



House of Lords  
House of Commons

Joint Committee on the Draft  
Climate Change Bill

---

# Draft Climate Change Bill

---

*Volume I*





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](http://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](mailto:scrutiny@parliament.uk)



# Contents

---

<b>Report</b>	<i>Page</i>
<b>Summary</b>	<b>3</b>
<b>1 Introduction</b>	<b>5</b>
Call for evidence	6
Policy Background	7
International targets	8
Domestic target	8
<b>2 Targets</b>	<b>11</b>
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
<b>3 Carbon budgets</b>	<b>25</b>
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
<b>4 Enforcement of the legislation</b>	<b>38</b>
Possible compliance mechanisms	41
The role of the Committee on Climate Change	43
Duties of the Secretary of State	44
<b>5 The Committee on Climate Change</b>	<b>45</b>
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

<b>6</b>	<b>Emissions trading schemes</b>	<b>58</b>
	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
<b>7</b>	<b>Adaptation</b>	<b>67</b>
<b>8</b>	<b>Local government and behaviour change</b>	<b>70</b>
<b>9</b>	<b>Devolution</b>	<b>73</b>
	<b>Conclusions and recommendations</b>	<b>75</b>
	<b>Annex 1: List of acronyms</b>	<b>85</b>
	<b>Annex 2: Summary of online consultation</b>	<b>86</b>
	<b>Annex 3: Note on visits undertaken by the Committee</b>	<b>91</b>
	<b>Annex 4: Analysis of estimated costs of the Committee on Climate Change</b>	<b>101</b>
	<b>Annex 5: Schedule of comments on the draft Bill</b>	<b>106</b>
	<b>Formal minutes</b>	<b>129</b>
	<b>Witnesses</b>	<b>160</b>
	<b>List of written evidence</b>	<b>162</b>



## 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”.<sup>1</sup>

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

1. The draft Climate Change Bill was published on 13 March, accompanied by a partial Regulatory Impact Assessment.<sup>2</sup> 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).<sup>3</sup>

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.<sup>4</sup> 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.<sup>5</sup> 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.<sup>6</sup>

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).<sup>7</sup> 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.

---

<sup>6</sup> *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

<sup>7</sup> *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 (CO<sub>2</sub>), methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O)—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.<sup>8</sup>

#### Greenhouse gases

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

- carbon dioxide (CO<sub>2</sub>)
- methane (CH<sub>4</sub>)
- nitrous oxide (N<sub>2</sub>O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulphur hexafluoride (SF<sub>6</sub>).

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 CO<sub>2</sub>.

#### 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 CO<sub>2</sub> is

assigned the value of 1. Effects of emissions of a unit of non-CO<sub>2</sub> greenhouse gases are estimated as multiples. For example, over the next 100 years, a gram of methane (CH<sub>4</sub>) 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 CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O are presently estimated to be 1, 23 and 296, respectively.

Some industrially produced gases such as sulphur hexafluoride (SF<sub>6</sub>), 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 CO<sub>2</sub>. 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.<sup>9</sup>

### **Domestic target**

9. The Labour Party manifesto for the 1997 General Election set out a target to reduce CO<sub>2</sub> 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.<sup>10</sup> 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".<sup>11</sup> 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 (CO<sub>2</sub>) 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





























**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 CO<sub>2</sub> 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





**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.**



































































**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 CO<sub>2</sub> 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.**















































## 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-CO<sub>2</sub> 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-CO<sub>2</sub> 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 CO<sub>2</sub> 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 <sub>2</sub>	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



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.’





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.





- 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub> 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).



<b>(DCA, now MoJ)</b> 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)
<b>Statistics Commission (HM Treasury)</b> 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)
<b>Scientific Advisory Committee on Nutrition (DoH)</b>	£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.
<b>Carbon Trust (Defra)</b> 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)
<b>Hutton Inquiry (N/A)</b>	£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



- £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>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>
		<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>Environmental Industries Commission, CCB 22.</p> <p>South East Climate Change Partnership, CCB 73, para 5.3</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 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>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>	EDF Energy, CCB 62; EEF, CCB 54, para 27  Fuel Poverty Advisory Group, CCB 20, para 12-14
25 and 26	Secretary of State's power to issue guidance or directions to the Committee		William Wilson, CCB 04
		Any guidance or directions that are issued should be made publicly available.	EEF, CCB 54, para 26
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>	Dr Dlugolecki, CCB 38, para 11  Dr Fleming, CCB 74, para 5
		<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>	Dr Dlugolecki, CCB 38, para 11  British Cememnt Association, CCB 18, para 4.19
31	Procedure for making	The Secretary of State is given very broad powers to introduce regulations on trading	House of Lords Delegated

	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 &amp; 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
<b>Other issues</b>		<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 CO<sub>2</sub>. 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-CO<sub>2</sub> 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 CO<sub>2</sub> 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 CO<sub>2</sub>.”

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-CO<sub>2</sub> 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 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 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	Not Contents
David Howarth	Ms Celia Barlow
B Miller of Chilthorne Domer	B Billingham
L Teverson	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