... I think it is frankly inconceivable that fundamental changes like that would be smuggled in under these provisions. To have a clause excluding them seems politically odd to me. Just in brackets, there would be quite big technical issues about drafting an exclusionary order of that nature. The ebb and flow of politics I think will take care of this rather than legal diktat”.¹⁸¹

186. Given the reasons set out by the Government, we are content that including broad enabling powers in the draft Bill is appropriate. We are somewhat surprised at the apparent vagueness in Government thinking as to the purposes for which these powers would actually be used. Clearer guidance should be produced describing a number of potential trading schemes and revisions to them, and explaining their prospective

178 Qq 760, 763

179 Q 189

180 Q 168

181 Qq 730-31

implications and benefits, to give Parliament and the public a better understanding of the scope of these powers. As for personal carbon trading schemes, while these would appear to have important potential, the major impacts that they might have on the economy and people's personal circumstances mean it is essential that these should only be introduced through primary legislation.

187. We still remain concerned however that the wide-ranging enabling powers would allow for the introduction of potentially very radical schemes. **We conclude that, to ensure adequate accountability to Parliament for the use of these enabling powers, the provisions concerning the way in which secondary legislation is to be scrutinised and passed ought to be strengthened.** We consider this in more detail in the following paragraphs.

Parliamentary scrutiny of order-making powers

188. Clause 31 sets out that before establishing a trading scheme, the Secretary of State must consult those he considers are likely to be affected, as well as taking advice from the Committee on Climate Change as to the size of the limit on activities the scheme would impose. Furthermore, Clause 31(3) provides that regulations brought in through the enabling powers would be subject to the affirmative resolution procedure if they involve substantial changes, including: creating a new scheme, extending a scheme's coverage, making a scheme "significantly more onerous", and creating an offence related to a scheme.

189. The Delegated Powers and Regulatory Reform Committee of the House of Lords (DPRRC) has expressed its concerns to us that these provisions in the draft Bill concerning Parliamentary scrutiny may not be adequate:

“We have yet to be persuaded however that even the affirmative procedure provides a sufficient level of parliamentary scrutiny and control over the exercise of such extensive powers, given the possible consequences of such a scheme for economic performance in the sector to be regulated. It may be desirable to consider whether these orders could somehow be subject to more thorough scrutiny than the current procedure provides”.¹⁸²

190. The DPRRC drew attention to three aspects of the enabling powers in particular. It noted the uncertainty of language in the description of “significantly more onerous” in Clause 31(3)(d), and suggested that this could entail the risk of a judicial review – i.e., in the event that Government introduced what it considered to be a minor revision to a scheme under the negative procedure, and a party affected objected that this revision was indeed significantly more onerous. Defra told us that

“A person affected by the amendment would be able to bring a legal challenge to any regulations made using the negative resolution procedure that made the overall requirements of the trading scheme significantly more onerous; as a result, the Secretary of State is unlikely to attempt to use an inappropriate procedure”.¹⁸³

182 CCB 19

183 Defra, Memorandum of Delegated Powers, para 143

191. The DPRCC further focused on paragraphs 22-25 of Schedule 2, specifically the enforcement provisions which may be made in regulations governing trading schemes. While the powers to create an offence related to a trading scheme (paragraph 24) and to increase the penalties for existing offences (paragraph 23) are subject to the affirmative procedure, the powers to require the production of documents, to question the officers of a company, to enter the premises with a warrant, or seize documents or records (paragraph 22) are only subject to the negative resolution procedure. Moreover, as the DPRCC notes, paragraph 23 does not specify or contain a mechanism for determining the maximum amount of financial penalties, nor does paragraph 24 provide for the mode of trial and maximum sentence for offences. Finally, it commented that paragraph 25 only enables, but does not require, regulations to confer rights of appeal (against decisions made, civil penalties imposed and enforcement action taken under a trading scheme). Paragraph 25 also allows for appeals to be heard by the Secretary of State. The DPRCC argued that this was inappropriate because of a conflict of interests.

192. Our conclusion is that **Clause 31(3) should provide for the specified cases of regulations to be subject, not to the affirmative resolution procedure, but to the super-affirmative procedure.** This would enhance scrutiny, for instance by allowing both Houses of Parliament the opportunity to pass resolutions recommending amendments to the draft Statutory Instrument, before being approved by affirmative resolution of each House. **We recommend that the provision of enforcement powers, set out in paragraph 22 of Schedule 2, be added to the list of features in Clause 31(3). Regarding the uncertainty of language in the phrase “significantly more onerous”, we are content with the argument presented by Defra’s memorandum on the delegated powers in the draft Bill.**

Allocation of allowances

193. Schedule 2, Part I of the draft Bill concerns the allocation of allowances to emit greenhouse gases under the first type of trading scheme. The Government’s stated intention is that it will decide on whether to allocate allowances free of charge or by auction (“or otherwise for value”) on a case-by-case basis; and, where selling allowances, legislate for this in the annual Finance Bill.¹⁸⁴ As an example of this intention, the 2007 Energy White Paper states that the proposed Carbon Reduction Commitment would involve the auctioning of allowances to emit CO₂ to participating organisations.¹⁸⁵

194. A number of organisations, not least the Carbon Trust, which has undertaken significant work on the subject,¹⁸⁶ have stressed the advantages of auctioning allowances. For example, auctioning can prevent participants from earning windfall profits (this can occur where they increase their prices to reflect the trading value of the allowances they are using up, even though they have received their allocation for free), and can also generate revenue which could be used to finance low carbon investment. At the same time, we recognise that auctioning allowances might have very different implications depending on the design of different trading schemes, and on the differing economic and administrative circumstances of the participants. For these reasons **we conclude that the draft Bill should**

¹⁸⁴ Cm 7040, Consultation Document, para 5.76

¹⁸⁵ Cm 7124, paras 2.21-22

¹⁸⁶ For instance, *Allocation and Competitiveness in the UK Emissions Trading Scheme: options for Phase II and beyond*, Carbon Trust, June 2006

not contain a blanket provision to rule auctioning in or out for all trading schemes, but that rather this should be decided on a case by case basis through the annual Finance Bill.

195. We are concerned, therefore, by paragraph 5(3)(a) of Schedule 2, which states that regulations made under the draft Bill “must provide for the allowances to be allocated free of charge”. This appears to be contradictory to the Government’s intention to decide on auctioning on a case by case basis. The Secretary of State explained that the purpose of this provision was that “it makes clear that this is not a Bill for getting into fiscal issues. That is done through the Finance Bill”.¹⁸⁷ Mr Mortimer of the Office of Climate Change confirmed that, in the Government’s view: “It would not mean that the Finance Bill could not bring in auctioning provisions and, indeed, the Government is committed more generally to increasing auctioning as a more sensible way of going about allocating rights within trading schemes”.¹⁸⁸ We raised concerns that this would not, in fact, be the case: that the wording of the paragraph 5(3)(a) would conflict with any attempt to introduce auctioning through the Finance Bill. Mr Mortimer assured us that the Government’s “legal advice is not that this would, in a sense, trump the Finance Bill and make something in the Finance Bill unlawful”.¹⁸⁹

196. Notwithstanding this assurance, we continue to have some doubts. The wording of paragraph 5(3)(a) does not limit the powers of the regulations that can be made under the draft Bill, but rather asserts those powers over the method of allocation, and states that this method must be free of charge. Moreover, while paragraph 5(3) states explicitly that “Paragraph (a) does not affect the power to require the payment of a fee” (which we understand to relate to administration fees, rather than the purchasing of allowances), it does not contain an equivalent clarification that the paragraph does not affect the power to auction allowances under other legislation. At the very least, the current wording could cause confusion. We note that some industrial groups have welcomed this provision, potentially under the misapprehension that it was ruling out the use of auctioning for any trading schemes that would be set up in the future.¹⁹⁰ Most importantly, there does not appear to be any need for the provision in paragraph 5(3)(a) at all: were the draft Bill to remain silent about whether allowances would be auctioned it would achieve precisely the Government’s intention, simply through failing to provide the power to introduce auctioning through secondary legislation. **Given that the provision in paragraph 5(3)(a) appears to be superfluous as well as problematic, we recommend that it be deleted.**

Use of carbon credits from one trading scheme in another

197. The Government is clear about the advantages of linking different trading schemes together. In its statement, *Emission Trading: UK Government Vision*, published at the same time as the Stern Review, it spells these out:

“the more we can trade emissions reductions across international borders, and the more emissions that are covered, the more cost effective for all it will be to achieve

187 HC 534, Q 604

188 Q 645

189 Q 646

190 HC 534, Qq 600-01

challenging emissions reduction targets. ... Making the carbon market deeper, wider and more liquid will increase its effectiveness in delivering greater emission reductions, and do so at least cost. ...

With the right focus, the EU ETS can become the basis of a global carbon market, benefiting the world by creating a more secure international framework, expanding the coverage of ambitious, quantified emissions reduction targets, and tackling concerns about international competitiveness”.¹⁹¹

We also note the current development of different trading schemes throughout the world. We heard interesting evidence, for instance, of California’s plans to establish a trading scheme, and to link it up with others emerging in North America:

“The Governor has made it very clear that he does want to link up with other systems. He travelled to New York and made a statement with Governor Spitzer of New York that he did intend to create a system that could link up with RGGI [the Regional Greenhouse Gas Initiative, a trading scheme comprising nine states in the northeast US]. We have also established a sixth state and two Canadian province memorandum of understanding to develop a western cap-and-trade system, so we have the states of Arizona, New Mexico, Washington, Oregon, Utah and the Province of British Columbia and soon the Province of Manitoba all committed and working together to design a cap-and-trade system”.¹⁹²

198. At the same time, the provisions in the Bill on trading raise issues about the security and transparency of emissions reductions where a trading schemes accepts the use of carbon credits generated under different schemes. We have already discussed our concerns about the principle of permitting carbon credits purchased from abroad to be set against the UK’s carbon budget. *Any* linking of different schemes needs to be carefully planned and monitored, however, including different schemes which operate within the UK. This is because one of the two main virtues of a trading scheme – that it provides “certainty about the level of carbon dioxide emissions that will be achieved as the outcome is fixed and mechanisms are in place to avoid the outcome not being achieved”¹⁹³ – can become compromised if it accepts credits generated from another scheme which has a more relaxed (or non-existent) cap, or less robust auditing procedures.

199. This is of particular relevance to the two different types of trading scheme which the draft Bill refers to, and the fact that the draft Bill contains provisions (paragraphs 9 and 17 of Schedule 2) which would allow them to be linked together. The aforementioned virtue of trading schemes – that the cap provides certainty as to the maximum amount of CO₂ emitted – strictly only applies to the first type (which directly limits the activities which cause emissions) and not the second (which encourages the growth of low carbon activities or sinks). In effect, where the first type is linked to the second it is no longer solely a cap and trade scheme, but also becomes, to the extent that credits from the second type are allowed in it, a cap and offset scheme. Participants in the original scheme would be allowed to “buy their way out” of some of their emissions reduction commitments by funding some form of “climate friendly” investments. But, crucially, because this second type of scheme

191 ‘Emissions Trading: UK Government Vision’, Defra, DTI, HM Treasury, 30 October 2006, pp 1-2

192 Q297

193 Cm 7040, Consultation Document, para 5.63

does not have a cap on emissions, it is impossible to be certain as to the absolute contribution to emissions reductions of such investments. For instance, the Renewables Obligation is a variant of the second type: while it mandates a growing percentage of electricity to be generated from low carbon sources, it does not place a cap on electricity production in total, and thus cannot offer certainty as to the absolute amount of carbon it will save. One effect of allowing credits from such a scheme to be used within a cap and trade scheme is thus to inflate the cap.

200. The partial extension of cap and trade schemes into cap and offset schemes could have some very positive effects in terms of supporting low carbon investment, both in the UK and in the developing world, depending on the quality and robustness of the schemes to which they are linked. But this would also inflate the caps of the original schemes, and make their effectiveness in reducing emissions less certain. For these reasons, **we recommend that paragraphs 9 and 17 of Schedule 2 be amended, to require the Secretary of State to seek the advice of the Committee on Climate Change before establishing or revising provisions that allow the use of any allowances, credits or certificates from one trading scheme in another, and these regulations ought to be added to the instruments subject to the super-affirmative resolution procedure.**

Other policy instruments

201. For all their potential strengths, it is clear that trading schemes are not the only mechanism for tackling climate change. We note, for instance, the comments of Stephen Hale of Green Alliance:

“Trading is not the best instrument in all circumstances ... [S]ince the publication of the Stern Review ... trading has become regarded as a kind of panacea, but actually shifting the price per se does not resolve all of the market failures. From our perspective we are quite keen to ensure that standards and regulation and other instruments are given more prominence in the debate and more prominence in the government’s response because in many areas you can get a more effective solution through means other than trading, and I would give transport as the classic example of an area where trading is not the answer”.¹⁹⁴

202. Indeed, emissions trading is far from the only policy endorsed by the Stern Review. Stern recommended three main courses of action: putting a cost on carbon, investing in low carbon technologies, and targeting behavioural and organisational barriers to shifting to a low carbon economy. For the first of these, Stern set out three complementary options: taxation, regulation, and trading schemes. Thus trading, while still a very important element in the policy mix recommended by Stern, still only represents one-third of Stern’s major conclusions.

203. Of course, regarding taxation, the Government has explained that fiscal measures can already be introduced through the annual Finance Act;¹⁹⁵ and subject to our comments in relation to the auctioning of allowances, we support this route for all taxation-based instruments. We accept that regulations will need to be developed separately from the draft Bill, often as part of a broader EU or, occasionally, international, approach. Recent

¹⁹⁴ Q214 (Mr Hale)

¹⁹⁵ Cm 7040, Partial Regulatory Impact Assessment, para 5.3

developments, including the 2007 Energy White Paper,¹⁹⁶ give some indication of the type and extent of measures that will need to be pursued. At the same time, we wonder whether the Government has missed an opportunity by including in the draft Bill significant powers to develop trading schemes, but no specific enabling powers directed towards implementing any of Stern's other conclusions. **Above all, we are clear that while the Bill sets out what could potentially be an extremely effective framework for future climate policy, it will require successive governments to devise and introduce a range of sometimes controversial policies to actually deliver progress. The Government's work, in other words, will only be beginning with the passage of this Bill.**

7 Adaptation

204. The Stern Review states

“Adaptation will be crucial in reducing vulnerability to climate change and is the only way to cope with the impacts that are inevitable over the next few decades. In regions that may benefit from small amounts of warming, adaptation will help to reap the rewards. It provides an impetus to adjust economic activity in vulnerable sectors and to support sustainable development, especially in developing countries”.¹⁹⁷

205. Clause 37, in Part 4 of the draft Bill (Miscellaneous and Supplementary Provisions), places a duty on the Secretary of State to report to Parliament on the “proposals and policies of Her Majesty’s Government in the United Kingdom for adapting to climate change”.¹⁹⁸ The first such report must be made within three years of the Act coming into force, and at least every five years subsequent to that.

206. This is the only mention of adaptation in the Bill. Although it is placed under a heading of Miscellaneous, which does not give it the emphasis we believe it needs, **we welcome the inclusion of adaptation in the draft Bill. We recommend that adaptation be included in the long title of the Bill, to reflect its significance.**

207. Witnesses told us that they were concerned at the apparent low priority given to adaptation in the Bill. Dr Kevin Anderson said

“we have a whole suite of policies that need to be there, those changes need to be made. We cannot just rely on very small mechanisms to adjust, so it is not just about the emissions trading scheme, it is not just about air passenger duty, it is all of these things, it is about minimum appliance standards, it is about building regulations, all of these factors will have to play a part in some form of joined-up thinking to bring about the sort of reductions that are necessary”.¹⁹⁹

We agree with Dr Anderson, and the other witnesses who have suggested that adaptation needs to be a Government priority.

208. Policy on adaptation needs to be put in place sooner rather than later. On our visit to Oxford, we spoke to staff at the UK Climate Impact Programme. They told us they were glad to see signs of individual government departments addressing the need for adaptation measures, such as the revision of regulations concerning road-building, but remained concerned at the lack of joined-up thinking on the issue.²⁰⁰ **The Government should encourage greater inter-departmental co-operation in developing adaptation policies, including, if it considered necessary, further framework legislation.**

¹⁹⁷ Stern Review, p 403

¹⁹⁸ Clause 37(1)(b)

¹⁹⁹ Q 69

²⁰⁰ See Annex 3

209. Witnesses commented on the timing of the proposed report. There was some criticism of the potential five-year gap between reports. The Mayor of London thought adaptation measures needed to be reviewed every two years.²⁰¹ The Association of British Insurers suggested that the Government lay reports annually in addition to five-yearly.²⁰² The RSPB recommended “a three yearly analysis of the likely impacts of climate change on key sectors in the UK economy”.²⁰³ This seems a sensible timeframe to us, although annual updates would also be welcome. **We recommend that Clause 37 be amended to require the Secretary of State to report on adaptation policies and proposals at least every three years and that this report be debated in both Houses on a substantive and amendable motion.**

210. Should the Government decide to keep its five-year reporting system, we also think thought should be given to its timing. Given that the carbon budgets are also five-year cycles, we find much sense in Baroness Young of Old Scone of the Environment Agency’s proposal that “the adaptation report in the Bill should be timed very carefully to come before the time at which the Committee on Climate Change considers the next five-year targets and before the process of the government setting those budgets, because it does seem to us that the degree of effort that is regarded as practically and scientifically sensible needs to be informed by what is happening on the ground in terms of impacts”.²⁰⁴ While the Committee on Climate Change is unlikely to be setting a new budget every five years, tying the adaptation report into the beginning of the policy cycle for each budget is common sense. **The Secretary of State should make a report on adaptation measures at a time that enables adaptation policy to be co-ordinated with measures for reducing carbon emissions in the five-year carbon budget.**

211. The reporting provisions are also quite unspecific in comparison to the reports required on carbon budgeting. It would be useful for the Government to set out exactly what areas it proposes to look at when forming its adaptation policies, for example, building and road regulations or flood defences. The RSPB wanted to see, programme of adaptation measures to address such impacts with “the explicit aims of securing sustainable adaptation across all sectors of the economy; safeguarding the future of the UK’s biodiversity in a changing climate; and ensuring that the UK plays its full part in tackling the impacts of greenhouse gas emissions on vulnerable communities and ecosystems abroad”.²⁰⁵

212. The ABI has published details of the insured costs for weather events today in the UK as between £7 billion and £10 billion and estimating a trebling of these costs by 2050. In written evidence, the ABI argued that “the UK’s strategy for adaptation ... needs to be given equal weighting within the Bill and should be integral to all the processes outlined”.²⁰⁶ The RSPB reminded us that the world is already committed to a certain amount of climate change as a result of historical emissions and the effects that are already likely, therefore, to

201 CCB 10, para 12.4

202 CCB 59, para 18

203 CCB 49 para 12.2

204 Q 195

205 CCB 49

206 CCB 59, para 2

affect the world's poorest people and the natural environment.²⁰⁷ Natural England argues that: "It is now accepted that planned adaptation is a necessary strategy to complement mitigation".²⁰⁸ Baroness Young of Old Scone suggested in evidence to the Committee that

"the reporting requirement on adaptation needs to be strengthened considerably so that it is based on a government action plan and action by a range of bodies to achieve that action plan, so that the report reviews not only what government has done and how far government has got in protecting the nation from climate change but also local government and any other body that has a key role to play, much in the way that the civil contingencies Act laid responsibilities for the management of civil contingencies".²⁰⁹

213. As currently drafted, we do not feel that the draft Bill communicates the same sense of urgency in respect of adaptation measures as it does in respect of mitigation measures. We think that the Bill should be more explicit about the UK's strategy for addressing the need for adaptation measures. We recommend that the reporting duty should be strengthened to impose an adaptation duty on the Secretary of State to report on the risks, the policy proposals to address those risks and then to implement those proposals.

207 CCB 49

208 CCB 13, para 1.3

209 Q 189

8 Local government and behaviour change

214. The draft Bill aims to set out a strategic framework for setting targets and monitoring progress against them. To this extent we accept that it is not appropriate to use it as a means of engaging regional or local authorities, or as a means of promoting behaviour change among the public at local level.

215. We carried out an online consultation on the role of local government in the drive to reduce emissions and combat climate change. We received 29 responses, overwhelmingly in favour of action on the part of local government. One councillor told us that “it is absolutely essential” to legislate for local government involvement. Another contributor proposed “I would like to see Local Authorities issued with a statutory responsibility to assess carbon dioxide emissions from their districts, formulate long-term targets and shorter-term budgets, and produce action plans for emissions reductions”. Several had proposals for necessary behaviour change. We attach a full summary of responses to our Report.²¹⁰

216. There is a need to ensure that local and regional authorities make a co-ordinated and systematic contribution to the achievement of the Government’s carbon reduction target, and that individual behaviour change also makes an appropriate contribution. In both written and verbal evidence to the Committee, representatives of local and regional government stressed the need for a partnership approach and for an acknowledgement of the role of local government in addressing adaptation and behaviour change issues

217. In its written submission, the Local Government Association (LGA) urged “a place for local government on the Committee on Climate Change”, arguing that this was vital if the Committee was to adequately fulfil the function expressed in the draft Bill as “presenting the economics of the costs, benefits and risks of abatement decisions”.²¹¹ In their response to the Government’s consultation on the draft Bill, the English Regional Development Agencies similarly argued for regional representation on the Committee on Climate Change, on the basis that “the real key to success ... will be translating evidence and rhetoric into policy which can be delivered and which will achieve the intended results”.²¹² We are not convinced of the desirability of extending membership of the Committee on Climate Change in this way, but, if the broad intentions of the Bill are to be realised, there is a pressing need for the Government to establish effective means of co-ordinating strategies and the sharing of data to ensure the development of practical, verifiable and compatible targets at every level of government.

218. The Nottingham Declaration, now signed by half the local authorities in England, calls for local authorities to “work with central government” and to “participate in local and regional networks”.²¹³ The LGA told us that it will seek a commitment that any local

210 See Annex 2

211 CCB 36

212 England’s Regional Development Agencies response to the Government Consultation

213 Available at www.nottinghamcity.gov.uk/sitemap/the_nottingham_declaration

carbon trading scheme should only be developed “in partnership with council leaders”.²¹⁴ All the submissions from local and regional government stressed the need for shared information and common understandings of base-lines and measurements. Mr Tubb of the South-East England Development Agency spoke of the need to agree “ground rules and protocols” between the different levels of government²¹⁵ and the LGA stated that, to play an effective role, local authorities would need access to reliable data, some of which is not available to them at present, and that there must be a co-ordinated approach to implementing practical policies as well as setting targets.²¹⁶

219. Local and regional government submissions argued the need for the Bill to give much greater emphasis to adaptation and changes in individual behaviour, as well as initiatives aimed at mitigating climate change. While acknowledging that it would not be appropriate to include specific measures relating to adaptation and behaviour change in the draft Bill, we share the view that it is vital that the Government identifies and promotes clear policies for adaptation and behaviour change. The LGA emphasised that much greater weight should be placed on adaptation.²¹⁷ The Environment Agency wanted a fully fledged adaptation programme with targets and timetables.²¹⁸ The English Regional Development Agencies thought the Committee on Climate Change should be required to have expertise in matters of adaptation, with special reference to flood risk, water resources, biodiversity and health.²¹⁹

220. The need for compatibility between national, regional and local targets is evidenced by the variety of overlapping policies and proposals that are already in train. The Local Government White Paper states that the new local government performance network “will have an appropriate focus on climate change” and that “where appropriate, climate change targets will be included in Local Area Agreements”.²²⁰ It also states that the forthcoming Comprehensive Spending Review will “make decisions on national outcomes, indicators and targets”.²²¹ Through its “Core Cities” programme in eight city regions in England the Government is encouraging the development of a joint statement on climate change, building on the Nottingham Declaration. In the 2007 Energy White Paper the DTI stated that Regional Development Agencies “have committed” to “set carbon reduction targets in their corporate plans; publish an estimate of the carbon they expect to save from their policies and programmes by 2010 and 2020; and update these estimates annually”.²²²

221. In addition, some local authorities, notably the Greater London Authority, are participating in international networks sharing best practice which will begin to identify targets, methodologies and mechanisms of their own. Given this variety of approaches and targets, we have some sympathy with the LGA in its insistence that any local carbon

214 CCB 36

215 Q 506

216 CCB 36, para 8

217 CCB 36

218 CCB 69

219 England’s Regional Development Agencies response to the Government Consultation

220 *Strong and Prosperous Communities – The Local Government White Paper*, Department for Communities and Local Government, Cm 6939, October 2006, Volume two, para F12

221 *Ibid*, para F15

222 Cm 7124, para 9.7

trading schemes should be developed “in partnership with council leaders” rather than by imposition from national government.²²³ Local and regional government submissions argued that effective action would grow from the exchange of best practice and the development of locally attuned specific policies, but all within a framework of data and measurement shared with the Committee on Climate Change. The LGA also argued that agreement was needed “on which areas of control and influence are appropriate for assessing council performance”.²²⁴ The Regional Development Agencies pointed out that “the regions in England are diverse and will need to prioritise which mitigation and adaptation opportunities have the greatest impact in their areas”.²²⁵ It is crucial that local authorities are encouraged to act on climate change through the mechanisms already in place, most notably through the Comprehensive Performance Assessment (CPA) process. The CPA links local authority performance directly to funding and therefore provides the main impetus for policy development. **We consider that the single most important action the Government could take to encourage local authority action on climate change is to include it in the Comprehensive Performance Assessment process.**

222. The Mayor of London’s Policy Advisor told the Committee that the London Committee on Climate Change was of the view that a 20% reduction in emissions could be achieved should “two-thirds of Londoners do things that cost them nothing and in actual fact put more money back in their pockets”.²²⁶ **We agree with the overwhelming view of submissions from local government and regional government bodies that, whether in the Bill or elsewhere, the Government must give far higher priority to addressing the issue of individual behaviour change, and the role of local government in achieving this in its capacity as a major community leader. We expect the Government to back efforts to change individuals’ behaviour with major public information campaigns, appropriately funded, which may be required to continue over an extended period.**

223 CCB 36, para 1.2

224 CCB 36

225 England’s Regional Development Agencies response to the Government Consultation

226 Q 495

9 Devolution

223. The introduction to the draft Bill explains: “[t]he devolution settlement with respect to climate change policy is complex; while elements of energy policy and international relations are reserved matters environmental policy is, to varying degrees, devolved to each of the Devolved Administrations”.²²⁷ The level of complexity is increased by practical considerations such as the role of the Devolved Administrations in setting targets, developing and implementing trading schemes, reporting on emissions and progress, and determining the overall relationship with the Committee on Climate Change.

224. We visited Edinburgh to discuss the implications of the Bill for the devolved governments. We talked to Scottish NGOs during our visit to Edinburgh who emphasised the importance of giving the Devolved Administrations flexibility and, potentially, new powers to develop their own policies and approach. They also highlighted the need to co-ordinate the UK’s response and hoped there would be greater clarity on the division of responsibility and accountability.²²⁸

225. The draft Bill does not attempt to address these issues. As the Government has stated,

“[i]t has not yet been determined how the functions of the Bill would be performed, whether by the Secretary of State, the Devolved Administrations or jointly... The Devolved Administrations in Scotland, Wales and Northern Ireland will need to develop and agree their approach to issues raised in the Bill, for both the substance and the policy and the handling of devolved issues. The later will include the legislative route for devolved matters, which might mean separate devolved legislation or the consent of the devolved Parliament or Assembly to UK legislation”.²²⁹

226. However, due to recent elections in the Devolved Administrations it has not been possible for us to review the issue of devolution in detail. There was a significant development on the day of our visit to Edinburgh when the Cabinet Secretary for Finance and Sustainable Growth, John Swinney, announced the Scottish Executive’s intention to introduce a Scottish Climate Change Bill in late 2008.²³⁰ It is due to set a long-term target to reduce carbon dioxide emissions by 80% by 2050, equivalent to reductions of 3% each year. At present, there is no interim target for 2020 and there will be consultation on whether a five-year budgetary process is appropriate. It is also unclear how the national targets will relate to each other, and whether the UK as a whole will be able to ‘bank’ Scotland’s emissions reductions as that country progresses towards its own target. The Bill may create a Scottish Committee on Climate Change or build a link with the UK’s Committee on Climate Change to provide expert advice on interim targets and the policy instruments that should be pursued. It will also introduce monitoring requirements, a statutory

227 Cm 7040, Consultation Document, para 1.10

228 See Annex 3

229 Cm 7040, Consultation Document, paras 1.11 to 1.13

230 Statement by the Cabinet Secretary for Finance and Sustainable Growth, Scottish Parliament, 21 June 2007, available at <http://www.scotland.gov.uk/News/This-Week/Speeches/Greener/climatechangejun21>

mechanism to increase accountability and adaptation measures.²³¹ We strongly welcome the Cabinet Secretary's announcement.

227. At our meeting with representatives of the Scottish Executive and the Scottish Parliament there was recognition that the Government and the Devolved Administrations must work closely together to address the Devolved Administrations relationship with the draft Bill. There is a great deal that needs to be achieved in this respect, and **we urge Government to address the issue of the inclusion of the Devolved Administrations as a matter of urgency before the draft Bill is introduced into Parliament.**

231 Statement by the Cabinet Secretary for Finance and Sustainable Growth, Scottish Parliament, 21 June 2007

Conclusions and recommendations

1. We recommend that the Bill should be amended to require both the Government and the Committee on Climate Change to include within their monitoring and reporting a clear analysis of all emissions which contribute to global warming, including non-CO₂ greenhouse gas emissions. We further recommend that this be done with the explicit intention of providing a stepping stone to a more comprehensive approach to setting targets across the whole range of greenhouse gases, were that approach to emerge as a result of future international negotiations. (Paragraph 24)
2. We are concerned that the Department for Transport appears to have done so little to update its analysis of predicted growth in aviation emissions since the information it provided in 2003-04 to the Environmental Audit Committee. Although officials told us that updated forecasts would be made available later in the year, we would have expected this to have been carried out before the introduction of the draft Bill. It is also disappointing, in view of the importance of the topic, that the DfT has not carried out any analysis on the impact of including international aviation within the scope of the draft Bill. (Paragraph 31)
3. The draft Bill currently does not include within the scope of the targets, and the net UK carbon account, emissions from international aviation. We consider this to be a serious weakness which, in view of the significant likely growth of such emissions, has the effect of reducing the credibility of the 60% carbon reduction target. Given the clear expectation of the Secretary of State that international aviation emissions could be included in the net UK carbon account once they are incorporated within the EU ETS, we expect the Government to take all necessary steps to ensure that this is achieved. The draft Bill should be amended in such a way that it requires both the Government and the Committee on Climate Change to include separately international aviation emissions within the scope of their monitoring and reporting, including projections of future emissions – in a manner similar to the parallel reporting we are recommending in relation to non-CO₂ greenhouse gases. (Paragraph 32)
4. The Bill should clearly provide for the inclusion of international aviation emissions in the carbon budget once EU agreement is reached on the measurement and allocation of such emissions. (Paragraph 33)
5. The Government must clarify whether it intends, when bringing international aviation within the regime established by this Bill, for aviation emissions to fit within the UK's existing targets and budgets (thereby increasing the pressure on other sectors to reduce emissions), or for the targets and budgets to be inflated so as to accommodate it. If the latter, the Government must publish at an early stage, a proposed baseline for the inclusion of aviation emissions, an analysis of how this would affect the UK's share of global cumulative emissions, and the basis on which it decides the level of its 2050 target. (Paragraph 34)

6. We recognise that both the methodology required to allocate international shipping emissions to individual countries, and the policy mechanisms which individual governments could use to constrain emissions from this sector, may need further thought. We do not want to see progress held back by any coupling of ‘aviation and shipping’, and therefore recommend that the Government press on with plans to include international aviation within the UK’s targets, even if issues remain to be resolved over international shipping. At the same time, the Government should make it a priority to address these issues, and both it and the Committee on Climate Change should include international shipping emissions within their annual projections and reporting processes. (Paragraph 37)
7. We understand, and sympathise with, the argument in favour of setting a higher target for the long-term reduction of carbon dioxide emissions. But recognizing how very demanding the target set out in the draft Bill for 2050 is, and facing up to both the complexity of domestic budgeting and international requirements, we conclude that the approach adopted by the Government is appropriate provided that it is understood that this is but the first step along a path towards a low-carbon future for the UK. We make further recommendations later about reinforcing this direction of travel. We also recommend that the long title of the Bill should be amended to state explicitly, as the Environment Secretary of State emphasised several times in his evidence to us, that the target should be at least 60% and subject to review. (Paragraph 44)
8. Bearing in mind however the weight of scientific evidence before the Committee that a target of more than 60% is likely to be necessary, we believe that as soon as possible after it is established, the Committee on Climate Change should review the most recent scientific research available and consider to what extent the target should be higher than 60%, with a view to making recommendations on the appropriate amendment to the long term target. (Paragraph 45)
9. The draft Bill places responsibility on the Committee on Climate Change to determine the optimal shape of the emissions trajectory to 2050, but it does not include any target or specific provision for monitoring the level of cumulative emissions over that period. We recommend that the Bill should be amended to require the Committee, in recommending carbon budgets, to publish a forecast of the cumulative amount of emissions implied by the emissions trajectory it is recommending; and for the Government to set out the impact on cumulative emissions if it fails to follow the advice of the Committee. (Paragraph 47)
10. To ensure that the UK’s statutory targets remain in line with the best scientific understanding of the level of effort required, the Government should publish the rationale behind them. This should make clear the stabilisation target for global atmospheric concentrations of greenhouse gases, and the resulting projected temperature rises, which the Government is aiming for, along with the central assumptions used to correlate between these goals and the UK’s targets. The Bill should also state that if the Secretary of State proposes to revise the 2020 or 2050 targets, he or she must publish the rationale for the new target. (Paragraph 49)

11. we support the inclusion of a minimum interim target to reduce the level of uncertainty about the direction of travel and to stimulate investment in low-carbon technologies. (Paragraph 51)
12. Although we support the inclusion of a minimum interim statutory target for 2020, we note that it raises troubling issues about the independence of the Committee on Climate Change in determining for itself the optimal emissions trajectory. We also note that the target – as currently drafted – places a maximum level on the carbon budget which might be set for 2018 to 2022. We see no compelling reason for such a limit and therefore recommend that it be deleted from the draft Bill. (Paragraph 53)
13. Given the weight of scientific opinion and for the reasons set out above, it is clear to us that the draft Bill should include provisions to increase the statutory emissions targets for 2020 and 2050. However, to allow for reductions in the target seems to us seriously to undermine the fundamental purpose of the Bill in terms of providing greater certainty to business and industry on the scale of reductions required and incentivising investment in low-carbon technologies. We therefore recommend that the Bill be amended to restrict the order-making power in Clause 1 to increasing the target. This could be achieved by replacing “amend” with “increase” in Clauses 1(3) and 3(3); any reduction of the targets for 2020 and 2050 should require primary legislation. (Paragraph 55)
14. We recommend that the power to amend the targets for 2020 and 2050 is made subject to a greater level of Parliamentary scrutiny than is offered by the affirmative resolution procedure. (Paragraph 58)
15. It is unclear how the interim target will relate to the EU’s overall target of a 20% cut in greenhouse gases by 2020 (or 30%, subject to other developed countries adopting similar measures). It is possible that a burden sharing agreement could result in the UK being asked to adopt a higher target than the maximum currently proposed within the draft Climate Change Bill. It will be important to ensure that any domestic targets set will be at least as challenging as EU targets or those set internationally. (Paragraph 61)
16. We support the proposed system of five-yearly budgets provided there is a strong system of annual reporting on progress. We recommend that, in setting the level of future budgets, the Government should also provide indicative annual milestones to help assess progress on an annual basis. (Paragraph 69)
17. we would be concerned if the budgetary period were lengthened to maintain alignment with international reporting and emissions trading periods, given that this could reduce the frequency of the Government’s strategy reports and outturn assessments. (Paragraph 69)
18. We recommend that the draft Bill compels the Secretary of State to make an order under Clause 12(4) that requires strategy reports under Clause 6 to be prepared at least every five years in the event that the existing five-year budgeting period is lengthened. (Paragraph 69)

19. The draft Bill has it right in simply instructing the Secretary of State and Committee on Climate Change that they must take a range of issues, including climate science and economic and social circumstances, into account when considering the level of UK carbon budgets, without prescribing the means with which they do so. At the same time, in order for the statutory injunction that these disparate factors be taken into account to be meaningful, both the Government and the Committee on Climate Change should clearly document how in practice they have balanced these issues in making their decisions. (Paragraph 72)
20. We recommend that impacts on the environment, especially biodiversity, be added to the list of factors which the Secretary of State and the Committee on Climate Change must take into account. (Paragraph 73)
21. If budgetary targets are to have any credibility, they must be based on a detailed analysis of the scope and potential for carbon reductions in specific sectors. To that extent we recommend that the Government, as a minimum, both makes publicly available the detailed analyses and forecasts which underpin the targets which are recommended and set, and lays out indicative figures for reductions in each sector. (Paragraph 76)
22. We recommend that Clause 13 be amended so as to prohibit any alteration to a carbon budget after the budgetary period has ended. (Paragraph 77)
23. We note that the draft Bill represents an important development in the nature of UK targets for carbon reduction. The concept of the net UK carbon account includes emission reductions arising from non-UK sources; therefore, the carbon targets for budgetary periods which the Bill defines cannot be regarded simply as UK domestic targets. This contrasts with the original definition of the Government's 2010 target, to reduce UK CO₂ emissions by 20% from a 1990 baseline. (Paragraph 82)
24. We recommend that Clause 21 be amended, to give the Committee on Climate Change a duty to report annually on the use of carbon credits in the preceding year. In doing so, the Committee should be required to give an opinion on the robustness of the schemes under which these credits have been issued, the effectiveness of these credits in reducing global greenhouse emissions, and the transparency with which the Government has reported their use. Additionally, regulations (under Clause 16) which define the types and values of different carbon credits, and the circumstances in which they are to be set against the UK carbon budget, ought to be added to the features subject to the super-affirmative resolution procedure. (Paragraph 87)
25. Regarding the issue of 'supplementarity', it is important to bear in mind that the fundamental basis of the Kyoto protocol is the principle that developed nations should take primary responsibility for the problem of climate change and should lead the way by setting themselves targets to reduce emissions. However, by not specifying an absolute cap on the use of foreign emissions credits in order to meet UK carbon budgetary requirements, the Bill as currently drafted would still theoretically allow all the savings to be made externally to the UK, notably in developing countries, and thereby postponing the decarbonisation of the UK economy. We are somewhat surprised that the Government appears to be relaxed

that 70% of the UK emission savings anticipated under Phase 2 of the ETS are likely to be derived from international credits. As the Environment, Food and Rural Affairs Select Committee says, there would be “serious implications of over-utilising this facility in terms of the UK’s credibility on the international stage”. (Paragraph 92)

26. We are somewhat reassured that Clause 20 gives the Committee on Climate Change a duty to advise the Secretary of State on the extent to which each carbon budget should be met by the use of carbon credits. However, we recommend that these provisions be strengthened, with the Secretary of State being given a duty, under this advice, to set caps on the use of international credits against the UK’s carbon budget for each budgetary period. (Paragraph 93)
27. We still remain concerned by the absence in the Bill of any firm principles to guide the Committee’s advice in respect of the use of foreign credits. As we understand it, the scope for the use of international credits should reduce, tending towards net zero as we move towards 2050 under any successful global emissions reduction regime, given that in order for any nation to have surplus credits to sell it must be over-achieving its own targets – something which will prove necessarily more and more challenging for all nations as binding caps become ever more stringent. Therefore, in addition, we recommend that the Bill should place a duty on the Secretary of State, on advice from the Committee, to publish the rationale on which the cap on the use of international credits is based. This should make clear the proportion of emissions cuts that must be made from within developed nations such as the UK – or to put it the opposite way, the extent to which richer nations can buy their way out of making emissions cuts – in order for the world as a whole to stay within its global emissions budget to 2050. (Paragraph 94)
28. We therefore consider that the borrowing provision should be retained in the Bill. (Paragraph 95)
29. The banking of credit purchased by the Government from overseas should be explicitly excluded from the banking provisions in the Bill. (Paragraph 97)
30. While we support the principle of banking of domestic over-achievement for use in a subsequent budgetary period, we recommend that the draft Bill be amended so as to place a limit on the extent to which carbon credits can be banked for use in this way. (Paragraph 98)
31. We recommend that the draft Bill be amended to include a deadline of six months from the date the budget period is set for the Government to lay its policy proposals for meeting the target before Parliament with only a limited power to extend this period by an order subject to the negative resolution procedure, (Paragraph 101)
32. We recommend that the Bill ensure that the Government must table substantive, amendable motions for debate in each House to allow Parliament to consider and approve the report of the Committee on Climate Change. (Paragraph 102)
33. We have concerns regarding the legal enforceability of Clauses 1(1) and 2(1)(b), which impose a duty on the Secretary of State to ensure targets and budgets are met.

We believe, therefore, that these provisions need to be altered or strengthened. (Paragraph 115)

34. One option is to replace the Secretary of State's duty to "ensure" with a duty "to take steps with a view to ensuring" the targets and budgets are met. This type of purpose clause would reflect the likelihood that the courts are unable to enforce the existing form of duty. (Paragraph 116)
35. An alternative, which is our strong preference, is to introduce a compliance mechanism within the Bill that will give both meaning and strength to the duty to "ensure" by compelling the Secretary of State to redress any failure to meet a target or budget, where necessary through court intervention based on the compliance mechanism. (Paragraph 117)
36. We recommend that Government introduces into the draft Bill a similar type of compliance mechanism to the arrangements under the Kyoto Protocol. (Paragraph 120)
37. We recommend that failure by the Government to meet a carbon budget or an annual milestone should trigger a duty to prepare a report explaining the reasons for the non-compliance and an action plan for remedying the situation. The action plan should cover any necessary policy changes, legislative proposals and resources needed to implement it; any public funds identified should be paid into a 'climate change compliance fund'. (Paragraph 123)
38. If a carbon budget is exceeded, we recommend that the excess emissions are deducted from the carbon budget for the subsequent period (Paragraph 126)
39. We also recommend that serious consideration is given to suspending the sale of carbon credits and debits by the Government during a period of default, in a similar way to paragraph (5c) of the Kyoto Protocol compliance procedure. (Paragraph 126)
40. We recommend that the duties in the draft Bill are placed on the Prime Minister instead of the Secretary of State. (Paragraph 129)
41. The Government needs to ensure that it sets out a clear idea of the role it envisages the Committee on Climate Change playing over the next forty and more years. (Paragraph 134)
42. We recommend that the Bill explicitly set out that the Committee on Climate Change is required to advise the Secretary of State on contributions by each sector towards meeting the carbon budget. (Paragraph 139)
43. We recommend that the draft Bill place a statutory duty on the Committee on Climate Change to publish the analysis that supports its recommendations on sectoral targets. More broadly, we recommend that the draft Bill be amended to require the Committee on Climate Change to publish the advice and analysis it gives to the Government, and its formal minutes. (Paragraph 141)

44. We recommend that the draft Bill include a power for the Committee to carry out an evaluation of current and potential policy when advising the Secretary of State. (Paragraph 144)
45. We recommend that the Government be required to respond within two months to the advice of the Committee on Climate Change, setting out how it intends to act upon the recommendations and, in the event that the Committee's advice is rejected, giving a full explanation of the reasons for reaching a different decision. (Paragraph 148)
46. It is important that the legislation gives the Committee on Climate Change a clear indication of which factors it is expected to consider when making its progress report. (Paragraph 149)
47. It is essential that the Committee should have access to whatever form of truly independent modelling it feels necessary to fulfil its remit, and that its budget should be sufficient to allow this. (Paragraph 154)
48. We recommend the Government consider a role for the Committee on Climate Change in assuming oversight for government energy and transport modelling, in order to ensure that it is transparent to climate change researchers. (Paragraph 155)
49. The provision for the Secretary of State to appoint the first chief executive should be removed from the Bill. (Paragraph 156)
50. We recommend that the Deputy Chair be appointed by the Committee, and that the Bill be amended to reflect this. (Paragraph 157)
51. We are pleased that the Committee will benefit from the work of a shadow Committee, and that this Committee will be appointed in accordance with OCPA and Cabinet Office guidelines. However the transparency of the Committee's appointments, and its independence, must not be compromised by the existence of such a body, or the haste with which it is established. (Paragraph 158)
52. We recommend that the appointment of the Chair, Deputy Chair and chief executive of the Committee on Climate Change be subject to Parliamentary scrutiny. (Paragraph 160)
53. The Bill should specify a minimum five-year appointment term for Committee members, renewable once. (Paragraph 161)
54. The Committee on Climate Change would suffer if its members could not cover all required areas of expertise, and therefore the membership should be set at a minimum of eight people. We recognise however the value of keeping the Committee to a manageable size and therefore recommend that it have a maximum of twelve members. (Paragraph 162)
55. If the Committee is to advise in detail on sectoral targets, as we have recommended, it will require a broader base for formal consultation than currently envisaged. (Paragraph 164)

56. We recommend that the Government should ensure that both engineering and environmental expertise are included in the required Committee specialisms, and that this is made explicit on the face of the Bill. (Paragraph 165)
57. The budget for the Committee on Climate Change must be large enough to enable the Committee to have sufficient, well-qualified staff to support its work. (Paragraph 167)
58. We recommend that the Committee have an annual research budget that is substantially higher than the £500,000 per annum currently proposed in order to carry out truly authoritative and independent advice and to ensure that it establishes the greatest possible credibility with government, local government, business and the general public. (Paragraph 169)
59. We recommend a funding mechanism is established for the Committee outwith the Defra budget. (Paragraph 170)
60. We recommend that the Bill be amended so that the September 2008 deadline applies only to the carbon budget for 2008-2012, and that the Committee be required to advise on the subsequent two budgets by September 2009, with the power to revise the 2008-2012 budget if this is necessary to ensure the coherence of the 15 year period. (Paragraph 175)
61. Given the reasons set out by the Government, we are content that including broad enabling powers in the draft Bill is appropriate. We are somewhat surprised at the apparent vagueness in Government thinking as to the purposes for which these powers would actually be used. Clearer guidance should be produced describing a number of potential trading schemes and revisions to them, and explaining their prospective implications and benefits, to give Parliament and the public a better understanding of the scope of these powers. As for personal carbon trading schemes, while these would appear to have important potential, the major impacts that they might have on the economy and people's personal circumstances mean it is essential that these should only be introduced through primary legislation. (Paragraph 186)
62. We conclude that, to ensure adequate accountability to Parliament for the use of these enabling powers, the provisions concerning the way in which secondary legislation is to be scrutinised and passed ought to be strengthened. (Paragraph 187)
63. Clause 31(3) should provide for the specified cases of regulations to be subject, not to the affirmative resolution procedure, but to the super-affirmative procedure. (Paragraph 192)
64. We recommend that the provision of enforcement powers, set out in paragraph 22 of Schedule 2, be added to the list of features in Clause 31(3). Regarding the uncertainty of language in the phrase "significantly more onerous", we are content with the argument presented by Defra's memorandum on the delegated powers in the draft Bill. (Paragraph 192)

65. We conclude that the draft Bill should not contain a blanket provision to rule auctioning in or out for all trading schemes, but that rather this should be decided on a case by case basis through the annual Finance Bill. (Paragraph 194)
66. We are concerned by paragraph 5(3)(a) of Schedule 2, which states that regulations made under the draft Bill “must provide for the allowances to be allocated free of charge”. This appears to be contradictory to the Government’s intention to decide on auctioning on a case by case basis. (Paragraph 195)
67. Given that the provision in paragraph 5(3)(a) appears to be superfluous as well as problematic, we recommend that it be deleted. (Paragraph 196)
68. We recommend that paragraphs 9 and 17 of Schedule 2 be amended, to require the Secretary of State to seek the advice of the Committee on Climate Change before establishing or revising provisions that allow the use of any allowances, credits or certificates from one trading scheme in another, and these regulations ought to be added to the instruments subject to the super-affirmative resolution procedure. (Paragraph 200)
69. Above all, we are clear that while the Bill sets out what could potentially be an extremely effective framework for future climate policy, it will require successive governments to devise and introduce a range of sometimes controversial policies to actually deliver progress. The Government’s work, in other words, will only be beginning with the passage of this Bill. (Paragraph 203)
70. We welcome the inclusion of adaptation in the draft Bill. We recommend that adaptation be included in the long title of the Bill, to reflect its significance. (Paragraph 206)
71. The Government should encourage greater inter-departmental co-operation in developing adaptation policies, including, if it considered necessary, further framework legislation. (Paragraph 208)
72. We recommend that Clause 37 be amended to require the Secretary of State to report on adaptation policies and proposals at least every three years and that this report be debated in both Houses on a substantive and amendable motion. (Paragraph 209)
73. The Secretary of State should make a report on adaptation measures at a time that enables adaptation policy to be co-ordinated with measures for reducing carbon emissions in the five-year carbon budget. (Paragraph 210)
74. As currently drafted, we do not feel that the draft Bill communicates the same sense of urgency in respect of adaptation measures as it does in respect of mitigation measures. We think that the Bill should be more explicit about the UK’s strategy for addressing the need for adaptation measures. We recommend that the reporting duty should be strengthened to impose an adaptation duty on the Secretary of State to report on the risks, the policy proposals to address those risks and then to implement those proposals. (Paragraph 213)

75. We consider that the single most important action the Government could take to encourage local authority action on climate change is to include it in the Comprehensive Performance Assessment process. (Paragraph 221)
76. We agree with the overwhelming view of submissions from local government and regional government bodies that, whether in the Bill or elsewhere, the Government must give far higher priority to addressing the issue of individual behaviour change, and the role of local government in achieving this in its capacity as a major community leader. We expect the Government to back efforts to change individuals' behaviour with major public information campaigns, appropriately funded, which may be required to continue over an extended period. (Paragraph 222)
77. We urge Government to address the issue of the inclusion of the Devolved Administrations as a matter of urgency before the draft Bill is introduced into Parliament. (Paragraph 227)

Annex 1: List of acronyms

CDM	Clean Development Mechanism
CO ₂	Carbon dioxide
CRC	Carbon Reduction Commitment
Defra	Department for Environment, Food and Rural Affairs
DfT	Department for Transport
EFRA	Environment, Food and Rural Affairs
EAC	Environmental Audit Committee
ETS	Emissions Trading Scheme
GHG	greenhouse gases
HFC	hydrofluorocarbons
JI	Mechanism Joint Implementation Mechanism
OCC	Office of Climate Change
PCA	Personal Carbon Allowance
RCEP	Royal Commission on Environmental Pollution
UNFCCC	United Nations Framework Convention on Climate Change

Annex 2: Summary of online consultation

The online forum ran for four weeks between 23 May and 21 June 2007, hosted on the committee's parliamentary webpage.²³²

The forum was an opportunity to consult interested parties on the role of local government in the drive to reduce carbon emissions and combat climate change, in order that the Committee might make recommendations on the role, if any, that local authorities should play in the process. At present there is no mention in the draft Bill of local government action. The forum was an opportunity to investigate whether there is a drive, either from councillors and local authorities themselves, or from the public, to include action at a local level in the draft Bill.

The forum asked questions of different stakeholders:

- of councillors and local government officials; and
- of members of the public.

Registration

51 people registered to take part in the online forum and a total of 29 messages were posted.

There were over 1,400 hits on the page.

Summary of comments posted

a) Questions posed to Councillors and local government officials:

1. As a local government official, do you think it is possible to legislate for local government action in combating climate change?

Several users stated the importance of legislating for local government involvement:

'As a District and Parish councillor I would say that not only is [it] possible it is absolutely essential...'

'I think this is too important to be left to voluntary codes and needs to be legislated for...'

'The DTI are producing statistics of energy use and CO₂ emissions on a District and now a "super" ward level. This makes it very possible to introduce real local targets and competition between authorities on their progress towards reducing emissions.'

'I would like to see Local Authorities issued with a statutory responsibility to assess carbon dioxide emissions from their districts, formulate long-term targets and shorter-term budgets, and produce action plans for emissions reductions.'

²³² See www.parliament.uk/parliamentary_committees/climatechange.cfm

One user felt that perhaps voluntary frameworks would be best, and that ‘getting things is not all about legislation – especially where it imposes a one size fits all approach.’

The user went on to discuss the Nottingham Declaration, a voluntary pledge made by any council to its own community, to address the issues of climate change:

‘...the Declaration has achieved more through getting real commitment at top level than the statutory duty...a performance framework for councils which sets a challenging framework for outcomes on carbon reduction but allow councils to do it how it works best in their area seems to be much more fruitful than specifying what detailed piece of info officers have to collate and submit for central analysis...’

This was reinforced by a submission from the Convention for Scottish Local Authorities (COSLA), where all 32 local authorities in Scotland have recently signed up to Scotland’s Climate Change Declaration:

‘COSLA... believes that outcomes are more important than processes and those local authorities should have the flexibility to address carbon reduction targets in a locally responsive way.’

‘We believe climate change is too important an issue not to be the subject of legislative drivers – this can’t be left to voluntary action – but equally ‘bogging’ councils down with overly prescriptive reporting frameworks or national programmes may not be the way forward.’

Several postings raised the issue of the resources that would need to be made available to local government to support them in their drive to combat climate change:

‘Local Authorities...need the resources to carry out their responsibilities with regards to climate change. Any new statutory requirements for local authorities need to be backed by the funding to allow councils to carry them out effectively including training new and existing staff and resourcing to mainstream climate change issues into existing policies and practices.’

‘...I believe that grants to assist with energy saving should be available to all not just those means tested and approved.’

2. As a local government official, what role do you think local government could and should play in reducing the UK’s national emissions?

One user stated that local authorities should take the lead in their local area and ‘get their own houses in order’:

‘This may involve encouraging car sharing by setting up a database and erecting cycle sheds and installing facilities to allow staff to cycle to work (like showers etc). At the authority I work for, these facilities were installed quite easily and car sharers are given premium car parking spaces. Local authorities can then target other local businesses and organisations to do the same.’

Other users specified the crucial role local authorities had in the area of reducing carbon emissions:

‘I think it is crucial for local government to listen and report local peoples concerns and recommendations to central government.’

‘Local Authorities have a large potential to play a part in reducing emissions of greenhouse gases, both in exercising their own powers and also in the role as community leaders. In the latter case it could be that local action might be far more powerful and cost effective than some centralised programmes.’

‘Local authorities are the closest accountable bodies to communities and as such have an important role in ensuring community voices are heard at the national level. Local authorities can also feed information back to communities on the importance of measures to combat climate change and how this can be reflected in local service provisions.’

‘In many ways local government is actually in advance of national government in considering a more joined up and holistic view of policy development and implementation particularly in the field of green construction, green purchasing and reducing, reusing and recycling waste. Many of us are also involved in finding greener energy solutions to heating buildings and providing energy for greener transport.’

Many of the users specified the methods in which Local Government could play a part in reducing carbon emissions:

‘Promoting “reduce, recycle, re-use” initiatives should be a statutory function of local authorities.’

‘I think that promoting ways in which we can reduce energy consumption, waste and emissions at grass roots level should certainly be a key role of local government.’

‘There should be more encouragement via pricing and times of public transport, cycle paths and sheds, facilities at work for showering. I think local businesses should be forced to implement EMS...’

However several users warned of the need to recognise the limitations imposed on local authorities, and that they could not be expected to achieve everything themselves:

‘...we need more action for sure but we also can’t be too woolly about exactly what it is councils can achieve. A council probably only has direct control of a fraction of emissions in its area (say 10% if that) – yes, they can influence people’s actions and help plan for lower carbon lifestyles etc – but for example we don’t know how much of a resident’s decision to insulate their home is down to energy industry grants/government grants, how much down to council marketing or advice, and how much is down to the cost of fuel or media promotion of climate change issues for example.’

‘...despite their pivotal role in working in communities local authorities cannot be expected to achieve climate change targets on their own... councils don’t have control over all the emissions within their boundaries and much of the energy efficiency work within an authority area for example results from a culmination of

activity on behalf of local and central government as well as the voluntary sector and the media.’

‘Local government can play an effective role in reducing national emissions as part of a wider partnership of activity and by championing and leading on climate change action in their areas.’

b) Questions posed to the public

1. As a member of the public, will your behaviour change as a consequence of the proposals in the draft Climate Change Bill, or should action be taken on a local level to support this?

The posting to this question emphasised the importance of a local framework, to connect the public’s actions with the ‘international problem’:

‘It’s all too easy to write off my day to day decisions to walk the kids to school, take the train to work and refuse plastic bags when I consider them against the national or international scale of emissions, so I need to find a way to connect what I am doing to wider action and I find that reinforcement through my local community, including but not exclusively, through my local council.’

2. As a member of the public, do you think legislation is needed to compel local government to combat the causes of climate change?

A few postings strongly supported the need for legislation to compel local government to act:

‘It seems clear to me that without further coercion of one form or another, local government will in general not take adequate action against climate change, even if some councils are highly proactive. Legislation seems the obvious way to ensure action across the board at a local level.’

‘I would ...like to see legal obligations placed on local government to minimise carbon impacts and contribute to meeting emissions reduction target.’

‘Local government has a vital role to play in (1) setting local planning frameworks which promote carbon neutrality in property development and renovation; (2) contributing to transport planning including airport development and management; (3) deciding whether to introduce congestion charges and restrict use in town and city centres.’

One user emphasised the influence local government have in the particular area of planning and planning permissions:

‘Legislation should be very seriously considered to both enable and encourage councils to impose the highest environmental standards on new build, in particular energy efficiency and where appropriate insisting on elements of self generation. Planning strategy should also be pushed towards environmentally sustainable models, with for instance large development being focuses on public rather than private transport provisions.’

Several postings gave specific examples of how local government were currently acting voluntarily to combat the causes of climate change, and how greater impact could be achieved by compelling all local authorities to act:

‘In Chester, the City Council is participating in carbon reduction initiative that will impact on businesses, schools, homes and transport; the reason being that in the final analysis, individual and family lifestyles are affected by not only what is legislated by central government, or appears in the national press, but also by the behaviour of friends, neighbours, family and peer groups.’

‘At government level the Chester District Council is signed up to ‘CREd’ the carbon reduction project initiated by the Low Carbon Innovation Centre in the School for Environmental Sciences at the University of east Anglia.’

‘Woking Borough Council have demonstrated that it is quite possible for a local council alone to cause the entire borough to exceed its Kyoto targets, given the right policies. An essential factor was the council’s adoption of greenhouse gas emission targets to replace energy efficiency targets in all planning applications’

‘Obliging local authorities to adopt similar rules would, over a decade or so, substantially contribute to reducing the UK’s overall carbon emissions.’

Several postings emphasised the need for community involvement and consultation, and for local government not to be left to work alone or unilaterally:

‘It would appear that local government only decide to implement any green issues when they are threatened with large fines from local government. This is not the way to involve local people, as they are never consulted on these issues, they are told they are being introduced and can only complain retrospectively.’

‘...the real missing link is genuine community involvement, Involvement goes way beyond mere consultation. Genuine community involvement includes all (not just a few) stakeholders, in particular those passionate about sustainability and low carbon futures, to bring about the necessary push faction. It involves ordinary citizens and community groups and networks, not just establishment organisations, or self regarding elites.’

‘One specific proposal would be local quality of life forums in every community, as long as the government could find a way to ensure that local government and establishment stakeholders treated such forums with proper respect and enabled them to genuinely influence local decision making.’

‘If we are to have an impact than local communities need to join together across all sectors of the local community (public, private, voluntary, community) and all sectors of local society (families, friends, colleagues, acquaintances, professional bodies, neighbourhoods, clubs, societies) if we are to work together.’

Annex 3: Note on visits undertaken by the Committee

Visit to Newcastle, 24 May 2007-07-26

Member taking part: David Kidney MP

I represented the Joint Committee at this Conference of 150 young people from the North East region organised by the region's Members of the Youth Parliament.

I was given time to address the audience to explain about the work of the Joint Committee, the 4 features of the draft Bill and the web forum that we have launched.

I took part in the Conference. Two professors from the environmental consultancy MWH presented the evidence on climate change, made a special focus of flooding and set out the scale of the challenge for the future. Being two engineers by profession, they took their opportunity to promote careers in engineering as well.

There followed a series of fun events through which the audience learned, in small groups, about aspects of climate change. For example, they calculated their own carbon footprints, they governed imaginary countries and made decisions on how to reduce carbon emissions and they made suggestions for regional campaigns to educate people about climate change and how they can help tackle it.

There was also a session when the groups were asked for their suggestions for tackling climate change at work, at home and at play. Banning plastic bags featured strongly in their responses.

The event attracted local media coverage and the Youth Parliament representatives are arranging for a written report and a DVD of the day's proceedings.

My assessment is that it was useful to have an opportunity to deliver our messages to a wide audience of young people and they appreciated having a Parliamentary representative at their event. During the day, several people had their say to me about climate change and the work of our Committee.

Visit to Oxford, 15 June 2007

Members taking part: Lord Jay of Ewelme, Lord May, Earl of Selborne, Lord Whitty

UK Climate Impact Programme (UKCIP)²³³

Dr Chris West, Programme Director

Roger Street, Technical Director

²³³ The UK Climate Impacts Programme (UKCIP) helps organisations assess how they might be affected by climate change, so they can prepare for its impact. It was set up in April 1997 and is funded by the Department for Environment, Food & Rural Affairs (Defra). UKCIP is based at the University of Oxford www.ukcip.org.uk

Government adaptation reports should be made more frequently than every five years – perhaps every four years, in line with the UNFCCC national communication’s reporting cycle. Adaptation was about both building capacity and delivering actions: the Secretary of State needed to report on what capacity Government was building and what action it was delivering. Any adaptation report also needed to be consistent with international reporting, and should be produced on a cross-government basis.

Policies needed to be looked at in the round – for instance, ‘Schools for the Future’ should assess both the carbon footprint of the scheme and also the structural readiness of new schools for climate change.

A provision for future scrutiny should be included in Part 4 of the Bill. It was somewhat disappointing and possibly inappropriate to have impacts (basis for why there should be action) and adaptation sitting in a portion of the Bill entitled miscellaneous and supplementary provisions.

Flooding was perhaps over-prominent in the Government’s current proposals for adaptation. The Environment Agency was responsible for this policy area, whereas others issues were more the responsibility of the private sector.

The issue of the impact of climate change on the transport infrastructure was being addressed – for example, road-building specifications had been changed. On the other hand, the Government estate was not keyed into the need to adapt. It had an estimated £800 bn worth of buildings, which cost £8 bn per year to replace.

The Government was building capacity, for example by addressing the revision of building regulations, but it would not be appropriate for a long list of measures to be on the face of the Bill.

One of Defra’s ‘strategic objectives’ was that the UK be “well-adapted” – how successful this had been up to now was unclear. Activity to address adaptation was spurred by a mismatch between the impact of climate change and the action taken to remedy it. Adaptation issues fell into two areas:

The UK was currently not adapted to its current climate and was paying for this through increased costs and taxation;

The climate would irrevocably change within the next 30-40 years, before any mitigation would kick in, and the quicker adaptation was carried out, the lower the costs.

Although a temperature rise of 2°C could have some benefits for the UK, spending would be needed to ensure that these were maximised. Land-use policy should be examined – some policies were likely to be inappropriate in the future.

Countries that had carried out good work on adaptation include New Zealand, working through local authorities. France had also done some work on local authorities, picking up on that done within the UK. It had been motivated by the heat wave of 2003 to put some adaptive measures and strategies into action. Finland had an impact research programme under way, and Sweden and Norway were just starting major efforts. Canada and Australia are also working on the issue.

No other countries had action research programmes, although the London Climate Change Partnership had benefited from research and adaptation-related initiatives undertaken at a city level around the world. The UK was to some extent leading the way by including adaptation in the draft Bill.

The Committee on Climate Change should be plugged into research networks but also able to commission its own research. The resources described in the Regulatory Impact Assessment would be inadequate for this, although they might be sufficient to fund monitoring. Really, the Committee should build on existing monitoring rather than duplicate effort. It was vital the Committee had a variety of sources and was not reduced to ‘second guessing’ from Government-funded research. The Chairman should be independent and involved in all subsequent appointments. A broad spectrum of representation on the Committee would be very useful.

In October 2008 the next UKCIP Climate Scenarios (UKCIP08) would be made available. They were mostly based on the Hadley Centre’s modelling but also included other IPCC models. The scenarios released in 2002 (UKCIP02) had been based solely on the Hadley Centre’s model and had been criticised and praised for the same issues – this demonstrated the ease with which holes could be picked. However, there was no means at present to effectively allow for comparison of these scenarios against those produced using other models on an international basis.

Oxford University High-Level Task Force on UK Energy Security, Climate Change and Development Assistance²³⁴

Dr Ngaire Woods, Co-director of the Taskforce (Director of the Global Economic Governance Programme at University College, Oxford)

Christopher Allsopp, Co-director of the Taskforce (Director of Oxford Institute for Energy Studies)

The Taskforce’s report (Energy, Politics, And Poverty: A Strategy for Energy Security, Climate Change and Development Assistance) had been born of the need to bring energy security, climate change and development assistance together. There had, of course, been some disagreements within the Taskforce, but it had agreed on the framework for energy policy that was needed.

The concept of targets was good but the exact figure for an emissions target was, naturally, subject to debate.

The Bill lacked a consideration of which sectors emissions were coming from. There were also gaps in the Bill and the Energy White Paper concerning market-based solutions.

Emissions trading should be part of a mix of policies, together with things such as clean carbon technology and carbon capture and storage (CCS).

²³⁴ The High-Level Task Force, chaired by the Chancellor of Oxford University, Lord Patten of Barnes, was convened by the Director of Oxford’s Global Economic Governance Programme. It produced its report on 10 July 2007: http://www.globaleconomicgovernance.org/docs/epp_lr.pdf

The EU ETS did not generate confidence in trading schemes. However, although the trading scheme was not yet fully developed, once it was, trading schemes appeared to be an important element of the way forward. Eventually, business was likely to take carbon trading forward, even without political intervention. Subsidies sometimes led to unhelpful schemes, such as corn for biofuel in the US. Government intervention and Government-backed schemes needed to be balanced with private sector projects.

Development assistance to permit adaptation to climate change effects already occurring was imperative. Many development programmes were focused on mitigation rather than adaptation.

In many countries there was no alternative to coal. High oil and gas prices distorted market incentives towards the use of coal. A tax on coal might redress this but it would have to be very high to have an impact. Large-scale collaborative public investments in clean coal and CCS technologies were crucial.

China and India needed to feel fully engaged in international talks on climate change. They had both been involved in preparatory meetings for the G8 summit in 2007, but were only invited to 'special meetings', rather than being treated as equals in conversations on climate change.

China had been the largest beneficiary so far of the Clean Development Mechanism (CDM). The CDM was not a perfect system but it was at least a start, and would have been unthinkable 10 or 15 years ago.

Comparing the idea of a Climate Change Committee to the Monetary Policy Committee (MPC) was quite complex. (Christopher Allsopp had formerly been a member of the MPC.) Climate change was a much more complex subject, with multiple instruments and objectives. The MPC quickly received signals from the economy and the financial world if it made the wrong decision, whereas a Climate Change Committee would have no such easy feedback from outcomes. Choices over which policy instruments to use would be politically contentious, even if the objectives were agreed. A Fiscal Policy Committee, which would be a more appropriate comparison with a Climate Change Committee, had always been ruled out by the Treasury as incompatible with the sovereignty of Parliament.

*Environmental Change Institute/Stockholm Environment Institute*²³⁵

Professor Diana Liverman, Director, ECI

Dr Brenda Boardman, Senior Research Fellow and Leader of the Lower Carbon Futures Group; Dr Cameron Hepburn

Dr Russell Layberry; Mark Hinnells

Dr Tom Downing, Director Stockholm Environment Institute (Oxford)

Issues discussed included the following:

²³⁵ ECI is an interdisciplinary unit administered within the Oxford University Centre for the Environment. It is a node' of the Tyndall Centre under present funding arrangements. The Oxford SEI office works closely with other the SEI centres, contributing to the programmes on climate and energy, water resources, and risk and vulnerability, under the over-arching mission to promote sustainable development.

- The impact of technological innovation and political will on achieving emissions reductions
- Reducing emissions in the household and building sectors, with reference to the recent ECI report *Examining the carbon agenda via the 40% House scenario*
- Measuring greenhouse gases (GHGs) other than carbon dioxide
- Emissions from international shipping and aviation
- The five-year carbon budgets
- The Clean Development Mechanism
- Hydroflourocarbons (HFCs)
- The proposed composition and role of the Committee on Climate Change
- Possible emissions trading arrangements after the Phase 1 of Kyoto
- Phase 2 of the EU ETS and the long-term carbon price
- Auctioning of credits under the EU ETS
- Borrowing and trading in the context of carbon budgets
- Assistance for adaptation, including in Africa.

Visit to Edinburgh, 21 June 2007

Member taking part: Mark Lazarowicz

NGOs

Clifton Bain, RSPB Scotland and Chair, Policy Group, Stop Climate Chaos Scotland

Dan Barlow, WWF Scotland

Chas Booth, FoE Scotland

Shabnam Mustapha, Oxfam Scotland

Jane Herbstritt, Scotlink

(The meeting was held before the announcement that day in the Scottish Parliament on Climate Change.)

Scottish Environment Link and Stop Climate Chaos Scotland were working together to address the issues raised by the Climate Change Bill.

It was necessary to find the right obligation/negotiation balance between Scotland and the UK in the legislation, which recognised the devolved powers and autonomy. It would be useful to know what the Scottish contribution would be expected to be. The Scottish target for reducing emissions was expected to be a 3% annual reduction to deliver an 80% cut by

2050. If the targets in Scottish legislation were more ambitious, the reductions achieved should be additional to the UK's overall total, rather than subsidising others.

The London Climate Change Agency had set a more ambitious reductions target than the current 60% by 2050. Aggregation of regional targets should be possible. Meeting sectoral targets could, however, lead to complexities when it came to the extent of reserved and devolved matters. For example, on an issue like transport emissions, where fuel duty was not devolved, could the Scottish Executive be held to blame for failure if it did not necessarily have all the policy instruments to achieve reductions?

The current Scottish Climate Change Programme showed that reductions could be achieved through devolved measures, and carbon savings could be calculated. However, the UK needed to enable the devolved administrations to have the mechanisms accurately to calculate contributions to sectoral targets.

It was pointed out that if the UK and Scottish targets were split 60/80%, it would be harder to establish effective machinery to calculate contributions fairly. If Scotland did well, would its savings be banked by the UK or kept in Scotland? If the former, would this reduce the incentive for the UK to exceed its own targets? How much responsibility would the Committee on Climate Change take for these sorts of decisions, or for calculations over, for example, how much energy Scotland was exporting to the UK?

It would be important to determine how the delegated powers given to the Secretary of State to set up emissions trading schemes would be either extended to, or co-ordinated with, the devolved administrations. If this issue prevented effective emissions reductions, it would have an impact on the Secretary of State's ability to discharge his legal duty.

The Scottish Climate Change Bill was expected to establish a Committee, and some sort of crossover mechanism between the Scottish and UK Committees would be needed. Whether this would take the form of sub-committees of the UK Committee, or national representatives on the UK Committee, was unclear. Two-way communication was essential, and each Bill (and subsequent Act) would have to recognise the contents of the other as far as possible. The UK Climate Change Committee would need to ensure adequate environmental involvement.

The impact of Scotland's use of renewable energy on its contribution to reducing emissions was discussed, as was the contention that transport and energy policy would both need to be changed to meet the 80% target. The Scottish Climate Change Programme had been criticised for its significant reliance on emissions reduction from uptake in land use and forestry, when many wider mechanisms, such as the development of improved public transport, were also devolved matters. Much was considered achievable through influencing infrastructure decisions through the planning framework, amongst other mechanisms. There was widespread support for 100% renewable electricity production within 30-40 years, a 60% reduction in electricity use within the government estate, and a 20% reduction in the wider economy, within 20 years. The new Scottish Executive was keen to achieve a more co-ordinated cross-departmental structure.

It was agreed that buying in high levels of overseas credit did not accord with the stated aim of the Bill of creating a low carbon trajectory, and that a limit should be put in place. The use of renewables alone would not create the level of reductions needed, and it would

be helpful to have more mechanisms in place to reduce energy demand, before resorting to buying in credits.

If Scotland were to reduce carbon emissions much further than the UK as a whole achieved, it should receive some sort of financial reward.

Theoretically it was possible for Scotland to negotiate its own national targets and allowances within the EU ETS. This was something the new Executive might wish to explore.

The five-year carbon budget was too long – it should be harmonised with Parliamentary cycles.

It was pointed out that, as noted by Stern, even achieving stabilisation at 450ppm CO₂ equivalent the probability of exceeding a 2°C rise is 26 - 78%.

There was wariness about the inclusion of carbon sequestration in the targets. Figures for sequestration were ‘smoke and mirrors’, data were limited, carbon cycles complex and single purpose forestry in Scotland in the 1980s had been highly unpopular. Restoring peat bogs could help cap emissions. On the whole, land use issues were seen as a distraction from the main policy instruments. More information was needed. Future predictor models were ‘impenetrable’ and a joint effort was needed to disaggregate figures. The Climate Change Committee should be tasked with such decisions.

All flights in and out of the UK should be included in the UK’s emissions figures.

Ensuring compliance with a statutory target was recognised as a complex issue. Even if judicial review were possible, it was expensive. Perhaps the Government could agree to pay costs if judicial review arose. If carbon emissions were clearly out of step with targets, the Government should be obliged to explain why: compliance was needed before as well as after the fact.

Scottish Executive

Philip Wright, Deputy Director, Climate Change

Elizabeth Baird, policy relating to UK Bill

Susie Gledhill, Scottish Climate Change Bill Leader

Discussions were held with Scottish Executive officials.

Scottish Parliament

Patrick Harvie MSP (Host, Convenor, Transport, Infrastructure and Climate Change Committee)

Cathy Peattie MSP (Deputy Convenor, Transport, Infrastructure and Climate Change Committee)

Alex Johnstone MSP (Member, Transport, Infrastructure and Climate Change Committee)

Des McNulty MSP (Member, Transport, Infrastructure and Climate Change Committee)

Stefan Tymkewicz MSP (Member, Transport, Infrastructure and Climate Change Committee)

Sarah Boyack MSP

Roseanna Cunningham MSP

Bill Wilson MSP

Staff: Sheena Cleland, Joanne Clinton, Graeme Cook, Steve Farrell, Alastair Macfie, Alasdair Reid, Mark Roberts

It was not clear where the UK emissions reduction target came from, and what consideration was given to contraction and convergence before setting it. There was discussion on what the target represented, and the fact that the target was at least 60%. The Stern Review had shown that all four studies on how to express the changes needed to achieve a reduction to 450-550 ppm came out looking like contraction and convergence. It was not clear if contraction and convergence could operate within the UK, given that there were likely to be at least two different targets.

It was unlikely that the provisions of the Bill would lead to personal carbon targets, but sectoral targets were more possible.

Ways of meeting the targets through different strategies at a regional level would have to be examined. The lack of levers available to the devolved administrations to achieve some targets meant that some of them might have to be devolved. It was likely that at least the enabling powers in the Bill would need to be devolved.

It was unclear how reductions could be tracked without a year-on-year budget, especially if the IPCC moved its target or factors changed – for example if carbon sinks stopped working.

If the Committee on Climate Change were to have a similar status to the Monetary Policy Committee, it was likely that Scotland would need additional governance powers.

It was clear that whatever individual UK Government departments felt about the contents of the Bill, the political will was so strong that mechanisms had to be sorted out as soon as possible.

It was noted that there was a limit to how far the Joint Committee could make recommendations regarding Scotland, but ongoing liaison between Westminster and Holyrood on this issue was vital.

Visit to Woking Borough Council, Thursday 21 June 2007

Members taking part: Lord Puttnam, Nia Griffith, Dr Alan Whitehead

Mr Ray Morgan, Chief Executive, Woking Borough Council

Climate change strategy

Mr Morgan gave a presentation about Woking's climate change strategy and its sustainable/renewable energy projects. Energy efficiency, and more recently the need to reduce CO₂ equivalent emissions, in particular, had been a key part of the council's energy and environmental work since the early 1990s and had had cross-party support since then. The environment was one of the top three priorities for residents, second only to the provision of affordable housing. The council's climate change strategy was organised into eight themes which reflected the organisation and services provided by the council. The new version of the strategy would have the additional theme of security of water supply. Woking participated in networks (such as the South East Climate Change Partnership and the Nottingham Declaration) in order to pressurise government for change and to share ideas and learn from best practice, and used partnerships with other organisations to organise and deliver its energy projects.

Behaviour changes

Mr Morgan suggested that many people preferred to buy their way out rather than change their behaviour. His aim was to make a clearer link between citizens' actions and the consequences of them and to make it easy for them to adopt more environmentally friendly behaviours.

Planning and regulation

Woking BC actively encourages developers to use more sustainable construction methods and it promotes sustainability as an integral part of the Local Development Framework. Mr Morgan suggested that there was a need to convince Ministers that the market could be stimulated, not threatened by such an approach. The construction industry tended to suggest that Ministers would have to choose between affordability and sustainability, but in fact the additional costs of sustainable housing were relatively small. Councils such as Woking, where there was no difficulty in attracting developers, should have the flexibility to require sustainable construction methods. Other councils might need grants to ensure that new developments met minimum sustainability standards. Mr Morgan suggested that the Government should set a minimum required standard for all councils, provide grants and incentives for those that needed them and leave other councils free to achieve higher standards where they were able to do so.

Energy services

Mr Morgan explained that Woking BC sought to promote the use of renewable and/or sustainable energy sources in order to reduce CO₂ equivalent emissions. It used Combined Heat and Power (CHP) technology for its own offices and other Borough locations where the fuel was initially a low carbon fuel such as natural gas. Other examples included the use of photovoltaic cells on building roofs and street lights. Mr Morgan suggested that existing regulations favoured monopoly energy suppliers and curtailed the impact of local sustainable solutions by placing unnecessary limitations on the most profitable part of their services (for example by limiting the amount of CHP which could go to residential sites).

Legislation

Mr Morgan's main wish was that any future legislation should enable councils to retain the flexibility to achieve higher than the minimum required standards, and leave them free to implement solutions which suited their local community. Local government did not need any more powers; it had sufficient under the Local Government Acts. Smaller authorities would benefit from more guidance, and best practice could be shared more effectively.

Tour of Woking Borough Council's Energy Projects

Members of the Committee visited Brockhill sheltered housing scheme (which has CHP and photovoltaic energy technologies installed), Woking swimming pool (photovoltaic shading), Woking Park fuel cell CHP system and the hybrolight (using a combination of solar photovoltaic panels and a vertical wind turbine to power street lighting column).

Annex 4: Analysis of estimated costs of the Committee on Climate Change

This note reviews the estimated cost of the first year and ongoing annual costs of the proposed Committee on Climate Change. These costs, as set out in the 'Draft Climate Change Bill Partial Regulatory Impact Assessment' (RIA)²³⁶ have been reproduced in the table below:

Table 1: Outline of Estimated First Year and Ongoing Costs of Committee on Climate Change

Function	First Year Costs*	Ongoing Annual Costs
Secretariat	830,000	820,000
Committee	270,000	460,000
Research Budget	750,000	500,000
Additional	150,000	175,000
Corporate Identity and Set Up Costs	250,000	
Total	2,250,000	1,955,000

* First year costs reflect the fact that the Committee's secretariat and Board (Committee) will only be in place part-way through the year.

The overall cost of the committee is estimated to be £2.25 million in the first year, and almost £2 million per year thereafter.

The estimated costs for the Secretariat, the Committee and the Research Budget are compared below with similar, known costs of other non-departmental public bodies. As the RIA does not provide a great deal of detail about the estimated costs (eg the number of days the committee is expected to meet, the size of the secretariat), various scenarios are presented below to show what the proposed financial sums might cover, based on certain assumptions.

Table 2 below pulls together relevant information about the other committees/public bodies that have been used as a comparison with the Committee on Climate Change.

Table 2: Key costs and additional information for other non-departmental public bodies

NDPB/equivalent and sponsoring department	Overall cost (year)	Breakdown of key costs (where available)	Notes
Committee on Radioactive Waste Management (CoRWM) (Defra)	£3,022,000 (2005-06)	£563,000 – members £753,000 – specialist/technical reports £1,072,000 – public and stakeholder engagement £634,000 – additional costs	12 Committee members Additional costs include Programme management, Media specialist, Meeting costs. (CORWM, Third Annual Report, 2006)
Oversees options for managing waste; recommends options for long term solutions Council on Tribunals	£1,100,000	£261,056 – members	13 Committee members, 44

²³⁶ March, 2007, page 49

(DCA, now MoJ) Advises and reviews administrative tribunals, and considers/reports on administrative procedures involving statutory inquiries.	(2005-06)	£399,688 – staff £284,995 – additional costs	days worked in 2005-6 16 members of staff Additional costs include administration, printing/publishing, consultancy, members' travel and agency costs (Council on Tribunals Annual Report, 2005-6, HC 1210)
Statistics Commission (HM Treasury) Advises on quality assurance and priority setting for National Statistics	£1,254,067 (2005-06)	£99,049 – members £626,498 – staff £192,307 – research costs £299,174 – other administration costs	8 Committee members 11 members of staff (Statistics Commission Annual Report, 2005-6, Cm 6857)
Scientific Advisory Committee on Nutrition (DoH)	£35,064 (2006)	N/A	The overall cost excludes Secretariat resources 16 Committee members 10 members of staff Chair/Members were paid £197/£156 for each meeting and £156/£124 for Working/Subgroups.
Carbon Trust (Defra) The Carbon Trust helps business and the public sector cut carbon emissions, and supports the development of low carbon technologies		£6,437,000 – staff costs	(SACN Annual Report, 2006) 118 members of staff in 2006, the Carbon Trust spent £4.1m "in support of" low carbon research and committed a further £4m. (Carbon Trust Annual Report, 2005-06)
Hutton Inquiry (N/A)	£1,685,134 (2003-04)	£145,975 – staff costs £990,303 – external advice	4 members of staff External advice included lawyers' fees and research costs

Secretariat costs

The RIA gives an estimate of £820,000 for the ongoing annual costs of the secretariat. It is unclear from the RIA what this estimate is expected to cover in terms of the size of the secretariat, or the salary levels of staff members. It is also unclear whether other costs are subsumed within the estimate, eg. administration costs, overheads, etc.

In order to establish what £820,000 might afford the committee in terms of staffing levels, the staff costs of other, similar-sized, non-departmental public bodies are shown below, along with the staff levels and the average cost per staff member.

- The Council of Tribunals spent £463,000 on 16 members of staff in 2005-06, an average of £29,000 per person

- The Hutton Inquiry spent £146,000 in 2003-04 on four members of staff, an average of £36,500 per person
- The Statistics Commission spent £626,500 in 2006 on 11 members of staff, an average of £57,000 per person
- The Carbon Trust spent £6.5 million on 118 members of staff, an average of £55,084 per person.

The following assumptions have been made to gain an idea, based on the staff costs of other committees, of the size of secretariat that £820,000 would cover.

Assumption 1: That the Committee on Climate Change will require some of its staff to have scientific expertise as well as to provide administrative support, perhaps putting them at the Statistics Commission and Carbon Trust end of the cost spectrum. So, **if the average cost per person were £55,000, then £820,000 would allow for up to 15 staff members.**

Assumption 2: That the secretariat will provide mainly administrative support, putting costs at the Hutton Inquiry and Council on Tribunals end of the spectrum. So, **if the average cost per person were £32,000, then £820,000 would allow for up to 25 staff members.**

Assumption 3: That the secretariat costs also include other costs such as administration, printing, publishing, overheads etc. Data relating to administration costs were only clear for two of the other public bodies: administration costs as a percentage of staff and administration costs combined were 30% for the Statistics Commission and 20% for the Council on Tribunals. **If administration costs for the Committee on Climate Change were 25% (taking an average of these two examples) the remaining 75% of the £820,000 would allow for 19 members of staff costing £32,000 each, or 11 members of staff costing £55,000 each.**

Committee costs

The Draft Climate Change Bill RIA states that the Committee on Climate Change will consist of a minimum of 5 and a maximum of 8 members. Members of the Committee on Climate Change are expected to be 'experts in their field rather than representing stakeholder groups', suggesting a high daily fee.²³⁷ The estimated annual cost of remuneration and related costs of committee members, outlined in Table 1 above, is £460,000. The figures below show the average cost per member for 5 and 8 members.

- £92,000 per member for 5 members
- £58,000 per member for 8 members

Examples of members' costs (inclusive of related fees and expenses) to other non-departmental public bodies are shown below. Where available, daily fees and the number of days worked by members are also included.

Committee on Radioactive Waste Management, 2005-6:

²³⁷ 'Draft Climate Change Consultation Document', March 2007, page 38

- £563,000 on 12 members (an average of £46,000 per member)

The Statistics Commission, 2005-6:

- £91,249 on 8 members (including the Chair)
- £30,333 in fees for the Chair for 60 days work
- £6,000 (average) in fees for the other members for 20 days work
- £466 per day for Chair, £275 per day for other members

Council on Tribunals, 2005-6:

- £261,000 on 13 members, including the Chair (£20,000 per person)
- £50,500 spent on Chair's salary
- £11,500 in retainers for other members for 44 days work (£261 per day)

Scientific Advisory Committee on Nutrition, 2006:

- Chair received £197 per day for meetings; £156 for Working/Subgroups (not including expenses)
- Members received £156 per day for meetings; £124 for Working/Subgroups (not including expenses).

It is not clear from the RIA how many days per year Committee on Climate Change members would be expected to meet. Assuming the Committee costs shown in Table 1 include members' fees and expenses only, the following scenarios provide a rough idea of how many days' work from committee members (fees + expenses) could be paid for from £460,000:

5 members, at a cost of £250 per day	368 days
5 members, at a cost of £350 per day	262 days
5 members, at a cost of £450 per day	204 days
5 members, at a cost of £550 per day	167 days
8 members, at a cost of £250 per day	230 days
8 members, at a cost of £350 per day	164 days
8 members, at a cost of £450 per day	127 days
8 members, at a cost of £550 per day	104 days

However, in the cases of the Council on Tribunals, the Statistics Commission and the Scientific Advisory Committee on Nutrition, the Chair is paid more per meeting or per year than the other members. If the Chair of the Committee on Climate Change were to be paid a higher annual retainer, or a higher daily fee, the number of days work afforded by the £820,000 as suggested above will be fewer.

For example:

Chair at £350 per day, plus 4 members at £250 per day	340 days
Chair at £450 per day, plus 4 members as £350 per day	248 days
Chair at £350 per day, plus 7 members at £250 per day	219 days
Chair at £450 per day, plus 7 members at £350 per day	158 days

Research costs

The estimated research costs for the Committee on Climate Change are £750,000 in the first year, and £500,000 in subsequent years. This amounts to 33% of the total first year costs and 26% of the total estimated cost for subsequent years.

Table 3 shows the estimated research costs of the Committee on Climate Change alongside other committees/public bodies. The Committee on Radioactive Waste Management (also sponsored by Defra) refers to 'specialist and technical reports', which is assumed to be the equivalent of research costs.

Table 3 – Comparison of Research Costs

	Annual research costs £	Costs as % of total budget
<i>Committee on Climate Change</i>	500,000	25%
Committee on Radioactive Waste Management, 2005-6	753,000	25%
Statistics Commission, 2005-6	192,407	15%
Hutton Inquiry, 2003-4*	990,303	59%

*includes lawyers' fees

Issues arising:

Whether the secretariat costs set out in the RIA cover staff costs only, or staff costs plus administration costs.

The expected number of staff members.

The number of days per year that members will be expected to work for the Committee.

What 'additional' costs cover.

Whether the overall estimated costs of the Committee on Climate Change are intended to include any provision for public relations activity (the CoRWM, for instance, spends over £1 million per year on this).

Annex 5: Schedule of comments on the draft Bill

Defra will respond to comments made in this Schedule in the Government Response to this Report.

Clause	Original text	Change/comment	Source
Title and introduction		The Bill should specifically refer to adaptation in the long title; it should not be relegated to "connected purposes".	Lord Hunt, CCB 08
		The overall aim of limiting average global temperature increase to 2°C should be stated on the face of the Bill.	Christian Aid, CCB 64, para 9
1 and 2	Targets and budgets	The targets should be set by reference to cumulative emissions over the target period rather than by reference to the percentage level of reductions in one year, which can only provide an indicator.	Dr Rhys, CCB 29, para 4
		The draft Bill should not set legal targets unilaterally; there needs to be international agreement in order to protect UK competitiveness	Mid Yorkshire Chamber of Commerce, CCB 83, paras 1 – 2
		The Bill should replace the target based approach with a single and clear objective of achieving the maximum reductions in UK greenhouse gas emissions for the minimum amount of expenditure.	Renewable Energy Foundation, CCB 57, para 5

		<p>The Bill should place the Secretary of State under a statutory duty to achieve the Government's CHP target.</p> <p>There should be a similar statutory duty to achieve the Government's targets for energy efficiency, commercial and public services, combined heat and power, and renewables.</p>	<p>Combined Heat and Power Association, CCB 76</p> <p>Campaign to Protect Rural England, CCB 25, paras, 3 – 5</p>
1(1)	Duty to ensure at least a 60% reduction	<p>The target should be increased to between 80-90% in light of the most recent scientific evidence and the targets adopted by other nations, including France, Germany and California. Any lower target will be inconsistent with limiting average global temperature rises to no more than 2°C.</p> <p>Recent analysis from the IPCC and others suggests that a faster trajectory in the reduction of carbon emissions needs to be achieved. As a result it would be better to require a 60% reduction by 2025, which mirrors the goal in the Mayor's Climate Change Action Plan.</p> <p>The targets should amount to at least 3% reductions per year between now and 2050.</p> <p>The Secretary of State should not be placed under a duty to "ensure" that the target for 2050 is met; such a duty is inappropriate given that fulfilment of the duty depends on circumstances beyond the Secretary of State's control. The same comments apply to clause 2(1)(b).</p>	<p>Friends of the Earth, CCB58, para 2.9; ClientEarth, CCB 23, para 5</p> <p>Mayor of London, CCB 10, para 4.2</p> <p>Sustrans, CCB 90</p> <p>Lord Norton of Louth, CCB 91</p>
		<p>There needs to be a long-term statutory goal rather than a statutory target due to the complexity of the problem and the difficulties of enforcement.</p>	<p>Brian Jones, CCB 11, paras 2 - 4</p>
	Duty of the Secretary of State	<p>The Bill should make the targets legally binding on all the departments and agencies involved in addressing climate change.</p>	<p>Fuel Poverty Advisory Group, CCB 20, para 10</p>

1(3)	Power to amend the 2050 target	<p>There should be a requirement for compulsory and periodic reviews of the Bill's targets given the evolving nature of climate science</p> <p>Targets should be periodically reviewed and, as necessary, altered to take into account their impact on the competitiveness of UK businesses</p> <p>The Secretary of State should be required to consult the Committee on Climate Change before amending the statutory targets</p> <p>The power to reduce carbon budgets creates a risk for those considering investing in low-carbon technology. There should be additional safeguards to those provided.</p> <p>The term "significant" should be defined to help clarify what can trigger a change to the targets.</p> <p>There should be an economic trigger which allows amendments in light of economic or technological developments as well as climate science and international developments; the power must be restricted in a way that supports stability and confidence.</p> <p>The power to amend should be subject to the super-affirmative resolution procedure to ensure that such a decision is subject to extensive parliamentary scrutiny and that both House are satisfied with the changes that are proposed.</p>	<p>London Assembly Environment Committee, CCB 35, para 2.7</p> <p>British Cement Association, CCB 18, para 1</p> <p>Royal Society for the Protection of Birds, CCB 49, para 6.1</p> <p>EDF Energy, CCB 62</p> <p>City of London Corporation, CCB 46, para 4</p> <p>EEF, CCB 54, paras 10 to 12</p> <p>Lord Norton of Louth, CCB 91</p>
1(4)	The 2050 target can only be amended in light of significant developments in climate science or international circumstances		
1(5)	The power to amend is subject to the affirmative resolution procedure		
2	Carbon budgets		

2(1)(a)	Duty to set five-yearly carbon budgets	<p>Annual targets should be used instead of a five-year budget as they would help to ensure rapid early emission reductions and will not be undermined by spanning different governments.</p> <p>There need to be rolling annual targets that cover the next 20 years to support structural level investment decisions. The targets for years 1 to 5 should only be alterable in exceptional circumstance, while targets for years 5 to 10 could be reviewed annually and targets for years 10 to 20 should be best estimates.</p> <p>There should be three yearly budgets with annual milestones in between to monitor performance during the period.</p> <p>The carbon budgets should last for four years to match the length of an average Government.</p> <p>There should be a duty to set annual milestones that indicate the level of emission reductions expected in each year; this would increase accountability and, in particular, diminish concern that a carbon budget may cross different governments.</p> <p>There should be two yearly indicative milestones to keep an outgoing or incoming Government accountable.</p>	<p>ClientEarth, CCB 23, para 9</p> <p>Dr Fleming, CCB 74, para 10</p> <p>World Development Movement, CCB 26, para 3</p> <p>NHS Confederation, CCB 82</p> <p>Friends of the Earth, CCB 58, para 3.2</p> <p>South East Climate Change Partnership, CCB 73, para 2.2</p>
	Sectoral budgets	<p>There should be a duty to set targets for individual sectors of the economy, which would avoid the risk that some sectors fail to make a sufficient contribution and would establish a clearer projectory.</p> <p>There need to be targets for each sector as many businesses will be unable to translate a national target into financially relevant indicators.</p> <p>The built environment should be treated as a sector and set a target to reduce emissions.</p> <p>The budgets should clearly state the level of contribution to be made by local authorities.</p>	<p>Natural England, CCB 13, para 8</p> <p>Carbon Trust, CCB 56</p> <p>British Property Federation, CCB 37</p>
	Local budgets	<p>The budgets should clearly state the level of contribution to be made by local authorities.</p>	<p>London Councils CCB 53, para 5</p>
2(2)	Requirement to set the initial three carbon budgets by 31 December 2008 and to set all others no less than 11 and a half years before the period begins.	<p>The carbon budgets need to be set more than 15 years in advance to support investment in low carbon technology which can have a life span of 25 to 60 years and can take up to 10 years to develop.</p>	<p>EDF Energy, CCB 62</p>

3(1)	Carbon budgets for the years 2020, 2050 and any later year	<p>The domestic target for 2010 (i.e. a 20% reduction against 1990 levels) should be included in the draft Bill as well as targets for 2020 and 2050.</p> <p>Many investment decisions are made over a 40 year period, which makes it essential to set an interim target for 2030 and 2040 as well as 2020.</p>	<p>Mayor of London, CCB 10, para 5.4</p> <p>British Energy, CCB 60, paras 3, 15</p>
3(1)(a)	Target for 2020 of "at least 26% but not more than 32%"	<p>The target for 2020 should be increased to at least a 40% reduction in light of the most recent scientific evidence; this would follow Germany's lead.</p> <p>In light of the EU's 30% target for 2020 (if international agreement can be reached) the target needs to be increased to 35-40% reductions if the UK is to make its share of the reductions as a significant emitter.</p> <p>The Government should match London's target of 60% reductions by 2020</p>	<p>World Development Movement, CCB 26, para 9</p> <p>Dr Dlugolecki, CCB 38, para 9</p> <p>Mayor of London, CCB 10, para 4.2</p>
		<p>The year 2020 will fall in the middle of a five-year carbon budget if they start in 2008; it would be better to have a clear way of determining whether a target for 2020 had been met.</p> <p>There should be no upper limit to the target for 2020 in case it is possible to make faster progress.</p>	<p>The Society of Motor Manufacturers and Traders, CCB 31, para 5</p> <p>Operation Noah, CCB 42, para 16</p>
4	Setting carbon budgets to take into account the target for 2050, international obligations and the advice of the Committee on Climate Change	<p>There should be a specific target instead of a range of 26-32% reductions to prevent the Government from being able to pursue the lower end of the scale.</p> <p>The 2020 target should be "at least 32%".</p> <p>There should be an express requirement to set targets by reference to the overall aim of delivering the UK's share of global cuts necessary to have a realistic chance of limiting average global temperature rises to 2°C.</p>	<p>Environmental Industries Commission, CCB 22.</p> <p>South East Climate Change Partnership, CCB 73, para 5.3</p> <p>Friends of the Earth, CCB 58, para 2.4</p>

4(3)	The Secretary of State must take into account the advice of the Committee on Climate Change when setting carbon budgets	Where the Government chooses to reject or materially depart from the Committee's advice it should be required to lay a statement before Parliament explaining the reasons for its decision and engage in debate on the issue.	EDF Energy, CCB 62
5(2)	List of matters to be taken into account when advising upon or setting a carbon budget	The Committee should not have to take into account any of the listed factors other than climate science. As an advisory committee it should be acting with scientific conviction; the other issues require a political assessment and blur the role of the Committee. The factors should not be given equal weight; there should be particular focus on climate science, technology, energy policy, and economic circumstances (i.e. subsections (a), (b), (c), and (f)). The Committee should be required to take into account the issue of sustainable development.	William Wilson, CCB 04 Dr Rhys, CCB 29 Woodlands Trust, CCB 45, para 6.3
5(2)(a)	Duty to take into account scientific knowledge on climate change	The Committee should also be required to consider scientific knowledge on the impacts of climate change, their social and economic costs and the availability of technology to address the impacts.	Association of British Insurers, CCB 59, para 17
5(2)(c)	Duty to take into account economic circumstances, including competitiveness	The Bill recognises the risk to competition but it should also recognise the opportunity to businesses by becoming a leader in low carbon technologies.	Dr Dlugolecki, CCB 38, para 1.6
5(2)(d)	Duty to take into account fiscal circumstances	Fiscal circumstances should not be taken into account by the Committee; it is an issue that should only be considered by Government subject to the accountability of Parliament.	Association of British Insurers, CCB 59, para 18
5(2)(e)	Duty to take into account social circumstances, including fuel poverty	The sub-section should be re-drafted as "the decision on energy production, supply and utilisation".	Dr Rhys, CCB 29
5(2)(f)	Duty to take into account energy policy	There should be an explicit reference to the Government's fuel poverty targets, not just to the issue of fuel poverty, in order to make sure that they are taken into account. The security of energy supplies should be given greater emphasis than other factors.	Fuel Poverty Advisory Group, CCB 20, para 5 Confederation of UK Coal Producers, CCB 16, para 7
6	Duty to report on proposals and policies as soon as reasonably practicable after	The frequency and content of the reports should be determined by an impact assessment.	NHS Confederation, CCB 82

	setting a carbon budget	<p>When the targets are set and the policies are outlined, the Government should also estimate the resources that will be required to implement the policies and achieve the targets; this approach has helped progress towards meeting the fuel poverty targets.</p> <p>The reports should include emission limits for each sector and outline the policy instruments that will be used to stay within budget.</p> <p>Where a change in the policies that are being implemented means that investments and assets become stranded, there should be a system that provides compensation in order to maintain investor confidence.</p> <p>The Secretary of State should be under a similar duty to develop policies that protect the environment.</p> <p>The Secretary of State should be required to report on negotiations and action taking place at the European and international level, via an updated website; this would increase public and parliamentary participation.</p> <p>The Secretary of State should be required to report on progress towards achieving the fuel poverty targets as part of the reporting process.</p> <p>There needs to be independent monitoring and verification of emissions in order to ensure the kind of transparency and accountability that is crucial to public trust and confidence; the proposed role of the Committee will not ensure this will happen.</p>	<p>Fuel Poverty Advisory Group, CCB 20, para 10</p> <p>Association for the Conservation of Energy, CCB 84</p> <p>British Energy, CCB 60, para 17</p> <p>Royal Society for the Protection of Birds, CCB 49, para 6.2</p> <p>William Wilson, CCB 04</p> <p>Fuel Poverty Advisory Group, CCB 20, para 5</p> <p>Natural England. CCB 13, para 8</p>
7	Annual statement		
	Annual projections statement	There should be a duty to update projections for the emissions of all sectors of the economy on an annual basis. The Government should also consult the relevant sectors on those emissions each year.	British Cement Association, CCB 18, para 2
8	Banking and borrowing	It is appropriate to allow banking and borrowing across years within a budgetary period, but there should be no power to bank or borrow from one budgetary period to another.	Mayor of London, CCB 10, para 5.2
		Banking and borrowing should be limited to rolling five-year periods to enable smoothing and encourage early investment in anticipation of subsequent shocks.	Association of British Insurers, CCB 59, para 15

8(1) and (2)	Borrowing up to 1% of the subsequent carbon budget	There should be no power to borrow from a subsequent carbon budget given the availability of overseas carbon credits.	Environment Agency, CCB 69
8(3)	Banking	<p>The ability to borrow should be limited to circumstances where there has been an external shock, such as severe weather.</p> <p>Where the power to borrow is exercised, the Government should be required to report on the reasons why it was needed and the action that has been taken to increase the emission reductions in the next budget.</p> <p>Banking should be limited due to the risk that it could result in the stagnation or reversal of emission reductions that are not discovered until after the banked emissions have been used.</p>	<p>Association of British Insurers, CCB 59, para 15</p> <p>Environmental Industries Commission, CCB 22</p> <p>Environmental Industries Commission, CCB 22</p>
11	Response to Committee's report on progress	<p>There should be provision for an annual debate in Parliament on the annual statement.</p> <p>The draft Bill should lead to a Parliamentary convention that the Prime Minister responds to the annual progress report in Parliament.</p>	<p>Friends of the Earth, CCB 58, para 4.3.</p> <p>Environment Agency, CCB 69</p>
11(4)	The response to the Committee's report can be delayed by an order subject to the negative resolution procedure	This power should be subject to the super-affirmative resolution procedure.	WWF-UK, CCB 63
13(4)	Power to amend a carbon budget after the end of the budgetary period.	<p>There is not a sufficiently clear justification for allowing a carbon budget to be altered after the end of the period, particularly given the significance of the budget on the economy and for society more generally.</p> <p>There should be no power to amend a carbon budget once it has begun, except in the most extreme circumstances. Even before a budget has begun it should only be altered upon the recommendation of the Committee on Climate Change.</p>	<p>House of Lords Delegated Powers and Regulatory Reform Committee, CCB 19, para 3</p> <p>Environment Agency, CCB 69</p>
15	Emissions from international aviation or shipping	Emissions from international shipping and aviation should be included within the targets and budgets from the outset.	Anne Fielding, CCB01

15(2)	Secretary of State's power to define "international aviation and shipping".	The definition of "international aviation and shipping" will determine the scope of the clause as a whole. Although the Secretary of State's power is subject to international obligations and the prospect of judicial review, it may nonetheless be a controversial issue which should use the affirmative resolution procedure rather than the negative procedure.	House of Lords Delegated Powers and Regulatory Reform Committee, CCB 19, para 4.
16	Carbon credits and debits	There should be no power to allow credits to be counted unless they are generated within a capped scheme that is sufficiently ambitious and is subject to robust verification; otherwise the genuine contribution of credits to UK emission reductions will be undermined.	Friends of the Earth, CCB 58, para 3.3 to 3.6
16(2)	Requirements for carbon credits	Only carbon credits that are purchased from another capped scheme should be allowed to count toward the carbon budgets; otherwise the integrity of the targets will be damaged.	Centre for Alternative Technology and Public Interest Research Centre, CCB 79, para 6
17(3)-(6)	Use of affirmative or negative resolution procedure when making regulations on carbon credits and debits	The Secretary of State's power to regulate carbon credits and debits should be subject to the affirmative resolution procedure on the first occasion that it is used in order to ensure that the basic framework is satisfactory. Subsequent occasions can be subject to the negative procedure with the exception of sub-para (3).	House of Lords Delegated Powers and Regulatory Reform Committee, CCB 19, para 5
Part 2			
20(1)(a)	Duty to advise on the level of the carbon budget	The Committee should be able to set, monitor and enforce carbon budgets to remove the process from the political arena.	Environmental Industries Commission, CCB 22
	Advice and / or monitoring of policy on mitigation	The Committee on Climate Change should be responsible for monitoring Government's mitigation policy and advising on policy options for the short, medium and long term. This role should include a review of the best way to co-ordinate or integrate existing effort.	Lord Hunt of Chesterton, CCB 08
	Policy making powers	The Committee should be given power to influence climate change policy by setting a minimum carbon price or by establishing other mechanisms that encourage investment in low carbon solutions.	The Institution of Civil Engineers and the Institution of Mechanical Engineers, CCB 67, para 7
20(1)(c)	Advice on sectors	The Bill should identify the main sectors of importance, including transport.	Merseytravel, CCB 24
		The Committee should be required to advise on the respective contributions that should be made by each sector of the economy individually. This would help to ensure that all sectors play a full part and identify where the most cost-effective reductions can be achieved.	EEF, CCB 54, para 24

	Advice on contributions by local authorities	The Committee should be required to advise on the contribution to be made by local authorities; in the absence of local targets there will be little incentive at the local government level to achieve emission reductions.	City of London Corporation, CCB 46, para 13
	Advice and / or monitoring of policy on adaptation	The Committee on Climate Change should be responsible for monitoring Government's adaptation policy and advising on policy options for the short, medium and long term. This role should include a review of the best way to co-ordinate or integrate existing effort.	Lord Hunt of Chesterton, CCB 08
		The Committee should be given a role in establishing adaptation measures, which should be reflected in its terms of reference and the expertise of its members.	Natural England, CCB 13, para 7
	Advice on target for 2020 and 2050	The Committee should be given a role in advising Government on the appropriateness of the targets for 2020 and 2050. In particular, the Committee's annual report should state whether the targets remain appropriate.	EEF, CCB 54, para 25
	Rejection of advice	Whenever the Government rejects or materially departs from the Committee's advice there should be a duty to lay a statement before Parliament containing the reasons and there should be a willingness to engage in debate on the issue.	EDF Energy, CCB 62
21	Reporting on progress	The Committee should not be reliant on departmental data to verify emissions. The task should be managed and audited by a properly funded and independent body, preferably the Committee.	Renewable Energy Foundation, CCB 57, paras 12 - 13.
		Existing cap and trade schemes do not value carbon directly, which can lead to market distortions. The Committee should be given a role in monitoring the distortions among trading schemes to help make sure that it does not lead to problems.	Renew Tees Valley Ltd, CCB 30, para 2
21(1)	Annual report on progress	The Committee should be required to report on progress towards achieving the fuel poverty targets as part of the annual reporting process. The annual report should also be required to cover progress reports on the use of technology and progress on improving energy efficiency and conservation.	Fuel Poverty Advisory Group, CCB 20, para 5.
23	Ancillary powers of the Committee	The ancillary powers should be broad enough to allow the Committee to compel information to be provided by any business or organisation.	Mid Yorkshire Chamber of Commerce and Industry, CCB 83, para 7
	Duty of co-operation	The draft Bill should impose a duty on the Environment Agency, RDA's, local authorities and industry to provide assistance to the Committee as necessary.	Combined Heat and Power Association, CCB 76, para 4.4.3
	Stakeholder engagement	There should be a mechanism that allows the Committee to interact with stakeholders.	South East Climate Change Partnership, CCB 73, para 6.2

24	Secretary of State's power to make grants to the Committee	<p>The Committee must receive sufficient funding to allow it to scrutinise government forecasting and to develop independent forecasts.</p> <p>The Committee should not be placed in the same position as the broadly analogous Fuel Poverty Advisory Group, which has been dependent on the goodwill of Ministers and officials as well as voluntary assistance, and has not been able to conduct the research and analysis that it would have liked due to a lack of resources.</p> <p>The Committee should be fully independent and should not be subject to guidance or directions. It would be better to follow models such as the Monetary Policy Committee or the Expert Panel on Air Quality Standards.</p>	<p>EDF Energy, CCB 62; EEF, CCB 54, para 27</p> <p>Fuel Poverty Advisory Group, CCB 20, para 12-14</p> <p>William Wilson, CCB 04</p>
25 and 26	Secretary of State's power to issue guidance or directions to the Committee	<p>Any guidance or directions that are issued should be made publicly available.</p>	<p>EEF, CCB 54, para 26</p>
Part 3			
28	Trading Schemes		
28(1)	Power to introduce trading schemes	<p>It should not be possible to introduce personal carbon trading by delegated legislation.</p> <p>The draft Bill should only allow personal carbon trading to be introduced where: there is an effective system of carbon-rated fuels; units are allocated to every individual with extra units being obtained under a regulated tender process; and budgets are set 20 years ahead with in built flexibility to be amended depending on the circumstances.</p>	<p>Dr Dlugolecki, CCB 38, para 11</p> <p>Dr Fleming, CCB 74, para 5</p>
		<p>There should be no power to introduce significant trading schemes by delegated legislation; the power should be incapable of introducing schemes that, for example, are intended to achieve more than 10% of the planned reductions over a period.</p> <p>There should be a requirement to use the power to review and rationalise the existing trading schemes to reduce the burden on industry and increase transparency.</p>	<p>Dr Dlugolecki, CCB 38, para 11</p> <p>British Cememnt Association, CCB 18, para 4.19</p>
31	Procedure for making	<p>The Secretary of State is given very broad powers to introduce regulations on trading</p>	<p>House of Lords Delegated</p>

	regulations	<p>schemes. The technical nature of the schemes may make them unsuited to primary legislation, but consideration should be given to requiring a higher level of parliamentary scrutiny and control than is offered by the affirmative resolution procedure.</p> <p>The powers should be subject to the super-affirmative resolution procedure to ensure that such a decision is subject to extensive parliamentary scrutiny and that both House are satisfied with the changes that are proposed.</p> <p>The term "significantly more onerous" is uncertain and leads to a risk of judicial review proceedings; it should be better defined.</p>	<p>Powers and Regulatory Reform Committee, CCB 19, paras 6-9</p> <p>Lord Norton of Louth, CCB 91</p> <p>House of Lords Delegated Powers and Regulatory Reform Committee, CCB 19, para 10</p>
31(3)(d)	Meaning of "significantly more onerous"		
Part 4			
37(1)(a)	The adaptation report must outline the risks and impacts of climate change	<p>The adaptation reports should include a set of indicators to help measure the impacts of climate change and the progress made towards adapting to those changes, such as those set out in the Government Climate Change Programme (2005).</p> <p>Other indicators should include the UK Biodiversity Action Plan targets.</p> <p>More general indicators should include the impact of flood risk, soils, carbon sinks, water quality, natural resources and the potential for sequestration.</p>	<p>Mayor of London, CCB 10, para 12.3</p> <p>Royal Society for the Protection of Birds, CCB 49, para 12.3</p> <p>Woodlands Trust, CCB 45, para 1.8</p> <p>Mayor of London, CCB 10, para 12.3</p>
37(1)(b)	The adaptation report must set out the Government's proposals and policies in relation to adaptation	<p>The adaptation report should include specific information that is aimed at supporting adaptation measures at the local and regional level.</p> <p>There should be statutory targets for adaptation in addition to the mitigation targets.</p> <p>There should be enabling powers that allow Government to set specific targets or milestones identifying the progress that needs to be achieved; this would help strengthen the reporting process and to allow individual departments to create adaptation strategies and priorities.</p> <p>There should be a duty to implement the policies and proposals on adaptation to support the reporting duty.</p>	<p>Natural England, CCB 13, para 2</p> <p>Environment Agency, CCB 69</p> <p>Environment Agency, CCB 69</p>

		<p>The adaptation reports should include a strategy to ensure that the impact on the natural environment is minimised.</p> <p>The report should set out the action being taken by Government to support adaptation within vulnerable communities and ecosystems abroad.</p> <p>There content of the reports should be determined by an impact assessment.</p> <p>The report should set out a national strategy that develops a cross-sector approach to adaptation and looks as far as 100 years ahead.</p> <p>Section 40 of the Natural Environment and Rural Communities Act 2006 and the Countryside & Rights of Way Act 2000 should be amended by the draft Bill to include a duty to prepare a strategy on wildlife adaptation; the Secretary of State's report on adaptation should be required to address progress in relation to meeting that duty.</p> <p>There should be an initial report on adaptation as soon as possible in order to establish a baseline; the report should identify the risks for the NHS</p> <p>The Bill does not adequately reflect the importance of adaptation – it should require an updated programme of action to be prepared and implemented every three years together with an annual report on progress.</p> <p>There should be independent scrutiny of Government's adaptation measures and annual reports on progress.</p> <p>Adaptation reports should be prepared by the Government every two years.</p> <p>There should be interim targets and progress reports within the five-year period.</p>	<p>Natural England, CCB 13, para 1.4</p> <p>Royal Society for the Protection of Birds, CCB 49, para 12.3</p> <p>NHS Confederation, CCB 82</p> <p>National Trust, CCB 72, paras 11 - 16</p> <p>Wildlife Trusts, CCB 77, para 20</p> <p>NHS Confederation, CCB 82</p> <p>Woodlands Trust, CCB 45, para 1.5 to 1.7</p> <p>Environment Agency, CCB 69</p> <p>Mayor of London, CCB 10, para 12.4</p> <p>National Trust, CCB 72, para 13</p>
37(2)(a)	Duty to prepare the first report within three years of the Act coming into force		
37(2)(b)	There must be an adaptation report at least every five years		

		There frequency of the reports should be determined by an impact assessment.	NHS Confederation, CCB 82
		There should be an obligation to report on adaptation three to four months in advance of the decision to set a carbon budget in order to inform the decision making process.	Environment Agency, CCB 69
		It should be a requirement that the report is published in advance of the Comprehensive Spending Review so that the implications are taken into account when spending decisions are made.	Wildlife Trusts, CCB 77, para 19
		Adaptation and mitigation are linked and the reports need to be prepared in a co-ordinated way; otherwise there can be conflicts in mitigation and adaptation measures. For example, increasing housing density can assist mitigation but create a greater risk of flash floods.	Association of British Insurers, CCB 59, para 2 – 5, 8, 21
	Advisory body and adaptation	The Government should establish an advisory body on adaptation – either the Committee on Climate Change or a separate expert body.	Environment Agency, CCB 69
		The Government should establish a Commission on Adaptation that makes recommendations on adaptation strategy and reports on impacts and progress; the draft Bill should require the Secretary of State to respond to the recommendations and progress reports.	Wildlife Trusts, CCB 77, para 18
		The Committee should have a role in developing adaptation measures and, to support this, its membership should include those with knowledge of climate change impacts and adaptation.	Natural England, CCB 13, para 7
Schedule 1	The Committee on Climate Change		
Sched 1, para 1(1)(b)	There shall be between 5 to 8 members in addition to a chairperson	The maximum number of representatives will need to be increased beyond 8 in order to represent the broad range of expertise that will be needed.	Royal Academy of Engineering, CCB 50, para 9
	Appointments shall be made by Secretary of State	The Committee on Climate Change would be more credible if the appointments were made on a cross-party basis.	Dr Dieter Helm, CCB 07, para 4

		Appointments should be approved by the Environmental Audit Committee. Appointments should be scrutinised by an appropriate select committee.	Woodlands Trust, CCB 45, para 6.3 Royal Society for the Protection of Birds, CCB 49, para 6.1
Sched 1, para 1(3)	Requirement for members to have a range of experience and knowledge		
	Too broad	The range of factors should be narrowed; otherwise the Committee will represent such wide interests that it will be difficult to reach collective conclusions. The range of expertise is too wide; it would be very difficult to select members who reflect the full range of experience.	British Energy, CCB 60, para 23 Dr Freund, CCB 06, para 17
	Priority	Climate science and competitiveness should be prioritised among the other factors. There should be greater emphasis on heavyweight scientific disciplines including chemistry, engineering and statistics in order to balance the advice that is given.	Operation Noah, CCB 42, para 24 Renewable Energy Foundation, CCB 57, para 10
	Additional expertise	An expert on climate modelling should be included in addition to experts on climate science more generally. Other skills and areas of expertise should include carbon budgeting, risk assessment, ecosystem services, resource valuation, sustainable development and international affairs. There should be additional factors including grid stability, waste usage, energy efficiency, distributed energy, hydrogen development and fuel cells. The Committee should include experts on land management and water resources. The Committee should include a technical expert on the rural or land-based sector. The members should include an expert on environmental policy.	Natural Environment Research Council, CCB 47, para 13 Renew Tees Valley Ltd, CCB 30, para 10 CLA, CB 52, para 7 National Farmers' Union, CCB 43, para 7.1 Royal Society for the Protection of Birds, CCB 49, para 6.1

		<p>The Committee should include public health experts who can advise on the contribution that needs to be made by the NHS and the public health implications of climate change. There should be a requirement to include a fuel poverty expert.</p>	NHS Confederation, CCB 82 Eaga Plc, CCB 61
	Stakeholders	<p>The Committee should include stakeholder representatives, including business and environmental groups.</p> <p>Although stakeholders should not be represented on the Committee, there should be provision for stakeholders to be consulted.</p> <p>The Committee should have a stakeholder group that allows stakeholders to contribute their expertise.</p>	Renew Tees Valley Ltd, CCB 30, para 9; Anne Fielding, CCB01 British Energy, CCB 60, para 20 CLA, CCB 52, para 7
	Sector experts	<p>The Committee should include sectoral experts, such as experts on transport.</p>	Merseytravel, CCB 24
	Regional and local representation	<p>There should be local authority and regional representation on the Committee</p> <p>Representatives of cities should be included, particularly as cities are the largest emitters nationally and internationally.</p> <p>Local authorities should have a representative on the Committee due to their role in delivering emission reductions.</p>	Combined Heat and Power Association, CCB 77, para 2.2.6 Mayor of London, CCB 10, para 3.3 Local Government Association, CCB 36, para 1.2; London Councils, CCB 53, para 6
	Representatives of the devolved administrations	<p>The Committee should represent devolved administrations and include an overlap of members from Committee's established in the devolved administrations.</p>	WWF-UK, CCB 63
	Policy Options	<p>The Committee should include expertise on the type of policies or mechanisms that need to be implemented to deliver emission reductions.</p>	Mayor of London, CCB 10, para 7.3
	Public delivery	<p>If the Committee is given a broader role to monitor government policies and to develop strategies for mitigation and adaptation (see above), at least one member should have public administrative and political experience to advise the other members on what will or will not work in the public sector.</p>	Lord Hunt, CCB 08
	Consumers and low income	<p>The Committee should include, as a separate category, representatives of consumers and</p>	Fuel Poverty Advisory

		low income groups.	Group, CCB 20, para 6
	Developing world	The Committee should include experts on international development. The members should include an expert on the impacts of climate change on poor people in developing countries, as well as one or more experts on environmental taxation, regulation, subsidies and incentives.	ClientEarth, CCB 23, para 13 World Development Movement, CCB 26, paras 36 and 40
	Adaptation	The Committee should include experts on adaptation.	Association of British Insurers, CCB 59, para 25
	Some sub-committee	Where an extended range of skills and expertise would make the Committee too large, there could be specific sub-committees to address particular issues	Natural Environment Research Council, CCB 47, para 13
Sched 1, para 1(3)(e)	Experience or knowledge in energy production and supply	The reference to “energy production and supply” should be extended to expressly include energy efficiency and use reduction.	Natural Environment Research Council, CCB 47, para 13
Sched 1, para 3	Terms of Office	There should be a limit on the term of office of the Chair and the members.	Natural Environment Research Council, CCB 47, para 14.
		The members should be appointed for a maximum 2 year terms to prevent special interests becoming entrenched.	Environmental Industries Commission, CCB 22
		The members should be appointed for 5 to 10 year terms.	British Cement Association, CCB 18, para 4.21
		The terms of reference of the members should be publicly available.	EEF, CCB 54, para 26
Sched 2, para 5(3)(a)	Allowances must be issued free of charge	There should be provision within the Bill to allow the auctioning of allowances or carbon reduction contracts to permit the introduction of schemes such as EDF's proposed carbon hedge mechanism.	EDF Energy, CCB 62
		Auctioning is an important part of making trading schemes an efficient way of reducing emissions; it should be treated holistically in the draft Bill rather than separated as a finance issue.	Ofgem, CCB 51, para 8

Sched 2, para 19	Monitoring compliance	<p>The draft Bill should include an enabling power allowing the Secretary of State to introduce mandatory reporting, independent of the trading schemes provisions in Schedule 2. The power should be broad enough to require all FTSE 250 companies to include greenhouse gas emissions in their annual statement of accounts. There should also be a firm timetable for introducing such a procedure.</p> <p>The Committee on Climate Change should be given powers to develop disclosure standards that should be supported by enabling powers allowing Government to introduce mandatory reporting.</p> <p>Carbon auditing is in its infancy and is substantially more difficult than financial auditing. A transparent and comprehensive system must be developed, which will require considerable scientific expertise.</p>	<p>WWF-UK, CCB 63</p> <p>Christian Aid, CCB 64</p> <p>Renewable Energy Foundation, CCB 57, paras 10 – 11</p>
Sched 2, paras 22-25	Enforcement arrangements; penalties, offences.	<p>The enforcement have not yet been justified. There needs to be a strong case for allowing any of the following: a power to create intrusive enforcement mechanisms subject to anything less than the affirmative resolution procedure; the power to impose financial penalties without specifying or containing a mechanism to limit the maximum amount; the power to create offences without specifying the mode of trial or the maximum sentence.</p>	House of Lords Delegated Powers and Regulatory Reform Committee, CCB 19, para 11
Sched 2, para 25	Appeals	<p>Appeals should not be determined by the Secretary of State because there is a conflict with the Secretary of State's interest in securing emission reductions and the power to issue directions to the scheme administrator under clause 33.</p>	House of Lords Delegate Powers and Regulatory Reform Committee, CCB 19, para 12
Other issues		<p>It is questionable whether the Bill should permit, but not require, a right of appeal to be established for decisions or civil penalties.</p>	House of Lords Delegate Powers and Regulatory Reform Committee, CCB 19, para 12

Legal Enforcement	<p>The Secretary of State's duty under clauses 1(1) and 2(1)(a) is not legally enforceable. Specifically, the court is likely to consider it a duty to use best endeavours; unlikely to grant a declaration; and very unlikely to require the Secretary of State to take specific remedial action by making a mandatory order. It is essentially a political duty rather than a legally enforceable duty.</p> <p>The draft Bill should include an enforcement mechanism that is independent of the courts: (a) there should be a duty to make up for failure to meet a carbon budget; (b) the shortfall should be achieved by either purchasing a capped number of overseas credits, retiring EU ETS allowances, or paying money to a carbon reduction fund that would distribute money to domestic emitters that competitively bid to make additional reductions.</p> <p>The draft Bill should incorporate a compliance mechanism based on the Kyoto Protocol procedure, which requires 1.3 times the excess to be made up in the next period and suspends the country from trading allowances in the meantime.</p> <p>Alternatively, non-compliance should trigger a duty to increase spending on climate change mitigation.</p> <p>Where a carbon budget or annual milestone is missed, the Committee on Climate Change should be required to advise on the corrective action that is necessary.</p> <p>The failure to meet a carbon budget should be reflected in the trajectory of the subsequent carbon budget.</p> <p>Where there has been a failure there should be a prompt and independent review of the reasons in order to allow remedial action to be taken.</p> <p>Where the Government has fallen or is falling behind there should be a duty on the relevant minister to report on the additional policies that will be pursued and to confirm that those policies are sufficient to remedy the situation. There should also be annual debates in Parliament on progress and any such report could be the subject of a vote to determine whether the proposals are satisfactory.</p> <p>Financial penalties should be imposed on Government if it fails to achieve the targets and budgets.</p>	<p>Professor Forsyth, CCB 92</p> <p>Environment Agency, CCB 69</p> <p>CLA, CCB 52, para 8</p> <p>CLA, CCB 52, para 8</p> <p>WWF-UK, CCB 63</p> <p>Mayor of London, CCB 10, para 8.1</p> <p>Dr Dlugolecki, CCB 38, para 7</p> <p>Friends of the Earth, CCB 58, para 4.3</p> <p>Woodland Trust, CCB 45, para 7.1</p> <p>Natural England, CCB 13, para 4</p>
Greenhouse gas emissions other than carbon dioxide	<p>The draft Bill should include greenhouse gas emissions other than carbon dioxide from the outset. The failure to include other gases is a missed opportunity and wrongly moves us away from the international multi-gas approach which, as the IPCC has confirmed, can minimise the costs of mitigation.</p>	

		<p>Non-carbon dioxide greenhouse gases should either be included or, alternatively, the 60% target (which stemmed from an original target that covered all greenhouse gases) should be increased to compensate for the narrow focus.</p> <p>There should be statutory targets for non-carbon dioxide greenhouse gas emissions that are long-lived and that are mainly produced by industrial processes which make them amendable to measurement and control, such as the gases covered by the Montreal Protocol and fluorocarbons. Other greenhouse gases such as Methane and N2O can be difficult to measure and control by industry and agriculture. The government should set goals rather than statutory targets for these gases.</p> <p>Carbon dioxide is the main problem and should be the main focus. If other greenhouse gases are included then there should be separate targets for each rather than one global amount to ensure that there is a specific target for carbon.</p> <p>The initial targets should relate to CO2 but the draft Bill should make provision for reviewing and introducing non-CO2 targets.</p> <p>Overseas credits should not be allowed to count towards the draft Bill's targets as they are difficult to verify and could lead to limited efforts within the UK; developing countries should be supported in addition to domestic efforts.</p> <p>If the Government is to demonstrate international leadership there must be a limit on the use of overseas credits and an emphasis on domestic action.</p> <p>Overseas credits have a role in reducing emissions at least cost, but the Bill must cap their use by setting the minimum level of domestic action. Otherwise it will undermine the UK's credibility and industry may adopt a strategy of purchasing credits rather than reducing emissions. When setting a limit, the Government must take into account that reliance on overseas credits exposes the UK to carbon price shocks caused by volatility in the carbon markets.</p> <p>The draft Bill should aim for 100 per cent of the effort to be achieved through domestic reductions; credits should be subject to a tight limit.</p> <p>The Committee on Climate Change should be given power to set limits on the use of overseas credits.</p>	<p>Environmental Industries Commission, CCB 22</p> <p>Dr Freund, CCB 06, paras 4-6</p> <p>British Energy, CCB 60, paras 10 - 11</p> <p>NHS Confederation, CCB 82</p> <p>World Development Movement, CCB 26, paras 3 and 21-28</p> <p>Mayor of London, CCB 10, paras 6.1 - 6.2</p> <p>EDF Energy, CCB 62</p> <p>Association for the Conservation of Energy, CCB 84</p> <p>Christian Aid, CCB 64, paras 20 to 29</p>
<p>Use of international credits</p>			

		Any decision to purchase carbon credits should be transparent and it should have to be notified well in advance to minimise the risk of destabilising the carbon price.	E.ON UK, CCB 44, para 18
Local Government		The Bill should have addressed the role of local government given the significance of local action. It should provide a mechanism for funding local initiatives aimed at measures such as such as energy saving, efficient use of transport and planning control. It will also be important to give local authority power to take action by controlling matters such as the use of air conditioning, transport etc.	Lord Hunt, CCB 08
		The draft Bill should set a collective target for local authorities; there may not be action in the absence of a statutory requirement.	Association for the Conservation of Energy, CCB 84
		There should be a delegated power in the draft Bill allowing Government to impose duties on local authorities in relation to climate change.	The Royal Society for the Protection of Birds, CCB 49, para 3.3
		The draft Bill should clarify the role of local government and explain how the existing local measures, such as offset projects, will fit into the natural approach.	City of London Corporation, CCB 46, para 9
		Local authorities should be placed under a duty to take action on climate change.	Woodlands Trust, CCB 45, para 3.2
The Committee's relationship with other bodies and agencies		The relationship between the Carbon Committee and a range of other environmental bodies needs to be considered more fully, in particular the Environment Agency, Energy Savings Trust and the Carbon Trust. The Environment Agency has air pollution duties and plays an important role in the EU ETS. It should be reformed to focus on water and waste, with further thought on which body should be responsible for air pollution. Consideration should be given to creating a broad Energy Agency responsible for ensuring security of supply and the achievement of climate change targets. The body should incorporate the Energy Savings Trust, the Carbon Trust and Ofgem.	Professor Dieter Helm, CCB 07, para 4
		The Committee on Climate Change should not replicate the role of existing agencies, but should find ways of integrating them together to develop joined up strategic planning.	Lord Hunt, CCB 08
Publication of the Committee's advice		The draft Bill should require the advice of the Committee on Climate Change to be made public.	Natural Environment Research Council, CCB 47, para 16

General policy instruments		The Bill should include enabling powers to support the introduction of broader fiscal and regulatory measures, as well as policies to support behaviour changes, which will be needed to meet the statutory targets.	ClientEarth, CCB 23, para 17.
Specific policy instruments		There should be specific measures in the draft Bill to support public transport in order to link the aims of the Bill with the need for specific action in that sector. The draft Bill should include measures to encourage technological developments, such as CCS.	Merseytravel, CCB 24. City of London Corporation, CCB 46, para 4
Consultation on enabling powers		The exercise of all enabling powers aimed at reducing emissions should be subject to a statutory requirement to consult the public and the Committee on Climate Change. In particular, it will help to minimise the risk from environmental lobbying and to take into account all the negative environmental impacts of emission reduction measures, such as the effect upon biodiversity or energy security.	Professor Dieter Helm, CCB 07, para 5
Behaviour change		The local government sector should be consulted on the development of all policy instruments aimed at reducing emissions to make sure they are suitable and compatible with existing efforts. Similarly, if there is a trading scheme aimed at local government it should be developed in partnership with local leaders.	Local Government Association, CCB 36, para 6
New advisory body		The draft Bill should include enabling powers to support behaviour change and promote best practice, for instance to support workplace environmental representatives. The Committee on Climate Change should include a sub-committee to address behaviour change, with members who understand behavioural psychology.	TUC, CCB 78, para 3.5 Natural Environment Research Council, CCB 47, para 13
		The draft Bill should establish an Energy Commission to provide independent and co-	TUC, CCB 78, para 3.3

Devolution		<p>ordinated recommendations on energy policy and progress reports.</p> <p>There should be a UK wide approach to prevent "leakage" between four separate systems and give a stronger collective negotiating position at the international level.</p> <p>Where nations in the UK have different targets, it will be important to have a system that publicly documents which nation is responsible for delivering what reductions.</p>	<p>Dr Fleming, CCB 74, para 17</p> <p>WWF-UK, CCB 63</p>
------------	--	---	--

Formal minutes

Extract from the House of Lords Minutes of Proceedings of Tuesday 27 March 2007

Climate Change — The Lord President (Baroness Amos) moved that it is expedient that a Joint Committee of Lords and Commons be appointed to consider and report on the draft Climate Change Bill presented to both Houses on 13 March 2007 (Cm 7040) and that the Committee should report on the draft Bill by 13 July. The motion was agreed to and a message was sent to the Commons.

Extract from the House of Commons Votes and Proceedings of 18 April 2007

Draft Climate Change Bill (Joint Committee),—*Resolved*, That this House concurs with the Lords Message of 27th March, that it is expedient that a Joint Committee of Lords and Commons be appointed to consider and report on the draft Climate Change Bill presented to both Houses on 13th March 2007 (Cm. 7040), and that the Committee should report on the draft Bill by 13th July 2007.

Ordered, That a Select Committee of twelve Members be appointed to join with the Committee appointed by the Lords to consider the draft Climate Change Bill.

That the Committee shall have power—

- (i) to send for persons, papers and records;
- (ii) to sit notwithstanding any adjournment of the House;
- (iii) to report from time to time;
- (iv) to appoint specialist advisers; and
- (v) to adjourn from place to place within the United Kingdom.

That Ms Celia Barlow, Mr David Chaytor, Helen Goodman, Nia Griffith, David Howarth, Mr Nick Hurd, Mr David Kidney, Mark Lazarowicz, Mr Graham Stuart, Dr Desmond Turner, Dr Alan Whitehead and Mr Tim Yeo be members of the Committee.—(Claire Ward.)

Message to the Lords to acquaint them therewith.

Extract from House of Lords Minutes of Proceedings of 23 April 2007

Climate Change — The Chairman of Committees moved that the Commons message of Wednesday 18 April be now considered, and that a Committee of twelve Lords be appointed to join with the Committee appointed by the Commons to consider and report on the draft Climate Change Bill presented to both Houses on 13 March 2007 (Cm 7040);

That, as proposed by the Committee of Selection, the following members be appointed to the Committee:

B Billingham	L Puttnam
E Caithness	E Selborne
L Crickhowell	L Teverson
L Jay of Ewelme	L Vinson
L May of Oxford	L Whitty
B Miller of Chilthorne Domer	L Woolmer of Leeds

That the Committee have power to agree with the Committee appointed by the Commons in the appointment of a Chairman;

That the Committee have power to send for persons, papers and records;

That the Committee have power to sit notwithstanding any adjournment of the House;

That the Committee have leave to report from time to time;

That the evidence taken by the Committee shall, if the Committee so wishes, be published;

That the Committee have power to appoint specialist advisers;

That the Committee have power to adjourn from place to place within the United Kingdom;

That the Committee meet with the Committee appointed by the Commons on Wednesday 25 April 2007 at 9.00am in the Boothroyd Room in Portcullis House;

And that, notwithstanding the Resolution of this House of 27 March, the date by which the Joint Committee is required to report should be 25 July 2007 rather than 13 July 2007.

The motion was agreed to.

Extract from House of Commons Votes and Proceedings of 24 April 2007

Draft Climate Change Bill (Joint Committee),—*Resolved*, That this House concurs with the Lords Message of 23rd April, relating to the Joint Committee of Lords and Commons appointed to consider and report on the draft Climate Change Bill, presented to both Houses on 13th March (Cm. 7040), that—

(1) the Committee appointed by this House do meet the Lords Committee as proposed by their Lordships; and

(2) notwithstanding the Resolution of 18th April, it be an instruction to the Joint Committee on the draft Climate Change Bill that it should report by 25th July 2007.—
(*Claire Ward.*)

Message to the Lords to acquaint them therewith.

Wednesday 25 April 2007

Present

B Billingham	Ms Celia Barlow MP
E Caithness	Helen Goodman MP
L Crickhowell	David Howarth MP
B Miller of Chilthorne Domer	Mr Nick Hurd MP
L Puttnam	Mr David Kidney MP
E Selborne	Mark Lazarowicz MP
L Teverson	Dr Desmond Turner MP
L Whitty	Dr Alan Whitehead MP
L Woolmer of Leeds	

Members' interests: The full lists of Members' interests as recorded in the Commons Register of Members' Interest and the Lords Register of Interests are noted.

It is moved that Lord Puttnam do take the Chair.—(*Dr Desmond Turner.*)

The same is agreed to.

The Orders of Reference are read.

The Joint Committee deliberate.

Ordered, That Professor Paul Ekins and Mr John Newbigin be appointed as Specialist Advisers to assist the Committee.

Ordered, That the Joint Committee be adjourned to Wednesday 9 May at 2 o'clock.

Wednesday 9 May 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	Mr David Chaytor MP
L Crickhowell	Helen Goodman MP
L Jay of Ewelme	Nia Griffith MP

L May of Oxford	David Howarth MP
B Miller of Chilthorne Domer	Mr David Kidney MP
E Selborne	Mark Lazarowicz MP
L Teverson	Mr Graham Stuart MP
L Vinson	Dr Desmond Turner MP
L Whitty	Dr Alan Whitehead MP
L Woolmer of Leeds	

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Wednesday 25 April are read.

The Joint Committee deliberate.

Ordered, That Strangers be admitted during the examination of witnesses unless otherwise ordered.

Ordered, That the uncorrected transcripts of evidence given, unless the Committee otherwise order, be published on the internet.

Ordered, That the Joint Committee be adjourned to Wednesday 16 May at half-past One o'clock.

Wednesday 16 May 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	Mr David Chaytor MP
L Crickhowell	Helen Goodman MP
L Jay	David Howarth MP
L Teverson	Mr Nick Hurd MP
L Whitty	Mr David Kidney MP
L Woolmer	Mark Lazarowicz MP
	Mr Graham Stuart MP
	Dr Desmond Turner MP
	Dr Alan Whitehead MP
	Mr Tim Yeo MP

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Wednesday 9 May are read.

The Joint Committee deliberate.

Ordered, That Memoranda numbers CCB 1 to CCB 5 submitted to the Joint Committee be reported to the House for publication on the internet.

Resolved, That the Committee be represented at the Youth Parliament's Newcastle Climate Change Event on 24 My.

The following witnesses are examined:

William Wilson, Director, Cambrensis, and barrister, Environmental Law Unit, Burges Salmon, Christopher Norton, Baker and McKenzie, and Professor Christopher Forsyth, Cambridge University.

Lord Lawson of Blaby and Professor David Henderson, Westminster Business School.

Dr Kevin Anderson, Tyndall Centre, Dr David Griggs, and Dr Chris Gordon, Hadley Centre.

Martin Brough, Oxera, and Richard Gledhill, PricewaterhouseCoopers.

Ordered, That the Joint Committee be adjourned to Tuesday 22 May at half-past 3 o'clock.

Tuesday 22 May 2007

Present:

B Billingham	Ms Celia Barlow MP
E of Caithness	Mr David Chaytor MP
L Whitty	Helen Goodman MP
L Woolmer	Nia Griffith MP
L Crickhowell	Mr Nick Hurd MP
L Jay	Mr David Kidney MP
L Teverson	
L May	
L Vinson	
B Miller of Chilthorne Domer	
E Selborne	

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Wednesday 16 May are read.

The Joint Committee deliberate.

Ordered, That Memoranda numbers CCB6 to CCB13 submitted to the Joint Committee be reported to the House for publication on the internet.

Resolved, That the Joint Committee do visit Oxford, Edinburgh and Woking.

Ordered, That the Joint Committee be adjourned to Wednesday 5 June at half-past 3 o'clock.

Thursday 24 May 2007

Mr David Kidney visited the Youth Parliament's Newcastle Climate Change Event, in accordance with the decision of the Committee of 16 May.

Wednesday 5 June 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	Mr David Chaytor MP
L Crickhowell	Helen Goodman MP
L Jay of Ewelme	Nia Griffith MP
B Miller of Chilthorne Domer	David Howarth MP
E Selborne	Mr Nick Hurd MP
L Teverson	Mr David Kidney MP
L Vinson	Mark Lazarowicz MP
L Whitty	Mr Tim Yeo MP
L Woolmer of Leeds	

In the absence of the Chairman, Mr Tim Yeo is called to the Chair.

The Order of Adjournment is read.

The proceedings of Tuesday 22 May are read.

The Joint Committee deliberate.

Ordered, That Memoranda numbers CCB 14 to CCB 78 submitted to the Joint Committee be reported to the House for publication on the internet.

The following witnesses are examined:

Professor Sir David King KB ScD FRS, Chief Scientific Adviser to HM Government.

Mr Stefan Moser, European Commission, DG Environment.

Lord Crickhowell declared an interest as the father of Mr Rupert Edwards.

Dr Anthony White, MBE, Managing Director of Market Development and Chairman of Advisory, and Mr Rupert Edwards, Managing Director and Head of Portfolio Management, Carbon Markets, Climate Change Capital.

Ordered, That the Joint Committee be adjourned to Wednesday 6 June at 2 o'clock.

Wednesday 6 June 2007

Present:

B Billingham	Ms Celia Barlow MP
L Crickhowell	Mr David Chaytor MP
L Jay of Ewelme	Helen Goodman MP
B Miller of Chilthorne Domer	Nia Griffith MP
E Selborne	David Howarth MP
L Teverson	Mr David Kidney MP
L Vinson	Mark Lazarowicz MP
L Whitty	Mr Graham Stuart MP
L Woolmer of Leeds	Dr Desmond Turner MP
	Dr Alan Whitehead MP
	Mr Tim Yeo MP

In the absence of the Chairman, Mr Tim Yeo is called to the Chair.

The Order of Adjournment is read.

The proceedings of Tuesday 5 June are read.

The Joint Committee deliberate.

The following witnesses are examined:

Mr Brian Samuel, Head of Policy Research, and Mr Dan Staniaszek, Evaluation Director, Energy Saving Trust, Professor Michael Grubb, Carbon Trust, and Mr Steve Smith, Managing Director of Markets, Ofgem.

Lord Whitty declared an interest as a member of the Board of the Environment Agency.

Baroness Young of Old Scone, Chief Executive, and Mr Clive Bates, Head of Environmental Policy, Environment Agency, and Mr Andrew Lee, Director, Sustainable Development Commission.

Mr Stephen Hale, Director, Green Alliance, Mr Martyn Williams, Senior Parliamentary Campaigner, Friends of the Earth, Mr Charlie Kronick, Climate Campaign Manager, Greenpeace, and Dr Keith Allott, WWF-UK.

Ordered, That the Joint Committee be adjourned to Tuesday 12 June at half-past 3 o'clock.

Tuesday 12 June 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	Nia Griffith MP
L Crickhowell	David Howarth MP
L Jay of Ewelme	Mr David Kidney MP
B Miller of Chilthorne Domer	Mark Lazarowicz MP
L Teverson	Mr Graham Stuart MP
L Vinson	Dr Desmond Turner MP
L Whitty	Dr Alan Whitehead MP
L Woolmer of Leeds	

Lord Puttnam (in the Chair)

The Order of Adjournment is read.

The proceedings of Tuesday 6 June are read.

The Joint Committee deliberate.

Ordered, That Memorandum number CCB 79 submitted to the Joint Committee be reported to the House for publication on the internet.

The following witnesses are examined:

Ms Megan Wheatley, UK Business Council for Sustainable Energy, Dr Keith MacLean, Head of Sustainable Development, Scottish and Southern Energy, Mr Ravi Baga, Director of Environment and Market Regulation, EDF Energy, and Mr Philip Wolfe, Chief Executive, Renewable Energy Association.

Michael Roberts, Director, Business Environment, and Gillian Simmonds, Senior Policy Adviser, Energy and Climate Change, CBI, and Mr John Holbrow, Environment Chairman, Federation of Small Businesses.

Mr Dan Skopec, Under-Secretary, Californian Environmental Protection Agency.

Malcolm Wicks MP, Minister of State for Science and Innovation, Lord Truscott, Parliamentary Under-Secretary of State for Energy, and Peter Brunt, Policy Adviser, Department of Trade and Industry.

Ordered, That the Joint Committee be adjourned to Wednesday 13 June at 2 o'clock.

Wednesday 13 June 2007

Present:

B Billingham	Ms Celia Barlow MP
L Crickhowell	Helen Goodman MP
L May of Oxford	Nia Griffith MP
B Miller of Chilthorne Domer	David Howarth MP
L Vinson	Mr David Kidney MP
L Whitty	Mark Lazarowicz MP
L Woolmer of Leeds	Mr Graham Stuart MP
	Dr Desmond Turner MP
	Dr Alan Whitehead MP

Lord Puttnam (in the Chair)

The Order of Adjournment is read.

The proceedings of Tuesday 12 June are read.

The Joint Committee deliberate.

The following witnesses are examined:

Mr Graham Smith, Senior Vice-President, Toyota Motor Europe, Andrew Barker, Planning Director, easyJet, and Robert Ashdown, Environmental Manager, British Chamber of Shipping.

Gillian Merron MP, Parliamentary Under-Secretary, Adrian Gault, Divisional Manager Transport Analysis and Review and Martin Capstick, Head of Aviation Environmental Division, Department for Transport.

Lord May declared an interest as a member of the Royal Society.

Professor Keith Shine, Head, Department of Meteorology, University of Reading, and Dr Terry Barker, Director, Cambridge Centre for Climate Change Mitigation Research, University of Cambridge, Royal Society, and Dr Sue Ion, Vice-President, Chairman of Standing Committee on Engineering Policy, Royal Academy of Engineering.

Ordered, That the Joint Committee be adjourned to Tuesday 19 June at half-past 3 o'clock.

Friday 15 June 2007

Lord Jay of Ewelme, Lord May, the Earl of Selborne and Lord Whitty visited Oxford, in accordance with the decision of the Committee of 22 May.

Tuesday 19 June 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	David Chaytor MP
L Crickhowell	Nia Griffith MP
B Miller of Chilthorne Domer	David Howarth MP
E Selborne	Mr David Kidney MP
L Teverson	Mark Lazarowicz MP
L Vinson	Dr Desmond Turner MP
L Whitty	Mr Tim Yeo MP
L Woolmer of Leeds	

Lord Puttnam (in the Chair)

The Order of Adjournment is read.

The proceedings of Wednesday 13 June are read.

The Joint Committee deliberate.

Ordered, That Memoranda numbers CCB 82 to CCB 84 submitted to the Joint Committee be reported to the House for publication on the internet.

The following witnesses are examined:

Mr Mark Watts, Policy Adviser to the Mayor, Greater London Authority, and Graham Tubb MBE, Chief Sustainability Advisor, South East England Development Agency.

Ms Tanya Olmeda-Hodge, Head of Environment, and Michael Sayer, CLA member, Country Land and Business Association (CLA).

Dr Martin Gibson, Director, Envirowise.

Lord Whitty declared an interest as Chairman of the National Consumer Council.

Allan Asher, Chief Executive, Energywatch, and Ed Mayo, Chief Executive, National Consumer Council.

Ordered, That the Joint Committee be adjourned to Wednesday 20 June at a quarter to 3 o'clock.

Wednesday 20 June 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	David Chaytor MP
L Crickhowell	Helen Goodman MP
L Jay of Ewelme	Nia Griffith MP
B Miller of Chilthorne Domer	David Howarth MP
E Selborne	Mr David Kidney MP
L Teverson	Mark Lazarowicz MP
L Vinson	Dr Desmond Turner MP
L Whitty	Dr Alan Whitehead MP
L Woolmer of Leeds	Mr Tim Yeo MP

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Tuesday 19 June are read.

The Joint Committee deliberate.

The following witnesses are examined:

Jonathan Brearley, Director, Office of Climate Change and Robin Mortimer, Head of Draft Climate Change Bill Team, Department for Environment, Food and Rural Affairs.

Rt Hon David Miliband MP, Secretary of State, and Robin Mortimer, Head of Draft Climate Change Bill Team, Department for Environment, Food and Rural Affairs, and John Healey MP, Financial Secretary, and Chris Taylor, Economic Adviser, HM Treasury.

Ordered, That the Joint Committee be adjourned to Wednesday 26 June at half-past 3 o'clock.

Thursday 21 June 2007

Lord Puttnam, Nia Griffith and Dr Alan Whitehead visited Woking, in accordance with the decision of the Committee of 22 May.

Mark Lazarowicz visited Edinburgh, in accordance with the decision of the Committee of 22 May.

Wednesday 26 June 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	David Chaytor MP
L Crickhowell	Helen Goodman MP
L Jay of Ewelme	Nia Griffith MP
L May of Oxford	David Howarth MP
B Miller of Chilthorne Domer	Mr Nick Hurd MP
L Teverson	Mr David Kidney MP
L Whitty	Mark Lazarowicz MP
L Woolmer of Leeds	Dr Desmond Turner MP
	Dr Alan Whitehead MP
	Mr Tim Yeo MP

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Wednesday 20 June are read.

The Joint Committee deliberate.

Ordered, That the Joint Committee be adjourned to Thursday 5 July at a quarter to 10 o'clock.

Thursday 5 July 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	Nia Griffith MP
L Crickhowell	Mr David Kidney MP
L Jay of Ewelme	Dr Desmond Turner MP
B Miller of Chilthorne Domer	
E Selborne	
L Teverson	
L Whitty	
L Woolmer of Leeds	

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Tuesday 26 June are read.

The Joint Committee deliberate.

Ordered, That Memoranda numbers CCB 86 and CCB 88 submitted to the Joint Committee be reported to the House for publication on the internet.

The following witness is examined:

Dr Lu Xuedu, Deputy Director General, Office of Global Environmental Affairs, Ministry of Science and Technology, People's Republic of China.

Ordered, That the Joint Committee be adjourned to Wednesday 18 July at 2 o'clock.

Wednesday 18 July 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	David Chaytor MP

L Crickhowell	Nia Griffith MP
B Miller of Chilthorne Domer	David Howarth MP
E Selborne	Mr Nick Hurd MP
L Teverson	Mr David Kidney MP
L Whitty	Mark Lazarowicz MP
L Woolmer of Leeds	Mr Graham Stuart MP
	Dr Desmond Turner MP
	Dr Alan Whitehead MP
	Mr Tim Yeo MP

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The Joint Committee deliberate.

Ordered, That the Joint Committee be adjourned to Tuesday 24 July at half-past 3 o'clock.

Tuesday 24 July 2007

Present:

B Billingham	Ms Celia Barlow MP
E Caithness	David Chaytor MP
L Crickhowell	Nia Griffith MP
L Jay of Ewelme	David Howarth MP
L May of Oxford	Mr David Kidney MP
B Miller of Chilthorne Domer	Mark Lazarowicz MP
E Selborne	Mr Graham Stuart MP
L Teverson	Dr Desmond Turner MP
L Whitty	Dr Alan Whitehead MP
L Woolmer of Leeds	Mr Tim Yeo MP

Lord Puttnam (*in the Chair*)

The Order of Adjournment is read.

The proceedings of Wednesday 18 July are read.

The Joint Committee deliberate.

Ordered, That Memoranda numbers CC 89 to 91 and CCB 102 submitted to the Joint Committee be reported to the House for publication on the internet.

A draft Report is proposed by the Chairman.

It is moved that the draft Report before the Committee be read.

The same is agreed to.

Paragraphs 1 to 22 are agreed to.

Paragraph 23 reads follows:

On the other hand, to recast the draft Bill to encompass all greenhouse gases might risk diluting the focus on CO₂. It would also raise issues in relation to

- the treatment of non-greenhouse gas emissions which nevertheless contribute to global warming (eg. the greater impact of high-altitude emissions of water vapour by planes); and
- whether a single target and trading system should be set across all gases, rather than specific targets and policy instruments for each.

These issues are complex and, in our view, cannot easily or quickly be resolved. Expanding the Bill in this way might therefore jeopardise its coherence and the extent of support which it might command.

It is moved by David Howarth, in line 7 of paragraph 23 to leave out the words from “each” to the end of the paragraph.

Question put, That the Amendment be made.

Objected to; on Question?

Contents
David Howarth
B Miller of Chilthorne Domer
L Teverson

Not Contents
Ms Celia Barlow
B Billingham
E Caithness
Mr David Chaytor
L Crickhowell
Nia Griffith
Mr David Kidney
Mark Lazarowicz
L May of Oxford

L Puttnam
E Selborne
Dr Desmond Turner
Dr Alan Whitehead
L Whitty
L Woolmer

The amendment is disagreed to accordingly.

Paragraph 23 agreed to.

Paragraph 24 reads follows:

We agree with the Government on balance that it is reasonable for the Bill to focus on reducing emissions of carbon dioxide, and we therefore accept its overall architecture. However, this in no way relieves the Government of its responsibility to continue to reduce other greenhouse gases (both by reason of domestic necessity and our international obligations). Accordingly, it is essential to monitor all greenhouse gas emissions, in part so as to provide greater transparency when comparing UK performance against EU and Kyoto targets. **We recommend that the Bill should be amended to require both the Government and the Committee on Climate Change to include within their monitoring and reporting a clear analysis of all emissions which contribute to global warming, including non-CO₂ greenhouse gas emissions. We further recommend that this be done with the explicit intention of providing a stepping stone to a more comprehensive approach to setting targets across the whole range of greenhouse gases, were that approach to emerge as a result of future international negotiations.**

It is moved by David Howarth to leave out paragraph 24 and insert a new paragraph as follows:

“Despite the complexities of the issue, excluding other greenhouse gases from this legislation is not defensible. International targets are couched in terms of greenhouse gases, as are the Bill’s own powers in respect of emissions trading schemes. While it is true that greenhouse gas emissions other than CO₂ have fallen since 1990, there is no guarantee that this will remain the case. Furthermore, this is no good reason for excluding them from the 2050 target. The scientific experts who submitted evidence to us made it clear that the omission of greenhouse gases from the Bill was a weakness. We recommend that the Bill be amended to include all greenhouse gases in the emissions reduction target for 2050. If it is thought appropriate to keep the pressure up specifically on carbon, the Committee on Climate Change could advise the Government on what proportion of the emissions reductions should be made in CO₂.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents

David Howarth

B Miller of Chilthorne Domer

L Teverson

Not Contents

Ms Celia Barlow

B Billingham

E Caithness

Mr David Chaytor

L Crickhowell

Nia Griffith

Mr David Kidney

Mark Lazarowicz

L May of Oxford

L Puttnam

E Selborne

Dr Desmond Turner

Dr Alan Whitehead

L Whitty

L Woolmer

The amendment is disagreed to accordingly.

Paragraph 24 agreed to.

Paragraphs 25 to 31 agreed to.

Paragraph 32 reads follows:

The draft Bill currently does not include within the scope of the targets, and the net UK carbon account, emissions from international aviation. We consider this to be a serious weakness which, in view of the significant likely growth of such emissions, has the effect of reducing the credibility of the 60% carbon reduction target. Given the clear expectation of the Secretary of State that international aviation emissions could be included in the net UK carbon account once they are incorporated within the EU ETS, we expect the Government to take all necessary steps to ensure that this is achieved. The draft Bill should be amended in such a way that it requires both the Government and the Committee on Climate Change to include separately international aviation emissions within the scope of their monitoring and reporting, including projections of future emissions – in a manner similar to the parallel reporting we are recommending in relation to non-CO₂ greenhouse gases.

It is moved by David Howarth to leave out paragraph 32 and insert a new paragraph as follows:

“We note that Mr Moser, from the European Commission, told us “we have seen very strong support from Member States in the Council and also from the Parliament to go ahead and show leadership at the European level, and with your very innovative Bill in the United Kingdom, which again, moves ahead of everybody else, you could give that signal to these two sectors and say they should be included”.(Q128) We consider the exclusion of international aviation emissions from the target a serious weakness which reduces the credibility of this legislation. Dr Anderson of the Tyndall Centre suggested that the EU already has a policy in place for apportioning emissions in 2012: we are not convinced by the Government’s statements that the issue is too complex to consider. Since international aviation will be included soon, as part of the EU ETS, it is much less disruptive to include international aviation emissions now on a basis that will be close to the final methodology than to include them in one big leap in 2012”.

Question put, That the Amendment be made.

Objected to; on Question

Contents	Not Contents
David Howarth	Ms Celia Barlow
B Miller of Chilthorne Domer	B Billingham
L Teverson	E Caithness
	Mr David Chaytor
	L Crickhowell
	Nia Griffith
	Mr David Kidney
	Mark Lazarowicz
	L May of Oxford
	L Puttnam
	E Selborne
	Dr Desmond Turner
	Dr Alan Whitehead
	L Whitty
	L Woolmer

The amendment is disagreed to accordingly.

Paragraph 32 agreed to.

It is moved by Lord Whitty to insert a new paragraph.

New paragraph agreed to (now paragraph 33).

Paragraph 33 read, amended and agreed to (now paragraph 34).

Paragraphs 34 to 42 agreed to (now paragraphs 35 to 43).

Paragraph 43 read, as follows:

In seeking to balance the arguments over the level of the long-term carbon target, we conclude that the approach adopted by the Government is appropriate and that increasing the target further would, at this stage, only serve to undermine its credibility. We therefore support the 60% target as currently drafted with the proviso that the long title of the Bill should be amended to explicitly state, as the Secretary of State emphasised several times in his evidence to us, that the target should be at least 60% and subject to review.

It is moved by David Howarth to leave out paragraph 43 and insert a new paragraph as follows:

“It is clear from the evidence submitted to us that a target carbon reduction of 60% from the 1990 baseline is based on outdated science. The recommendation that this figure is taken from was made in 2000; even the Secretary of State agreed that scientific opinion has moved on since that time. The same factors, including the contraction and convergence method of apportioning emission reduction targets among states, which led the Royal Commission on Environmental Pollution to produce a proposed reduction of 60% at that time now suggest that carbon emissions must be reduced by at least 80% to maintain any realistic chance of restricting the global temperature rise to 2°C. We do not think that the considerations of interest groups or industry should outweigh the scientific facts in the mind of Government. We recommend that the Bill be amended to require a carbon reduction of at least 80% by 2050.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents

David Howarth

B Miller of Chilthorne Domer

L Teverson

Not Contents

Ms Celia Barlow

B Billingham

E Caithness

L Crickhowell

Nia Griffith

Mr David Kidney
 L May of Oxford
 L Puttnam
 E Selborne
 Dr Desmond Turner
 Dr Alan Whitehead
 L Whitty
 L Woolmer

The amendment is disagreed to accordingly.

It is moved by Mark Lazarowicz to leave out paragraph 43 and insert a new paragraph as follows:

“There are arguments that need to be balanced in deciding upon the level of the long-term carbon target. Bearing in mind, however, the weight of scientific evidence before the committee that a target of significantly more than 60% is likely to be necessary, we believe that before the introduction of the definitive Climate Change Bill, the government should review the latest scientific evidence available and consider whether to what extent the target should be raised above 60%. We believe that the ‘shadow’ Committee on Climate Change should be asked to carry out such a review with a view to making recommendations on the appropriate long-term target before the Bill completes its passage through Parliament.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents
 David Howarth
 Mark Lazarowicz
 B Miller of Chilthorne Domer
 L Teverson

Not Contents
 Ms Celia Barlow
 B Billingham
 E Caithness
 Mr David Chaytor
 L Crickhowell
 Nia Griffith
 Mr David Kidney
 L May of Oxford
 L Puttnam
 E Selborne
 Dr Desmond Turner
 Dr Alan Whitehead
 L Whitty
 L Woolmer

The amendment is disagreed to accordingly.

It is moved by David Kidney to leave out paragraph 43 and insert a new paragraph as follows:

“We understand, and sympathise with, the argument in favour of setting a higher target for the long-term reduction of carbon dioxide emissions. But recognizing how very demanding the target set out in the draft Bill for 2050 is, and facing up to both the complexity of domestic budgeting and international requirements, we conclude that the approach adopted by the Government is appropriate provided that it is understood that this is but the first step along a path towards a low-carbon future for the UK. We make further recommendations later about reinforcing this direction of travel. We also recommend that the long title of the Bill should be amended to state explicitly, as the Environment Secretary of State emphasised several times in his evidence to us, that the target should be at least 60% and subject to review.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents	Not Contents
Ms Celia Barlow	David Howarth
B Billingham	B Miller of Chilthorne
E Caithness	Domer
Mr David Chaytor	L Teverson
L Crickhowell	
Nia Griffith	
Mr David Kidney	
Mark Lazarowicz	
L May of Oxford	
L Puttnam	
E Selborne	
Dr Desmond Turner	
Dr Alan Whitehead	
L Whitty	
L Woolmer	

New Paragraph accordingly agreed to (now paragraph 44).

It is moved by Dr Alan Whitehead to insert a new paragraph.

Paragraph agreed to (now paragraph 45).

Paragraphs 44 to 63 read and agreed to (now paragraphs 46 to 65).

Paragraph 64 read, as follows:

While we accept that a system of statutory targets based on five-year budgets appears reasonable, we do have a number of concerns. First, it will inevitably be the case that external organisations will analyse future budgetary targets and calculate the proposed trajectory in terms of annual emissions. These figures would become *de facto* annual targets. Rather than leave this process to external forces, it would be preferable for the Government to agree indicative annual milestones, based on the advice of the Committee on Climate Change, against which performance could be assessed. This would also assist both the Government and those scrutinising its work to check that progress towards the five-year targets is satisfactory.

It is moved by Lord Teverson to leave out paragraph 64 and insert a new paragraph as follows:

“However we do not accept that a system of statutory targets should be based on five-year budgets. A period as long as this stretches beyond most Parliamentary terms and even with annual targets gives too long a period before there is any risk of substantial sanction. From industry’s point of view the most important aspect is that of certainty of Government intent. A five-year timescale allows, even with annual targets, for Governments to relax for the first couple of years until the end of the budget period comes closer. We therefore believe that budget periods should be three years. A three year period is also in line with Government Comprehensive Spending Reviews which is particularly relevant given the importance of Treasury decisions in terms of environmental and carbon taxation, and also the introduction of specific UK emission trading systems and auctions.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents
David Howarth
L May of Oxford
B Miller of Chilthorne Damer
L Teverson

Not Contents
Ms Celia Barlow
B Billingham
E Caithness
Mr David Chaytor
L Crickhowell
Nia Griffith
Mr David Kidney
Mark Lazarowicz
L Puttnam
E Selborne

Dr Desmond Turner
 Dr Alan Whitehead
 L Whitty
 L Woolmer

The amendment is disagreed to accordingly.

Paragraph 64 agreed to (now paragraph 66).

Paragraphs 65 and 66 agreed to (now paragraphs 67 and 68).

Paragraph 67 reads follows:

We support the proposed system of five-yearly budgets provided there is a strong system of annual reporting on progress. We recommend that, in setting the level of future budgets, the Government should also provide indicative annual milestones to help assess progress on an annual basis. More generally, we would be concerned if the budgetary period were lengthened to maintain alignment with international reporting and emissions trading periods, given that this could reduce the frequency of the Government’s strategy reports and outturn assessments. Clause 12(4) gives the Secretary of State power to make “necessary or expedient” amendments to the proposed Act where the length of the budgetary period is altered in line with similar periods under any international agreement. **We recommend that the draft Bill compels the Secretary of State to make an order under Clause 12(4) that requires strategy reports under Clause 6 to be prepared at least every five years in the event that the existing five-yearly budget period is lengthened.** The Government’s desire to maintain this alignment appears to be based on an expectation that emissions trading and the use of foreign credits will provide a substantial proportion of the effort required to achieve UK carbon reduction targets.

It is moved by Lord Teverson in line 10, to leave out the words from “agreement” to “The” in line 13 and insert the words “We recommend that any lengthening of the budget term should require primary legislation”.

Question put, That the Amendment be made.

Objected to; on Question?

Contents
 David Howarth
 B Miller of Chilthorne Domer
 L May of Oxford

Not Contents
 Ms Celia Barlow
 B Billingham
 E of Caithness

L Teverson
L Puttnam
L Whitty

Mr David Chaytor
L Crickhowell
Nia Griffith
Mr David Kidney
Mark Lazarowicz
E Selborne
Dr Desmond Turner
Dr Alan Whitehead
L Woolmer

The amendment is disagreed to accordingly.

Paragraph 67 agreed to (now paragraph 69).

Paragraphs 68 to 92 read and agreed to (now paragraphs 70 to 94).

Paragraphs 93 to 95 read follows:

There was a level of opposition to the power to borrow up to 1% of the emissions from the subsequent budget. The Association of British Insurers stated, “The ability to ‘borrow’ against future periods should be limited to excessive emissions caused by external shocks (such as severe weather). Banking and borrowing should be limited to a rolling five-year period with the year in question as the central point. This would enable smoothing where there is genuine need, without opening up the danger of constant deferment but encouraging investment and early action in anticipation of subsequent shocks.”

The Environment Agency stated, “[w]e do not support borrowing, even at the limited levels envisaged in the Bill. Any additional emissions reductions needed in the current budget period should be met from purchasing international credits in the current budget period, not from a transfer of additional burdens to a subsequent period.” The Mayor of London was also against any form of borrowing between budgets.

The Environmental Industries Commission suggested that any exercise of the power to borrow should be subject to a detailed explanation by the Secretary of State: “In the event that borrowing becomes necessary to meet the carbon budget, EIC believe that there should be a legally binding obligation on the Government to explain to Parliament why such borrowing was needed and what action has been taken to remedy the situation.” Given the fact that the entire purpose of the five-year budgetary period itself is to smooth out variations, **we are somewhat surprised that the Government feels the need to include any borrowing provision at all. We therefore recommend that this provision be deleted from the draft Bill.**

It is moved by Mark Lazarowicz to leave out paragraphs 93 to 95 and insert a new paragraph as follows:

“The draft Bill currently allows the Government to borrow up to 1% of the current budgetary amount from the next period in order to avoid missing its target by a very small amount. The Government explained in evidence that it regarded the borrowing provisions as a minimalist measure designed simply to prevent the Government from missing its target by a very small amount, due to an unexpected variation in weather patterns in the final year of the budgetary period, or as a result of small changes in validating data. Ministers also clearly confirmed that the 1% borrowing proposal is not cumulative. There was little specific comment to us on the borrowing provision, and there appeared to be a general acceptance of the government approach. **We therefore consider that the borrowing provision should be retained in the Bill.**”

Question put, That the Amendment be made.

Objected to; on Question?

Contents	Not Contents
Ms Celia Barlow	E of Caithness
B Billingham	David Howarth
Mr David Chaytor	B Miller of Chilthorne Domer
L Crickhowell	L Teverson
Nia Griffith	L Puttnam
Mr David Kidney	
Mark Lazarowicz	
L May of Oxford	
E of Selborne	
Dr Desmond Turner	
Dr Alan Whitehead	
L Whitty	
L Woolmer	

Paragraph accordingly agreed to (now paragraph 95).

Paragraph 96 agreed to.

Paragraph 97 read, amended and agreed to.

Paragraph 98 reads as follows:

However, there remains a possibility that a Government could purchase carbon credits cheaply in one period to offset against emissions incurred in the following budgetary period. Indeed, the complete collapse in price of Phase 1 EU ETS allowances demonstrates how easily this could now be done. **While we support the principle of banking of domestic over-achievement for use in a subsequent budgetary period, we recommend that the draft Bill be amended so as to place a limit on the extent to which carbon credits can be banked for use in this way.**

It is moved by David Howarth in line 4 of paragraph 98, to leave out the words “done” to the end of the paragraph and add the words: **“We are not persuaded that allowing the banking of credits should be allowed under any circumstances”**.

Question put, That the Amendment be made.

Objected to; on Question?

Contents

David Howarth

B Miller of Chilthorne Domer

L Teverson

Not Contents

Ms Celia Barlow

B Billingham

E of Caithness

Mr David Chaytor

L Crickhowell

Nia Griffith

Mr David Kidney

Mark Lazarowicz

L May of Oxford

L Puttnam

E of Selborne

Dr Desmond Turner

Dr Alan Whitehead

L Whitty

L Woolmer

Amendment accordingly disagreed to.

Paragraph 98 agreed to.

Paragraphs 99 to 114 agreed to.

Paragraph 115 reads as follows:

We are not persuaded that Clauses 1(1) and 2(1)(b) impose a legally enforceable duty on the Secretary of State to “ensure” reductions in carbon emissions for the period up to 2050. We question the wisdom of Parliament approving legislation in a form that does not make enforceable law, and could be regarded as a ‘political gesture’. Were there to be a perception that the ‘statutory’ regime has no legal force, there is a consequential danger that, instead of the Bill creating confidence in the UK’s climate change policy and establishing a leading legal framework, these aims could be undermined and weakened.

It is moved by Lord Whitty in line 1 of paragraph 115 to leave out the words from the start of line 1 to “duty” in line 2 and insert **“We have serious concerns regarding the legal enforceability of Clauses 1(1) and 2(1)(b), which impose a”**.

Question put, That the Amendment be made.

Objected to; on Question?

Contents	Not Contents
Ms Celia Barlow	L Crickhowell
B Billingham	David Howarth
E of Caithness	
Mr David Chaytor	
Nia Griffith	
Mr David Kidney	
Mark Lazarowicz	
L May of Oxford	
B Miller of Chilthorne Domer	
L Puttnam	
E of Selborne	
L Teverson	
Dr Desmond Turner	
Dr Alan Whitehead	
L Whitty	
L Woolmer	

Amendment accordingly agreed to.

It is moved by Mark Lazarowicz to leave out paragraph 115, as amended, and replaced with the following new paragraph:

“We have concerns regarding the legal enforceability of Clauses 1(1) and 2(1)(b), which impose a duty on the Secretary of State to ensure targets and budgets are met. We believe, therefore, that these provisions need to be altered or strengthened.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents	Not Contents
Ms Celia Barlow	E of Caithness
B Billingham	L Crickhowell
Mr David Chaytor	David Howarth
Nia Griffith	L May of Oxford
Mr David Kidney	B Miller of Chilthorne
Mark Lazarowicz	Domer
L Puttnam	E of Selborne
Dr Desmond Turner	L Teverson
Dr Alan Whitehead	L Woolmer

Paragraph agreed to (now paragraph 115).

Paragraph 116 agreed to.

Paragraph 117 reads as follows:

An alternative, which is our strong preference, is to introduce a compliance mechanism within the Bill that will give both meaning and strength to the duty to “ensure” by compelling the Secretary of State to redress any failure to meet a target or budget, where necessary through court intervention based on the compliance mechanism. There are appropriate compliance mechanisms that can be introduced to fulfil this role and we address this issue below.

It is moved by Lord Crickhowell to leave out paragraph 117 and replace it with the following paragraphs:

“An alternative approach, which we favour, would be to combine a Purpose Clause of a kind that is common in UK legislation with Clause 2 imposing duties over a succession of five-year periods which the Secretary of State and the Government have the capacity to fulfil, and which in some circumstances might be judiciable, combined with compliance measures of the kind that we describe in paras [x] below.

A possible alternative to the present draft Clause 1(1) would be: “It is the duty of the Secretary of State to set targets, and prepare proposals and policies to achieve five-year carbon budgets with the object of ensuring that the net UK carbon account for the year 2050 is at least 60% lower than the 1990 baseline”. With this Purpose Clause as an

indication of intent, the preparation of carbon budgets set in accordance with Clause 2, the duty of the Secretary of State to report to Parliament on proposals and policies (Clause 6), together with the annual statement of UK emissions (Clause 7) and a Kyoto type Compliance Mechanism deducting excess emissions from a carbon budget for a subsequent period (see para [x] below) would put more pressure on the Government to deliver than would be the result of imposing an unenforceable duty to deliver an outcome of more than 40 years in the future.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents

L Crickhowell

L Woolmer

Not Contents

Ms Celia Barlow

B Billingham

E of Caithness

Mr David Chaytor

Nia Griffith

Mr David Kidney

Mark Lazarowicz

L May of Oxford

B Miller of Chilthorne

Domer

L Puttnam

E of Selborne

L Teverson

Dr Desmond Turner

Dr Alan Whitehead

L Whitty

Amendment accordingly disagreed to.

Paragraph 117 agreed to.

Paragraphs 118 to 122 agreed to.

Paragraph 123 reads as follows:

It would not be difficult to introduce an action plan procedure into the existing framework of the draft Bill. In effect, it would simply extend the duty to report on policies and proposals under Clause 6. More significantly it would, in the opinion of Professor Forsyth and Mr Wilson, impose a duty that is sufficiently precise to allow the court to compel its

preparation and, potentially, implementation following a judicial review. For these reasons, **we recommend that failure by the Government to meet a carbon budget or an annual benchmark should trigger a duty to prepare a report explaining the reasons for the non-compliance and an action plan for remedying the situation.**

It is moved by Lord Whitty at the end of paragraph 123 to add the words “The action plan should cover any necessary policy changes, legislative proposals and resources need to implement it; any public funds identified should be paid into a ‘climate change compliance fund’.”

Question put, That the Amendment be made.

Objected to; on Question?

Contents	Not Contents
E of Caithness	Ms Celia Barlow
Mr David Chaytor	B Billingham
L Crickhowell	Nia Griffith
David Howarth	Mr David Kidney
L May of Oxford	Dr Desmond Turner
B Miller of Chilthorne Domer	
L Puttnam	
E of Selborne	
L Teverson	
Dr Alan Whitehead	
L Whitty	

Amendment accordingly agreed to.

Paragraph 123, as amended, agreed to.

Paragraphs 124 to 228 agreed to.

The Abstract is agreed to.

The following annexes to the Report are agreed to:

- List of acronyms used in the Report
- Summary of online consultation
- Note on visits undertaken by the Committee

Analysis of costs of the Committee on Climate Change

Schedule of comments on the draft Bill.

The Committee agreed that the draft Report, as amended, be the report of the Joint Committee.

Ordered, That certain papers be appended to the Minutes of Evidence.

Ordered, That the provisions of Standing Order 134 (Select Committee Reports) of the House of Commons apply to the report.

Ordered, That the Chairman make the report to the House of Lords and Dr Desmond Turner make the report to the House of Commons.

Ordered, That the Joint Committee be now adjourned.

Witnesses

Wednesday 16 May

William Wilson, Director, Cambrensis, and barrister, Environmental Law Unit, Burges Salmon, **Christopher Norton**, Baker and McKenzie, and **Professor Christopher Forsyth**, Cambridge University;

Lord Lawson of Blaby and **Professor David Henderson**, Westminster Business School;

Dr Kevin Anderson, Tyndall Centre, **Dr David Griggs**, and **Dr Chris Gordon**, Hadley Centre; **Martin Brough**, Oxera, and **Richard Gledhill**, PricewaterhouseCoopers.

Tuesday 5 June

Professor Sir David King KB ScD FRS, Chief Scientific Adviser to H.M. Government; **Mr Stefan Moser**, European Commission, DG Environment; **Dr Anthony White, MBE**, Managing Director of Market Development and Chairman of Advisory, and **Mr Rupert Edwards**, Managing Director and Head of Portfolio Management, Carbon Markets, Climate Change Capital

Wednesday 6 June

Brian Samuel, Head of Policy Research, and **Dan Staniaszek**, Evaluation Director, Energy Saving Trust, **Professor Michael Grubb**, Carbon Trust, and **Mr Steve Smith**, Managing Director of Markets, Ofgem; **Baroness Barbara Young of Old Scone**, Chief Executive, and **Mr Clive Bates**, Head of Environmental Policy, Environment Agency, **Mr Andrew Lee**, Director, Sustainable Development Commission;

Mr Stephen Hale, Director, Green Alliance, **Mr Martyn Williams**, Senior Parliamentary Campaigner, Friends of the Earth, **Mr Charlie Kronick**, Climate Campaign Manager, Greenpeace, and **Dr Keith Allott**, WWF-UK.

Tuesday 12 June

Ms Megan Wheatley, UK Business Council for Sustainable Energy, **Dr Keith MacLean**, Head of Sustainable Development, Scottish and Southern Energy, **Mr Ravi Baga**, Director of Environment & Market Regulation, EDF Energy, and **Mr Philip Wolfe**, Chief Executive, Renewable Energy Association;

Michael Roberts, Director, Business Environment, and **Gillian Simmonds**, Senior Policy Adviser, Energy and Climate Change, CBI, and **Mr John Holbrow**, Environment Chairman, Federation of Small Businesses;

Mr Dan Skopec, Under-Secretary, Californian Environmental Protection Agency;

Malcolm Wicks MP, Minister of State for Science and Innovation, **Lord Truscott**, Parliamentary Under-Secretary of State for Energy, and **Peter**

Brunt, Policy Adviser, Department of Trade and Industry.

Wednesday 13 June

Mr Graham Smith, Senior Vice-President, Toyota Motor Europe, **Andrew Barker**, Planning Director, easyJet, and **Robert Ashdown**, Environmental Manager, British Chamber of Shipping;

Gillian Merron MP, Parliamentary Under-Secretary, **Adrian Gault**, Divisional Manager Transport Analysis and Review and **Martin Capstick**, Head of Aviation Environmental Division, Department for Transport;

Professor Keith Shine, Head, Department of Meteorology, University of Reading, and **Dr Terry Barker**, Director, Cambridge Centre for Climate Change Mitigation Research, University of Cambridge, Royal Society, and **Dr Sue Ion**, Vice-President, Chairman of Standing Committee on Engineering Policy, Royal Academy of Engineering.

Tuesday 19 June 2007

Mr Mark Watts, Policy Adviser to the Mayor, Greater London Authority, and **Graham Tubb** MBE, Chief Sustainability Advisor, South East England Development Agency;

Ms Tanya Olmeda-Hodge, Head of Environment, and **Michael Sayer**, CLA member, Country Land and Business Association (CLA);

Dr Martin Gibson, Director, Envirowise;

Allan Asher, Chief Executive, Energywatch, and **Ed Mayo**, Chief Executive, National Consumer Council.

Wednesday 20 June 2007

Jonathan Brearley, Director, and **Robin Mortimer**, Head of Bill Team, Office of Climate Change;

Rt Hon David Miliband MP, Secretary of State, and **Robin Mortimer**, Head of Bill Team, Department for Environment, Food and Rural Affairs, and **John Healey MP**, Financial Secretary, and **Chris Taylor**, Economic Adviser, HM Treasury

Thursday 5 July 2007

Dr Lu Xuedu, Deputy Director General, Office of Global Environmental Affairs, Ministry of Science and Technology, People's Republic of China.

List of written evidence

Anne Fielding
Land Network International
Mr Edward Mashate
Mr William Wilson
High Wycombe Society Transport Group
Dr Paul Freund
Professor Dieter Helm
Lord Hunt of Chesterton
Professor David Henderson
Mayor of London
Brian Jones
Anthony Jackson
Natural England
Energy Networks Association
Anne Palmer
Confederation of UK Coal Producers (CoalPro)
Minister for the Environment in Northern Ireland
British Cement Association
House of Lords Delegated Powers and Regulatory Reform Committee
Fuel Poverty Advisory Group
Drax Power Limited
Environmental Industries Commission
ClientEarth
Merseytravel
Campaign to Protect Rural England
World Development Movement
Salix Finance
Light Rail Transit Association
Dr John Rhys
Renew Tees Valley Ltd
The Society of Motor Manufacturers and Traders Limited
Commercial Boat Association
John Lewis Partnership
Tearfund
London Assembly Environment Committee
Local Government Association
British Property Association
Dr Andrew Dlugolecki
District of Easington
British Lime Association
Institution of Chemical Engineers (IChemE)
Operation Noah

National Farmers' Union
E.ON UK
Woodlands Trust
City of London Corporation
Natural Environment Research Council
Water UK
Royal Society for the Protection of Birds
The Royal Academy of Engineering
Ofgem
CLA
London Councils
EEF
Sustainable Development Commission
Carbon Trust
Renewable Energy Foundation
Friends of the Earth
Association of British Insurers
British Energy
Eaga Plc
EDF Energy
WWF-UK
Christian Aid
Euro Environmental Containers
Institution of Civil Engineers (ICE) and the Institution of Mechanical Engineers
ABB
Environment Agency
Royal Institution of Chartered Surveyors
Dr Peter Foreman
National Trust
South East Climate Change Partnership
Dr David Fleming
Baptist Union of Great Britain, the Methodist Church, the Religious Society of Friends (Quakers) and the United Reformed Church.
Combined Heat and Power Association
Wildlife Trusts
Trade Union Congress (TUC)
Centre for Alternative Technology (CAT) and the Public Interest Research Centre (PIRC)
UK Business Council for Sustainable Energy
Chamber of Shipping
NHS Confederation
Mid Yorkshire Chamber of Commerce and Industry
Association for the Conservation of Energy
Supplementary Memorandum by John Healey MP, Financial Secretary, HM Treasury
Aviation Environment Federation
Supplementary Memorandum from The Royal Academy of Engineering

Stewart Stevenson MSP, Minister for Transport, Infrastructure and Climate Change,
Scottish Executive

Aubrey Meyer, Global Commons Institute

Sustrans

Professor The Lord Norton Of Louth

Professor Christopher Forsyth

Supplementary memorandum from Professor Christopher Forsyth

Supplementary memorandum from Mr William Wilson

Supplementary memorandum from Dr Terry Barker

Joint Supplementary memorandum from Energywatch and the
National Consumer Council

Supplementary memorandum from the Department for Environment,
Food and Rural Affairs

Supplementary memorandum from Ofgem

Supplementary memorandum from the Department for Transport

Supplementary memorandum from the Met Office

Supplementary memorandum from easyJet

Supplementary memorandum from the Department for Environment,
Food and Rural Affairs