



House of Commons
Environment, Food and Rural
Affairs Committee

Draft Climate Change Bill

Fifth Report of Session 2006–07

Volume I



House of Commons
Environment, Food and Rural
Affairs Committee

**Draft Climate Change
Bill**

Fifth Report of Session 2006–07

Volume I

Report, together with formal minutes

*Ordered by The House of Commons
to be printed 27 June 2007*

Environment, Food and Rural Affairs Committee

The Environment, Food and Rural Affairs Committee is appointed by the House of Commons to examine the expenditure, administration, and policy of the Department for Environment, Food and Rural Affairs and its associated bodies.

Current membership

Mr Michael Jack (Conservative, Fylde) (Chairman)
Mr Geoffrey Cox (Conservative, Torridge & West Devon)
Mr David Drew (Labour, Stroud)
Mr James Gray (Conservative, North Wiltshire)
Patrick Hall (Labour, Bedford)
Lynne Jones (Labour, Birmingham, Selly Oak)
Daniel Kawczynski (Conservative, Shrewsbury & Atcham)
David Lepper (Labour, Brighton Pavilion)
Mrs Madeleine Moon (Labour, Bridgend)
Mr Jamie Reed (Labour, Copeland)
Mr Dan Rogerson (Liberal Democrat, North Cornwall)
Sir Peter Soulsby (Labour, Leicester South)
David Taylor (Labour, North West Leicestershire)
Mr Roger Williams (Liberal Democrat, Brecon & Radnorshire)

Powers

The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No. 152. These are available on the Internet via www.parliament.uk.

Publications

The reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at

www.parliament.uk/efracom

Committee staff

The current staff of the Committee are Chris Stanton (Clerk), Nerys Welfoot (Second Clerk), Dr Antonia James (Committee Specialist), Marek Kubala (Inquiry Manager), Andy Boyd and John-Paul Flaherty (Committee Assistants) and Mandy Sullivan (Secretary).

Contacts

All correspondence should be addressed to the Clerk of the Environment, Food and Rural Affairs Committee, House of Commons, 7 Millbank, London SW1P 3JA. The telephone number for general enquiries is 020 7219 5774; the Committee's e-mail address is: efracom@parliament.uk. Media inquiries should be addressed to Laura Kibby on 020 7219 0718.

Contents

Report	<i>Page</i>
Summary	3
1 Introduction	5
Aims of the inquiry	5
2 Background	7
Purpose of the draft Bill	7
Application of the draft Bill	7
Is the Bill needed?	8
Summary of the Bill's key provisions	9
3 Carbon targets	10
Background	10
Terminology	11
Cumulative emissions	11
2020 and 2050 targets	13
2050 long-term target	14
2020 interim target	15
Amending targets—future scientific developments	17
4 Carbon budgeting	18
Budgetary periods	18
Post-hoc revision of budgets	20
5 Carbon credits	20
Purchasing credits from overseas	20
6 Enforcement	23
7 The Committee on Climate Change	25
The role of the Committee	26
Composition	29
Resources	30
Emissions forecasting	32
Reporting to Parliament	33
8 Trading schemes	34
Allocation of allowances	35
9 International aviation and shipping	36
Conclusions and recommendations	39

Formal minutes	44
Witnesses	45
List of printed written evidence	46
List of unprinted written evidence	47

Summary

We recommend the following changes to the draft Climate Change Bill:

- a) There is inconsistency in the language within the Bill. Terms such as “UK carbon account” and “UK carbon dioxide emissions” are used seemingly interchangeably. We recommend that the Bill only use two terms, “carbon dioxide” or “carbon dioxide equivalent”. Use of the word “carbon” in the Bill should be avoided to remove any further ambiguity.
- b) Whilst we agree with the substantial amount of evidence calling for the 2050 target to be higher than 60%, we recognise that this target itself is still extremely ambitious. We are not in a position to suggest whether the 2050 target should be higher than 60%. However, we recommend that the first task of the Committee on Climate Change should be to assess the current state of knowledge regarding climate science in order to determine what the 2050 target should be and the trajectory for achieving it.
- c) We believe the Government is being unnecessarily prescriptive in placing an upper limit on the 2020 target. Having an upper limit serves no practical purpose. We recommend that Clause 3(1)(a) be amended by leaving out the words “, but no more than 32%,”. This will bring it in line with the 2050 target to reduce emissions by “at least 60%”.
- d) The Bill must make provision for the 2020 and 2050 targets to be revised, but we recommend that this provision be limited to an upwards revision only. We also recommend that the Committee on Climate Change be empowered to propose revisions to the mid- and long-term targets whenever it believes an amendment may be appropriate.
- e) The provision to amend a budget more than a year after the end of a budgetary period makes a nonsense of the entire concept of budgetary periods, and would render any sanctions completely unworkable. Subsection (5) of Clause 13 should be removed in its entirety.
- f) It is right that the Committee on Climate Change should be composed of experts rather than representatives. Although the essential expertise required of the Committee is not explicitly listed in order of importance, the way it is listed in the Bill appears to suggest that economic interests are going to be more heavily represented than environmental ones. The schedule should be redrafted to dispel this impression (for example, by using alphabetical order). We also recommend that the impact of climate change upon biodiversity be added.
- g) Our evidence suggests that the resources proposed for the Committee on Climate Change may quickly prove to be inadequate. We recommend that adequate resources are made available to the Committee on Climate Change for a ‘bespoke’ emissions forecasting model to be developed.
- h) We recommend that the requirement for trading scheme allowances to be allocated free (Schedule 2, Section 5 (3)) be removed from the Bill so as to avoid any unnecessary confusion, particularly for those industries and sectors that will be subject to these schemes.

1 Introduction

Aims of the inquiry

1. On 13 March 2007 the Department for Environment, Food and Rural Affairs published the Government's draft Climate Change Bill.¹ Ian Pearson MP, Minister of State (Climate Change and the Environment) told us in early March that “we do want to have the widest possible dialogue and debate on the Bill [...] and we are keen to ensure that this Committee has full access to the Bill”.² We subsequently decided to examine the draft Bill and invited interested parties to submit written memoranda to us by 8 May 2007.

2. The Terms of Reference issued for the inquiry are set out in the box below:

Targets

1. The validity of the Government's domestic targets to
 - reduce CO₂ emissions by 60% below 1990 baseline levels by 2050, and
 - reduce CO₂ emissions by 26–32% below 1990 baseline levels by 2020.
2. Why the carbon budget for the period including the year 2020 cannot exceed 32%.
3. The rationale for the five-year budgetary period.
4. Monitoring and early warning systems to ensure achievement of targets is on track.
5. Accountability and enforcement mechanisms to ensure compliance with targets, and sanctions in cases of non-compliance.

Carbon budgeting

6. The facility—in any given budgetary period—to ‘borrow’ emissions rights from a subsequent period, or to ‘bank’ any ‘surplus’ emissions reductions for use in the next budgetary period.
7. The facility to purchase carbon credits from outside the UK to meet domestic targets, in terms of their overall quantity and sources.
8. The range and validity of changes in circumstances in which budgets can be subject to review and revision.
9. The reporting procedure and Parliamentary accountability.

1 The draft Bill is available at <http://www.official-documents.gov.uk/document/cm70/7040/7040.asp>

2 Oral evidence taken before the Environment, Food and Rural Affairs Committee on 7 March 2007, HC (2006–07) 88-viii, Q 785

Adaptation

10. Whether adequate provision is made within the Bill to address adaptation to climate change.

Committee on Climate Change

11. Its composition and appointment, including length of tenure and degree of independence.

12. Its function and responsibilities.

13. Its powers in determining carbon budgets and the provisions within each budget.

14. The adequacy of its range of functions in overseeing the targets.

15. The resources available to the Committee.

Enabling powers

16. The adequacy and implications of the proposed enabling powers allowing the Secretary of State to establish greenhouse gas emission trading schemes by means of secondary legislation.

International implications

17. The validity of the Government's view that the Bill will act as an effective example to drive international climate change policy post-2012.

3. We received 43 written submissions from a wide range of interested organisations and individuals, and took oral evidence in May 2007 from: the Tyndall Centre for Climate Change Research; the Energy Saving Trust (EST); Friends of the Earth; the Royal Society for the Protection of Birds (RSPB); Climate Change Capital; the Carbon Trust; the Confederation of British Industry (CBI); EEF, the Manufacturers' Association; Mr William Wilson, Cambrensis Limited and Barrister, Environmental Law Unit, Burges Salmon LLP; Mr Michael Woods, Stephenson Harwood, Council Member of the UK Environmental Law Association; Mr Tom Bainbridge, Nabarro; the Fuel Poverty Advisory Group (FPAG); the Office of Climate Change (OCC); and the former Secretary of State for Environment, Food and Rural Affairs, the Rt Hon David Miliband MP. We are grateful to all those who gave evidence to our inquiry.

4. We note the work undertaken concurrently with our inquiry by the Joint Committee on the Draft Climate Change Bill as part of its pre-legislative scrutiny of the draft Bill, and thank those who sent us their submissions of evidence to the Joint Committee as background documents to our inquiry. We have exchanged memoranda with the Joint Committee.

2 Background

Purpose of the draft Bill

5. The first climate change target in the UK—to return carbon dioxide (CO₂) emissions to 1990 levels by 2005, subject to similar action by other countries—was announced by Chris Patten, then Secretary of State for the Environment, in May 1990. It was repeated in September 1990 as part of the Environment White Paper.³ This domestic target to tackle CO₂ emissions has subsequently been revised several times—in fact, net UK CO₂ emissions in 2005 were around 5% below 1990 levels⁴—but the draft Climate Change Bill is the first attempt to put such a target into statute. Accordingly, it was described by Ian Pearson MP, Minister of State (Climate Change and Environment) as “a landmark piece of legislation”⁵ with the Secretary of State calling it “the world’s first eco-constitution”.⁶

6. According to the Government’s consultation document, the rationale behind the Climate Change Bill is:

- to demonstrate leadership by example to help foster collective international action;
- to create a clear and coherent framework to enable the UK to meet domestic and international commitments;
- to provide greater clarity and certainty for UK industry, households and individuals to effectively plan for and invest in a low carbon economy;
- to maximise social and economic benefits and minimise costs to the UK as we pursue these goals;
- to help the UK towards being better adapted to the impacts of unavoidable climate change.⁷

Application of the draft Bill

7. Clause 43 states that the Bill will extend to the whole of the UK. The Bill has been drafted such that all powers and duties rest with the Secretary of State for the purposes of consultation and pre-legislative scrutiny. The Government says that the devolved administrations will develop their positions on the Bill following the recent elections and the Bill will only be introduced into the UK Parliament once agreement has been reached

3 Manual of Environmental Policy: The EU and Britain, Policy Release 23, 14.1-1, May 2003

4 *Provisional greenhouse gas emissions figures for 2005 released today*, Department for Environment, Food and Rural Affairs News Release, 30 March 2006

5 Oral evidence taken before the Environment, Food and Rural Affairs Committee on 7 March 2007, HC (2006–07) 88-viii, Q 785

6 “David Miliband ‘I will vote for Gordon’” *The Observer*, 22 April 2007

7 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Consultation Document, p 18, paragraph 4.1

from the devolved administrations as to how the devolved aspects of the Bill are to be addressed.⁸

Is the Bill needed?

8. Leaving aside questions about the appropriate level of the UK target, there is a generic issue about the effectiveness of enshrining such targets in legislation. Since publication of the draft Bill there has been a substantial level of interest from other EU Member States as well as the US. This suggests there may be a valid role for the Bill in demonstrating the UK's credibility as an international leader in this field. The Fuel Poverty Advisory Group, established by the Government to advise on the practical measures required in order to meet the Government's statutory targets of eradicating fuel poverty in England, concludes that "the target and the associated arrangements have been helpful and have unquestionably resulted in more progress than would have been made in their absence."⁹ Even though there is no realistic way of making such duties "justiciable" (the Secretary of State will not be fined or jailed for failure), we are inclined to believe that putting these targets into statutory form can have some value and impact. In addition to providing a greater degree of long term confidence for the business community in the Government's policy direction, the existence of a legal duty may reinforce officials' and ministers' zeal in achieving those targets. Some legal opinion has questioned the constitutional validity and effectiveness of enacting numerical targets in this way. We note this, but have focussed our Report on the environmental outcomes of the Bill.

9. The Bill also stands as a reminder that—in an area which the Government attaches singular importance—the current non-statutory target approach sees the UK not meeting its own self-imposed CO₂ reduction target of 20% below 1990 baseline levels by 2010. Whilst it is true that we will meet our Kyoto obligations, this alone is not sufficient to ensure we make our contribution to keeping global average temperature rise below 2°C by 2050.

10. Target setting alone cannot deliver policy objectives. However, enshrining one in law will strengthen the Government's resolve to achieve it, subject it to greater public accountability if it fails, and crucially give confidence and certainty to the business community whose mid- and long-term investment decisions are central to meeting the target.

11. Given that we accept the benefit of this legislation, we now go on to discuss the particular provisions within the draft Bill.

8 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Explanatory Notes, paragraphs 125–128

9 Ev 85

Summary of the Bill's key provisions

Targets

1. The Bill would put into statute the UK's targets to reduce CO₂ emissions from a 1990 baseline by:
 - i. 60% by 2050 and
 - ii. 26–32% by 2020.
2. The draft Bill proposes establishing five-year carbon budgets, beginning with the period 2008–12. Binding limits on CO₂ emissions will be set by the Government for each five-year budget period.
3. The targets can be achieved both through reducing emissions within the UK, and by purchasing carbon credits from overseas.
4. The Bill includes provisions for 'banking' and 'borrowing' between budgetary periods.

Committee on Climate Change

5. An independent statutory body—the Committee on Climate Change—will be established to advise Government on the level of carbon budgets, as well as advising on the proportion of each target within a budget period to be achieved by CO₂ reduction activity in the UK, and by overseas carbon credits.

Enabling Powers

6. The Bill contains enabling powers to introduce new trading schemes through secondary legislation.

Reporting requirements

7. The Committee on Climate Change will report annually to Parliament on the UK's progress towards achieving its targets and budgets. The Government response will also be laid before Parliament.

Reporting Progress on Adaptation

8. The Bill places upon Government the duty to report to Parliament on policies and proposals for adaptation to climate change no later than three years after enactment of the Bill, and then no more than every five years thereafter.

3 Carbon targets

Background

12. Prior to publication of the draft Bill, the UK Government had two domestic climate change goals:

- to reduce CO₂ emissions by 20% below 1990 baseline levels by 2010; and
- to reduce CO₂ emissions by 60% below 1990 baseline levels by 2050.

13. The Government has already conceded that it is unlikely to achieve the 20% target by 2010, with latest estimates indicating that by 2006 CO₂ emissions were a mere 5% below 1990 levels.¹⁰ The Government's suggestion that—in the absence of new policy measures—a 16.2% reduction in CO₂ below 1990 baseline levels will be achieved by 2010 seems optimistic.¹¹

14. The Kyoto Protocol was adopted in 1997 and sets out legally binding targets for the reduction of six greenhouse gases (set out in Annex A of the Protocol) by developed countries. The Protocol officially came into force on 16 February 2005, requiring the developed world to reduce greenhouse gas emissions by 5.2% below 1990 levels by 2008–12. Under the existing Kyoto protocol, the EU is required to reduce its emissions of greenhouse gases by 8% by 2008–12. The UK, as its contribution to the EU target, is required to reduce greenhouse gas emissions by 12.5% by 2008–12.

15. In May 2007, the Minister of State (Climate Change and the Environment) Ian Pearson MP affirmed the UK's commitment to:

... limiting global mean temperature rise to 2°C above pre-industrial levels. This mirrors the European Union's 2°C stabilisation target.¹²

16. Defra's *Climate Change Strategic Framework* cites the European Commission which states that, in order to keep within the 2°C threshold, atmospheric concentrations of greenhouse gases must remain:

... well below 550ppmv CO_{2eq}, requiring global emission reductions of at least 15%, but perhaps as much as 50% by 2050 compared to 1990 levels. Industrialised countries would have to continue to take the lead and explore options to reduce their greenhouse gas emissions by 15–30% by 2020 and 60–80% by 2050.¹³

10 Department of Trade and Industry, *Meeting the Energy Challenge: A White Paper on Energy*, Cm 7124, May 2007

11 Environment, Food and Rural Affairs Committee, Second Report of Session 2006–07, *Defra's Departmental Annual Report 2006 and Defra's budget*, February 2007, HC 132; HC Deb, 12 June 2007, col 735

12 HC Deb, 14th May 2007, col 472W

13 Department for Environment, Food and Rural Affairs, *Climate Change Strategic Framework*, March 2007

Terminology

17. Clause 1 (1) states that “It is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 60% lower than the 1990 baseline”. When questioned, experts from the Tyndall Centre for Climate Change Research confirmed that the “UK carbon account” meant nothing to them as a term. Similarly the Energy Saving Trust noted that it “lacked clarity”.¹⁴ As Dr Bows explained “people talk about carbon dioxide emissions reductions when they mean greenhouse gas emission reductions [...] [it] needs to be absolutely clear”.¹⁵

18. There is further ambiguity in the draft Bill regarding the extent to which it is concerned with limits to carbon dioxide emissions or limits to all greenhouse gases. Whilst the targets focus on carbon dioxide, there are a number of places where the term “greenhouse gases” is used. For example, the provisions for the establishment of new trading schemes in Clause 28 of the draft Bill talk about “limiting activities that consist of the emission of greenhouse gas [...]”.

19. There is inconsistency in the language within the Bill. Terms such as “UK carbon account” and “UK carbon dioxide emissions” are used seemingly interchangeably. We recommend that the Bill only use two terms, “carbon dioxide” or “carbon dioxide equivalent”. To do otherwise will cause confusion. Not all greenhouse gases—as defined by the Kyoto Protocol—are carbon-based. Use of the word “carbon” in the Bill should be avoided to remove any further ambiguity.

Cumulative emissions

20. Greenhouse gases do not just arrive and depart. They accumulate. Reducing annual emissions is only one step on the way to mitigating climate change. The aim is to arrest the atmospheric concentration of greenhouse gases (usually expressed as ppm) at a “safe” level. One of the key messages from the Stern Review on the Economics of Climate Change was the need to reduce emissions sooner rather than later. This has been a consistent theme of the assessment reports from the Intergovernmental Panel on Climate Change (IPCC). The Tyndall Centre told us that the 60% target equates to the UK limiting itself to a cumulative level of emissions of 20–22 GtCO₂¹⁶ between 2000 and 2050 (excluding international aviation and shipping).¹⁷ This is effectively a CO₂ budget which we must not go beyond.

21. As Friends of the Earth explains “[t]he fundamental thing is that is not the end point: it is about living within this budget”:

because carbon dioxide persists in the atmosphere for many years, the real determinant of the severity of climate change is not emissions in 2050, but total cumulative emissions by 2050. The cumulative emissions resulting from meeting a

14 Qq 7–8

15 Q 12; The term ‘greenhouse gases’ as defined by the Kyoto Protocol includes carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆).

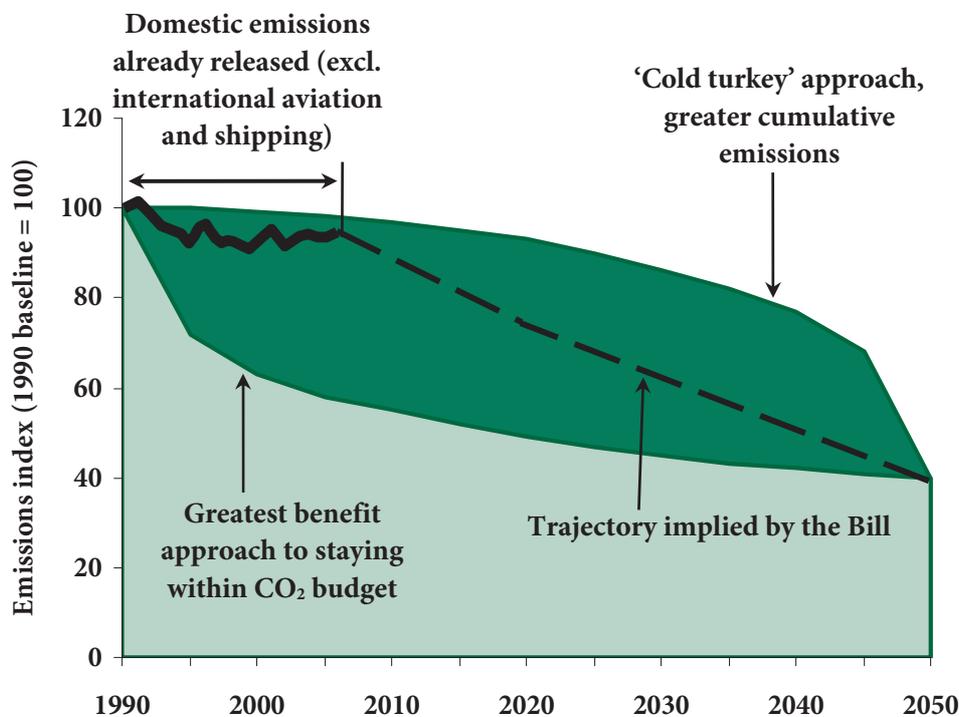
16 1 x 10⁹ (a US billion, or thousand million) tonnes.

17 Kevin Anderson and Alice Bows ‘A response to the Draft Climate Change Bill’s carbon reduction targets’ *Tyndall Centre Briefing Note No.17*, March 2007

target in 2050 are dramatically reduced if the largest cuts are made early in the period (a “ski-slope” graph) rather than leaving them until the end of the period (a graph like a falling bullet). As viewed on a graph of emissions, it is the area under the line that matters – not the end point. [...] the nature of this cumulative curve, means that if we do nothing for 10 years, it does not mean we only have 40 years to meet our 50-years target, it means we have 40 years and we have already spent some of the money in the bank. You are absolutely right to say that the end point is rushing up on us twice as fast, but it is not simply getting closer, it is also getting more difficult with every year of delay.¹⁸

22. This can be demonstrated using the following illustration (Figure 1). The area between the two curved lines represents the difference in cumulative emissions, despite the same end point:

Figure 1: Illustrative emission reduction pathways



Source: Domestic emissions already released taken from the Tyndall Centre for Climate Change Research¹⁹

23. The Tyndall Centre explained that there is around an 88% chance of exceeding the 2°C threshold at 550ppm CO₂, and about a 70% chance at 440ppm CO₂. Because CO₂ remains in the atmosphere for over 100 years:

When it comes to the targets, the final percentage reduction in a particular year has little relevance to the 2°C or the 440 or 550 concentrations [...] It is not the percentage reduction; rather it is the cumulative emissions that matter.²⁰

18 Ev 26, Qq 79, 86

19 Ev 3

[...] a 450ppm CO₂ alone would give us a 30 per cent chance of not exceeding [the 2°C threshold], still not a huge chance, but would give us a reasonable chance and we have calculated that this correlates with a UK carbon budget of around 4.8 billion tonnes of carbon²¹ for the period 2000 to 2050. [...] but because we are spending this budget at quite a high rate at the moment, we have effectively spent about 25 per cent of this 50-year budget in just seven years.²²

24. Friends of the Earth concluded that:

[...] Tyndall explain[ed] the effects of the current government decisions and expose[d] very, very clearly the gap between what the Government say they are going to do and what the Government say they are trying to achieve and the Government have to adjust one or the other of those two things.²³

25. David Miliband appears to have recognised this important point. On the day the draft Bill was published (13 March 2007), he wrote on his blog:

It's an easy hit on politicians to say we are good at setting targets but not meeting them. Leave to one side that the targets adopted at Kyoto for greenhouse gas emissions are being met by this country. There is a good argument that in respect of climate change, which is spurred by the stock of greenhouse gas in the atmosphere not just the flow at any one time, it is more important to have a budget for the amount of carbon to be released [...] Carbon budgeting ensures that every tonne of carbon counts. It addresses the stock of carbon dioxide (or equivalent) in the atmosphere.²⁴

26. We recommend that the Government should also incorporate within the Bill targets relating to cumulative emissions. These should address overall budgets to 2020 and to 2050 in quantitative terms (tonnes of CO₂eq) rather than only using annualised percentage reductions. This addition to target setting would help set the framework for each of the five-year budgets required by the Bill.

2020 and 2050 targets

27. The Bill puts into statute the UK's targets to reduce carbon dioxide (CO₂) emissions from a 1990 baseline by at least 60% by 2050; and by 26–32% by 2020. The 60% target originates from a report in 2000 by the Royal Commission on Environmental Pollution (RCEP) which adopted the principle of contraction and convergence to allocate emissions to individual nations.²⁵ Contraction and convergence is the principle by which emissions are allocated on an equal per capita basis, outlining the level to which 'over-emitters' (developed countries) must contract, and under-emitters (developing countries) can

20 Q 13

21 This is equivalent to 17.6 GtCO₂; figures have been converted into CO₂ by multiplying by 44/12.

22 Q 14

23 Q 84

24 See <http://www.davidmiliband.defra.gov.uk/blogs>

25 Royal Commission on Environmental Pollution, Twenty-second Report *Energy—The Changing Climate*, Cm 4794, June 2000

increase emissions, until they converge. At the time, the 60% target was calculated to be the UK's 'fair share' of a global effort to stabilise the concentration of CO₂ in the atmosphere at 550 parts per million (ppm). It was thought that this limit on the concentration of CO₂ would mean that the more dangerous impacts of climate change would be avoided. This was adopted by the UK Government in the 2003 Energy White Paper.²⁶ Since the 60% target was first proposed by the RCEP, the science has developed. Reports by the Intergovernmental Panel on Climate Change (IPCC) in 2007 suggest that the situation may be both more serious and urgent than had been previously thought. So, in order to limit global mean temperature increases to 2°C (which is now widely agreed to be necessary to avoid some of the more extreme impacts of climate change), the science suggests that concentrations of CO₂ and other greenhouse gases should be kept much lower than 550ppm.

2050 long-term target

28. Whilst much of the written evidence received is, generally, supportive of the Bill in principle, strong reservations were expressed by some that the 60% target is inadequate. Climate Change Capital described it as “disappointing”, particularly in the light of the recent Stern Review and 2007 Intergovernmental Panel on Climate Change (IPCC) reports.²⁷

29. The Tyndall Centre for Climate Change Research argued that, despite international political commitment to constrain warming to no more than 2°C above pre-industrial levels, the targets enshrined in the Bill are more likely to contribute to an increase of 4°C or 5°C warmer than pre-industrial levels, with an 80% chance of exceeding the 2°C threshold.²⁸ Research by the Tyndall Centre for Friends of the Earth and the Co-operative Bank has argued that the UK must cut emissions by 70% by 2030 and 90% by 2050 if its emissions are to be compatible with a global temperature change of less than 2°C.²⁹ Accordingly, a substantial amount of the evidence we received calls for at least an 80% reduction in CO₂ emissions below the 1990 baseline by 2050 to be enshrined in the Bill, rather than the existing 60% target.³⁰ The Mayor of London calls for an even more ambitious target of a 60% reduction below 1990 levels by 2025.³¹

30. Professor Michael Grubb from the Carbon Trust urged a different kind of caution, noting that: “if one is falling behind on existing targets calling very shrilly to tighten the far out target is not a solution, if we are already struggling to meet a credible trajectory towards 60 per cent and saying it should be 80 per cent is not going to actually solve that problem—it might possibly create risks of devaluing the credibility of the actual commitment.”³²

26 Department of Trade and Industry, *Energy White Paper: Our Energy Future—Creating a Low Carbon Economy*, Cm 5761, February 2003

27 Ev 45

28 Kevin Anderson and Alice Bows 'A response to the Draft Climate Change Bill's carbon reduction targets' *Tyndall Centre Briefing Note No.17*, March 2007

29 Ev 26

30 Q 79; Ev 165

31 Ev 189

32 Q 130

Likewise, other organisations are supportive of the 60% target. For example, EDF Energy notes that although the 2050 target “may need to be made more stretching as confidence in the outputs of climate models increase and international burden sharing agreements are negotiated. It is sufficient at this stage that a 60% target, in itself extremely stretching, has been established.”³³

31. The Office of Climate Change defended the 60% target: “[the target] has commanded most stakeholder support for the past few years being [...] a recommendation of the Royal Commission. There is no consensus around a different figure as yet. It is also consistent with the Stern Report which said that developed countries should do 60 to 90 per cent in order to stay within the 550 [ppm].”³⁴ The Secretary of State expanded on the same point, accepting that “the science shows that 60 per cent is towards the bottom end of the reductions that are required in advanced industrialised countries, but that is one reason why the Bill refers to “at least 60 per cent” and why there is provision for the Climate Change Committee to advise the Government on another figure.”³⁵ However, there is no explicit requirement for such advice to be given. Clause 22(1) allows the Secretary of State to seek advice on “the Secretary of State’s functions under this Act”. But asking for this advice is discretionary.

32. The Government sets much store by the Bill. We emphasise, however, that the Bill alone will not deliver the necessary emission reductions and note that CO2 emissions in 2006 were a mere 5% below 1990 levels. As such, whilst we agree with the substantial amount of evidence calling for the 2050 target to be higher than 60%, we recognise that this target itself is still extremely ambitious. We are not in a position to suggest whether the 2050 target should be higher than 60%. However, we recommend that the first task of the Committee on Climate Change should be to assess the current state of knowledge regarding climate science in order to determine what the 2050 target should be and the trajectory for achieving it.

2020 interim target

33. Clause 3 (1)(a) states that “[t]he carbon budget for the period including the year 2020, must be such that the annual equivalent of the carbon budget for the period is at least 26%, but not more than 32%, lower than the 1990 baseline”.

34. Recently the European Commission proposed a 20% cut in greenhouse gas emissions by 2020, increasing to 30% subject to international agreement on a post-2012 framework.³⁶ Although the burden sharing of the 2020 target is still to be determined, it is possible—based on experience with the Kyoto Protocol—that the UK might be required to shoulder a greater than proportionate share of the required emissions reductions. In order to meet the new EU proposals for a 20% cut in emissions by 2020, a recent study suggests that the UK would have to reduce its emissions by 30%.³⁷ The CBI has been led to understand by the

33 Ev 168

34 Q 353

35 Q 430

36 *Commission proposes an integrated energy and climate change package to cut emissions for the 21st Century*, EUROPA press release, IP/07/29, 10 January 2007

37 *2020 climate target "to be felt across Europe"*, ENDS Europe Daily, Issue 2319, Friday 11 May 2007

Office of Climate Change (OCC) that a 26–32% target by 2020 is “in line with their expectations of what the UK’s burden sharing target would be if based on historical emissions”. The OCC explained that:

in devising the midpoint, the 26 to 32% point in 2020, we on the Bill team worked very closely with the team working on the Energy White Paper, which [...] has the 26 to 32% range in it, and the projections in the Energy White Paper take us at the upper end to the 26 to 32% range. [...] The range came originally from the 2003 Energy White Paper and the reason for the range is that it is both credible in terms of having policies in place to deliver it and, secondly, because it is consistent with a 60 per cent long-term target. The economic analysis shows that.³⁸

Professor Grubb from the Carbon Trust noted that: “[...] the Government for several years has officially acknowledged, accepted, the severity of this problem [...] and still CO₂ emissions are not going down. From that position a reduction of at least 26 per cent by 2020 is already a very demanding, strong change [...].”³⁹

35. The CBI observed that:

the proposed target expresses a range of 26 to 32% by 2020 is an extremely challenging one and would require measures beyond those which are currently envisaged in the government’s climate change programme and indeed in the measures which are envisaged under the current energy policy review. Whilst we welcome the need to move quickly in the period up to 2020, we believe that the target as currently set will be challenging for business and for society as a whole. [...] we naturally have some concerns, for example, that the UK may be committing itself to a degree of effort which is laudable but in excess of what perhaps some of our European partners are committed to.⁴⁰ [...] [i]n terms of whether it is 26 or 32%, there is some concern that we might be showing our hand a little too soon in terms of the negotiations that are taking place in Europe and in terms of how we fit in within that structure.⁴¹

36. On the other hand, the Institution of Civil Engineers (ICE) and the Institution of Mechanical Engineers argue that 35% would not be unreasonable as the upper limit for the 2020 target on the basis that the technology and measures required to achieve this already exist.⁴²

37. The Secretary of State noted that the 2020 interim target is “almost as significant” as the 2050 target.⁴³ He conceded that it was “challenging” but argued that it is, in his opinion, “doable and gives business the right framework in which to make those decisions”.⁴⁴ With regard to the upper limit of 32% cut in emissions below 1990 baseline levels by 2020, Mr

38 Qq 359–360

39 Q 154

40 Qq 204–205

41 Q 222

42 Ev 156

43 Q 429

44 Q 435

Miliband explained that: “It would clearly be a failure of policy if we ended up below the 26%. I would consider it much less of a failure of policy if we ended up above the 32%, but I think it is important for the sort of compact that we have tried to establish with investors in the business community that they know the ball park that we are aiming for, and, just in parentheses, the 26–32% is consistent with a significantly higher than 60 per cent reduction by 2050.”⁴⁵ He noted that the business community “[...] wanted an interim [...] target on the face of the Bill to give them confidence about what range they had to be aiming for, and I think it is better to say 26–32 than just to say more than 26. I think it gives them a landing spot that is helpful.”⁴⁶

38. We are not convinced by the Secretary of State’s arguments for designing a ‘ball park’ target. Whilst we agree that the target to reduce emissions by 26% below 1990 baseline levels by 2020 will be challenging, and welcome the medium-term indication of progress that the Government expects, we believe the Government is being unnecessarily prescriptive in placing an upper limit on the 2020 target. Having an upper limit serves no practical purpose. We recommend that Clause 3(1)(a) be amended by leaving out the words “, but no more than 32%,”. This will bring it in line with the 2050 target to reduce emissions by “at least 60%”.

Amending targets—future scientific developments

39. Clause 1 subsection 4 of the Bill states that the Secretary of State may amend the percentage target for 2050 “if it appears [...] that there have been significant developments in scientific knowledge about climate change”. Since the 60% target was first proposed by the Royal Commission on Environmental Pollution in 2000, the science has developed with reports by the Intergovernmental Panel on Climate Change (IPCC) in 2007 suggesting that the situation may be more serious and more urgent than had been previously anticipated. Friends of the Earth has expressed concern that scientific development prior to enactment of the Bill may be excluded from consideration as “significant developments in scientific knowledge about climate change”.⁴⁷

40. According to Dr Bows from the Tyndall Centre:

the science that links the 550ppm level to the 2°C has since moved on, as much of that was done prior to 2003 [...] The message is clear from the Defra conference in 2005 that the 450 level was going to give you a much more reasonable chance of not exceeding the 2°C. At that stage it was clear that 550 was too high. The science is there and has been there for a good year or so and there is general consensus within the scientific community. Yes, there has been a misunderstanding or misguidance somewhere between the science and what has been produced in the Bill.⁴⁸

41. Whilst appreciative of the greater degree of certainty and consequent level of investor-confidence lent by the mid- and long-term targets, EEF argues that the Bill must allow for

45 Q 459

46 Q 466

47 Ev 26

48 Qq 13, 23

the revision of targets “should it transpire that meeting a 60% target is significantly more costly and the economic impact significantly more adverse than anticipated”.⁴⁹ “We do not see review clauses being used in a trivial manner frequently but if there are major developments that we miss or if the pace technology progresses is faster than we thought, if the impacts of climate change are potentially worse or maybe not as bad as we thought, there should be grounds to review those targets.”⁵⁰ EDF Energy, however, argues that reviewing targets could undermine regulatory stability and as such, whilst targets could be made more demanding, the Bill should not allow for the 2020 target to be relaxed.⁵¹

42. The Office of Climate Change observed that “the Government would clearly need to make a judgment based on the facts at the time as to whether any development internationally or any scientific development in its view constituted a significant development.”⁵²

43. The Bill must make provision for the 2020 and 2050 targets to be revised, but we recommend that this provision be limited to an upwards revision only. We also recommend that the Committee on Climate Change be empowered to propose revisions to the mid- and long-term targets whenever it believes an amendment may be appropriate.

4 Carbon budgeting

Budgetary periods

44. The draft Bill proposes establishing five-year carbon budgets, beginning with the period 2008–12. The Secretary of State will set binding limits on CO₂ emissions for each five-year budgetary period. Carbon budgets will be set for three periods ahead. Clause 3 (2) explains that the “annual equivalent” within any carbon budget can be defined as “the carbon budget for the period divided by the number of years in the period”. The Bill requires the proposed Committee on Climate Change to report annually to Parliament on the UK’s progress towards achieving its targets and budgets. The Government response will also be laid before Parliament.

45. Much evidence, including that from the Environment Agency and EDF Energy, is supportive of the five-year budgetary periods. EDF Energy expresses considerable concern that annual targets would cause too great a focus on short-term reduction objectives, resulting in investor uncertainty.⁵³

46. However, others are less satisfied, often expressing concern that the 5-year budget is very likely to include more than one Parliament, thus allowing for abdication of blame or responsibility for failing to meet a budget. Whilst Friends of the Earth supports annual

49 Ev 59

50 Q 217

51 Ev 169

52 Q 356

53 Ev 168

budgets for this reason,⁵⁴ both it and the RSPB are ultimately content with the notion of 5-year budgetary periods, with the proviso that there are explicit annual ‘milestones’ to ensure that the Government can be held accountable for making emission reductions throughout the 5-year period and not just at the end.⁵⁵ The Association of British Insurers is likewise supportive on an “indicative trajectory” for individual years.⁵⁶

47. Friends of the Earth believed that:

because you are talking about the total amount of carbon actually under the line [see graph on page 12], the actual amount emitted, it does not really matter a hoot whether the reason you failed was because of a cold winter or because of a change in the fuel price, you are still absolutely under an obligation to redress that during the following year.⁵⁷

48. The OCC defended the five-year budgetary period:

The only con to a five-year period is that it is a longer period of accountability. The pros were quite overwhelming on the other side in the sense that the consistency with the international framework struck us as absolutely crucial, making sure that the periods are coterminous with the Kyoto framework but also with the EU Emissions Trading Scheme framework, and in a sense to deal with the accountability issue, and that is why we then also have in the Bill this annual accountability cycle where the Committee holds the Government to account in Parliament and the Government responds. The accountability point is addressed through that second part of the Bill.⁵⁸

49. The Energy Saving Trust (EST) proposes an alternative to the concept of fixed budgetary periods, whereby a ‘rolling’ 5-year average target is used instead, but Rupert Edwards of Climate Change Capital was sceptical of the Energy Saving Trust’s proposal, noting that “[t]hat is a nice mathematical idea and it might smooth out the bumps, but I do not think it is practical. [...] I do not think it will work.”⁵⁹

50. The OCC is likewise somewhat sceptical of the element of accountability in the EST’s proposal: “there does not seem to be a whole lot of difference between this concept of rolling five-year budgets and annual targets, in the sense that it does not really get over the problem of the Government being held to account in any single year for emissions, which could fluctuate according to normal variations in the weather, for example.”⁶⁰

51. We remain unconvinced that annual statutory targets should be used owing to inevitable fluctuations in energy demand and the unavoidable lag in reporting on progress. We accept the case for five-year budgetary periods, but we recommend that

54 Ev 27

55 Qq 88–89

56 Ev 163

57 Q 90

58 Q 370

59 Q 135

60 Q 379

clear annual ‘milestones’ are set—and published—by the Committee on Climate Change in order that it may become apparent well before the end of a budgetary period whether or not policies are working. This also reflects the fundamental significance of cumulative emissions, and the trajectory involved, by which the five-year budgets are reached. As well as providing a far greater degree of accountability, annual milestones would provide an early warning system by which underperforming policies could be improved or done away with, and successful policies extended, in order to maximise carbon dioxide reductions as early as possible.

52. We recommend that once the Bill becomes law, the Government should publish a sectoral breakdown of its national emission reduction targets to help different sectors of the economy and society—including Government, businesses, communities, households and individuals—appreciate what action they will have to take if the UK as a whole is to achieve its emission reduction objectives.

Post-hoc revision of budgets

53. Clause 13 (5) states:

An order setting the carbon budget for a period may not be amended after 31st May in the second year following the end of the period.

54. A letter from the Lords Delegated Powers and Regulatory Reform Committee to the Chairman of the Joint Committee states that “[...] it is clear from subsection (5) that it is envisaged that the budget might be amended more than a year after the end of the budgetary period. [...] we consider that the case has not so far been made out for a power retrospectively to amend a carbon budget after the end of the budget period.”⁶¹

55. The provision to amend a budget more than a year after the end of a budgetary period makes a nonsense of the entire concept of budgetary periods, and would render any sanctions completely unworkable. This is simply wrong. Subsection (5) of Clause 13 should be removed in its entirety.

5 Carbon credits

Purchasing credits from overseas

56. In addition to provisions aimed at reducing emissions within the UK, the draft Bill makes provision for purchasing carbon credits from overseas to contribute to meeting targets. An illustration in the Partial Regulatory Impact Assessment suggests that the costs of mitigation could be reduced by around 25% if one third of the effort required was met by purchasing credits from overseas.⁶²

61 Written evidence from the House of Lords Delegated Powers and Regulatory Reform Committee to the Joint Committee on the Draft Climate Change Bill

62 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Partial Regulatory Impact Assessment, para 5.1.37

57. Established by the Kyoto Protocol, the Clean Development Mechanism (CDM) ties in with emissions trading and allows developed countries (those with targets) to invest in emissions reduction projects in developing countries (those without targets). As there are no allowances to be transferred from the latter to the former, an equivalent amount is “generated” and credited to the investor after independent certification. The emissions reductions achieved by the project can then be used by the investor to meet their targets. Joint Implementation (JI), a second Kyoto mechanism, allows for investment in emission reducing projects (e.g. the establishment of a renewable energy plant) in a developed country by a government or company in another developed country. The emission reductions achieved by the project can then be used by the investor to meet their targets. This is a cost reduction measure designed to help spread clean technologies.

58. It has been suggested that if targets are not met, the Government might make up any shortfall by purchasing international carbon credits. The Bill makes provision for this. The principle of supplementarity states that the bulk of emission reduction activity should take place within the UK. The Department of Trade and Industry defines the principle of supplementarity as:

Under the rules of the Kyoto Protocol, the use of the [...] Kyoto mechanisms must be supplemental or additional to domestic action, with domestic action constituting a significant amount of the total country's effort to meet its target.⁶³

59. While, for example, EDF Energy, was supportive of the proposal to purchase credits from overseas, it believed it to be “essential” that the Bill defines an acceptable level of supplementarity in order to prevent industry from simply purchasing from overseas rather than physically reducing emissions within the UK.⁶⁴ Other evidence suggested that, in order that the UK maintain its integrity as an international leader in this field, there should be a “stronger emphasis on domestic effort over international trading” so as to avoid any loss of credibility.⁶⁵ The Energy Saving Trust proposes a limit of ‘between 5 and 10%’ on the use of overseas carbon credits.⁶⁶ Dr Anderson from the Tyndall Centre for Climate Change Research went further, arguing that such a facility would constitute “trying to offset by indulgences from outside of the EU”, and disagrees with “any form of going outside of the EU, unless the country you go to has a national emissions cap and you are buying off their cap” on the basis that interventions in developing countries, ostensibly to reduce CO₂ emissions, may have unintended consequences (the ‘rebound effect’ whereby, for example, improving the efficiency of vehicles actually increases emissions as people choose to drive more because their cars become cheaper to run).⁶⁷ The Baptist Union and others express concern that “[t]he purchasing of one-third of the 2050 abatement effort with carbon credits may provide a cost-effective path to reducing carbon but is inequitable. [...] In our view the obligation on the UK to reduce carbon emissions should not be exported overseas”.⁶⁸ This is supported by the ICE and IMechE who describe this facility

63 <http://www.dti.gov.uk/sectors/ccpo/glossary>

64 Ev 169

65 Ev 32

66 Ev 10

67 Q 61

68 Ev 175

as “baffling” and a “short-term ‘escape hatch’ that allow for the UK’s targets to be met without taking any serious action [...]”.⁶⁹ E.ON, whilst supportive of the general principle, observes that “[a]s a developed nation wishing to show leadership in tackling climate change, it is important that a high proportion of emissions reductions take place within the UK. This is a moral obligation as well as a reflection of the global reduction effort which is required to mitigate the worst effects of climate change”.⁷⁰

60. By contrast, several industry representatives such as the UK Petroleum Industry Association and EEF, the Manufacturers’ Organisation, says that “there should be as few restrictions as possible”.⁷¹ Both EEF and the CBI support the provision made in the Bill to use overseas carbon credits. The CBI argues that using international trading to help meet the UK’s targets could “encourage other countries to follow our leadership”, whilst conceding that any purchasing of such credits must be in addition to domestic activity.⁷²

While we believe that the balance of effort needs to take place domestically, within the limits set by international law, the use of the Kyoto mechanisms and the EU ETS is an important way of achieving emissions reductions at lower cost, reducing the competitiveness impacts of UK unilateral action and encouraging other countries to follow our leadership.⁷³

61. EEF argues that “the only limitation on [the use of carbon credits] should be on quality grounds” (i.e. they must be genuine, sustainable and fully verifiable).⁷⁴ “[...] We seek global solutions for a global problem so wherever the emissions reductions are made within the world they are still contributing to tackling the problem. If those reductions can be made more cheaply elsewhere and they are quantifiable and can be verified, then those are the reductions that we should be looking to use in addition to the domestic reductions that we and our members are making.”⁷⁵

62. Climate Change Capital noted that:

In terms of the limits on the use of importing, effectively, offsets or credits from other countries it is an extremely useful way of transferring technology from north to south, of showing developing countries and economies in transition that we are serious about leadership. [...] there are lower costs generally for taking a tonne of CO₂ out of the atmosphere in developing countries than there are in the industrialised world, but the principle of supplementarity that is currently enshrined in Kyoto and the Marrakesh Accords, whereby the use of such credits should only be supplemental to domestic emission reductions, must be carefully followed [...] it

69 Ev 157

70 Ev 141

71 Ev 61

72 Q 241

73 Ev 58

74 Ev 60

75 Q 235

would not be right for the UK's 60% target to be 30% the UK and 30% somewhere else.⁷⁶

63. The Secretary of State explained:

the whole point about purchasing credits overseas, given it is a global problem, is one I would defend, but I would defend overseas action on a supplementary basis to domestic action. I do not think it should substitute for domestic action, or wholly substitute, it should only be supplementary to domestic action. [...] I would see overseas purchasing as being something that is more likely to be used in the interim but not used to buy yourself out by 2050.⁷⁷

64. We recommend that the facility to purchase credits from overseas should only be exercised as a last resort. The Government should ensure that any purchases of credits from overseas do not prejudice a country's attempts to meet its own environmental objectives. Because of the serious implications of over-utilising this facility in terms of the UK's credibility on the international stage, combined with the potential for unforeseen consequences and the importance of public opinion, we recommend that this provision be strictly limited to a quantifiable amount to be advised by the Committee on Climate Change for each budgetary period. It should be for the Committee on Climate Change to determine if and when the purchase of overseas credits is appropriate.

6 Enforcement

65. The Government says that the draft Bill “places a legal duty on the Government to ensure that the UK meets its targets and stays within the limits of its carbon budgets”. This means that “a Government which fails to meet its targets or stay within budget would be open to Judicial Review”. Further, “[i]n such instance, the Government could be required to take remedial action by order of court”.⁷⁸ The Secretary of State reinforced this point and argued that the draft Bill “provides Britain with the world's first eco-constitution”.⁷⁹

66. Some witnesses have already questioned whether the Bill's provisions would be enforceable in the courts. Mr Woods from Stephenson Harwood, and Council Member of the UK Environmental Law Association, noted that:

I do not think it is very enforceable in practice. [...] Judicial Review is designed for challenges in relation to public bodies which act unreasonably. It is not an appeal tribunal that is supposed to have an over-arching approach to bigger picture politics, political decisions and targets such as this. What will happen is if there is a flawed decision then certainly a challenge could be brought, but in all likelihood all we would find is that, as happened recently with the Energy Review, the Government

76 Q 157

77 Q 504

78 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Consultation Document, paragraphs 5.44 and 8.2 (RIA)

79 “David Miliband ‘I will vote for Gordon’” *The Observer*, 22nd April 2007

has to go back, have another look at its figures and then reproduce its paper or its legislation or its rules. The judicial review challenge would not actually change anything.⁸⁰

67. The Environment Agency suggests that, following consultation with the Committee on Climate Change, the Government could meet any shortfall within a carbon budget by purchasing credits from overseas, although notes that such a mechanism should not be relied upon too heavily.⁸¹ In oral evidence to the Joint Committee, Professor Christopher Forsyth, Director of the Centre for Public Law at Cambridge University said:

A target is not something that you can guarantee [...] The duty of the Secretary of State to achieve the target is at best a duty to use their best endeavours to achieve that target [...] [So] a failure to achieve the target does not [...] imply a breach of the duty so there is nothing to enforce. This is a duty that is unenforceable in the courts.

It is unthinkable that the English courts would consider themselves to have jurisdiction, for instance, to close down a coal-fired power station in order that the target could be met [...] or order the Minister to buy carbon credits. If the Minister were to buy carbon credits, it is most likely that he would have to have funds voted to him by Parliament.⁸²

68. Friends of the Earth suggests that a more ‘pre-emptive’ approach—whereby legal action can be taken in advance if it is perceived that a particular policy is underperforming—might be more effective from an environmental perspective:

while a Judicial Review may be relatively easy to win it is hard to see what it would change – it would already be too late. [...] A much more useful process would be a way to challenge in advance a policy or suite of policies which did not appear likely to meet the budget(s). Should such a challenge be successful, Ministers could be required to amend the policies and thus still meet the budget. [...] any judicial review is really just saying you failed. I cannot see the point in that.⁸³

69. In this vein, Mr Wilson of Cambrensis Ltd, Barrister with the Environmental Law Unit, Burges Salmon LLP, told us:

There are some circumstances in which a court might intervene in a judicial review challenge; for example if the Secretary of State was acting wholly inconsistently with the targets and budgets, or (if there was a requirement written into the Bill for a more detailed action plan), by failing to take specific steps. But the real accountability and sanctions involved here are the risks of adverse public opinion, a bad press and Parliamentary pressure.⁸⁴

80 Qq 266–267

81 Ev 135

82 Uncorrected transcript of oral evidence taken before the Joint Committee on the Climate Change Bill on 16 May 2007, HC (2006–07) 542-i, Qq 4–5

83 Ev 27, Q 97

84 Ev 73

70. Climate Change Capital noted that: “international environmental law, like all international law, tends to rely on a reputation rather than some kind of compliance mechanism.”⁸⁵ This is supported by the CBI which observed that: “[p]articularly for the government that has brought forward this Bill, which sets its store by leadership in this agenda, to be shown to be failing in some way through its programme of measures to deliver on the target will be a pretty strong sanction—admittedly not a direct, financial one but a very strong political one.”⁸⁶ Mr Wilson concurred, noting that: “I think the sanctions here are not really Judicial Review but adverse public opinion, bad press and having a hard time in Parliament, and those are the really effective sanctions as envisaged by this Bill.”⁸⁷ The Association for the Conservation of Energy adopts a similar stance, noting that “fear of Judicial Review does seem to concentrate ministers’ minds wonderfully”.⁸⁸

71. The Secretary of State supported this stance:

There is a requirement on the Government to live within its budget. So, the whole bias of the system is towards correcting problems before it is too late rather than after. [...] the sanction of, first, public opinion, second, political pressure and, third, the law is pretty strong in trying to ensure that the country—because in the end it is the country that has to make the choices—lives within its carbon means.⁸⁹ [...] in a Cabinet Committee a Secretary of State [...] may be able to conjure up particularly gruesome prospects of intervention. It is a last resort sanction or a last sanction. [...] I feel much more comfortable defending the Bill with this provision in it than I would without it in it.⁹⁰

72. Although sanctions may not be either likely or real, we recognise that having an Act of Parliament has its own merits. By institutionalising the targets, the political pressure to achieve them will be increased. The Government of the day will also be subject to ‘the court of public opinion’.

73. If a target is missed, we recommend that a debate on a remedial action plan is held on the Floor of the House on an amendable Government motion subsequent to the publication of the Government’s response to the annual progress report by the Committee on Climate Change.

7 The Committee on Climate Change

74. The draft Bill proposes that a new Non Departmental public body should be established known as the Committee on Climate Change. Part 2 of the draft Bill (Clauses 19 to 27 inclusive) relates solely to the Committee. The stated purpose of the Committee is “to

85 Q 148

86 Q 233

87 Q 269

88 Ev 166

89 Qq 486–487

90 Qq 495, 497

independently assess how the UK can optimally achieve its emissions reductions goals”.⁹¹ However, as drafted the Bill sees the Secretary of State making the final decision on carbon budgets and apportionment of effort between reductions in domestic emissions and the use of ‘carbon credits’.

The role of the Committee

75. The Government intends that the Committee should advise it on the level of carbon budgets as well as:

- The extent to which carbon budgets should be met by domestic emissions reductions versus emissions reductions purchased overseas;
- the respective contributions towards meeting the budgets of those sectors of the economy covered by trading schemes; and,
- the contribution towards meeting the budget of those sectors not covered by trading schemes.⁹²

76. The duty of the Committee is to advise the Secretary of State and report on progress. It is not tasked to manage the achievement of the targets, and does not have a policy-making role. However, the Energy Saving Trust argues that the Committee should “ensure a robust evaluation process for each implemented policy measure”.⁹³

77. EEF told us that “[t]o ensure its independence from government, we think it is appropriate that the Committee has an advisory rather than a policy making or proposing role”.⁹⁴ It noted that: “What might be a problem for the Committee on Climate Change would be proposing what the budgets are, setting the budgets and then reviewing whether progress against those budgets was achieved. There could be a conflict of interest there.”⁹⁵ The CBI questions the independence of the Committee on Climate Change:

it is unclear from our discussions with DEFRA and the OCC as to the degree of independence of the Committee, which we understand to be viewed by DEFRA as providing advice to the government in response to specific questions posed by the department.⁹⁶

78. Mr Wilson also noted that it is “unclear” how the Committee is going to work, and argues that it could be more closely analogous to the Expert Panel on Air Quality Standards (EPAQS). The role of the EPAQS to provide expert scientific advice means that such advice

91 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Consultation Document, paragraph 5.51

92 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Consultation Document, paragraphs 5.53 and 5.54

93 Ev 11

94 Ev 61

95 Q 243

96 Ev 58

need not be qualified “in order to accommodate all the political and economic considerations that governments have to take into account.”⁹⁷

79. On the other hand, Dr Anderson from the Tyndall Centre argued that:

The committee really needs to have some teeth. It should not just be an advisory committee, the committee itself should actually manipulate the instruments, the instruments it will be given by Government; it should be allowed to play with these things to achieve the targets. It should not be the role of Government as a whole, which has other political concerns, to manipulate the instruments. They should be manipulated by the committee [...]⁹⁸

and the Mayor of London has expressed concern that:

[...] as currently proposed, the Committee will have limited ability to influence Government policy. Government’s failure to date in terms of carbon reduction has not been in terms of target-setting, but in introducing real, long-term and effective energy policies to create a successful low-carbon economy.⁹⁹

80. Mr Wilson commented that: “What I think needs a sharp focus in the Bill is what you really want this Committee to do. My suggestion is that it has got enough to do to be a fully authoritative scientific advisory committee, giving the best advice it can to Government on the issue of climate change and what could be done about it both at the UK, EU and international level, and that it should be for Government to take the difficult policy choices about what to do about things like fuel poverty.”¹⁰⁰

81. Mr Woods asked: “[...] what is the Committee designed to do? Is it designed to cover climate change science or is it designed to provide a check on what the Government is doing or is it a hybrid—I do not think that is clear in the Bill at the moment.”¹⁰¹

82. Evidence from the Fuel Poverty Advisory Group (FPAG) suggested that, despite being tasked with a purely advisory role, the Group took it upon itself to become more proactive in seeking meetings with relevant government departments rather than waiting for requests. They did this “because we did not see any point in just giving advice and disappearing into the ether [...] [w]hen things are not going well we make it very clear”. FPAG is of the opinion that this has been encouraged.¹⁰²

83. The OCC defines the role of the Committee on Climate Change thus: “the primary duty of the Committee on Climate Change will be to define what it considers the optimum trajectory out to 2050 and then to work back from that in order to give advice on the

97 Written evidence from William Wilson, Director, Cambrensis Ltd, Barrister, Environmental Law Unit, Burges Salmon LLP to the Joint Committee on the Draft Climate Change Bill

98 Q 46

99 Ev 190

100 Q 282

101 Q 295

102 Qq 326, 339

budget, so it will not be possible to give advice on budgets for the first three periods up to 2022 unless it has a view on the longer term, that is its primary duty.”¹⁰³

84. The Secretary of State observed that the Committee on Climate Change has three main provisions:

(1) they have their recommended budgets, (2) they have their reports on progress, (3) they can do work as requested by the Secretary of State. [...] it is important to emphasise, this has been set up not as a policy-making committee, and there are two aspects of that that are important, but one is the most important. It has been set up to set carbon budgets. In other words it is focused on outcomes. It has also been set up to monitor progress towards the achievement of those outcomes. [...] It does not say to the Committee: “Tell us what you think our policy on cavity wall insulation should be *vis-à-vis* solar panels?” We can ask them for that sort of advice, but that is not the starting point. Its role is to recommend budgets and to monitor progress.¹⁰⁴

85. The Committee on Climate Change should not be a policy-making or delivery body. It should be focussed on the provision of advice with regard to the budgets, and the publication of progress reports, but it must not be prevented from advising the Government on any policy matters that may come to its attention while carrying out its duties.

86. In order to establish the independence of the Committee on Climate Change, the Secretary of State should be required to accept its recommendations without further debate. This would position the Committee’s advice alongside that of the Monetary Policy Committee whose interest rate decisions are not challengeable by the Chancellor of the Exchequer except under very extreme circumstances.

87. Several pieces of evidence, including that from the Natural Environment Research Council, as well as Friends of the Earth, questioned the fact that the Bill makes no provision for the Committee on Climate Change to say whether the 2050 target is “the right one [...] this is supposed to be the expert committee which advises Government on its climate change policy and they cannot advise it on the absolute number one, most central aspect of it.”¹⁰⁵ The Carbon Trust argued that: “[t]he precise debate around whether the number should be 60 to 80 per cent for 2050 and the precise trajectory as to how we get there, whether we have a near trajectory or we have a lot of early action, is a specific question for the Committee on Climate Change.”¹⁰⁶

88. We do not see that the Bill prevents the Committee on Climate Change from recommending the mid- and long-term targets, but it is not clear that the Committee will have this power. We recommend that by 2009 the Committee should review and recommend to the Secretary of State what the 2020 and 2050 target should be. We would not expect these to be less than 26% and 60%, respectively, below 1990 levels. In addition, the Committee should have the power and responsibility to make

103 Q 358

104 Qq 548, 554, 522

105 Q 104, Ev 193

106 Q 128

recommendations to the Secretary of State at any time regarding the mid- and long-term targets.

Composition

89. Schedule 1 to the draft Bill states that the Committee on Climate Change, taken as a whole, must have “experience in or knowledge of:

- i. economic analysis and forecasting,
- ii. business competitiveness,
- iii. financial investment,
- iv. technology development and diffusion,
- v. energy production and supply,
- vi. climate science,
- vii. emissions trading, and
- viii. climate change policy, and in particular the social impacts of such policy.”

90. FPAG commented on its own experience, noting that it is “a Group consisting of representatives of external organisations”.¹⁰⁷ By contrast, members of the proposed Climate Change Committee “should be experts in their field, rather than representing specific stakeholder groups”.¹⁰⁸

91. Mr Wilson suggested that the list of potential expertise is too wide-ranging. He concluded that the expertise required in the overall composition of the Committee, including fiscal and social circumstances, and policy issues, is “blurring the distinction between a very important advisory committee, which will have to carry scientific conviction, and the responsibilities which ought to be retained by government.”¹⁰⁹

92. In contrast, several witnesses perceived gaps in the proposed remit of the Committee. The RSPB highlighted the lack of a requirement to include environmental policy experts on the Committee and the absence of sustainable development from the list of factors the Committee must consider.¹¹⁰

93. It is right that the Committee on Climate Change should be composed of experts rather than representatives. Although the essential expertise required of the Committee is not explicitly listed in order of importance, the way it is listed in the Bill appears to suggest that economic interests are going to be more heavily represented than environmental ones. The schedule should be redrafted to dispel this impression (for

107 Ev 84

108 Department for Environment, Food and Rural Affairs, *Draft Climate Change Bill*, Cm 7040, March 2007, Consultation Document, paragraph 5.56

109 Memorandum submitted by William Wilson to the Joint Committee on the Climate Change Bill

110 Ev 31–32

example, by using alphabetical order). We also recommend that the impact of climate change upon biodiversity be added.

94. Although the draft Bill does not stipulate the expected length of tenure for the members of the Committee on Climate Change, and it was explained that the Government has yet to decide on length of appointment, the Secretary of State appeared to be under the impression that they would be in post for five years.¹¹¹

95. **It is not in anybody's interest to have a strict fixed-term appointment of five years such that the entire Committee on Climate Change is potentially replaced at the end of every budgetary period. We recommend that appointments are for five years at least, and could be longer to allow their contracts to expire at different times. The Government should make them non-renewable so as to underpin members' independence of Government.**

Resources

96. The resources available to the Committee on Climate Change are outlined in the Partial Regulatory Impact Assessment (RIA) published alongside the draft Bill (paragraph 5.2.9), according to which the resource costs are to be met from within Defra's public spending allocation. It suggests first year costs of £2.25m and ongoing costs for subsequent years of £1.96m. The Partial RIA breaks down these costs thus:

Function	1 st Year Costs ¹¹²	Ongoing Annual Costs
Secretariat	830,000	820,000
Committee	270,000	460,000
Research Budget	750,000	500,000
Additional	150,000	175,000
Corporate Identity and Set up Costs	250,000	
Total	2,250,000	1,955,000

Source: Defra, *Partial Regulatory Impact Assessment, Draft Climate Change Bill*

97. The Energy Saving Trust (EST) proposes that the Committee should be supported by cross-departmental bodies such as the Office of Climate Change and the Interdepartmental Analysts Group (IAG). The EST also notes that the IAG has previously been under-resourced in its work to support government policy development, stating that:

the OCC is a fairly new body, typically staffed with people with one-year contracts, so there is a lack of long-termism around that. The Interdepartmental Analysts' Group is a group of very well qualified individuals who frankly probably, despite their best endeavours, have not had sufficient time to undertake the work that they

111 Qq 529–531

112 1st year costs reflect the fact that the Committee's secretariat and Board (Committee) will only be in place part-way through the year.

have been required to do at various stages and meet demands from Government. [...] the resources at the moment are not sufficient to undertake this type of work.¹¹³

98. Several witnesses expressed concern about the resource—and the independence of that resource—available to the Committee. Mr Wilson observed that: “I think the Committee on Climate Change has got enormously important functions, obviously, but the matters which it has to take into account before it considers its advice include scientific knowledge, technology, economic circumstances, fiscal circumstances, social circumstances including fuel poverty, energy policy and international circumstances. By the time it has done all that I wonder how many staff it is going to need and what sort of budget it is going to need in order to be able to do its job effectively.”¹¹⁴

99. Professor Grubb suggested that the Committee on Climate Change should be resourced such that it is able to conduct its own analysis independent of Government.¹¹⁵ EEF notes that: “this committee needs to be adequately resourced and, more importantly, to enable them to be an independent body its secretariat needs to be independent. There was some talk earlier that perhaps the secretariat should come from the Office of Climate Change. We would be thinking that they may recruit certain people who may be currently part of the Office of Climate Change but once they step out of that and step into the role of the secretariat for the Committee on Climate Change they would be independent of government and government departments.”¹¹⁶ This view is supported by the CBI.

100. The OCC made clear that whilst it will be conducting some analysis in the interim period prior to the Committee on Climate Change being fully established, and will be available to the Committee, its role is “not to duplicate what the Committee on Climate Change does.”¹¹⁷ It also explained that:

The OCC is taking forward a piece of work now to look in a lot more detail at exactly the sort of resources that we may need to understand better our trajectory to 2050 and to define those first budgets. As part of that I think it will become clear the exact size of the Committee on Climate Change and the secretariat that is needed to support it. We had supplied some early estimates through the regulatory impact assessment but those to some extent, not massively but to some extent, will change as we carry out the more detailed scope of the exercise.¹¹⁸ [...] essentially we are assuming that the Committee will need a mixture of drawing on government data, commissioning its own research, potentially adding to models which are already out there and doing some qualitative research, if you like, on models which exist and being able to interpret and add value to those.¹¹⁹

113 Ev 12, Q 55

114 Q 282

115 Q 168

116 Q 248

117 Qq 368–369

118 Q 413

119 Q 561

101. It is imperative that the staff and information resources available to the Committee on Climate Change are completely independent of Government. We recommend that independent consultants be asked by the Government to recommend the correct level of resources available to the Committee in order to establish that it is properly resourced. This should ensure that it can be truly independent of Government interests in conducting the analysis and research which it believes necessary to help ensure that the targets set out in the Bill are met.

Emissions forecasting

102. The UK Climate Change Programme, launched in 2000, outlined the Government's policies and measures for achieving its domestic target of reducing CO₂ emissions to 20% below 1990 baseline levels by 2010. In September 2004 a review of the UK Climate Change Programme was announced. The consultation closed in March 2005, and a summary of responses was produced in May 2005. The updated Programme was originally due to be published in the first half of 2005, but was eventually published in March 2006. One of the reasons for the delay is alleged to be problems with the forecasting model used by the DTI. The emissions forecasting model used is adapted from the DTI energy model.

103. The Energy Saving Trust questions the adequacy of the model currently used, suggesting that the Committee on Climate Change:

[...] should work with Government to consider whether a “next generation” bespoke single model, with a primary focus on the vitally important task of forecasting future greenhouse gas emissions, is required. In this respect we note that the DTI energy model was not designed to undertake the long term forecasting that is required for GHGs. [...] Our very strong recommendation is that we look at a next generation bespoke model that is all about meeting that carbon target.¹²⁰

104. Professor Chesshire of FPAG noted that:

The research budget is £500,000. It does not buy a lot if you are exercising big models but particularly if you need to develop the models to answer these policy questions.¹²¹

105. Regarding the existing emissions forecasting model, the OCC concedes that:

the Committee is going to want to look at that. It no doubt would want to use the Government's model and use the DTI's energy model. It will need to look for example at the transport model as well which the DfT operates, but I think it will also want to take account of other sorts of evidence out there, whether it is in the academic community or elsewhere, and reach a balanced judgment, and the Bill will not fetter its discretion to do that. It will want to use both government analyses and other analyses and the budget that is outlined in the regulatory impact assessment would allow it to do both.¹²²

120 Ev 11–12, Q 57

121 Q 345

122 Q 416

106. Given that the emissions forecasting model used by the DTI is adapted from its energy model, and the delays experienced in publishing the Government's Review of the Climate Change Programme, we question whether the current forecasting model is suitable for use by the Committee on Climate Change in drawing up budgets three budgetary periods (15 years) in advance. Our evidence suggests that the resources proposed for the Committee on Climate Change may quickly prove to be inadequate. We recommend that adequate resources are made available to the Committee on Climate Change for a 'bespoke' emissions forecasting model to be developed. Given the importance that Defra attaches to climate change, we are sure the Department will be able to find the relatively small sums involved by reprioritising from elsewhere within its budget.

Reporting to Parliament

107. The Bill requires the Committee on Climate Change to report annually to Parliament on the UK's progress towards achieving its targets and budgets. The Government response will also be laid before Parliament.

108. The Mayor of London suggests that, as part of its annual reporting requirement, the Committee on Climate Change should "identify where Government policy is conflicting in achieving the UK's carbon goals."¹²³

109. Professor John Chesshire of the Fuel Poverty Advisory Group observed that:

I would make a very strong case for the research base to go into the public domain. Otherwise, people will be arguing from different bases. It helps peer review and wider knowledge. For example, if it comes to a debate on the committee about the extent to which the effort should be generated within the United Kingdom or traded internationally or whatever, it might be the case that ministers would seek advice from the committee in the run up to a renegotiation of the next phase of Kyoto, the one after the next one.¹²⁴

110. EDF Energy argued that "any decision by a government to reject or materially depart from advice contained in a Committee report should have to be explained in a statement laid before Parliament for debate, leading to a vote."¹²⁵

111. According to the OCC: "the point is that the normal expectation of a body of this sort is it would have to make clear its analysis and its underpinning assumptions in publishing its recommendations. I think it would be extraordinary for it not to do so."¹²⁶ The Secretary of State also anticipated that the recommendations of the Committee on Climate Change, as well as their "views on progress" would be in the public domain.¹²⁷

123 Ev 190

124 Q 342

125 Ev 171

126 Q 412

127 Q 543

112. We recommend that the work of the Committee on Climate Change—including its minutes and advice given—should be posted on its website within one month of transmission to the Secretary of State.

113. We strongly recommend that the Government commits to holding an annual debate on a substantive amendable motion on the Floor of the House, subsequent to the publication of the Government’s response to the annual report produced by the Committee on Climate Change.

8 Trading schemes

114. The Bill contains enabling powers to introduce new trading schemes through secondary legislation. These powers are broad and could be used to set up schemes to limit greenhouse gas emissions in particular economic sectors. They could also be used to implement schemes to encourage particular types of activity (for example, renewable energy generation). A number of additional trading schemes are currently being considered. One is the Carbon Reduction Commitment which would apply to large, non energy-intensive businesses and public sector organisations. Another is personal carbon allowances (PCAs) under which individual citizens would be allocated tradable quotas of emissions permits.¹²⁸ The Secretary of State has expressed particular enthusiasm for PCAs. In his speech to the Audit Commission in July 2006, he described them as “a compelling thought experiment”, and argued that it could be “more equitable” than a system of tax or regulation because:

instead of tax increases which hit all consumers of products, personal carbon allowances provide free entitlements and only offer financial penalties for those who go above their entitlement. People on higher incomes tend to have higher carbon emissions due to higher car ownership and usage, air travel and tourism, and larger homes. People on low incomes are likely to benefit as they will be able to sell their excess allowances.¹²⁹

115. Much of the written evidence is supportive of the inclusion of these enabling powers, but some responses have questioned whether they go far enough. Climate Change Capital points out that “long term signals on the price of carbon will enable investors to make informed decisions about whether to invest in high or low carbon infrastructure in line with carbon budgets set by Government”.¹³⁰ Furthermore, the enabling powers to set up emissions trading schemes that will put a price on carbon or other greenhouse gas emissions “will form a key pillar to the success of the proposed legislation”.¹³¹

116. The Better Regulation Commission questions whether there may be “[...] a danger that the draft Bill could encourage the use of trading regardless of whether it is the most

128 We examine this further as part of our inquiry into *Climate change: the “citizen’s agenda”*.

129 Environment, Food and Rural Affairs Committee, *Climate Change: the “citizen’s agenda”*, written evidence from Defra (Cit 30)

130 Ev 44

131 Ev 44

appropriate approach”,¹³² a view also held by the CBI, which noted that it may “skew the balance of effort unfairly away from the whole of society in delivering emissions reduction and put it unfairly on one part of society which is the business community.”¹³³ EEF notes that “the administrative burden associated with emissions trading may render such an approach counterproductive in relation to emissions from individuals, households and small businesses” and highlights that a variety of policy instruments such as regulation and taxation will be needed.¹³⁴ This argument is supported by the RSPB, which noted that “the focus seems to be entirely on trading schemes and there are some situations in which some very straightforward simple environmental regulation would be more acceptable, it would be cheaper, it would be clear for everybody to understand and it would get you some carbon emission reductions faster.”¹³⁵

117. The EU Emissions Trading Scheme already covers a large proportion of heavy emitters and represents around half of the UK’s emissions. It is proposed to introduce the new Carbon Reduction Commitment scheme using the enabling powers within the Bill, although this raises issues in itself. The Secretary of State admitted that Personal Carbon Allowances would be introduced “with a big song and dance [...] with full debate and engagement”, implying introduction through primary legislation. We question what sectors are remaining that might be suitable for an emissions trading scheme established through secondary legislation, and therefore the validity of including such enabling powers within the Bill. **We recommend that the Government explains more clearly—prior to the final version of the Bill being produced—which trading schemes will be introduced using the enabling powers within the legislation.**

Allocation of allowances

118. According to the Energy White Paper, the Carbon Reduction Commitment—a trading scheme incorporating large commercial and public sector organisations—would involve the auctioning of allowances to emit CO₂ to participating organisations.¹³⁶ The revenue would then be recycled back to these organisations, and would therefore be revenue neutral for the Treasury. However, Schedule 2 to the draft Bill says that new trading schemes set up using the powers within the Bill “must provide for the allowances to be allocated free of charge”. There is considerable debate about the merits of free allocation of allowances or of alternative methods of allocation such as auctioning. The advantage of auctioning allowances to trading scheme participants is that it raises revenue for Government which could be used to support “low carbon” activities. Auctioning also provides information about the costs of greenhouse gas emissions abatement to industry. The Energy White Paper explicitly states that “We will seek enabling powers under the draft Climate Change Bill to introduce these new trading arrangements.”¹³⁷

132 Ev 197

133 Q 228

134 Ev 60

135 Q 124

136 Department for Environment, Food and Rural Affairs, *Consultation on measures to reduce carbon emissions in the large non-energy intensive business and public sectors*, November 2006

137 Department of Trade and Industry, *Meeting the Energy Challenge: A White Paper on Energy*, Cm 7124, May 2007

119. The proposal in the draft Bill is strongly supported by EEF which told us that “[...] we are glad to see that the trading schemes that can be introduced through this route would have to involve free allocation because we think that there are potentially more serious financial consequences for emissions trading schemes with, say, auctioning and we think it would be appropriate for those to come forward via separate legislation.”¹³⁸ The recent experience of free allocation within phase 2 of the EU emissions trading scheme has led others to take the contrary view. For example, the Environmental Audit Committee recently argued that free allocation in this case had led to ‘windfall profits’ in the power sector, and recommended auctioning for this sector and for aviation in the future.¹³⁹ This has also been the case in other EU Member States.¹⁴⁰ The Carbon Trust supports 100% auctioning of allowances in this sector.¹⁴¹

120. The Secretary of State stated that the Finance Bill makes provision for the auctioning of allowances, and that—although “all other aspects” of a trading scheme would be provided for by the Climate Change Bill—the financial issues such as auctioning would be addressed through the Finance Bill. According to Mr Miliband, the enabling powers within the Climate Change Bill could not be used to implement any auctioning provisions and that if this were the intention, the Finance Bill would be used.¹⁴²

121. There appears to be some discrepancy between the draft Climate Change Bill, which provides for free allocation of allowances, and the recent Energy White Paper which clearly states that allowances under the new Carbon Reduction Commitment (a cap-and-trade scheme from large commercial and public sector organisations) are to be auctioned. It seems unwise for the Government to close off the option of auctioning allowances in the draft Bill. Accordingly, **we recommend that the requirement for allowances to be allocated free (Schedule 2, Section 5 (3)) be removed from the Bill so as to avoid any unnecessary confusion, particularly for those industries and sectors that will be subject to these schemes.**

9 International aviation and shipping

122. According to the Aviation Environment Federation (AEF), aviation is the fastest growing source of greenhouse gas emissions in the UK. Recent predictions by the Oxford Environmental Change Institute using data from the Department for Transport suggest that by 2050 aviation will be responsible for around 27% of the UK's total allowance in the event of a 60% cut in emissions.¹⁴³

138 Q 253

139 House of Commons Environmental Audit Committee Second Report of Session 2006–07, *The EU Emissions Trading Scheme: Lessons for the future*, HC 70

140 Regina Betz and Misato Sato “Emissions trading: lessons learnt from the 1st phase of the EU ETS and prospects for the 2nd phase” *Climate Policy* 6, 351–359, 2006

141 Q 186

142 Qq 598–600

143 University of Oxford, Environmental Change Institute, *Predict and decide: Aviation, climate change and UK policy*, September 2006

123. The targets in the draft Bill exclude emissions from international aviation and shipping. However provision is made within the Bill for inclusion at a later date “if there is a change in international carbon reporting practice relating to aviation or shipping” [Clause 15, subsection 3] It is currently hoped to include emissions from flights within the EU as part of the EU Emission Trading Scheme by 2011, although the AEF suggests that, as a consequence of the need to first resolve “methodological and highly sensitive political issues”, this may be somewhat ambitious.¹⁴⁴

124. Much of the evidence we received called for inclusion of the UK’s emissions from international aviation and shipping within the Bill from the outset. The Natural Environment Research Council describes the exclusion of international aviation and shipping as being “of particular concern”,¹⁴⁵ while Friends of the Earth argues that the inclusion of emissions from aviation and shipping was implicit in the 60% target originally recommended by the Royal Commission on Environmental Pollution.¹⁴⁶ The Aviation Environment Federation points out that the UK already submits information on emissions from international bunker fuels to the United Nations Framework Convention on Climate Change (UNFCCC) as part of its annual greenhouse gas emissions inventory. It argues that special provision for aviation and shipping could be made at the outset, with flexibility to alter those provisions should international policy change.¹⁴⁷ Professor Grubb noted that “the Committee [on Climate Change] has to consider any contribution that is making the climate change problem worse, which would obviously include international bunker fuels. [...] Irrespective of how the carbon budget is defined, the Committee surely should be allowed to comment on the state of international aviation and marine transport.”¹⁴⁸

125. Friends of the Earth argues that:

There is sense to having a clause in the Bill which says that when an international agreement is reached which allocates those aviation emissions to countries in a particular way that the Bill is amended so that we use the internationally agreed way of doing it consistent with other countries. At the moment there is no such international agreement and there is not really very much prospect of one arising any time particularly soon. [...] It is something of a myth to say that we cannot allocate these emissions from aviation and shipping to the UK carbon account, as it is called in the Bill, because we already do it. [...] seeing we have the methodology and the thing is there, we should start using that right from day one in order to include carbon dioxide in this account and if that needs to be adjusted at some point in the future you can guarantee that there will be a smaller adjustment to our accounts than if we simply ignore it.

The reason for including it in the Bill is not simply because we should control those emissions, it is because without counting them it is a bit like being on a diet where

144 Ev 137–138

145 Ev 193

146 Ev 25

147 Ev 138

148 Qq 201–202

you count your calories but you decide not to count calories from chocolate. It just will not work.¹⁴⁹

126. In addition, the Tyndall Centre suggested that UK emissions from international aviation and shipping could have a substantial impact on the UK's total 'carbon account':

if you tot up the aviation and shipping additional emissions and include those within the domestic emissions budget, you get a new total UK cumulative carbon budget over a 50-year period between 2000 and 2050 of between 7 to 7.5 billion tonnes of carbon.¹⁵⁰ If the same apportionment regime is used that the Government used in order originally to come up with its 60 per cent target, this would equate to something closer to a 600 to 750 parts per million CO₂ rather than the 550ppm that the Government originally started from. [...] this is a 92 to 100 per cent chance of exceeding 2°C or a 50 per cent chance of exceeding four degrees. [...] a 450ppm CO₂ alone would give us a 30 per cent chance of not exceeding [the 2°C threshold], still not a huge chance, but would give us a reasonable chance and we have calculated that this correlates with a UK carbon budget of around 4.8 billion tonnes of carbon¹⁵¹ for the period 2000 to 2050.¹⁵²

127. The Office of Climate Change explains why the UK's share of emissions from international aviation and shipping have not been included: "The reason it is not included is simply because there is no internationally agreed basis for allocating responsibility for emissions from international aviation and shipping and therefore the Government took the view that it was irrational for the UK to take on that legal responsibility unilaterally, as it were. It does not mean that we do not report on our international aviation and shipping emissions but to take legal responsibility for them ahead of an international agreement would seem odd."¹⁵³

128. As the years pass it will become increasingly artificial not to take account of the UK's share of emissions from international aviation and shipping, as indicated by the Government's Aviation White Paper. The Government argues that there is not yet any internationally agreed basis for allocating responsibility for emissions from international aviation and shipping. But these emissions are already reported to the UN as a 'memo item'. This suggests that some basis for reporting has in fact been agreed. **The inclusion of the UK's share of emissions from international aviation and shipping will have significant implications for the validity of the 2050 target. We recommend that the Committee on Climate Change should be required to report on the UK's emissions from international aviation and shipping, whether or not they are counted as part of the statutory target, in order more accurately to inform its recommendations regarding budgets and targets which will affect all other sectors of the economy. Pursuant to this, the Government must make every effort to achieve international agreement as soon as possible on allocation mechanisms so that the powers provided for in Clause 15 (3) can**

149 Qq 117–118

150 This is equivalent to between 25.6 and 27.5 GtCO₂; figures have been converted into CO₂ by multiplying by 44/12.

151 This is equivalent to 17.6 GtCO₂; figures have been converted into CO₂ by multiplying by 44/12.

152 Q 14

153 Q 422

be exercised. We further recommend that once international agreement is reached, the Committee on Climate Change should include the UK's share of emissions from international aviation and shipping in its recommendations for the targets.

Conclusions and recommendations

Purpose of the draft Bill

1. Target setting alone cannot deliver policy objectives. However, enshrining one in law will strengthen the Government's resolve to achieve it, subject it to greater public accountability if it fails, and crucially give confidence and certainty to the business community whose mid- and long-term investment decisions are central to meeting the target. (Paragraph 10)

Terminology

2. There is inconsistency in the language within the Bill. Terms such as "UK carbon account" and "UK carbon dioxide emissions" are used seemingly interchangeably. We recommend that the Bill only use two terms, "carbon dioxide" or "carbon dioxide equivalent". To do otherwise will cause confusion. Not all greenhouse gases—as defined by the Kyoto Protocol—are carbon-based. Use of the word "carbon" in the Bill should be avoided to remove any further ambiguity. (Paragraph 19)

Cumulative emissions

3. We recommend that the Government should also incorporate within the Bill targets relating to cumulative emissions. These should address overall budgets to 2020 and to 2050 in quantitative terms (tonnes of CO₂eq) rather than only using annualised percentage reductions. This addition to target setting would help set the framework for each of the five-year budgets required by the Bill. (Paragraph 26)

2020 and 2050 targets

4. The Government sets much store by the Bill. We emphasise, however, that the Bill alone will not deliver the necessary emission reductions and note that CO₂ emissions in 2006 were a mere 5% below 1990 levels. As such, whilst we agree with the substantial amount of evidence calling for the 2050 target to be higher than 60%, we recognise that this target itself is still extremely ambitious. We are not in a position to suggest whether the 2050 target should be higher than 60%. However, we recommend that the first task of the Committee on Climate Change should be to assess the current state of knowledge regarding climate science in order to determine what the 2050 target should be and the trajectory for achieving it. (Paragraph 32)
5. We are not convinced by the Secretary of State's arguments for designing a 'ball park' target. Whilst we agree that the target to reduce emissions by 26% below 1990 baseline levels by 2020 will be challenging, and welcome the medium-term

indication of progress that the Government expects, we believe the Government is being unnecessarily prescriptive in placing an upper limit on the 2020 target. Having an upper limit serves no practical purpose. We recommend that Clause 3(1)(a) be amended by leaving out the words “, but no more than 32%,”. This will bring it in line with the 2050 target to reduce emissions by “at least 60%”. (Paragraph 38)

6. The Bill must make provision for the 2020 and 2050 targets to be revised, but we recommend that this provision be limited to an upwards revision only. We also recommend that the Committee on Climate Change be empowered to propose revisions to the mid- and long-term targets whenever it believes an amendment may be appropriate. (Paragraph 43)

Budgetary periods

7. We remain unconvinced that annual statutory targets should be used owing to inevitable fluctuations in energy demand and the unavoidable lag in reporting on progress. We accept the case for five-year budgetary periods, but we recommend that clear annual ‘milestones’ are set—and published—by the Committee on Climate Change in order that it may become apparent well before the end of a budgetary period whether or not policies are working. This also reflects the fundamental significance of cumulative emissions, and the trajectory involved, by which the five-year budgets are reached. (Paragraph 51)
8. We recommend that once the Bill becomes law, the Government should publish a sectoral breakdown of its national emission reduction targets to help different sectors of the economy and society—including Government, businesses, communities, households and individuals—appreciate what action they will have to take if the UK as a whole is to achieve its emission reduction objectives. (Paragraph 52)
9. The provision to amend a budget more than a year after the end of a budgetary period makes a nonsense of the entire concept of budgetary periods, and would render any sanctions completely unworkable. This is simply wrong. Subsection (5) of Clause 13 should be removed in its entirety. (Paragraph 55)

Purchasing credits from overseas

10. We recommend that the facility to purchase credits from overseas should only be exercised as a last resort. The Government should ensure that any purchases of credits from overseas do not prejudice a country’s attempts to meet its own environmental objectives. Because of the serious implications of over-utilising this facility in terms of the UK’s credibility on the international stage, combined with the potential for unforeseen consequences and the importance of public opinion, we recommend that this provision be strictly limited to a quantifiable amount to be advised by the Committee on Climate Change for each budgetary period. It should be for the Committee on Climate Change to determine if and when the purchase of overseas credits is appropriate. (Paragraph 64)

Enforcement

11. Although sanctions may not be either likely or real, we recognise that having an Act of Parliament has its own merits. By institutionalising the targets, the political pressure to achieve them will be increased. The Government of the day will also be subject to ‘the court of public opinion’. (Paragraph 72)
12. If a target is missed, we recommend that a debate on a remedial action plan is held on the Floor of the House on an amendable Government motion subsequent to the publication of the Government’s response to the annual progress report by the Committee on Climate Change. (Paragraph 73)

The Committee on Climate Change

13. The Committee on Climate Change should not be a policy-making or delivery body. It should be focussed on the provision of advice with regard to the budgets, and the publication of progress reports, but it must not be prevented from advising the Government on any policy matters that may come to its attention while carrying out its duties. (Paragraph 85)
14. In order to establish the independence of the Committee on Climate Change, the Secretary of State should be required to accept its recommendations without further debate. This would position the Committee’s advice alongside that of the Monetary Policy Committee whose interest rate decisions are not challengeable by the Chancellor of the Exchequer except under very extreme circumstances. (Paragraph 86)
15. We do not see that the Bill prevents the Committee on Climate Change from recommending the mid- and long-term targets, but it is not clear that the Committee will have this power. We recommend that by 2009 the Committee should review and recommend to the Secretary of State what the 2020 and 2050 target should be. We would not expect these to be less than 26% and 60%, respectively, below 1990 levels. In addition, the Committee should have the power and responsibility to make recommendations to the Secretary of State at any time regarding the mid- and long-term targets. (Paragraph 88)
16. It is right that the Committee on Climate Change should be composed of experts rather than representatives. Although the essential expertise required of the Committee is not explicitly listed in order of importance, the way it is listed in the Bill appears to suggest that economic interests are going to be more heavily represented than environmental ones. The schedule should be redrafted to dispel this impression (for example, by using alphabetical order). We also recommend that the impact of climate change upon biodiversity be added. (Paragraph 93)
17. It is not in anybody’s interest to have a strict fixed-term appointment of five years such that the entire Committee on Climate Change is potentially replaced at the end of every budgetary period. We recommend that appointments are for five years at least, and could be longer to allow their contracts to expire at different times. The Government should make them non-renewable so as to underpin members’ independence of Government. (Paragraph 95)

Resources

18. It is imperative that the staff and information resources available to the Committee on Climate Change are completely independent of Government. We recommend that independent consultants be asked by the Government to recommend the correct level of resources available to the Committee in order to establish that it is properly resourced. This should ensure that it can be truly independent of Government interests in conducting the analysis and research which it believes necessary to help ensure that the targets set out in the Bill are met. (Paragraph 101)
19. Given that the emissions forecasting model used by the DTI is adapted from its energy model, and the delays experienced in publishing the Government's Review of the Climate Change Programme, we question whether the current forecasting model is suitable for use by the Committee on Climate Change in drawing up budgets three budgetary periods (15 years) in advance. Our evidence suggests that the resources proposed for the Committee on Climate Change may quickly prove to be inadequate. We recommend that adequate resources are made available to the Committee on Climate Change for a 'bespoke' emissions forecasting model to be developed. Given the importance that Defra attaches to climate change, we are sure the Department will be able to find the relatively small sums involved by reprioritising from elsewhere within its budget. (Paragraph 106)
20. We recommend that the work of the Committee on Climate Change—including its minutes and advice given—should be posted on its website within one month of transmission to the Secretary of State. (Paragraph 112)
21. We strongly recommend that the Government commits to holding an annual debate on a substantive amendable motion on the Floor of the House, subsequent to the publication of the Government's response to the annual report produced by the Committee on Climate Change. (Paragraph 113)

Trading schemes

22. We recommend that the Government explains more clearly—prior to the final version of the Bill being produced—which trading schemes will be introduced using the enabling powers within the legislation. (Paragraph 117)
23. We recommend that the requirement for allowances to be allocated free (Schedule 2, Section 5 (3)) be removed from the Bill so as to avoid any unnecessary confusion, particularly for those industries and sectors that will be subject to these schemes. (Paragraph 121)

International aviation and shipping

24. The inclusion of the UK's share of emissions from international aviation and shipping will have significant implications for the validity of the 2050 target. We recommend that the Committee on Climate Change should be required to report on the UK's emissions from international aviation and shipping, whether or not they are counted as part of the statutory target, in order more accurately to inform its

recommendations regarding budgets and targets which will affect all other sectors of the economy. Pursuant to this, the Government must make every effort to achieve international agreement as soon as possible on allocation mechanisms so that the powers provided for in Clause 15 (3) can be exercised. We further recommend that once international agreement is reached, the Committee on Climate Change should include the UK's share of emissions from international aviation and shipping in its recommendations for the targets. (Paragraph 128)

Formal minutes

Wednesday 27 June 2007

Members present:

Mr Michael Jack, in the Chair

Mr David Drew	Mr Dan Rogerson
Mr James Gray	Sir Peter Soulsby
Patrick Hall	David Taylor
Daniel Kawczynski	Mr Roger Williams
Mrs Madeleine Moon	

Draft Report (*Draft Climate Change Bill*), proposed by the Chairman, brought up and read.

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

Paragraphs 1 to 128 read and agreed to.

Summary agreed to.

Resolved, That the Report be the Fifth Report of the Committee to the House.

Ordered, That the Chairman do make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No.134.

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

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

Several papers were ordered to be reported to the House.

[Adjourned till Wednesday 4 July at 4.15 p.m.]

Witnesses

Monday 14 May 2007

Page

Dr Kevin Anderson, Research Director and **Dr Alice Bows**, Senior Research Fellow, Tyndall Centre for Climate Change Research, **Mr Brian Samuel**, Head of Policy and **Mr Dan Staniaszek**, Evaluation Director, Energy Saving Trust Ev 13

Mr Martyn Williams, Senior Parliamentary Campaigner, Friends of the Earth, **Ms Ruth Davis**, Head of Climate Change Policy, Royal Society for the Protection of Birds Ev 32

Wednesday 16 May 2007

Mr Rupert Edwards, Managing Director and Head of Portfolio Management, Carbon Markets, Climate Change Capital, **Professor Michael Grubb**, Chief Economist and **Mr James Wilde**, Director of Insights, The Carbon Trust Ev 46

Mr Michael Roberts, Director of Business Environment and **Ms Gillian Simmonds**, Senior Policy Adviser, Business Environment, Confederation of British Industry (CBI), **Mr Gareth Stace**, Head of Environmental Affairs and **Mr Roger Salomone**, Energy Adviser, EEF, the Manufacturers' Association Ev 63

Monday 21 May 2007

Mr William Wilson, Director, Cambrensis Ltd, Barrister, Environmental Law Unit, Burges Salmon LLP, **Mr Michael Woods**, Partner, Stephenson Harwood, Council Member of the UK Environmental Law Association and Co-convenor of UKELA's Climate Change Working Party and **Mr Tom Bainbridge**, Partner, Nabarro, Co-Convenor of UKELA's Climate Change Working Party Ev 75

Mr Peter Lehmann, Chairman and **Mr John Chesshire**, Vice Chairman, Fuel Poverty Advisory Group Ev 86

Wednesday 23 May 2007

Mr Jonathan Brealey, Director of the Office of Climate Change and **Mr Robin Mortimer**, Head of the Climate Change Bill Team, Office of Climate Change Ev 94

Rt Hon David Miliband MP, Secretary of State for Environment, Food and Rural Affairs and **Mr Robin Mortimer**, Head of the Climate Change Bill Team, Office of Climate Change Ev 103

List of printed written evidence

	<i>Page</i>
1 Association for the Conservation of Energy	Ev 165
2 Association of British Insurers	Ev 162
3 Aviation Environment Federation	Ev 136
4 Tom Bainbridge and Michael Woods	Ev 82
5 Baptist Union of Great Britain, the Methodist Church, the Religious Society of Friends (Quakers) and the United Reformed Church	Ev 174
6 Better Regulation Commission	Ev 196
7 British Cement Association	Ev 146
8 Carbon Trust	Ev 45
9 City of London Corporation	Ev 190
10 Climate Change Capital	Ev 44
11 Commercial Boat Operators Association	Ev 143
12 Confederation of British Industries (CBI)	Ev 57
13 Drax Power Ltd	Ev 144
14 EDF Energy	Ev 167
15 EEF, the Manufacturers' Organisation	Ev 58
16 The Electric Heating and Ventilation Association	Ev 125
17 Energy Saving Trust	Ev 8
18 Environment Agency	Ev 134
19 E.ON UK	Ev 138
20 Friends of the Earth	Ev 24
21 Fuel Poverty Advisory Group	Evs 84, 92
22 Inland Waterways Association	Ev 124
23 Institution of Civil Engineers and Institution of Mechanical Engineers	Ev 155
24 Sir David King, ScD FRS	Ev 199
25 LEWIS—Global Public Relations	Ev 126
26 Local Government Association (LGA)	Ev 179
27 Mayor of London	Ev 189
28 National Farmers' Union (NFU)	Ev 183
29 Natural England	Ev 182
30 Natural Environment Research Council	Ev 193
31 Operation Noah	Ev 158
32 Renewable Energy Association	Ev 160
33 Royal Society for the Protection of Birds (RSPB)	Ev 28
34 RWE npower	Ev 191
35 Richard Shirres	Ev 123
36 Society of Motor Manufacturers and Traders (SMMT)	Ev 133
37 Tyndall Centre for Climate Change Research	Ev 1
38 UK Petroleum Industry Association	Ev 186
39 The Wildlife Trusts	Ev 176
40 William Wilson	Ev 73
41 World Development Movement	Ev 150

List of unprinted written evidence

Additional papers have been received from the following and have been reported to the House but to save printing costs they have not been printed. Copies have been placed in the House of Commons Library where they may be inspected by Members. Other copies are in the Parliamentary Archives, Houses of Parliament and are available to the public for inspection. Requests for inspection should be addressed to the Parliamentary Archives, Houses of Parliament, London SW1A 0PW. (Tel 020 7219 3074, Fax 020 7219 2570, archives@parliament.uk). Hours of inspection are from 9:30am to 5:00pm on Mondays to Fridays.

Fuel Poverty Advisory Group – Memorandum Annex B: *FPAG Annual Report* (CCB 10)
World Development Movement – Memorandum Annex A: *Emissions invisible* (CCB 17)
The Meridian Programme – Memorandum (CCB 42)
Mrs Phoebe McLeod – Memorandum (CCB 43)
Tyndall Centre for Climate Change Research – *Briefing Note 17*
Aldersgate Group – Briefing paper: *Carbon Costs: Corporate Carbon Accounting and Reporting*
Mr Brian Haynes – Background note
Campaign for Clean Air in London – Background note

Reports from the Committee since 2003

(Government Responses to Committee Reports appear in brackets)

Session 2006–07

Fourth Report	The UK Government's "Vision for the Common Agricultural Policy"	HC 546-I
Third Report	The Rural Payments Agency and the implementation of the Single Payment Scheme	HC 107-I
Second Report	Defra's Annual Report 2006 and Defra's budget	HC 132 (HC 522)
First Report	The work of the Committee in 2005–06	HC 213

Session 2005–06

Eighth Report	Climate change: the role of bioenergy	HC 965-I (HC 131 06–07)
Seventh Report	The Environment Agency	HC 780-I (HC 1519)
Sixth Report	Bovine TB: badger culling	HC 905-I
Fifth Report	Rural Payments Agency: interim report	HC 840
Fourth Report	The Departmental Annual Report 2005	HC 693-I (HC 966)
Third Report	The Animal Welfare Bill	HC 683
Second Report	Reform of the EU Sugar Regime	HC 585-I (HC 927)
First Report	The future for UK fishing: Government Response	HC 532

Session 2004–05

Ninth Report	Climate Change: looking forward	HC 130-I (HC 533 05–06)
Eighth Report	Progress on the use of pesticides: the Voluntary Initiative	HC 258 (HC 534 05–06)
Seventh Report	Food information	HC 469 (HC 437 05–06)
Sixth Report	The future of UK fishing	HC 122 (HC 532 05–06)
Fifth Report	The Government's Rural Strategy and the draft Natural Environment and Rural Communities Bill	HC 408-I (Cm 6574)
Fourth Report	Waste policy and the Landfill Directive	HC 102 (Cm 6618)
Third Report	The Work of the Committee in 2004	HC 281
Second Report	Dismantling Defunct Ships in the UK: Government Reply	HC 257
First Report	The draft Animal Welfare Bill	HC 52-I (HC 385)

Session 2003–04

Nineteenth Report	Water Pricing: follow-up	HC 1186 (HC 490 04–05)
Eighteenth Report	Dismantling of Defunct Ships in the UK	HC 834 (HC 257 04–05)
Seventeenth Report	Agriculture and EU Enlargement	HC 421 (HC 221 04–05)
Sixteenth Report	Climate Change, Water Security and Flooding	HC 558 (HC 101 04–05)
Fifteenth Report	The Departmental Annual Report 2004	HC 707 (HC 100 04–05)
Fourteenth Report	Sites of Special Scientific Interest	HC 475 (HC 1255)
Thirteenth Report	Bovine TB	HC 638 (HC 1130)
Twelfth Report	Reform of the Sugar Regime	HC 550-I (HC 1129)
Eleventh Report	GM Planting Regime	HC 607 (HC 1128)
Tenth Report	Marine Environment: Government reply	HC 706
Ninth Report	Milk Pricing in the United Kingdom	HC 335 (HC 1036)

Eighth Report	Gangmasters (follow up)	HC 455 (HC 1035)
Seventh Report	Implementation of CAP Reform in the UK	HC 226-I (HC 916)
Sixth Report	Marine Environment	HC 76 (HC 706)
Fifth Report	The Food Standards Agency and Shellfish	HC 248 (HC 601)
Fourth Report	Environmental Directives	HC 103 (HC 557)
Third Report	Caught in the net: Cetacean by-catch of dolphins and porpoises off the UK coast	HC 88 (HC 540)
Second Report	Annual Report of the Committee 2003	HC 225
First Report	Water Pricing	HC 121 (HC 420)