Transport, Infrastructure and Climate Change Committee

2nd Report, 2009 (Session 3)

Stage 1 report on the Climate Change (Scotland) Bill
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Transport, Infrastructure and Climate Change Committee

2nd Report, 2009 (Session 3)

Stage 1 report on the Climate Change (Scotland) Bill

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\textbf{VOLUME 2}

Annexes B to E to this report are available in the electronic version of this report (Vol 2) which can be found on the following web page:


\textbf{ANNEXE B: REPORTS FROM OTHER COMMITTEES}

- Report from the Economy, Energy and Tourism Committee
- Report from the Finance Committee
- Report from the Rural Affairs and Environment Committee
- Report from the Subordinate Legislation Committee

\textbf{ANNEXE C: ORAL EVIDENCE AND ASSOCIATED WRITTEN EVIDENCE}

20 January (3\textsuperscript{rd} Meeting, 2009 (Session 3))

Oral Evidence

Philip Wright, Deputy Director Climate Change, Fiona Page, Head of Scottish Climate Change Bill Team, Andrew Henderson, Policy Officer Scottish Climate Change Bill Team, and Cameron Maxwell, Climate Change Policy Team, Scottish Government.

Written Evidence

Scottish Climate Change Bill Team

Supplementary Written Evidence

Scottish Climate Change Bill Team

27 January (4\textsuperscript{th} Meeting, 2009 (Session 3))

Oral Evidence

Professor John Mitchell, Director of Climate Science, Met Office; Professor Peter Smith, Professor of Soils and Global Change, University of Aberdeen; Phil Matthews, Senior Policy Advisor, Sustainable Development Commission Scotland; Dr Andy Kerr, Assistant Director of Scottish Alliance for Geoscience, Environment and Society, University of Edinburgh; David Kennedy, Chief Executive, and Katherine White, Economic Adviser, Committee on Climate Change.

Supplementary Written Evidence

Met Office
3 February (5th Meeting, 2009 (Session 3))

Oral Evidence
Richard Dixon, Director, WWF Scotland;
Duncan McLaren, Chief Executive, Friends of the Earth Scotland;
Dave Watson, Scottish Organiser, UNISON;
Chris Hegarty, Advocacy Manager, SCIAF;
Gavin McLellan, Head of Christian Aid Scotland, Christian Aid Scotland;
Judith Robertson, Head of Oxfam in Scotland, Oxfam.

Written Evidence
Friends of the Earth Scotland

Supplementary Written Evidence
Stop Climate Chaos Scotland

10 February (6th Meeting, 2009 (Session 3))

Oral Evidence
Chris Austin, Head of Public Affairs, Association of Train Operating Companies;
Marjory Rodger, Director of Government Relations in Scotland, Confederation of Passenger Transport UK;
Derek Halden, Director, DH Consultancy;
Gordon Dewar, Managing Director, Edinburgh Airport, BAA Scotland;
Robert Ashdown, Head of Technical Division, Chamber of Shipping;
Gordon Wilmsmeier, Senior Research Fellow, Transport Research Institute, Napier University;
Dr Alice Bows, Core Researcher, Tyndall Centre Manchester;
Paul Tetlaw, Chair, Transform Scotland;
Jeff Gazzard, Coordinator, GreenSkies Campaign;
John Lauder, National Director for Scotland, Sustrans.

Written Evidence
Association of Train Operating Companies
BAA Scotland
Confederation of Passenger Transport
Chamber of Shipping
Transform Scotland

Supplementary Written Evidence
BAA Scotland:
Covering letter
Sustainable aviation CO2 roadmap
Non CO2 climate change effects of aviation emissions
Car parking additional information
Public transport additional information
GreenSkies Campaign
Derek Halden
24 February (7th Meeting, 2009 (Session 3))

Oral Evidence
Ken Gibb, Chair, Sustainable Scotland Network;
Councillor Alison Hay, Spokesperson for Regeneration and Sustainable Development, and Anil Gupta, Team Leader for Environment and Regeneration, COSLA;
John Stocks, Manager, Scotland, Carbon Trust;
Mike Thornton, Director, Scotland, Energy Saving Trust;
Chas Booth, Senior Press and Parliamentary Officer, Association for the Conservation of Energy;
Stephen Boyd, Assistant Secretary, STUC;
Anne Douglas, National Secretary, Prospect.

Written Evidence
COSLA and Sustainable Scotland Network
STUC

Supplementary Written Evidence
Prospect [Not reproduced, available on request from the Clerk]

3 March (8th Meeting, 2009 (Session 3))

Oral Evidence
Matthew Farrow, Head of Environment Group, CBI;
Brendan Dick, and Grant Hodges, Climate Change Business Delivery Group;
Jason Ormiston, Chief Executive, Scottish Renewables;
Colin Galbraith, Director, Policy and Advice, and Clive Mitchell, Strategy and Communications Manager, Scottish Natural Heritage;
Dr Chris Spray, Director of Environmental Science, and David Gorman, Head of Environmental Strategy, SEPA;
Geoff Aitkenhead, Asset Management Director, and Mark Williams, Business Strategy and Climate Change Manager, Scottish Water.

Written Evidence/Submissions to call for views
Climate Change Business Delivery Group
Scottish Renewables
Scottish Natural Heritage
SEPA
Scottish Water

10 March (9th Meeting, 2009 (Session 3))

Oral Evidence
Stewart Stevenson MSP, Minister for Transport, Infrastructure, and Climate Change, Philip Wright, Deputy Director, Climate Change, Fiona Page, Head of Scottish Climate Change Bill Team, Cameron Maxwell, Climate Change Policy Team, Madeleine Cusack, Climate Change Policy Team, and Kevin Philpott, Waste Regulation Senior Policy
Officer, Scottish Government; David Henderson-Howat, Policy Adviser, Forestry Commission Scotland.

Supplementary Written Evidence
Minister for Transport, Infrastructure and Climate Change

ANNEXE D: LIST OF OTHER WRITTEN SUBMISSIONS IN RESPONSE TO CALL FOR VIEWS FROM TRANSPORT INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE AND RURAL AFFAIRS AND ENVIRONMENT COMMITTEE

Transport, Infrastructure and Climate Change Committee

Remit and membership

Remit:

To consider and report on matters relating to transport, infrastructure and climate change falling within the remit of the Cabinet Secretary for Finance and Sustainable Growth.

Membership:

Rob Gibson
Charlie Gordon
Patrick Harvie (Convener)
Alex Johnstone
Alison McInnes
Des McNulty
Cathy Peattie (Deputy Convener)
Shirley-Anne Somerville

Committee Clerking Team:

Clerk to the Committee
Steve Farrell

Senior Assistant Clerk
Alastair Macfie

Assistant Clerk
Clare O'Neill

Committee Assistant
Lauren Spaven-Donn
The Committee reports to the Parliament as follows—

INTRODUCTION

1. The Climate Change (Scotland) Bill sets targets for reducing greenhouse gas emissions in Scotland and introduces a framework for advice and reporting on climate change.

Aim of the Bill

2. The Policy Memorandum\(^1\) states that the key objective of the Bill is to create a statutory framework for greenhouse gas emissions reductions in Scotland by setting a reduction target of at least 80% by 2050.

3. The Policy Memorandum goes on to state that to help ensure the delivery of this target, the Bill requires that Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050, as well as an interim target of a 50% reduction in emissions by 2030.

4. A briefing from the Scottish Parliament Information Centre was published on 15 January 2009 which provides further information on the provisions in the Bill.\(^2\)

The Committee’s approach

5. This report will first consider the proposal for an emissions reduction target of at least 80% by 2050. Second, the report will consider the methodology proposed for the measurement and assessment of emissions reduction targets in the Bill. Third, the report will examine the nature of the targets set by Scottish Ministers between 2010 and 2019 and the proposed 2030 interim target in the Bill.

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\(^1\) Climate Change (Scotland) Bill. Policy Memorandum. Available at: [http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf](http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf)

Importantly, the report will then discuss the actions needed in order for the climate change targets in the Bill to be met and the process to be properly monitored.

6. The report will then discuss the framework in the Bill for advice and reporting on climate change. Finally, the report will conclude by discussing the other climate change provisions contained in Part 5 of the Bill.

**CONCLUSION AND SUMMARY OF RECOMMENDATIONS**

7. The Climate Change (Scotland) Bill is claimed to be one of the most important pieces of legislation to be introduced in the Scottish Parliament. It will establish a framework for reductions in greenhouse gas emissions which will last until 2050, and which will have major implications for all aspects of Scotland’s economy and the way we live our lives. The Committee recognises that this is an ambitious target. This report fully endorses the objective of tackling climate change and believes it is right that Scotland should set challenging targets for reductions in greenhouse gas emissions as its contribution to international efforts to tackle global climate change.

8. The Committee has therefore agreed to support the general principles of the Bill and the policy intention underpinning the legislation. However, in its scrutiny of the Bill at Stage 1, the Committee has been keen to ensure that the legislative framework for the emissions reductions targets is as robust and effective as possible. It is of vital importance that this very significant piece of legislation delivers an effective framework for addressing climate change. In this report, the Committee will highlight, in particular, two important areas where it believes that changes are needed for the Bill to meet the challenge.

9. First, the Committee has noted the scientific evidence that strong early action is needed in order to deliver the necessary reductions in greenhouse gas emissions. The Committee believes that the framework for emissions reductions targets set down for the period between 2010 and 2019 needs to be more robust. The Committee wishes to see the interim target brought forward from 2030 to 2020, in line with changes proposed by the UK Government in advance of international discussions due to take place in Copenhagen later in 2009.

10. Second, the Committee is concerned about delivery of the targets. The Bill will not, in itself, deliver reductions in greenhouse gas emissions. The Committee believes that we cannot wait for comprehensive plans to provide specific details of how emissions reductions will be secured or for perfect monitoring tools to be devised. Early action to change policies and shift resources is needed, together with strong and committed leadership to deliver the radical measures to make the required emissions reductions and persuade citizens of the need for action. The Committee calls on the Scottish Government to put before the Parliament at the earliest possible date a comprehensive strategy document outlining how it intends to achieve the targets set out in the Bill.

11. This report will discuss these key points in more detail, and will also make a number of other recommendations. The report will also highlight the significant dissatisfaction with the way the consultations on proposals in Part 5 of the Bill were carried out.
BACKGROUND

Pre-legislative scrutiny

12. The Committee began familiarising itself with the issues relevant to the Bill well in advance of its introduction. In February 2008, the Committee undertook fact finding visits to London and Brussels. The policy debate on climate change at both UK and EU level provided a variety of opportunities to develop the Committee’s awareness of legislative and policy developments in advance of the introduction of legislation in Scotland. The Committee met with MPs, MEPs, local authorities, and relevant non-governmental organisations.

13. In addition, in advance of the Bill’s introduction, the Committee organised a number of seminars with stakeholders on the Greenhouse Gas Regional Inventory Project, which is an energy emissions scenario tool that allows an operator to assess the carbon implications of different energy futures. The tool illustrated the nature and extent of mitigation measures that might need to be applied across the various sectors to achieve the significant reduction in emissions required to reach proposed government targets.

Introduction of the Bill

14. The Climate Change (Scotland) Bill was introduced by the Cabinet Secretary for Finance and Sustainable Growth, John Swinney MSP, on 4 December 2008. The Bill was accompanied by a Policy Memorandum and a Financial Memorandum. The Parliament at its meeting on 10 December 2008 agreed that the Transport, Infrastructure and Climate Change Committee be designated as the lead committee, and that the Bill should also be referred to the Rural Affairs and Environment Committee as secondary committee. The Economy Energy and Tourism Committee also took evidence on Part 5, Chapter 3 of the Bill.

15. This Committee agreed its approach to Stage 1 consideration at its meeting on 16 December 2008 and issued a call for views on the general principles of the Bill on 19 December 2008. The Rural Affairs and Environment Committee also issued a call for views on the Bill, specifically on section 47 on the role of the Forestry Commission.

Evidence

16. This Committee received 359 responses to its call for views on the Bill. In total, 69 organisations responded and 290 responses came from individuals. These responses are attached at Annexe D.

17. The Committee took oral evidence on the Bill from witnesses at its meetings of 20 January 2009, 27 January 2009, 3 February 2009, 10 February 2009, 24 February 2009, 3 March 2009 and 10 March 2009. The minutes of these meetings (which include details of the witnesses who gave evidence) are attached at

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3 Climate Change (Scotland) Bill. Available at: http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/index.htm
Annexe A. Extracts from the Official Reports of those meetings, together with associated written and supplementary evidence comprise Annexe C.

18. In addition to the written and oral evidence received as part of its consideration of the Bill, the Committee hosted a high-profile climate change event in the Chamber on 27 March 2009 which examined the international impact of climate change and Scotland’s role in reducing emissions in relation to the Bill. A transcript from this event is attached at Annexe E. The Committee would like to thank all those who provided written and oral evidence on the Bill.

Reports by other committees

Reports by the Rural Affairs and Environment Committee and the Economy, Energy and Tourism Committee
19. The Rural Affairs and Environment Committee reported to this Committee on Chapters 1, 2 and 4 of Part 5 of the Bill. The Economy, Energy and Tourism Committee reported to the Parliament and this Committee on Chapter 3 of Part 5 on energy efficiency. The issues raised by these committees are discussed later in this report. The reports of these committees are included at Annexe B.

Financial Memorandum
20. The Committee will discuss the Financial Memorandum accompanying the Bill when it considers the Finance Committee’s report later in this report. This report is included at Annexe B.

Report by the Subordinate Legislation Committee
21. The Committee notes the report of the Subordinate Legislation Committee, which considered the delegated powers provisions of the Bill and is included at Annexe B. This is considered further by the Committee later in this report.

Policy Memorandum
22. The Committee is satisfied that the Policy Memorandum factually describes the contents of the Bill. The Committee will comment in detail on the issues highlighted in the Policy Memorandum later in this report.

Equalities issues
23. The Committee has considered the section of the Policy Memorandum addressing the effects of the Bill on Equal Opportunities and notes its contents. The Committee ensured that it included within its call for views a question inviting comments on equalities issues arising from the Bill. The Committee also targeted its call for views at specific organisations with an interest in equalities issues such as the Equality and Human Rights Commission. No concerns with regard to equalities were raised with the Committee. The Committee notes that whilst the specific provisions in the Bill may not have immediate equalities implications, the future implementation of specific measures to help meet the targets for emissions reductions could potentially raise a number of equalities issues which the Scottish Government must consider. The Committee discusses later in this report the importance of engaging with members of the public and with all sections of the community when the Scottish Government is taking forward policy measures
necesary to reduce emissions. It would, however, emphasise the importance of ensuring that equalities issues are fully integrated into the development phase of such policies.

**Consultation**

24. The Policy Memorandum outlines the consultation which took place on the provisions in the Bill. This process included a public consultation which principally covered Parts 1 to 4 of the Bill, which took place between 29 January and 23 April 2008 and which generated a total of 21,046 responses.


26. There appeared to be a general satisfaction among witnesses with the way this consultation had been carried out. Professor Peter Smith of the University of Aberdeen commented—

‘The Government has taken the necessary advice and has contacted the main players. As far as I am aware, no one in the scientific community has felt excluded from that process.’

27. Mike Thornton of the Energy Saving Trust called the consultation ‘helpful and informative’ and Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland told the Committee that ‘our reading of the process is that, as a standard consultation, it was fairly well done’. Other largely positive comments were received from organisations including COSLA, the Confederation of Passenger Transport UK, Scottish Natural Heritage, SEPA and Scottish Water.

28. There was, however, significant dissatisfaction with the way that consultation on key provisions in Part 5 of the Bill was conducted. The Committee notes, for example, the comments of the Rural Affairs and Environment Committee in relation to the forestry positions on the Bill. The RAE Committee reported that—

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‘Introducing a Bill in advance of the conclusion of consultations on its contents is not appropriate. Parliamentary committees should be afforded the right to undertake scrutiny of legislation with all of the relevant information at their disposal.’\textsuperscript{10}

29. The Committee will address these concerns in more detail later in this report.

**THE 2050 TARGET**

30. This report will first consider the appropriateness of the 2050 target. The Policy Memorandum accompanying the Bill explains the basis for the reduction target of at least 80%, indicating that—

‘This is commensurate with the Scottish Ministers’ desire to achieve close to the top end of the 50 to 85% reduction in greenhouse gas emissions as Scotland’s share of the reductions that the IPCC states in its Fourth Assessment Report is necessary, globally, by 2050 to limit average temperature rises to 2.0-2.4°C.’\textsuperscript{11}

31. A number of witnesses felt that the target of an 80% reduction in emissions was appropriate because it appeared to be based on current scientific advice. Matthew Farrow of the CBI indicated that—

‘The CBI's view was that we should consider what the Committee on Climate Change said: if its analysis of the science suggested a target of 70, 80 or 90 per cent, that would be what the target should be. From that point of view, the 80 per cent target for the Scottish bill mirrors the UK target, which seems appropriate.’\textsuperscript{12}

32. Chas Booth of the Association for the Conservation of Energy told the Committee that—

‘We think that a target of at least 80 per cent by 2050 is right for Scotland. That is in line with what the Intergovernmental Panel on Climate Change recommends.’\textsuperscript{13}

33. A number of witnesses commented that the 2050 target appeared to be ambitious. Professor Peter Smith of the University of Aberdeen told the Committee—

‘There are no more ambitious targets anywhere else in the world, although some other countries are also aiming for an 80 per cent reduction in

\textsuperscript{10} Scottish Parliament Rural Affairs and Environment Committee. 2009 (Session 3) Report to the Transport, Infrastructure and Climate Change Committee on Stage 1 of the Climate Change (Scotland) Bill.

\textsuperscript{11} Climate Change (Scotland) Bill. Policy Memorandum, paragraph 22. Available at: \url{http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf}


emissions by 2050. The targets are brave, bold and world leading in that respect.14

34. Jeff Gazzard of GreenSkies commented that ‘the bill is innovative and ambitious’.15 Councillor Alison Hay, representing COSLA, expressed the view that the 2050 target in the Bill was ‘ambitious enough’ and commented ‘if we take into account what the United Kingdom Committee on Climate Change has suggested, 80 per cent is quite a tight target’.16

35. Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland felt, however, that Scotland may need to meet the 80% emissions reduction target in advance of 2050—

‘We have called for a reduction of at least 80 per cent. My reading of the climate science as it is moving—in particular, the advice that concentrations will need to be lower—suggests that 80 per cent will be only a staging point in a longer-term transition. The target might need to be achieved earlier than 2050.’17

36. The City of Edinburgh Council expressed the view in written evidence that a target of 90% might be more appropriate. The Royal Society of Chemistry argued that some flexibility should be built into the legislation to allow the level of the 2050 to be amended if required, stating in written evidence—

“If an authoritative body, such as the Committee on Climate Change, concludes that there is a need for the GHG [greenhouse gas] emission reduction target of 80% to be amended then this should be possible within this proposed system.”

37. The Committee questioned witnesses on whether the 2050 reduction target was achievable, given the many challenges associated with securing such a large cut in emissions. John Stocks of the Carbon Trust responded—

‘I could not be certain yet. I am not sure that I can stack up the sums to say, "Yes—I can see an 80 per cent reduction being achievable." However, I see some very significant measures that together can start to produce very deep reductions.’18

38. Stephen Boyd of the STUC told the Committee that he considered the targets to be ‘challenging, but achievable’.19 This was also the general view of Professor

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Colin Galbraith representing Scottish Natural Heritage. Mark Williams of Scottish Water commented—

‘Scottish Water believes that the targets are achievable, but we need a lot more clarity about the road map for achieving our aims. We need to understand exactly where we can most effectively spend our money in order to achieve the desired outcomes. However, that clarity is not there yet.’

39. The Committee firstly affirms its support for the proposal that six key greenhouse gases, and not just carbon dioxide, should be included within the scope of the emissions reductions targets in the Bill, and recognises that in time other gases may come to be of sufficient concern to be included in the targets. The Committee agrees with the general balance of opinion that the 80% emissions reduction target for 2050 is the minimum which is necessary. The Committee also notes the arguments in favour of Scotland and the UK adopting the same 2050 target, particularly one that is based on the scientific advice of the UK Committee on Climate Change. The Committee believes that it will be important that Scotland makes a substantial contribution to the meeting of the UK 80% target. Some witnesses suggested in fact that Scotland might be able to contribute a greater share due to its substantial natural resources and other geographic and economic factors.

40. The Committee agrees with the comments of Mark Williams from Scottish Water which highlight an important point in relation to the delivery of policies to address climate change. Although this Bill establishes a framework for the targets, the Committee believes that it is essential that effective policies are developed and implemented by government in order to meet the targets, and that these policies are supported by an appropriate level of investment. This is a major theme of this report and is something the Committee will return to later.

TARGETS – METHODOLOGY

41. It is essential that the targets in the Bill are constructed in such a way that they will be a useful and accurate tool for measuring whether Scotland has reduced its greenhouse gas emissions. In this section of the report the Committee will discuss the methodology used for the emissions reductions targets contained in the Bill. The Committee will then go on to discuss the specific targets in the Bill themselves.

Measurement of emissions

Time delay in obtaining emissions data

42. The Committee believes it is essential that reliable data is available on which to base the setting of emissions reductions targets, otherwise the main purpose of the Bill could be compromised. The Committee heard in evidence that there is currently up to a 20 month delay in emissions being emitted and them being reported in the Scottish greenhouse gas inventory.

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43. Dr Andy Kerr of the University of Edinburgh highlighted the potential significance of this delay—

‘If Scotland does not achieve its 3 per cent cut by 2021, we will find that out only in 2023. By the time that we have done anything about that, it will be 2025 so, yes, you bet it makes a difference. Such delays create all sorts of problems with the whole principle of having annual targets as opposed to carbon budgets.’

44. Professor Peter Smith of the University of Aberdeen explained to the Committee the scientific reasons for the delay in obtaining accurate figures, and cautioned that although the delay could potentially be reduced from 20 months, a reduction to 12 months would be the maximum that could be achieved even if there was an instantaneous evaluation.

45. In a contribution during the Committee’s climate change event on 27 March 2009, Paul McAleavey of the European Environment Agency raised the possibility that data from the EU emission trading scheme could deliver faster, though less reliable, information—

‘A faster mechanism is available through the market. The emission trading scheme that has been established sends much quicker signals on emissions and the carbon price. We report on official data 18 months behind, but the market and some of the market institutions that deal with carbon trading make estimates that are, I would say, slightly less reliable but based on more recent market data. There might be scope for considering the way in which those two processes operate together.’

46. In giving evidence to the Committee, John Stocks of the Carbon Trust raised a further concern about procedures for gathering emissions data, commenting—

‘I see little detail of the reporting and data-gathering mechanisms and calculation methods that will be used. I am uncomfortable about saying that we know that they are sufficiently robust. I am particularly concerned about data gathering, an issue with which our clients routinely have difficulties.’

47. On the other hand, Ken Gibb of the Sustainable Scotland Network suggested that local authorities currently possess—

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‘A fairly well-established system for and track record of recording, monitoring and, if necessary, reporting on our own emissions, so I am content that that aspect will not cause us any difficulties.’\(^{27}\)

48. The Committee understands that this is true with regard to electricity and gas consumption within council buildings. However work on reporting emissions from transport and waste management is at a much earlier stage of development amongst most Scottish local authorities. For example, Ken Gibb from the Sustainable Scotland Network told the Committee—

‘A number of authorities are struggling to get to grips with local authority transport fleet management and business mileage. We have recognised for some time that we need to get involved with that agenda.’\(^{28}\)

49. The Committee notes the evidence from Dr Chris Spray of SEPA who indicated that SEPA had expertise in this area—

‘We are keen to develop ideas on the science, the data from monitoring, regulatory aspects in which we can help, advice to business and communication.’\(^{29}\)

50. Another witness from SEPA, Dave Gorman, elaborated further, commenting—

‘Trying to understand the assumptions that should be made in complicated processes such as those at Grangemouth is meat and drink for certain of my expert colleagues, whose aim is to piece together the actual picture. We have expertise both in that work and in gathering and publishing data. We hinted in our evidence that SEPA might be one candidate for taking on more of that activity because we understand it.’\(^{30}\)

51. In evidence to the Committee, the Minister for Transport, Infrastructure and Climate Change explained—

‘There has not yet been any substantial progress in accelerating the timescale for annual reporting...It would certainly be possible for us to get information earlier, but it is more likely that that information would be subject to revision. We have to make a judgment about getting the balance right; it is not an absolute science. We are considering how we can accelerate the process, which at the moment takes about 18 to 20 months.’\(^{31}\)

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52. The Committee is concerned that if data on emissions is almost two years old it could significantly compromise the framework by which the Scottish Government reports to the Parliament on its progress in meeting the annual targets. Potentially, by the time it is apparent that action is needed to address a missed target, the situation may have deteriorated even further. This could make the task of getting the trajectory of emissions reductions back on track even more difficult. The issue of obtaining accurate information is therefore of central importance to the success of the Bill. The Committee notes the written evidence of the Royal Society of Edinburgh which states that ‘unless this can be improved, annual setting of targets will be flawed and the assessment of the trajectory of change will be uncertain’.32

53. The Committee recommends that the Scottish Government increases its efforts to identify the means by which the 18 to 20 month reporting time can be reduced and keeps this Committee up to date with its progress in meeting this objective. The Committee notes the potential expertise offered by SEPA in the field of emissions monitoring and recommends that the Scottish Government considers how this could best be employed to support the Bill framework.

54. The Committee notes that it may be possible to obtain estimated emissions data quicker than the current 18 month timescale for the availability of final figures. The Committee therefore recommends that the Scottish Government investigates whether this preliminary data could be useful in informing Scottish Government policy on climate change in advance of the availability of the official figures. The Committee further recommends that the Scottish Government clarifies what emissions data it intends to place in the public domain in order to allow the Parliament and other interested parties to scrutinise its performance in meeting its targets.

Carbon assessment of Scottish Government activities

55. The Committee believes that the Scottish Government should lead by example in conducting a prior assessment of the carbon impacts of its policies and programmes, an area of work which has most unfortunately been subject to delay. The most recent Scottish Government budget was not, for example, subject to any systematic evaluation as to its carbon impacts. This has been an area of interest to the Committee and was the subject of a recent committee report to the Finance Committee.33

56. In its report to the Finance Committee, the Committee recommended that a robust, credible and transparent system of carbon accountability is in place at the latest in time for the Draft Budget 2010-11 and Spending Review 2010. The Committee noted in its report that there will never be a single, perfect carbon assessment tool that will prescribe policy, but that there is a pressing need to adopt an evolutionary approach to developing a tool that is fully integrated with

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31 The Royal Society of Edinburgh. Written submission to the Transport, Infrastructure and Climate Change Committee.
policy making. Incremental progress is needed in adopting carbon assessment so that all the main actors become familiar with assessing the carbon implications of policies and programmes as quickly as possible. The Committee also noted in its report that there may be merit in the Finance Committee considering how carbon assessment could form a statutory part of the Parliament's consideration of other major expenditure projects.

57. The Committee recommended in its report to the Finance Committee that the Scottish Government provides the Committee with regular written updates on the progress of the development of its carbon assessment tool. The Committee welcomes the recent offer made by the Cabinet Secretary for Finance and Sustainable Growth to provide a briefing to the Committee on progress made so far on the development of the tool. This is an issue that the Committee will wish to return to during its scrutiny of future Scottish Government budgets. Especially in view of the time delay in obtaining emissions data, it is vitally important that assessment of the carbon impact of policies and programmes is incorporated, particularly at the policy planning and resource allocation stages. In the context of this Bill and its objectives, the Committee believes that the importance of developing a robust and effective carbon assessment mechanism to assist in policy development and implementation is absolutely crucial. We will return to this point later in the report.

Production versus consumption targets

58. The Committee notes that there has been some debate over whether targets should focus on those emissions produced in the geographical area of Scotland (‘production targets’), or whether all emissions associated with activity in Scotland should be included (‘consumption targets’). The targets in the Bill are production targets.

59. Phil Matthews of the Sustainable Development Commission Scotland voiced support for the approach taken in the Bill of using source-based emissions, but indicated that it would be useful to have an insight into Scotland’s wider carbon footprint. Professor Andy Kerr of the University of Edinburgh told the Committee ‘it would be great if such reporting could be done, but it will take a while before the standards of reporting around the world are appropriate.’

60. Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland told the Committee that he would like the Bill to contain provisions on parallel reporting of the impact of consumption. He explained his proposed approach further—

‘The reporting of consumption would not have a target, unlike the reporting of production, but every year the minister would tell you not only how many

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emissions Scotland had produced directly a year or two ago but how many Scotland had been responsible for around the world.\(^{36}\)

61. A representative of the Energy Saving Trust, Mike Thornton, also supported the idea of parallel reporting on consumption-based emissions, telling the Committee that—

'The Welsh Assembly Government is proposing to report separately on Wales's total consumption emissions. We float the idea that doing the same here might add to the picture that the Scottish Government gets of Scotland’s overall carbon footprint.'\(^{37}\)

62. The Minister for Transport, Infrastructure and Climate Change voiced concerns at the potential confusion which might arise from adopting a consumption-based approach, telling the Committee that ‘focusing on two measures simultaneously can lead to a real danger: confusing and conflicting messages can result.’\(^{38}\) He went on to say that—

'Figures on our consumption will deviate from figures on our net emissions. What we propose to do conforms to international practice, in particular to the United Nations Framework Convention on Climate Change. That is appropriate; that should be our focus. We have to focus on the things that we do in Scotland that are responsible for CO\(_2\) emissions.'\(^{39}\)

63. The Committee received a letter from the Scottish Government Bill Team on 13 February 2009 on the subject of Scotland’s ecological footprint. It stated that—

‘The Scottish Government is committed to measuring Scotland’s ecological footprint, with work currently underway investigating the development of Scottish economic-environmental accounts to improve the quality and transparency of footprint calculations. The output from this work will include a carbon footprint for Scotland which we expect to be available in 2010…

The Scottish Government is also considering the frequency for producing the ecological footprint indicator and, given the complexities of the indicator and the frequency of the data available to feed into the model, we anticipate recalculating Scotland’s ecological footprint every two or four years.

The frequency of reporting on the ecological and carbon footprint does not prevent the Scottish Government from reporting the latest position on the carbon footprint as part of the Scottish Ministers’ annual report on production-

based emissions performance required by the current Climate Change (Scotland) Bill provisions.\textsuperscript{40}

64. \textbf{The Committee believes that the emissions reductions targets in the Bill should be based on those emissions generated in Scotland.} The purpose of the Bill is to encourage Scotland to address its own domestic emissions and focus its policies on reducing emissions in Scotland. The Committee therefore believes that it is right that the targets in the Bill are production-based. However the Committee also considers that it is important that Scotland understands the volume of emissions it is responsible for around the world. \textbf{The Committee recommends that a mechanism for reporting on consumption should be established which is in addition to, but separate from, the framework of targets set out in the Bill. One option is that this could form part of the reporting duties of Scottish Ministers set out in Part 3 of the Bill, to be developed as international agreements make consumption reporting easier to manage.}

65. \textbf{The Committee recommends that the arrangements for reporting on consumption should be flexible enough to take account of developing international understanding of the methodology for consumption reporting.} In this context, the Committee is encouraged by the remarks of the Bill team that work is underway to assess Scotland’s ecological footprint and believes that this could form the basis of consumption reporting.

\textbf{Reporting on cumulative emissions}

66. The emissions reduction targets in the Bill are ‘point in time’ targets, which state that a particular percentage reduction in emissions has to take place by a certain date. An alternative approach would be to record the total cumulative amount of emissions in the atmosphere. This information is of significance because the level of cumulative emissions present in the atmosphere at any one time will impact directly on climate change. The level of cumulative emissions will either increase or decrease depending on the emissions reductions trajectory taken towards a final point in time target.

67. A number of witnesses indicated that it would be relatively straightforward to calculate Scotland’s level of cumulative emissions.\textsuperscript{41} The Minister himself told the Committee that ‘reporting on what is happening will enable us to see how that is affecting cumulative emissions.’\textsuperscript{42}

68. Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland expressed the view that the setting of the point in time targets should take place in the context of the level of cumulative amount of emissions in the atmosphere—

\textsuperscript{39} Climate Change Bill Team. Written evidence to the Transport, Infrastructure and Climate Change Committee, 13 February 2009.
‘Our suggestion is that, at a practical level, the cumulative budget approach can reinforce an annual-targets approach. A minimum target of at least 3 per cent a year would be set, targets would continue to be set in batches, and the advice from the advisory body and the duties placed on ministers in formulating the targets would have regard to the cumulative budget.’

69. The Minister told the Committee that ‘our focus is implicitly on cumulative emissions. I say that because we will set annual budgets, which will enable us to see what will be in the bank from Scotland’s carbon reductions’. He went on to say—

‘If people thought that we could be helpful by adding up all the numbers across the reports, and if people felt that such a total would better inform parliamentarians and wider Scotland, it would not be difficult for us to include it in our reporting. We would certainly be open to doing that.’

70. The Committee notes the significance of cumulative emissions in the atmosphere as a cause of climate change. The Committee also notes that the best way of reducing cumulative emissions is to take strong early action in order to cut emissions. The Committee discusses this key objective in more detail later in this report.

71. In relation to the framework for the Bill, the Committee notes, however, that a point in time target is likely to focus policy direction and efforts to reduce emissions in a way that targets based on cumulative emissions targets might not. The Committee therefore believes that the point in time approach in the Bill is the correct one in relation to the setting of targets in the Bill.

72. However, the Committee notes that data on cumulative emissions could readily be calculated and included within the Scottish Government’s annual reports to the Parliament on emissions. The Committee is attracted to a suggested approach in which data on cumulative emissions should form part of the reporting regime associated with the Bill, but be treated separately from the monitoring of progress on meeting the annual targets. The Committee recommends that the Scottish Government responds to this suggestion ahead of the start of Stage 2 of the Bill.

Flexibility of annual targets

Annual targets in Scottish Bill versus multi-year emissions budgets in UK Act

73. The Bill requires annual emissions reductions targets to be set for each calendar year from 2010 to 2050. These annual targets will be set in batches, the first being for the years 2010 to 2022 inclusive. Subsequent batches will include five annual targets: 2023 to 2027, 2028 to 2032 and so on.

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74. This approach differs from the approach in the UK Climate Change Act 2008 which introduced a system of carbon budgeting which constrains the total amount of emissions in a given time period. The carbon budget periods set out in the UK Act will last five years, beginning with the period 2008-2012, and must be set three periods ahead. In this context, carbon budgeting refers to the ‘budget’ for emissions over a certain number of years (i.e. the amount of emissions permitted within that period) rather than the financial process of allocating expenditure in the government’s budget to policy measures designed to reduce emissions.

75. The Royal Society of Edinburgh said in written evidence that—

‘There is much to be said for smoothing the assessment of emissions trends by making running mean estimates of emissions rather than using the last year’s data as the gauge of progress. Our principal concern should be to see trends rather than be over-influenced by strong annual fluctuations…. A 3-year running mean might be most appropriate, which also argues for the timely release of emissions data’

76. David Kennedy, chief executive of the UK Committee on Climate Change, set out the arguments which were made at a UK level in favour of multi-year emissions budgets in the UK Act as opposed to a framework based on annual targets—

‘[The UK Act] does not include annual targets because they might not provide adequate flexibility, given the year-on-year changes in emissions because of the weather, for example—emissions rise in a cold winter because people use more heating and we must burn more coal in our power stations. Such factors can mean that reductions go off track from year to year, although they are not off track in the five-year context.’

77. The Committee received evidence from bodies such as Stop Climate Chaos Scotland arguing in favour of the provision in the Bill for annual targets, although Stop Climate Chaos Scotland argued in favour of 3% annual emissions reductions from 2010. This issue is discussed later in the report.

78. Some witnesses raised concerns about the lack of flexibility in the use of annual targets. Anil Gupta of COSLA, for example, explained—

‘Councils are concerned that unforeseen factors might result in our not being able to achieve reductions. For example, climate issues, such as a particularly cold winter, might cause problems. That is a reason for proposing a five-year rolling target. Councils would report every year, but the longer timeframe would enable the inevitable ups and downs to be averaged out.’

79. Matthew Farrow of the CBI argued that—

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46 The Royal Society of Edinburgh. Written submission to the Transport, Infrastructure and Climate Change Committee.


'I am not a big fan of annual targets because it is difficult to guarantee year-on-year falls. The yearly figure can bounce around and particular factors can affect it...The short-term trend is what matters—I think we all agree that we need early cuts...Our view is that the UK 2008 act takes a good approach.'\(^{49}\)

80. These concerns were, however, not shared by Jason Ormiston from Scottish Renewables who argued that 'it would be a big mistake to use weather patterns as a justification for missing a target'.\(^{50}\) Chas Booth of the Association for the Conservation of Energy also told the Committee—

'...We do not believe that that argument holds water because the variability that a cold winter would bring would not be sufficient to knock us out of the 3 per cent threshold. If the Government misses its 3 per cent target, it has to come back to Parliament and explain how that happened and how it will ensure that it gets back on track.'\(^{51}\)

81. The Scottish Government’s position on this issue was set out in the Policy Memorandum accompanying the Bill—

'Multi-year emissions budgets would provide flexibility within the long-term emissions reduction trajectory. However, annual targets provide greater certainty as to the magnitude of emissions reductions that need to be made at any given time. A large number of the responses to the Bill consultation expressed a preference for annual targets.'\(^{52}\)

**Banking and borrowing**

82. Some witnesses suggested that the concept of banking and borrowing from previous or upcoming carbon budgets (or, in the case of the Scottish Bill, batches of annual targets, or year on year annual targets) might provide some flexibility in relation to the meeting of targets. The Committee notes that this concept of banking and borrowing is, however, absent from the Bill.

83. The Policy Memorandum explains the Scottish Government’s alternative position to banking and borrowing—

'Where the net Scottish emissions account exceeds an emissions target, the Scottish Ministers are...required lay a report setting out the proposals and policies by which they intend to compensate for the excess emissions.'\(^{53}\)

84. This position was supported by Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland who argued—

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\(^{52}\) Climate Change (Scotland) Bill. Policy Memorandum, paragraph 46. Available at: [http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf](http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf).

\(^{53}\) Climate Change (Scotland) Bill. Policy Memorandum, paragraph 37. Available at: [http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf](http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf)
Banking and borrowing are not necessary. We support the proposal that the Scottish ministers should produce a remedial action plan and that, in the event of failure, the plan should involve new and additional measures.\textsuperscript{54}

85. On the other hand, David Kennedy, chief executive of the UK Committee on Climate Change, suggested that banking and borrowing might bring useful flexibility to the Scottish framework—

‘Is it appropriate not to have banking and borrowing in Scotland? If Scotland has year-on-year targets, some flexibility is probably wanted to allow for such events. The committee might want seriously to consider allowing a little borrowing from future years.’\textsuperscript{55}

86. The Minister explained his views on banking and borrowing in evidence to the Committee—

‘Banking and borrowing is simply about the budgets; it is not necessarily about the action that is required to address the problem. Ministers would have an overdraft, in carbon terms, and it is not terribly easy to deal with that when you are working on an annual reporting cycle. Our approach is intended to be quite a challenging one for ministers and their teams to deal with, as it forces an immediate response.’\textsuperscript{56}

87. It is clear to the Committee that the UK and Scottish Governments have decided to take different approaches in relation to the flexibility built into their respective targets framework. The Committee notes that the Bill’s use of annual targets for emissions reductions rather than the multi-year emissions budgets proposed in the UK Act, and the absence of banking and borrowing arrangements, means that the regime adopted in Scotland will be more rigid that that in place elsewhere in the UK.

88. Whilst many witnesses have welcomed the Scottish Government’s adoption of this challenging approach in the Bill, others – including the chief executive of the UK Committee on Climate Change – have raised questions as to whether the proposals in the Bill allowed for sufficient flexibility. The Committee is satisfied with the approach in the Bill but recommends that the Scottish Government keeps its system of operation of annual targets under review.

**International credits**

89. The Bill as introduced allows for international credits gained from emissions trading to be counted towards Scottish targets, with no limits prescribed on this practice.

90. This is a different approach from that taken in the UK Climate Change Act 2008 where the legislation places a duty on the Secretary of State to set a limit on the ‘net amount of carbon units’ that can be credited to the net UK carbon account in each budgetary period. The UK Act also provides for the Secretary of State to take into account the advice of UK Committee on Climate Change before setting the limit.

91. Dr Andy Kerr from the University of Edinburgh commented—

‘If the committee wants to create a trajectory that guarantees that emissions from Scotland through to 2050 are below the curve and that cumulative emissions are at a set amount, it must impose limits.’\(^{57}\)

92. Dr Kerr suggested, however, that setting a limit on the face of the Bill might be counterproductive—

‘I have no doubt that once a figure is put in statute it will be used. There might be an argument for leaving things slightly more ambiguous, while ensuring that there will be a credibility gap for the Government if it has to buy credits. That might be a more powerful tool.’\(^{58}\)

93. Duncan McLaren of Friends of the Earth Scotland set out the views of Stop Climate Chaos Scotland on this issue—

‘Stop Climate Chaos Scotland would like a fairly tough limit to be placed on the amount of credits that can be purchased from international sources. By placing no limits, the account sets no standards for what sort of credits can be used. That is of grave concern.’\(^{59}\)

94. He went on to argue that an advantage of having a set limit is that it would ensure that investment would be encouraged in those technologies and sectors that could help make emissions reductions domestically, which would mean that Scotland could be one of the countries that could sell those technologies and that expertise, rather than one that subsequently had to import them.\(^{60}\)

95. Gavin McLellan of Christian Aid Scotland highlighted this issue as being of central importance if the Bill is to succeed. He suggested a 20% cap on emissions trading and commented—

‘We could make the bill a world leader in many respects. At present, it is potentially world leading: it is important that we make it so and that we give


international leadership by ensuring that we achieve 80 per cent of our reductions through domestic effort.  

96. Brendan Dick of the Climate Change Business Delivery Group appeared to agree broadly with this line of argument, stating—

‘Although using credits might be in the mix on the journey, at the key staging points of 2030 and 2050, the ambition for the country ought to be genuinely to hit the 80 per cent target, not to hit 70 per cent and have bought 10 per cent. That is important, but it is going to be pretty challenging.’

97. In written evidence, the Scottish Association for Public Transport argued that without a limit on carbon credits ‘there is a risk that political factors and low prices for carbon will dilute the incentives for the steeper cuts in greenhouse gas emissions required in all countries’.

98. In relation to a potential approach to limiting international credits, Professor Peter Smith of the University of Aberdeen suggested a possible arrangement ‘to make the cap more stringent as time goes on—as will happen with the annual targets.’

99. In evidence to the Committee, the Minister confirmed that—

‘We cannot, as a matter of principle, discount the use of credits as part of the process of ensuring that we make our overall contribution. However... we must make actual reductions in greenhouse gas emissions if we are to play our proper part in achieving the 2050 target for the containment of the increase in the world's temperature.'

100. The Committee notes the clear evidence which emerged during the course of its Stage 1 scrutiny in favour of setting a limit on the use of international credits on the face of the Bill. The Committee therefore welcomes an indication that the Scottish Government is planning to revisit this issue. A letter dated 18 March 2009 from the Minister states—

‘As it has always been Scottish Ministers' intention to prioritise domestic emissions reductions, options are being considered for limiting the amount of carbon units which may be used to credit the net Scottish emissions account for any given period including when such limits may be introduced. This would restrict the amount of emissions which Scottish Ministers may offset, thereby placing greater emphasis in achieving emissions reductions within Scotland.'

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63 Scottish Association for Public Transport. Written submission to the Transport, Infrastructure and Climate Change Committee.
Scottish Ministers are aware that this is a complex area, and that any limit on carbon unit use must be drafted in such a way that it does not interfere with the operation of trading schemes such as the EU Emissions Trading Scheme.66

101. After considering the evidence it has received on this matter, the Committee is concerned that if the Bill does not provide for a limit to be placed on the level of international credits or specify a minimum proportion of emissions reductions to be achieved by domestic effort, the credibility of the Scottish Government’s performance in reducing emissions could potentially be diminished. Given also concerns about the robustness of methodologies that might be used in other jurisdictions to measure carbon saving, the Committee recommends that appropriate provisions are included on the face of the Bill to require a limit to be set by Ministers subject to the approval of Parliament.

102. The Committee notes the model which is applied in the UK Act which places a duty on the Secretary of State to prescribe a limit taking into account advice from the UK Committee on Climate Change. It envisages an approach being taken in Scotland which is broadly in line with the UK Act. The Committee welcomes the Scottish Government’s commitment to examine this issue further and looks forward to seeing developed proposals being brought forward at Stage 2 of the Bill scrutiny process.

Sectoral targets

103. The Committee took evidence on whether there would be merit in the framework set out in the Bill setting specific targets for emissions reductions for different sectors of the economy.

104. Professor Peter Smith of the University of Aberdeen argued against this idea—

'It is useful to maintain the flexibility of not having sectoral targets at the outset because that allows the Government to choose the policy instruments that it feels are appropriate for each sector's prevailing economic situation.'67

105. On the other hand, Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland felt that a sectoral approach did have some merit—

'We are not arguing that there should be highly detailed, specified sector targets—that is not the general position of SCCS—but no one at this end of the table would disagree that all sectors must play their role and that the bill must include measures, targets, duties or other enabled powers to ensure

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that that happens. The bill includes such powers for the waste and energy efficiency sectors but not for the transport sector.\textsuperscript{68}

106. The Royal Society of Edinburgh suggested that sectoral action plans should be considered and gave an illustration of what could be achieved in the area of energy efficiency stating—

‘It is important... that a suitable array of Action Plans is developed by the Scottish Government on a sector-by-sector basis for strategy implementation and that this is done in an integrated fashion to ensure convergence of purpose....

...There are early gains to be made in reducing emissions and it would be sensible and natural to pick off the “low hanging fruit” first. There should be increased focus on those immediate and cost-effective ways of reducing emissions, such as energy efficiency. Major energy efficiency measures for buildings must be the major priority if we are to maximise our chances of reducing carbon emissions rapidly.'\textsuperscript{69}

107. The Minister commented on this issue—

‘The setting of sectoral targets will become more possible over time.... There is not information that would support the development of sectoral targets. The important point is that no one should think that they have been let off the hook and that they need not do everything they can just because another sector must make huge reductions.'\textsuperscript{70}

108. The Committee notes that the framework in the Bill does not provide for targets to be set for the expected contribution of each sector of the economy in meeting the emissions reductions targets. The Committee notes the view that if individual targets were rigidly defined in the Bill for every sector there would be methodological problems in capturing the contribution of each sector and a risk that the Bill might be unnecessarily rigid. However, the Committee believes that more must be done to drive forward emissions reductions in four key sectors: land use, energy generation, energy efficiency and transport. The Committee therefore recommends that the Scottish Government should be required, in setting out its approach to the meeting of the targets, to define and quantify how each of these four sectors is expected to contribute to overall emissions reductions. The Committee discusses this process in more detail later in this report.


\textsuperscript{69} The Royal Society of Edinburgh. Written submission to the Transport, Infrastructure and Climate Change Committee.

Aviation and shipping

109. The stated policy intention of the Scottish Government is to include the Scottish share of emissions of greenhouse gases from international aviation and international shipping in overall emissions reduction targets.71

110. The Committee notes, however, that this is not explicitly provided for on the face of the Bill. Instead, the Bill states that Scottish Ministers may make provision, by order, for a proportion of emissions from international aviation and shipping to be attributed to Scotland. The Committee questioned the Scottish Government Bill Team on the reason for this approach. An official explained—

‘The reason why we are suggesting that we bring those areas into the targets through regulations is simply to provide us with a flexible mechanism to adapt to international agreement in the future. Scottish ministers are obviously keen for other countries to follow their lead and take on board the need to tackle emissions from international aviation and shipping. We need a mechanism that we can use in the short term until we have an internationally agreed protocol.’72

111. This reassurance was welcomed by Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland, and the proposal attracted support from organisations such as COSLA and the Sustainable Scotland Network. Richard Dixon argued, however, that the provisions should be included on the face of the Bill rather than in a separate order.

112. In a letter to the Committee of 18 March 2009, the Minister indicated that he was aware that concerns had been expressed that section 14(1) of the Bill does not, as drafted, commit Scottish Ministers to include greenhouse gas emissions from international aviation and international shipping. The letter went on to state that—

‘Scottish Ministers will therefore seek to amend the Bill at Stage 2 to remove any ambiguity that an order will be brought forward in this regard; and introduce a deadline by which the Scottish Ministers must lay the first order under section 14(1).’

Implications of including aviation and shipping in scope of the Bill

113. In evidence to the Committee, Gordon Dewar of BAA Scotland commented that ‘we certainly understand and welcome the leadership and commitment that the Scottish Government has shown in pursuing this critical [climate change] agenda’.73 However, he also highlighted his concerns about limiting aviation emissions in Scotland—

The unintended consequences that we are concerned about would make Scotland uncompetitive. Any measures that try to limit aviation or, indeed, to impose costs on aviation are likely only to move emissions from Scotland to somewhere else rather than reduce them overall.\textsuperscript{74}

114. Gordon Dewar of BAA Scotland expressed particular concern about the implications for the tourism industry, and suggested that there was a risk that tourists would travel elsewhere if either costs or barriers to travelling to Scotland became higher than other destinations.\textsuperscript{75}

115. He went on to suggest that one way of managing emissions from aviation would be through participation in the EU emission trading scheme. He told the Committee—

‘By 2012, we will be in the European emission trading scheme. That will allow us to recognise in an efficient way the fact that our emissions are growing. To allow that to happen, we must fund research and the buying of credits from other people. We will therefore give all the other industries incentives to invest in the new technology that will start to drive down emissions overall, which is the point of the scheme.’\textsuperscript{76}

116. Robert Ashdown, representing the Chamber of Shipping, commented that including shipping emissions within the scope of the Bill ‘is not a question of desirability but of practicality’. He went on to argue—

‘It would of course be good if the Climate Change (Scotland) Bill was entirely holistic and dealt with every aspect of every sector. The problem is how that could be done. How can Scottish shipping be defined, and how can Scotland’s contribution to global international shipping emissions be taken into account?’\textsuperscript{77}

117. Robert Ashdown also urged caution over the degree to which shipping emissions could realistically improve in the short term due to the timelag in new shipping technology being rolled out.\textsuperscript{78}

118. Some witnesses took issue with the idea that aviation and shipping might be allowed to make less substantial cuts in emissions than other sectors as a result of emissions trading arrangements. Paul Tetlaw of Transform Scotland argued—

‘I am afraid that if we listen to the special pleadings from certain sectors in transport and there is business as usual, all of our emissions and more will be taken up by transport alone. Therefore, emissions in every other area of

society will have to be sacrificed so that there can be business as usual in transport. That is clearly untenable.  

119. An accusation of ‘special pleading’ was also levelled against the aviation and shipping sectors by Chas Booth from the Association for the Conservation of Energy.

120. The Minister acknowledged that ‘if aviation does not play its part, everyone else has to pick up the slack’.

Methodology for accounting for aviation and shipping

121. Some witnesses highlighted the potential methodological difficulties in accounting for Scotland’s share of aviation and shipping. Professor Peter Smith of the University of Aberdeen explained—

'It is difficult to attribute emissions from those sectors to individual countries...That is simply to do with the fact that ships sail all round the world and can be owned in one country and registered in another. There are issues to do with bunker fuels in shipping. Aviation raises similar issues, although they are perhaps slightly less intractable.'

122. Several witnesses highlighted the need for any methodology which accounts for aviation emissions to take account of the multiplier effect for radiative forcing which means that emissions at higher altitude are more damaging to the atmosphere. This impact was described by Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland when he told the Committee—

‘Although aviation is a reasonably small contributor to our emissions today—about 3.5 per cent of emissions from Scotland come from international aviation—we are underestimating it if we do not use a multiplier to reflect the extra impact of forming clouds and producing gases at high level.’

123. In relation to shipping, Professor Peter Smith cautioned that work on allocating emissions ‘should probably be done at international level—at UNFCCC [United Nations Framework on Climate Change] level. We cannot take action unilaterally.’

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124. Robert Ashdown from the Chamber of Shipping told the Committee ‘we have several ways of measuring emissions from shipping but, unfortunately, they are all inaccurate.’

125. David Kennedy, the chief executive of the UK Committee on Climate Change, drew a distinction between the allocation of emissions from aviation and shipping. Although allocating emissions from aviation would be challenging, he indicated that ‘there are methodologies that we are comfortable with.’ In relation to shipping, however, he suggested that the task was more problematic—

‘We were not satisfied that we could get a handle on the UK share of international shipping emissions...Although we have methodologies to apportion emissions, we were not comfortable that they actually represent our share of shipping emissions. That led us to conclude that we cannot tackle shipping emissions at national level, and that the only way to tackle it is at global level, with global agreement.’

126. David Kennedy went on to explain—

‘With that in mind, we are watching what the International Maritime Organization proposes to the United Nations Framework Convention on Climate Change by way of a global agreement later this year. That will be the key as far as shipping is concerned. It is difficult, however, to arrive at a meaningful number for shipping at UK level.’

127. Gordon Wilmsmeier from Napier University, however, cautioned that even intervention by the International Maritime Organization (IMO) might not offer a solution—

‘It is important to bear in mind that the IMO regulation might solve certain problems that we have in Europe, but many countries have not signed the IMO agreement, so we might just be pushing problems towards other regions of the world, which is not a solution.’

128. Some witnesses responded to these concerns by arguing that it would be better to proceed with an imperfect system for allocating shipping emissions than to do nothing. Chas Booth from the Association for the Conservation of Energy commented that the ‘measurement process might not be perfect, but it is better to have an imperfect process than no process’.

129. The Minister responded to the concerns regarding the allocation of emissions from shipping in evidence to the Committee—

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‘…We need internationally to understand how we measure the emissions. We have numbers that help to inform us, but they are simply bunkering numbers. For exactly the reasons that I mentioned in relation to aviation, there are difficulties.

The European Union is pressing the International Maritime Organization to address emissions from shipping and to develop a mechanism by which we can get sensible estimates. Of all the transport areas, shipping is probably the one in which least progress has been made.’

130. The Scottish Government also indicated in a letter to the Committee of 18 March 2009 that it proposes to lodge an amendment at Stage 2 of the Bill ‘to require the power to make subsequent orders under section 14(1) to allow the methodology for Scotland to be changed in line with any future international agreements on the apportionment of emissions from international aviation and international shipping.’

Conclusion on aviation and shipping
131. The Committee welcomes the Minister’s commitment to strengthen the wording of the Bill in relation to aviation and shipping and looks forward to amendments being brought forward to that effect at Stage 2. The Committee notes the potential methodological problems which have been identified in accounting for Scotland’s share of aviation and shipping emissions. In relation to aviation, it appears to the Committee that these problems, whilst challenging, can be overcome.

132. The Committee therefore recommends, as a first step, that the Scottish Government considers how the multiplier effect for radiative forcing can be incorporated into the data on aviation emissions, so that additional damage to the atmosphere that occurs when emissions take place at high altitude is taken into account. The Committee suggests that the Scottish Government requests advice from the UK Committee on Climate Change on how best to measure and incorporate these effects.

133. In relation to shipping, it is clear from the evidence that different methodological problems exist in relation to including Scotland’s share of emissions from international shipping within overall emissions reduction targets. The Committee is aware that some data has been published by the UK Air Quality Archive which may provide a starting point for the necessary calculations to be made, but the Committee has not received any firm reassurances from the Minister as to when production of accurate and meaningful data would be possible.

134. The Committee therefore requests clarification on the approach which the Scottish Government intends to take in relation to shipping emissions in advance of bringing forward an order under section 14 of the Bill. The Committee is keen

that any methodological problems in relation to shipping emissions do not delay the introduction of the provisions.

135. The Committee recommends that there should be separate provisions covering aviation and shipping emissions in the Bill. The Scottish Government has indicated its intention that the Scottish share of both aviation and shipping emissions should be included in overall emissions targets. The Committee suggests, however, that the means of doing this may need to vary because of the different methodological challenges involved and the need for international agreements in relation to shipping.

THE INTERIM TARGET AND TARGETS TO 2019

The need for early action

136. The Committee notes the importance of taking early action to address climate change. The Stern Review: The Economics of Climate Change argued that the sooner action is taken to reduce greenhouse gas emissions, the more likely it will be that a more sustainable track towards reducing global emissions can be reached.

137. The shape of the emissions reduction curve is of crucial significance in determining whether the 2050 target can be met. The steepness of the decline in emissions will determine the cumulative amount of greenhouse gases in the atmosphere, which is directly related to predicted temperature increases. A slow decline, followed by a rush to meet the 2050 target, will have a more damaging climate change impact than a sharp initial fall in emissions. In a graph showing emissions reductions over time, cumulative emissions are in the so-called ‘area under the curve’. Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland argued—

‘The area under the curve that describes Scotland’s emissions will tell us about the total contribution that Scotland is making to the climate change problem around the world. It is important to think about that total amount, which is why it is important to define the shape of that curve tightly…’92

138. The Committee notes that early action to cut emissions will reduce the level of cumulative emissions in the atmosphere and allow Scotland to get on the right trajectory to meet the 2050 reduction target. Dr Alice Bows of the Tyndall Centre for Climate Change Research explained that—

‘The important thing is the emission pathway that you travel down to get to your aspiration in the future—the 2050 target. The target is likely to change depending on how much emissions increase in the short term. If they increase more now than you think they will, the 2050 target has to drop.’93

139. The Committee discusses the importance of putting policies in place to achieve early action to cut emissions later in this report.

Approach in the Climate Change (Scotland) Bill (as introduced)

140. One of the main provisions in the Bill to encourage early action on emissions reduction is the 2030 interim target. The Policy Memorandum accompanying the Bill states—

‘The Bill creates an interim target which requires that the Scottish Ministers ensure that the net Scottish emissions account for the year 2030 is at least 50% lower than the baseline. The 2030 interim target is intended to act as a milestone on the path to 2050, strengthening the requirement for early emissions reductions to be delivered in the run up to 2050.’

141. The Policy Memorandum also states—

‘From the year 2020, the annual emissions targets must be set so that each is at least 3% lower than the target for the previous year. Like the mid-point 2030 target, this is designed to ensure early action is taken to reduce Scottish emissions. Prior to 2020, the Scottish Ministers will be expected to set annual targets which build towards delivering emissions reductions of at least 3% each year.’

Approach in the UK Climate Change Act 2008

142. The approach in the Climate Change (Scotland) Bill differs from the approach in the UK Climate Change Act 2008. The UK Act provides for reductions in greenhouse gases through action in the UK and abroad of at least 80% by 2050. It contains an interim target of a reduction in the UK carbon budget of at least 26% by 2020. The Climate Change Act 2008 establishes the principle of carbon budgets which place legally binding ceilings on the level of allowed UK emissions over five year periods.

143. The 2020 interim target was subsequently reviewed by the UK Committee on Climate Change to reflect the inclusion in the Act of all greenhouse gases and the increase in the 2050 target to 80% during the passage of the legislation. The outcome of this review was the publication of advice from the UK Committee on Climate Change on the level of carbon budgets for 2008-2012, 2013-2017, and 2018-2022 for the UK.

144. In proposing the level of carbon budgets, the UK Committee on Climate Change produced two sets of budgets: the Intended Budget, which should apply following a global deal on climate change anticipated to be reached in Copenhagen later in 2009, and the Interim Budget, to apply before a global deal is reached.

145. The Intended Budgets require an emissions reduction of 42% in 2020 relative to 1990. The Interim Budgets require an emissions reduction of 34% in 2020.

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94 Climate Change (Scotland) Bill. Policy Memorandum, paragraph 29. Available at: http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf
95 Climate Change (Scotland) Bill. Policy Memorandum, paragraph 31. Available at: http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf
relative to 1990. Both sets of budgets apply to all greenhouse gases rather than just CO₂.

146. On 22 April 2009, the UK Government announced in the 2009 Budget that the UK’s first three carbon budgets will be set at levels leading to a 34% reduction in greenhouse gas emissions with respect to 1990 levels by 2020.

2030 interim target in the Climate Change (Scotland) Bill (as introduced)

147. The Committee notes that there are two key questions in relation to the interim target in the Climate Change (Scotland) Bill. First, is the 2030 interim target an appropriate staging post, or would a 2020 interim target (as applies in the UK) be more suitable? Second, if a 2020 target is adopted in Scotland, what level of emissions reductions should be required by that date?

148. A number of witnesses suggested that the interim target for Scotland should be moved to 2020 and the level of emissions reduction should be the same as (or even more challenging than) the upper limit proposed by the UK Committee on Climate Change for the UK (ie 42%).

149. The Royal Society of Edinburgh, in written evidence, told this Committee that—

‘The Bill implicitly assumes, as do many other approaches to this issue, that early emissions reductions will be small and later ones large. We believe that it would be more appropriate to reverse these relationships by targeting early, strong reductions that start as early as possible…..

…The first part, of slow change, represents the time taken for policy instruments to come on-stream. The second part, of the fastest rate of emissions reduction, as one where we pick the “low hanging fruit”, with the final stage being one of relatively slow rate of reduction.

The endpoint target of an 80% reduction by 2050 is an irrelevance unless there are appropriate intervening milestones. The key target must be to minimise the aggregate emissions between now and 2050; in other words, to minimise the area under the emissions curve.

We strongly advocate that an interim strategy target should be defined for 2020. It should be a challenging target that encourages early action, and one that, because of its imminence, perennially impinges on Government perspectives no matter which party is in power.’

150. Phil Matthews of the Sustainable Development Commission Scotland told the Committee—

‘The cut that the Committee on Climate Change recommended as a potential target by 2020, which could be a cut of up to 42 per cent from 1990 levels, is a more ambitious target than what we have in Scotland. Obviously, Scotland

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96 The Royal Society of Edinburgh. Written submission to the Transport, Infrastructure and Climate Change Committee.
is part of the wider UK act as well, but I am not sure that our target is as ambitious as the one in the UK act.\footnote{Scottish Parliament Transport, Infrastructure and Climate Change Committee. \textit{Official Report}, 27 January 2009, Col 1366.}

151. Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland argued that—

‘...The UK Government expects Scotland to do more, the aspiration of ministers appeared to be for Scotland to do more and, because of our natural resources—we have lots of renewables—we have the ability to do more. That is why a 50 per cent reduction by 2020 looks like the target that we should set.'\footnote{Scottish Parliament Transport, Infrastructure and Climate Change Committee. \textit{Official Report}, 3 February 2009, Col 1427.}

152. Grant Hodges, representing the Climate Change Business Delivery Group, indicated he was 'very much in favour of a 2020 target.'\footnote{Scottish Parliament Transport, Infrastructure and Climate Change Committee. \textit{Official Report}, 3 March 2009, Col 1603.} Support for an earlier interim target was also given by the Association for the Conservation of Energy and by the Sustainable Scotland Network, whose representative told the Committee that 'the bill sets an interim target for 2030, but we should probably think about setting a target for 2020, in line with existing legislation and international obligations.'\footnote{Scottish Parliament Transport, Infrastructure and Climate Change Committee. \textit{Official Report}, 24 February 2009, Col 1543.}

153. The chief executive of the UK Committee on Climate Change, David Kennedy, offered his perspective on the ambition of the Scottish proposals—

'We have thought a little about the interim target and have some questions about how ambitious that is. We are not saying that it is not ambitious enough, but there is more thinking to be done about it and its implications for what must be done now.'\footnote{Scottish Parliament Transport, Infrastructure and Climate Change Committee. \textit{Official Report}, 27 January 2009, Col 1387.}

154. Other witnesses cautioned that achieving major early reductions in emissions will be challenging, because of the time required to put in place the necessary social, economic, and infrastructure changes. Dr Andy Kerr of the University of Edinburgh explained that because of the momentum in economies—

'Emissions reduction will almost always take the form of an S-shape; almost all economies will reduce slowly to begin with, sharpen up in the middle and slow down again when they have to deal with the really challenging stuff at the end.'\footnote{Scottish Parliament Transport, Infrastructure and Climate Change Committee. \textit{Official Report}, 27 January 2009, Col 1364.}

155. This view was confirmed by Professor Peter Smith of the University of Aberdeen, who highlighted the need to—
‘Strike the right balance between taking the quick and easy options that we can identify and implement relatively quickly and tackling the inertia that we encounter in the system as we try to change things. Some of the changes that are required involve large changes to infrastructure.’

Conclusion on the date of the interim target

156. The Committee endorses the view which emerged during its evidence taking that an earlier, more challenging interim target is required in the Bill in order to encourage more immediate reductions in emissions. The Committee questioned the Minister on this point. He told the Committee in its final evidence-taking session on the Bill that—

‘It now appears that 2020 would be a more appropriate date for an interim target, so on that we are very likely to amend the bill. The 2020 target that we are likely to end up with on the basis of scientific advice—we have not yet come up with an exact figure—is likely to be more challenging than the 2030 target that we put as a minimum in the bill.’

157. When questioned on whether Scotland could be in a position to match any potential UK reduction in greenhouse gases of 42% by 2020, the Minister told the Committee—

‘It is not yet clear from the scientific advice exactly what steps would need to be taken to deliver a reduction in emissions of 42 per cent by 2020...We await further advice on the subject. If it can be demonstrated based on scientific advice that such a figure is right for Scotland, we will take account of that, but we cannot discount the European trading schemes and the effects of those schemes that will be superimposed on the UK and Scotland.’

158. The Minister confirmed in a letter to the Committee on 18 March 2009 that he intends to bring forward amendments to the Bill at Stage 2 to replace the 2030 target with a 2020 target. This letter indicated that Ministers are currently considering the level at which the 2020 target should be set. This work will be informed by advice from the UK Committee on Climate Change, the approach of the UK Government, and current and future international agreements on emissions reductions and the prospect of the EU adopting a 30% emissions reduction target for 2020 in the event of an international agreement being reached at Copenhagen.

159. The Committee welcomes the indication by the Scottish Government that it will bring forward the date of the interim target from 2030 to 2020. In particular it

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welcomes the early response by Ministers to the views expressed in evidence to the Committee, as well as to the decision of the UK Government to bring forward its interim target in the context of international discussions due to take place at Copenhagen later in 2009.

160. The Committee supports in principle the general consensus that new interim targets should be brought forward to 2020 and made more challenging than previously. It welcomes the Minister’s statement that this is the Scottish Government’s intention. However there are likely to be significant resource implications involved in bringing this target forward and the Committee will wish to be given very specific details by Ministers which show that the adjustment has been properly considered in policy terms and that the government will make resource provision for it.

161. The Committee notes the recommendations provided by the UK Committee on Climate Change which provide for either an interim 34% or an intended 42% reduction in emissions by 2020 at a UK level, depending on international agreements. The Committee believes that these figures may be taken as the starting point for the debate about a suitable interim target for Scotland. The Committee discusses this further in the next section of the report.

Targets in the period to 2019

162. The SNP manifesto commitment was ‘to introduce a Climate Change Bill with mandatory carbon reduction targets of 3% per annum and also set a long term target of cutting emissions by a minimum of 80% by 2050’. Had the 3% commitment been introduced as promised in the manifesto, it would in theory have led to a 45% reduction in emissions by 2020. The Scottish Government’s intention now is that the introduction of the 3% targets will be delayed until 2020. As currently drafted, the Bill provides for—

- The annual target for the year 2010 being an amount which is less than the estimated net Scottish emissions account for 2009
- The emissions reduction targets for each year in the period 2011-2019 being an amount which is less than the target amount for the previous year
- In the period 2020-2050, the annual percentage rate of reduction in greenhouse gas emissions being driven by targets which must be at least 3% lower than the target for the previous year.

163. The Scottish Government has been willing to set precise quantified targets for the period 2020-2050 but reluctant to quantify targets in the period 2010-2019. Scientific evidence is clear that early reductions have the greatest benefit in reducing climate change and it is considered that the Scottish Government must have much more information on which to base projections on the expected effectiveness of initiatives to tackle climate change in the next ten years than it has for the three decades thereafter.

164. The first question to consider is what annual emissions reductions will be required between 2010 and 2019 in order to hit the new 2020 target. The answer
to this question will obviously depend on the reduction figure chosen for the 2020 target.

165. The second question to consider is whether the specific emissions reductions targets required between 2010 and 2019 should be set out in more detail on the face of the Bill than is currently the case, perhaps in a manner similar to the targets for the period 2020 to 2050 or whether bringing forward the introduction of the 3% target from 2020 to the earliest achievable date would be the most appropriate way of making progress towards the interim 2020 target.

Views provided to the Committee

166. Chas Booth of the Association for the Conservation of Energy argued that statutory annual targets of at least 3% 'should be delivered from the very start'. Glasgow City Council argued in written evidence that the Bill 'must establish year-on-year reduction targets of at least 3% from the start'. Duncan McLaren of Friends of the Earth Scotland explained the position of Stop Climate Chaos Scotland on this issue—

'We want the statute to establish that there should be emissions reductions of at least 3 per cent year on year from the beginning, not from 2020. We think that such reductions are necessary to meet the requirement for early action and that they are entirely possible.'

167. Other organisations felt that it was important that Scotland should be ambitious between 2010 and 2020, but were less clear on whether statutory action was required. Phil Matthews of the Sustainable Development Commission Scotland argued—

'I still think that we can do more between now and 2020 than just move on from the business-as-usual case that we have at present, with cuts in emissions of about 1.25 per cent per annum. I do not know how it could be included in the bill, but it would be good to move more quickly than the bill suggests towards annual cuts of 3 per cent by 2020.'

168. John Stocks of the Carbon Trust told the Committee—

'There will be a time lapse before we get onto a trajectory of 3 per cent annual reductions, but I doubt that it needs to take until 2020 for us to get there.'

169. This view was supported in written evidence from Tearfund which suggested that statutory minimum reductions of 3% could be established after 2012. The

108 Glasgow City Council. Written Submission to the Transport, Infrastructure and Climate Change Committee.
Royal Society of Edinburgh suggested in evidence that 3% year-on-year emissions reductions could be introduced earlier, for example from 2011.

170. The chief executive of the UK Committee on Climate Change, David Kennedy, explained—

‘Up to 2020, Scotland will be looking for reductions of at least 2 per cent, moving towards 3 per cent, to be consistent with the UK as a whole.’¹¹²

171. In evidence, the Minister told the Committee—

‘We will set our annual targets based on auditable scientific advice from the UK Committee on Climate Change, which will be based on information that is available to us all. Our targets will balance science and achievability: they must be credible and deliverable, and we want to make the fastest possible progress. Our drawing forward of the 2030 target to 2020, and the implication that that will be more challenging than the 2030 target that we are setting, is evidence that our approach to targets and use of annual targets will drive early change.’¹¹³

Additional information provided by the Scottish Government

172. Throughout its scrutiny of the Bill, the Committee has been keen to understand the scientific basis behind the Scottish Government’s decision not to proceed with statutory 3% annual reductions in emissions from 2010 to 2019. In a letter dated 18 March 2009, the Scottish Government provided information on the potential implications of 3% annual reductions to 2019 being included on the face of the Bill. The Committee welcomes this additional information as a helpful insight into Scottish Government thinking, but notes that it would have been even more helpful if this had been made available at the start of the Stage 1 process. It is also clear that additional work is required to develop these figures further.

173. The letter sets out the action which might be required if Scotland wanted to mirror either the UK Committee on Climate Change’s 34% interim 2020 target or its 42% intended target. The letter notes that a trajectory based on a 3% annual reduction in Scotland’s emissions from 2010 equates, roughly, to a 43% reduction in 2020 against 1990 levels. The Committee notes that this would have the effect of marginally exceeding the UK Climate Change Committee’s intended ‘optimistic’ UK target. The letter makes the point, however, that—

‘Given that emission reductions from the traded sector are, in effect, pre-defined at the level of the Interim Target (34%), for Scotland to achieve 3% annual reductions between 2010 and 2019 would require the bulk of the savings to come from the non-traded sector, by which we mean very

significant carbon savings from energy use in heating buildings, from transport, waste, agriculture or forestry.114

174. The letter suggests that ‘emissions in the non-traded sector would need to be reduced by 4-5% each year, with emissions in 2020 needing to be around 12 MtCO₂e [metric tons carbon dioxide equivalent] lower than in 2009’. The letter indicates that ‘much more radical measures in the non-traded sector’ would be needed with the potential for significant upfront costs and the likelihood remaining of a significant shortfall remaining in order to meet the targets. The letter states in relation to the supply side—

‘In most, if not all, carbon savings measures, there is the need to increase the capacity of the supply chain to deliver. This cannot happen overnight and it would be unreasonable to expect it to. There is little point in having targets that we fail in year one. An acceleration of effort is required but we need time to ramp up our efforts.’115

175. In relation to the way forward for the setting of targets in the period to 2019, the letter from the Scottish Government states—

‘The CCC [UK Committee on Climate Change] recommended that, if there is an international agreement at Copenhagen later this year, then the UK should move to the Intended Target of 42%. The Scottish Government will review its position in light of any new international circumstances and advice that it receives.’116

176. It is not clear to the Committee when it is intended that the level of the Scottish 2020 interim target will be set. It appears possible that the figure may not emerge until the outcome of the United Nations Climate Change Conference in Copenhagen in December 2009. It remains to be seen, therefore, how this position will be reflected in the amendment to the Bill at Stage 2 which sets the date of 2020 for the interim target; an amendment which will be discussed by the Committee before the outcome of the summit is known.

177. The Committee notes, for example, that in relation to the UK Act, a relatively low figure of a 26% reduction in CO₂ was included on the face of the Bill, with the prospect of it being revised upwards at a later date depending on scientific advice. As has been discussed above, it now appears that this figure will be in the order of 34% to 42%, and cover all greenhouse gases. This is potentially 16% above the interim target set out on the face of the UK Bill.

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178. In relation to the way forward for the setting of targets in the period to 2020, the letter from the Scottish Government concludes—

‘The Bill requires that we set our annual targets following receipt of advice from the “relevant body” which in the first instance is to be the Committee on Climate Change. This advice will be in the context of the 2020 interim target to be inserted into the Bill. The CCC has already shown that it will not shirk from recommending demanding targets. Crucially, though, their advice will be based on expert and independent analysis of real emissions abatement potential, and that seems the sensible way to go forward.’\textsuperscript{117}

Conclusion on the level of the interim target and annual targets to 2019

179. The Committee has heard a great deal of expert evidence emphasising the importance of taking early actions in order to reduce the overall level of cumulative emissions in the atmosphere and to increase the chances that the 2050 target will be met. \textit{It is clearly vital that early progress is made in order to secure significant emissions reduction.} The Committee has received many representations suggesting that annual emissions reductions of 3\% should be a new statutory requirement between 2010 and 2019 in order to promote early action. The Committee notes the estimates provided by the Scottish Government, which suggest that a 3\% annual reduction in emissions would roughly equate to a 43\% reduction in emissions by 2020. The Committee also notes that the approach of the UK Committee on Climate Change is based on two targets, a lower target of 34\% if international and EU agreements cannot be arrived at and a higher 42\% UK target deemed feasible in the context of international co-operation.

180. The targets in the initial 10 years covered by the Scottish Bill will have to be flexible enough to take account of international developments, which – as is acknowledged by the UK Committee on Climate Change – may significantly impact on our ability to deliver emissions reductions. If the government is now willing to set a challenging interim target for 2020, it must buttress that approach either by specifying percentage annual targets between 2010 and 2020 or by bringing significantly forward the date by which it expects Scotland to be on track with a 3\% annual reduction in emissions.

181. The Committee’s view is the interim target must be challenging but feasible and its delivery must be properly planned for with milestones set along the way. As noted above, the Bill as introduced provides only that emissions should fall each year between 2010 and 2019. \textbf{The Committee therefore recommends that the Scottish Government should introduce more challenging provisions into the Bill for the period 2010 to 2019 in order to promote early action to reduce emissions.} A framework of targets linked to the proposed 2020 interim target in one or other of the formats set out above should be developed and incorporated into the Bill.

182. \textbf{There are a number of important unanswered questions in relation to the Scottish Government’s approach to the setting of the level of the interim}\textsuperscript{117} Scottish Government. Letter from the Minister for Transport, Infrastructure and Climate Change to the Convener of the Transport, Infrastructure and Climate Change Committee dated 18 March 2009.
target and early annual targets. The Committee has identified the following key issues on which there is currently a lack of clarity—

- The process the Scottish Government intends to use to set the 2020 interim target.
- The specific emissions reduction level that will be set for 2020.
- The dates by which this decision will be taken by the Scottish Government and communicated to this Committee. The Committee recommends that the Scottish Government announces its proposed 2020 interim target, in the form of a percentage emissions reduction, in its response to this Stage 1 Committee report on the Climate Change (Scotland) Bill.
- Whether the Scottish Government intends to specify a figure for the interim target on the face of the Bill (as with the current 50% reduction by 2030 target in the Scottish Bill) or whether a figure will be specified on the face of the Bill of “at least XX%” with a more challenging target to be decided later (as appeared to be the case in respect of the UK Act).
- The relationship between the interim target which will be set by the Scottish Government and the targets for the period to 2010 to 2019 (specifically, any reductions which will be required during this period). If the Scottish Government decides the level of the interim target during the passage of the Bill, the Committee will expect this to be accompanied by an indication of the trajectory of annual emissions reductions required between 2010 and 2019.
- The scientific and policy advice which the Scottish Government is basing all these decisions on, the extent to which it has calculated the financial implications of the decisions and a robust appraisal of any impact on jobs.

183. The Committee therefore recommends that the Scottish Government provides specific further information in response to each of these points as a matter of urgency in advance of Stage 2 proceedings. As discussed above, the Committee supports a strengthening of the provisions in the Bill in relation to the 2010 to 2019 targets, and anticipates that the details of how this could be achieved will be outlined by the Government before Stage 2. The Committee would expect that consideration of these issues will be informed by the provision of the additional information sought from the Scottish Government in the points discussed above.
ACHIEVING THE TARGETS

Need for action to accompany target-setting

184. The Committee notes that the mere act of setting targets for emissions cuts will not in itself deliver the necessary reductions. David Kennedy, chief executive of the UK Committee on Climate Change, made the point that—

'We have a good track record at UK level of adopting ambitious targets, but a less good track record of meeting those targets. The challenge will be to set the targets, but the bigger challenge will be to come up with the strategies, and to implement them across all the sectors to achieve big social transformation, such as changes in the way that we think about business or corporate culture.'

185. David Kennedy stressed that action was needed now, arguing that—

'The next five, 10 and 15 years are key. We must take our lead from what we have to do in the longer term—that has implications for what we do now—but we must act now. We must take opportunities and put in place the necessary policies. If we do not, we will miss the boat on reducing the risk of dangerous climate change.'

186. Dr Andy Kerr of the University of Edinburgh agreed, arguing that ‘one of the key issues is delivery rather than the use of science to set targets in the first place’. Dr Kerr emphasised—

‘…The fact that radical changes will be needed in the next few years in the production and use of energy and the use of land. Whatever the trajectory is over the next 10 years, the key is to put in place the processes and policies that will deliver the cuts of 3 per cent and more that are required thereafter.’

187. The Royal Society of Edinburgh, in written evidence, suggested that—

‘As the trends of climate change and its actual and imminent impacts become clearer, the imperative to move towards a low carbon economy is becoming stronger. It is recognised that those countries able to develop and implement low carbon technologies and limit the use of carbon-derived energy will be well positioned economically to exploit a developing global trend…'

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…The Scottish Government should consider developing an overarching low carbon strategy that also includes demand reduction.¹²²

188. Some witnesses were cautiously optimistic that the necessary technologies and policy initiatives to reduce emissions were available, and it was now a case of harnessing them to deliver change. Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland told the Committee that—

‘We are already between 10 and 20 years into the flat bit at the top of the S shape. Industry has explored solutions and scientists have done the research, so the technologies and solutions that are necessary to move us on to the fast descent part of the curve are generally available or are very nearly available.’¹²³

189. Mike Thornton of the Energy Saving Trust agreed, telling the Committee—

‘In respect of saving carbon and reaching the targets in the bill, we do not need magic bullets: we need to apply consistently techniques, approaches and technologies that are already here, over the period for which the bill sets targets. If we do that we can achieve them.’¹²⁴

190. The Committee notes that the targets in the Bill are simply a starting point for Scotland’s efforts to reduce emissions. The Committee also notes that setting emissions reduction targets is a comparatively straightforward task: the real challenge is to meet them. In many cases it will not be possible simply to legislate to make this happen. Yet this non-legislative action will determine whether or not the targets in the Bill can actually be met, and so it is of crucial significance.

191. The Committee considers that that more progress could have been made on the development of strategies to mitigate climate change, which do not require legislative change. The Committee has heard little evidence that climate considerations are driving policy choices in areas such as energy efficiency and transport where much more could have been done without waiting for climate change legislation. The recent announcement on the timings of the Scottish Government’s energy efficiency plan mean that it may not be published until 2010 and the similar delay in the transport carbon balance sheet which it was promised would be published in 2008 are all worrying signs that tackling climate change has not been addressed with sufficient urgency by successive administrations.

Engagement with the public

192. The Committee notes that there are several key challenges which must be overcome if Scotland is to have a chance of meeting its climate change targets. These include winning the support of the public to make the required lifestyle adjustments and to endorse the climate change agenda. This is the process of

¹²² The Royal Society of Edinburgh. Written submission to the Transport, Infrastructure and Climate Change Committee.
'winning hearts and minds'. Many witnesses suggested that although this was an important objective, it was not yet happening.  

193. Dave Watson of UNISON and Stop Climate Chaos Scotland argued—

‘We have not yet got people to come on board; we have not yet achieved the public engagement that was achieved on the issues of drink driving and the smoking ban. The bill will be important in that regard, but only if it drills down that engagement to the local level.’  

194. Mike Thornton of the Energy Saving Trust emphasised—

‘Engagement is key. Public awareness of climate change and the need to do something about it by cutting carbon emissions is high, but engagement as a result of that awareness is relatively low.’  

195. Dave Watson of UNISON and Stop Climate Chaos Scotland explained that it was difficult to legislate to promote public engagement in the Bill, because engagement would only come about if the public was genuinely interested in the climate change agenda. He argued—

‘I am more in favour of energising local communities and essentially getting them to set the targets for local politicians and other public bodies. If we get them interested, there will be no limit to the amount of public engagement that will follow.’  

196. On the other hand, written evidence from the Church of Scotland highlighted the importance of personal responsibility and effective public engagement, arguing that—

‘If it is to be effective the Bill should include provisions to require the Scottish Government to promote public awareness about the legislation and its targets; and to promote public involvement and engagement in meeting those targets…

...it would be helpful for the legislation to embody a requirement for public bodies to engage with voluntary organisations in the delivery of this [public engagement] duty.’

197. In written evidence to the Committee, the Salvation Army made the point that—

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129 Church of Scotland. Written submission to the Transport, Infrastructure and Climate Change Committee.
‘We...believe that if it is to be effective the Bill should include provisions to require the Scottish Government to promote public awareness about the legislation and its targets; and to promote public involvement and engagement in meeting those targets. The broad Third Sector also has a vital role in raising concern about climate change and taking action to reduce negative impacts.’\textsuperscript{130}

198. Marjory Rodger of the Confederation of Passenger Transport UK gave an example of how individual sectors needed to contribute to help persuade the public to make the individual lifestyle changes necessary to lower emissions—

‘The bill is a valuable tool and it can make a valuable contribution to winning hearts and minds, but it cannot do it on its own; it is up to the operators of all modes of transport to come to the table and make the product more attractive. We must make viable and attractive choices available to everyone if we are going to win hearts and minds.’\textsuperscript{131}

199. Matthew Farrow of the CBI also suggested that some businesses needed to become more fully engaged with the climate change agenda—

‘We find that some companies, although they are not opposed to acting on climate change, find it much harder to relate it to their business. I am thinking of a small media company or a small tourism company.’\textsuperscript{132}

200. The Committee was interested to hear the views of young people who participated in the committee event on 27 March 2009 who highlighted the challenge of engaging with people who might not normally take an interest in climate change issues. Sagan Turner of the Inverkeithing High School Energy Group told participants—

‘Even in my school, which does very well and which has a large eco-school committee, there are still not enough people who are aware of what is happening. Thinking about the rest of the country, how are we going to get the next generation more aware of the situation and how they can contribute?’\textsuperscript{133}

201. Liam Beattie of the Scottish Youth Parliament commented—

‘We need to raise awareness of global warming, whether through education or adverts, and we need to change people’s perceptions about climate change, including the idea that it is not happening or that it is not our
responsibility but the Government's responsibility. Everything possible that can be done needs to be done now.\textsuperscript{134}

202. These comments underline the challenges associated with winning public support for efforts to tackle climate change. Yet it is vital that effort is made to change the way that the Scottish public thinks about climate change. If Scotland is to meet its challenging climate change targets then individuals throughout Scotland may need to make lifestyle changes. Leadership and direction from government will be essential if public support for taking measures to tackle climate change is to remain high. Individual policies brought forward by government to reduce emissions must be explained in the context of meeting overall climate change goals, and this will be particularly important if these policies involve government taking difficult decisions which may not be universally popular. The Committee believes a public engagement strategy is vital if we are to succeed in reducing Scotland’s emissions to the extent envisaged by the targets being considered. \textbf{The Committee recommends that Ministers bring forward proposals for an engagement strategy as part of their implementation plan for the Bill, which is discussed further in a later section of this report.}

\textbf{Possible actions to reduce emissions}

203. A number of witnesses highlighted in evidence to the Committee examples of possible actions that could be taken to reduce Scotland’s emissions. Some of these possible actions are noted in this section. These are not exhaustive.

\textit{Energy efficiency}

204. Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland told the Committee that ‘the easiest way to make significant reductions [in emissions] quickly is by reducing energy consumption’.\textsuperscript{135} He argued that—

\begin{quote}
‘A Scotland-wide home energy insulation package would provide work for plumbers, builders and carpenters as well as for scientists and energy specialists.’\textsuperscript{136}
\end{quote}

205. The Committee notes that such a package could also provide a market from products such as recycled glass wool and paper as insulating materials.

206. Professor Peter Smith of the University of Aberdeen also mentioned the issue of energy efficiency commenting—

\begin{quote}
‘On the marginal abatement cost curve, energy efficiency is right down there as cost negative; it saves money and energy, so it makes a huge amount of sense. The question is why it is not happening.’\textsuperscript{137}
\end{quote}

\begin{footnotesize}
\begin{itemize}
\item[\textsuperscript{127}] Scottish Parliament Transport, Infrastructure and Climate Change Committee event. \textit{Scotland and Climate Change – Getting It Right}, 27 March 2009, Col 43
\end{itemize}
\end{footnotesize}
207. The Committee notes the comments in the report of the Economy, Energy and Tourism Committee on the subject of energy efficiency, and in particular its views that—

‘The Committee considers that there is no room for complacency in respect to energy efficiency performance and the standards within the Scottish building stock, commercial, industrial, the public sector and, critically, the domestic sector.’

208. The Committee discusses the Economy, Energy and Tourism Committee’s recommendations in relation to energy efficiency in more detail later in this report.

Forestry

209. Professor Peter Smith of the University of Aberdeen highlighted the potential of the forestry sector in Scotland, noting that it could provide a carbon sink to remove carbon dioxide from the atmosphere.138

Workplace greening initiatives

210. Dave Watson of UNISON and Stop Climate Chaos Scotland noted the potential carbon impact of workplace greening initiatives.139

Transport

211. The Confederation of Passenger Transport UK, the Association of Train Operating Companies, and Derek Halden of Derek Halden Consultancy mentioned possible ways of encouraging shifts to low carbon transport modes.140 Derek Halden said—

‘I would like to think that, because of the more ambitious targets in Scotland and the fact that we are working to a shorter timescale, we can reach the point at which land transport produces zero emissions faster than elsewhere. However, that can take place only in the context of the electric future that we are talking about, which involves renewable or zero-carbon energy and people charging up cars and buses.’141

212. John Lauder of Sustrans noted the important role which walking and cycling could play in any emissions reduction strategy.142

Business initiatives

213. Representatives from the CBI and the Climate Change Business Delivery Group highlighted examples of best practice employed by businesses to reduce emissions, such as the use of staff carbon clubs.143

Public sector initiatives

214. Representatives from Scottish Natural Heritage, SEPA and Scottish Water told the Committee about examples of best practice in the public sector, such as cutting the numbers of UK flights taken by staff and increasing the usage of videoconferences.\footnote{144}

Leadership from government

215. It is clear to the Committee that a proper assessment needs to take place of initiatives which might cut Scotland’s carbon emissions and that decisions need to take place on which policies need to be pursued in order to meet our climate change targets. This is properly the role of government.

216. The Policy Memorandum states that ‘it is right that Scotland, a country which led the industrial revolution, should show leadership in legislating to reduce emissions of greenhouse gases’.\footnote{145} The Committee believes that the leadership shown by the Scottish Government after the passage of the legislation will be of even greater significance.

217. Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland made the point that the process of reducing emissions would be about more than just identifying the necessary technology to make the cuts. He argued that ‘the crux of the matter is how much leadership the Government shows’.\footnote{146} In this sense, he suggested the challenge of climate change was as much about social science as it was about physical science.

218. Judith Robertson of Oxfam in Scotland reinforced this point, arguing that the Scottish Government must—

‘Take the hard decisions…talked about earlier and it must show leadership to the public. It must show that it has to engage in the matter, ask the public to engage in it, and take responsibility.’\footnote{147}

219. Paul Tetlaw of Transform Scotland suggested that government should provide a clearer steer as to the actions that would be needed in order to tackle climate change—

‘There needs to be a national framework. Whether it is part of the STPR or national planning framework 2 does not matter; nationally, we must set a

\footnote{145} Climate Change (Scotland) Bill. Policy Memorandum, paragraph 12. Available at: \url{http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf}.
framework that states that this is where we are going with policy and cascades that down to local authorities.\(^\text{148}\)

220. Grant Hodges of the Climate Change Business Delivery Group raised a similar point—

‘We need a road map that tells businesses which targets will be met from heat, and which will be met from renewables technology, and which gives them a steer on where the Government wants effort to be focused. That would naturally lead to the question whether we have the skills now, or whether we need to consider different sorts of training.’\(^\text{149}\)

221. Brendan Dick of the Climate Change Business Delivery Group reinforced this idea, arguing that the Scottish Government ‘must somehow find a way—the Carbon Trust is a good example—to get every business, public sector organisation and voluntary sector organisation to understand how to start the journey.’ He went on to suggest—

‘One thing that Government can do that is relatively unique is to enable cultural change, working with other organisations but acting as a catalyst itself.’\(^\text{150}\)

222. A representative of Scottish Natural Heritage, Clive Mitchell, gave an example of the type of information which government could provide to guide organisations and individuals in order to reduce emissions—

‘It might be useful to develop energy hierarchies for transport and electricity along the lines of the well-established waste hierarchy, which prioritises avoiding use, efficient use, low-carbon use and so on, as the basis of the interventions that are required. The Scottish climate change programme should include the comprehensive package of mitigation and adaptation measures that is required across the board.’\(^\text{151}\)

223. The Committee believes it is essential that the Scottish Government drives forward the climate change agenda with clear leadership.

224. The Committee notes, as an example, that the new US administration has announced policies that reflect a decisive shift towards the development of low carbon technologies.

225. The Minister told the Committee that—

‘We are already working on our strategic overview. The publication of our annual targets will be accompanied by a report in which we will detail our


progress. Under the bill, we have to report on the policy measures that we are delivering, which—of course—we will have to describe. That is our view at the moment, although we will continue to work in the spirit of engaging with people. On adaptation, our action plan will shortly be issued for consultation.\textsuperscript{152}

226. The Minister elaborated further on the Scottish Government’s plans in a letter dated 18 March 2009—

‘A Strategic Overview project is underway which will deliver a high level discussion document for publication later in 2009. This will set out in broad terms the key sectors for abatement in the short, medium and long term and high level policy options around these, highlighting the key milestones in policy development and delivery and barriers to implementation. This work is a prerequisite for the more detailed statutory Report on Policies and Proposals (section 30), to be published in 2010, which will set out how Scottish Ministers will meet their annual targets over the period 2010 to 2022.’

227. It is clear to the Committee that individuals and organisations believe that more leadership from government is required in order to secure emissions reductions. The Committee believes it is essential that the ‘report on proposals and policies’ document delivers the required government leadership. This should represent a comprehensive Scottish Government climate change plan, setting out the specific proposals that the Government believes should be implemented and how they should be delivered. The Committee notes the comments of the chief executive of the UK Committee on Climate Change, David Kennedy, who told the Committee—

‘The message is that there are opportunities in all sectors in Scotland, none of which should be neglected. Scotland’s strategy should cover residential and non-residential buildings, transport, agriculture, waste and the power sector.’\textsuperscript{153}

228. The Committee calls on the Scottish Government to ensure that its statutory ‘report on proposals and policies’ provides a comprehensive overview of the potential contribution of all sectors in society to achieving emissions reductions. It should provide clear statements of policy intent and the direction for policy development which will lead to the reductions required to meet the challenging targets set by this Bill. It should also outline those initiatives currently underway to tackle climate change, including the Government’s public engagement implementation plan.

229. The Committee also considers it to be essential that the strategy overview document that will inform this process is produced as quickly as possible to allow sufficient time for the content of this significant and potentially detailed report to be developed, prior to its publication in 2010. The Committee requests that the


Scottish Government provides a clear timescale for the production of the strategy overview discussion document, and an indication as to its contents, before Stage 2.

ADVISORY FUNCTIONS

230. The Policy Memorandum states that ‘Ministers will be required to seek expert, independent advice in advance of setting annual targets’. The Bill provides for advisory functions to be conferred on an existing organisation, or a new Scottish Committee on Climate Change. These advisory functions will be wide ranging and are set out in the Bill.

231. The Policy Memorandum explains that initially the Scottish Government intends to seek independent, expert advice from the UK Committee on Climate Change. In the longer term, the Scottish Government intends to take a view on the effectiveness of this advice in meeting Scotland’s interests. The Policy Memorandum states—

‘Should the Scottish Ministers determine that the UK Committee on Climate Change does not meet all the advice needs for Scotland, the Bill contains provisions which will allow the Scottish Ministers to establish a Scottish Committee on Climate Change or to designate an existing body to exercise these advisory functions.’

Views on the approach in the Bill

232. A number of witnesses supported the Scottish Government’s position on advisory functions in the Bill, including COSLA, the Sustainable Scotland Network, the Energy Saving Trust, and business leaders. Phil Matthews of the Sustainable Development Commission Scotland told the Committee that the position set out in the Bill was ‘extremely sensible’. He explained—

‘There is a great deal of expertise on the UK committee, which has just published a good report, but it is useful for Scotland to at least have the option to create a body that is separate from the UK committee if, for any reason, it is thought not to be providing all the information or evidence that is necessary to implement the bill.’

233. This view was supported in written evidence from East Lothian Council, which argued that—

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154 Climate Change (Scotland) Bill. Policy Memorandum, paragraph 33. Available at: http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf
155 Climate Change (Scotland) Bill. Policy Memorandum, paragraph 34. Available at: http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf
'The UK Committee on Climate Change has considerable expertise which should be able to meet Scotland’s needs as well as provide a focus for the global challenge of climate change. Only if that does not work should a separate Scottish Committee be established.'

234. Written evidence from Glasgow City Council argued that if it became necessary to use a body other than the UK Committee on Climate Change, then existing Scottish bodies could take on these functions. The Council argued that ‘if necessary in the longer term it would appear that the existing bodies, e.g. SEPA, SNH, could advise, monitor and scrutinise the implementation of the Bill’.  

235. Professor Peter Smith of the University of Aberdeen argued that—

‘My view is that it is extremely useful to have a critical mass of expertise. If we can ensure that the Committee on Climate Change is able to provide everything that we need in Scotland, it will be the appropriate advisory body.’

236. David Kennedy, the chief executive of the UK Committee on Climate Change emphasised to this Committee the independence of his Committee—

‘We report to Government and to Parliament, and what we say is transparent—everybody can see why we are saying what we are saying, and that it is all based on evidence and analysis. That is the foundation of our independence. We are not pulled by the political considerations of the day, and we demonstrate that by backing up our arguments with evidence and analysis.’

237. Some witnesses did, however, express some reservations about the Scottish Government’s position. Dave Watson of UNISON outlined the position of Stop Climate Chaos Scotland—

‘Our view is that we need a distinctive body in Scotland. It should work constructively with the UK committee rather than being a competing committee; it should be a commission, if for no other reason than to differentiate between it and your committee; and it should report to Parliament, not the Government.’

238. Stephen Boyd of the STUC said that—

‘There is a case to be made for a separate Scottish advisory body, given that there is a different legislative framework. A substantial part of the relevant policy is devolved and the public sector landscape is different in Scotland. If, as you suggest, the UK Committee on Climate Change were to provide the

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156 Glasgow City Council. Written Submission to the Transport, Infrastructure and Climate Change Committee.
technical expertise, and a separate Scottish advisory body was established, we would look on that with interest.164

239. The Committee notes alternative models which might be applied. For example, a panel of relevant experts could be set up, which could provide the knowledge of Scottish legislative arrangements, economic and social circumstances and policy considerations needed to supplement the advice from the UK Committee, in line with the suggestion made by the STUC. The Committee also notes that the Scottish Government could enter into discussions with relevant organisations, including local authorities and Audit Scotland to see whether climate change monitoring can be integrated into existing monitoring regimes.

**Resources allocated to Scotland**

240. Some witnesses cast doubt on whether the UK Committee on Climate Change had the necessary resources and expertise to reflect distinctive Scottish interests. Chas Booth from the Association for the Conservation of Energy told the Committee that—

‘…The initial report’s broad-brush approach suggests that that committee does not have the resources to give independent advice in Scotland. I also question whether the UK committee has sufficient insight into the Scottish situation. On energy efficiency, for example, Scotland’s building stock has a different profile. That means that the challenges are different in achieving the energy efficiency savings targets. We would prefer a separate Scottish committee.’165

241. The chief executive of the UK Committee on Climate Change, David Kennedy, told the Committee—

‘It is fair to say that our work programme for Scotland and the other national authorities is in flux and is up for discussion.’166

‘I will have to go back and discuss the issue, but I think that our committee would probably have the capacity to scrutinise and discuss issues relevant to the Scottish Government, just as we did on the UK carbon budgets.’167

242. He went on to address the question of the resources which the UK Committee would dedicate to work on Scottish climate change issues—

‘At the moment, in our work with all the devolved Administrations, Katherine White is our only resource. She is on secondment from Scotland to the committee...Further discussion will be needed on how to make progress. We

will probably need at least one other person on our side; we are not talking about another five or 10 people, but at least another one.  

243. Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland commented on the evidence from the UK Committee on Climate Change—

‘I did not think that it was a terribly generous presentation. Some work needs to be done in that regard.’

244. A different perspective on the question of resources was offered in the evidence by Fiona Page of the Bill Team which commented on the cost savings which could be made if Scotland used the services of the UK Committee on Climate Change—

‘I believe in seeking best value for money. Frankly, we get the services of that committee at a reasonable cost and we would have to pay much more money were we to set up a Scottish climate change committee in the future.’

245. The Finance Committee took evidence on the costs associated with the advisory functions in the Bill. The Scottish Government confirmed to the Finance Committee that its contribution to the funding for the UK Committee on Climate Change is expected to vary year on year. This is partly due to the inclusion in the 2008-09 fees of one-off start-up expenditure. The Scottish Government confirmed that additional funding is also expected to be required for analysis regarding the annual Scottish targets and trajectory. It was suggested that if this work requires, for example, an additional analyst and some additional research to build on the analysis work already undertaken by the Committee, this could be estimated to be in the region of up to £100,000.

246. The Minister reaffirmed his view that the UK Committee on Climate Change was the most appropriate source of advice to the Scottish Government—

‘Unless the UK Committee on Climate Change becomes unwilling or unable to respond to the needs of this devolved Administration—and of the Wales and Northern Ireland Executives—it will be the best available source of independent advice for the Government.’

247. The Minister also countered suggestions that there was currently insufficient engagement between the Scottish Government and the UK Committee, telling this Committee—

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'I think that it is correct to say that in recent times there has not been a single week when there has been no interaction. Meetings take place broadly every fortnight. We think that we will get what we require.'

Conclusion on advisory functions

248. The UK Committee on Climate Change has some expertise in assessing global climate change and it makes sense for the Scottish Government to tap into that existing expertise rather than attempting to replicate it.

249. Given that the UK Committee on Climate Change is in existence, it seems sensible for the Scottish Government to draw on it for advice on all matters where it has the appropriate expertise. The alternative suggestion of establishing a Scottish Climate Change Committee would potentially be costly, there would in all probability be the time delays whilst the committee was established and it would be difficult to replicate the full range of expertise the UK Committee can deploy.

250. However it is not clear that the UK Committee would be able to meet all Scotland’s requirements. In this context, this Committee notes with concern with the proposed level of resources to be allocated to Scottish interests by the UK Committee, which do not appear to be substantial at present. It is not clear whether existing resources will be adequate to provide the most appropriate level of expertise recognising the particular legislative, policy and geographic issues that are pertinent to Scotland.

251. This Committee notes that the Scottish Government has not yet formally requested advice from the UK Committee on Climate Change and so what types of advice it is best placed to deliver may not have been sufficiently assessed. This Committee therefore recommends that the Scottish Government enters into discussions with the UK Committee on Climate Change with a view to conducting a realistic analysis of the nature, level and frequency of the advice it is able to provide and the additional dedicated financial and human resources which might be required.

252. It is considered essential that the Scottish Government is in a position to provide this further information, together with an assurance that the UK Committee will be adequately resourced to provide the necessary advice, before the Bill is passed. This Committee therefore further recommends that this information should be made available to the Parliament prior to the beginning of Stage 2. If the UK Committee on Climate Change is not able to provide the necessary commitments in respect of its resources and engagement with Scottish interests, then the Scottish Government should consider what other models might be appropriate.

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REPORTING DUTIES

253. Part 3 of the Bill requires that Scottish Ministers report regularly to the Scottish Parliament on Scotland’s emissions and on the progress being made towards the emissions reductions target set in the Bill. The following reports are required to be produced—

- Annual reporting duty – if the annual emissions target is not met, the report should explain why
- Report and statement on proposals and policies designed to meet future annual emissions targets
- Report and statement on proposals and policies designed to compensate for exceeding annual emissions targets – this applies where the net Scottish emissions account exceeds an emissions target
- Final statements for 2030 and 2050.

254. Section 34 of the Bill requires that when the reports outlined above are laid, Scottish Ministers must make a statement on the reports in the Scottish Parliament. In addition, in relation to the report on the annual targets, section 34 of the Bill requires that Scottish Ministers must—

‘As soon as reasonably practicable after doing so, and in so far as reasonable practicable, meet with the persons who convene and chair such committees of the Scottish Parliament as are for the time being appointed by virtue of standing orders.’

Strength of the reporting duties

255. The Committee has discussed above some of the methodological challenges associated with gathering the emissions data required to report on the meeting of the targets in the Bill.

256. Other witnesses chose to comment on the strength of the framework established in the Bill for holding the Scottish Government to account for its actions in meeting the targets.

257. Professor Colin Galbraith of Scottish Natural Heritage noted—

‘There must be a reporting mechanism, which must be seen as part of the culture change that we must put in place. If targets are set without a requirement to report effectively, it becomes difficult to measure whether progress has been made. A mechanism to draw the information together must be established.’

258. Some witnesses suggested that these arrangements should be strengthened in the Bill. For example, Dave Watson of UNISON and Stop Climate Chaos Scotland argued—

‘…Other bodies should also have the opportunity to be involved. Probably, the Public Audit Committee should have a role in scrutinising that annual report by asking SEPA and other regulatory bodies to comment on the approach that had been taken.’\(^{174}\)

259. Some written responses to the call for views suggested that the Bill should contain more details of the way in which Ministers will be held to account for any failure to meet targets in the Bill. Responses from COSLA and the Association for Energy Conservation, for example, indicated that these should be the responsibility of the First Minister.

260. Paul Tetlaw of Transform Scotland suggested that more robust enforcement measures could be included in the Bill—

‘The bill should include mechanisms for enforcing emissions reduction targets. I have a water industry background, so I am familiar with all the improvements in water quality and waste water quality that have been brought about over the years.’\(^{175}\)

261. In evidence to the Committee, the Minister indicated that he did not support the use of financial sanctions to enforce the meeting of targets in the Bill because it could lead to a situation whereby government was effectively fining itself. He argued—

‘The effect would, therefore, be financially neutral. It is not clear to me that the proposal would deliver any benefit.’\(^{176}\)

‘We simply do not see how it makes much sense to remove money from a public body that is not making the necessary progress and then invite it to ask for that money back, which is one of the options.’\(^{177}\)

262. The Minister expressed the view that the provisions as drafted in the Bill would be appropriate—

‘…The bill states that ministers will be dragged to Parliament to account for their failures. We see that as the appropriate and proper way of proceeding...Annual reporting and the annual statement that must be made

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to Parliament are pretty robust ways of ensuring that Parliament and the wider public are on the case of failure in this area.  

263. The Committee agrees with the Minister that a situation whereby the Scottish Government is required to fine itself could be seen as illogical. The Committee believes that it is right that the Parliament will have the central role in ensuring that the Scottish Government is held to account for its performance in meeting the targets in the Bill.

264. The Committee notes the requirement in the Bill for Ministers to provide a statement to the Parliament in particular circumstances, such as if an annual emissions target has not been met. The Committee considers that this provision is welcome, however, it notes that a requirement only to give a statement to the Parliament would not allow full and robust questioning of Ministers. Additional measures could include a requirement to hold a debate on the statement or to allow an extended opportunity for questions after the statement. Another option would be for the relevant committee to report to the Parliament after taking evidence from the Minister, which would inform a debate in the Chamber.

265. The Committee does not, however, think it appropriate to be prescriptive regarding the manner in which the Parliament scrutinises Ministers in the future, but nevertheless believes that additional requirements need to be imposed in the Bill to increase the level of detailed scrutiny and substantive debate. The Committee will reflect on these options further ahead of Stage 2.

266. The Committee discusses an additional method of enhancing the arrangements for this parliamentary scrutiny in the next section of the report.

Meeting with committee conveners

267. As noted above, there is a requirement in the Bill for Scottish Ministers to meet with committee conveners following the publication of the report on meeting annual targets.

268. Stop Climate Chaos Scotland raised concerns regarding the appropriateness of the Conveners Group as a forum for holding Ministers to account because it does not meet in public and ‘therefore lacks transparency and accountability’. Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland argued during evidence to the Committee—

‘The proposal for ministers to meet the Conveners Group clearly shows the Government’s good intentions about bringing the Parliament up to speed and involving key committees in the process. However, as you pointed out, the

179 Stop Climate Chaos Scotland. Written submission to the Transport, Infrastructure and Climate Change Committee.
fact that the meeting will be off the record means that it will not form an appropriate part of the scrutiny of this very important legislation.  

269. The Committee raised these concerns with the Minister. In response he said—

‘You are correct that the Conveners Group—on which I sat, from time to time, in a previous session of Parliament—meets in private...It is an offer that is genuinely made and which probably goes further than any that has been made in relation to any other legislation. If there is another way of achieving the same objective, we are entirely open to discussing it further.’

270. The Committee notes that the Bill does not specifically state that Scottish Ministers must meet with the Conveners Group, rather that they must meet with committee conveners. However, if this interpretation of this provision is taken, it is not clear from the provisions in the Bill what format such a meeting of conveners would take.

271. The Committee believes that the Conveners Group is not an appropriate forum for Ministers to meet with committee conveners due to its informal nature and the fact that it meets in private.

272. The Committee notes that the intention behind this provision is to ensure that conveners of all committees can scrutinise Scottish Ministers effectively on the cross-cutting issues contained in the Bill. The Committee welcomes this intention. However, there is a lack of clarity as to the mechanism which will allow for this additional scrutiny to take place.

273. The Committee considers that a more appropriate option would be that a replacement provision is placed in the Bill requiring that Scottish Ministers make themselves available to attend a public meeting of the parliamentary committee (or committees) with climate change issues within its remit, to give evidence on their reports on meeting annual targets. The wording of this provision should take into account the fact that committee names and remits can change from one parliamentary session to another. The Committee takes the view that this approach would strengthen and make more transparent the means by which Ministers would be held to account for their performance in meeting the targets. This Committee calls on the Scottish Government to bring forward an appropriate amendment addressing this issue at Stage 2.

DUTIES ON PUBLIC BODIES

274. The Bill contains a power to allow Scottish Ministers, by regulations, to impose duties on public bodies in relation to climate change, to issue guidance to those bodies relating to their climate change duties and to require that they report upon the discharge of those duties.

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275. The Policy Memorandum explains—

‘The Scottish Government is committed to working in partnership with the public sector in reducing the target greenhouse gas emissions which affect climate change. But it is recognised that as emissions reductions become harder and more expensive to deliver, there may come a time when the Scottish Ministers have to ensure consistent and fair contributions to delivery across the public sector.’\(^{182}\)

276. A number of witnesses suggested that the Bill should be amended to provide for mandatory duties to be imposed on public sector bodies in relation to climate change. Dave Watson from UNISON and Stop Climate Chaos Scotland explained to the Committee—

‘The coalition’s position is very clear. We believe that hope is a wonderful thing, but a bit of statutory action gets things moving.’\(^{183}\)

277. Duncan McLaren of Friends of the Earth Scotland and Stop Climate Chaos Scotland stated in evidence—

‘The coalition strongly advocates that a general duty be placed on public bodies to reduce emissions in line with the national target. That would enable and encourage local authorities, health authorities and a range of other public bodies to start thinking about what people who live in their areas or who work for them could do. That would be one of the best ways to trickle down, or perhaps drive down, the impetus for engagement and behaviour change.’\(^{184}\)

278. This general position was supported by representatives from the Association for the Conservation of Energy\(^ {185}\) and Scottish Renewables.\(^ {186}\) Geoff Aitkenhead of Scottish Water suggested—

‘We are content for duties to be placed on public sector bodies…We might discuss further the detail of what the duties might be, but I believe that they should fall into two categories. One should be on direct emissions from public sector bodies, and the other should be on emissions from another body as a consequence of policies or regulation that a public sector body promotes.’\(^{187}\)

279. Paul Tetlaw of Transform Scotland made a similar suggestion—

\(^{182}\)Climate Change (Scotland) Bill. Policy Memorandum, paragraph 39. Available at: http://www.scottish.parliament.uk/s3/bills/17-ClimateChange/b17s3-introd-pm.pdf.


‘The bill should establish a duty on all public bodies to reduce emissions in line with the national targets. We certainly do not believe that it is right that politicians at a national level should shoulder all the responsibility.’188

280. Dr Andy Kerr of the University of Edinburgh commented that a duty to reduce emissions might already be applicable to public bodies—

‘If you are talking specifically about duties to reduce emissions, the UK carbon reduction commitment will impose reductions on all public bodies that use more than a certain amount of energy, so that will be captured anyway.’189

281. David Kennedy, chief executive of the UK Committee on Climate Change made this point as well—

‘The main lever for reducing emissions in the public sector is the carbon reduction commitment, which provides a significant opportunity across public sector bodies... It is not immediately obvious to me that there is a need to go beyond that, but there may be scope for the Government and public bodies to do something on green procurement.’190

282. In written evidence, a number of organisations highlighted potential duties which might be placed on public bodies. The Association of British Insurers, for example, argued that the statutory duty placed on local authorities to reduce flood risk should be extended to also include a wider duty on adaptation. Changeworks suggested that local authorities should promote measures that influence the behavior of the public by rewarding actions that reduce carbon.

283. The perspective of COSLA was provided in evidence by Councillor Alison Hay who suggested that the provisions in the Bill as drafted were appropriate—

‘COSLA is not opposed to duties per se, but in light of our current duties, such as the sustainable development duty that Ken Gibb mentioned, and the biodiversity duty—there are a number of duties in the environment field—it would be useful to examine and rationalise them all, rather than impose a duty right away. The proposed enabling powers are a good way forward.’191

284. Councillor Alison Hay went on to argue—

‘As we indicated, although we do not oppose the imposition of duties in principle, it needs to be done in such a fashion that it takes into account

everything that we are doing at the moment. To impose a duty just for the sake of imposing a duty is not a good idea.\textsuperscript{192}

285. Evidence from COSLA and the Sustainable Scotland Network also highlighted the work already being carried out by local authorities in relation to climate change. Ken Gibb of the Sustainable Scotland Network told the Committee—

‘Alison Hay mentioned the carbon management plans that all councils are delivering with the Carbon Trust. I think that we are now in the sixth phase of a process that has been around for about five years. Over the piece, councils are reducing their emissions by the equivalent of 3 per cent per year. Over the period of the carbon management plans that are in place, that averages out at a 15 per cent reduction in emissions, which is an indication of our commitment.\textsuperscript{193}

286. The Minister explained in evidence to the Committee on 10 March 2009—

‘Having powers in reserve in the bill is the right thing to do. At this stage, it is not terribly clear what we would force people to do, if we used powers to mandate. By having a general power to fall back on, we are more likely to get innovative and imaginative thinking in public bodies.’\textsuperscript{194}

287. However, in a letter to the Committee dated 18 March 2009, it seemed that the Minister’s position may have shifted to a certain extent. He stated—

‘You will be aware that there has been considerable discussion with Committee witnesses on whether the Bill should contain an explicit duty on public bodies rather than enabling powers. Scottish Ministers are considering options in this regard including linking a potential duty with sustainable development. This will be discussed further with COSLA whose support will be required.’\textsuperscript{195}

Conclusion on duties on public bodies

288. The Committee recommends that the Scottish Government should create a general duty on public bodies to take account of climate change in their activities, although the Committee is of the view that concerted action will be required in order to translate this general duty into meaningful action. In this context, the Committee notes that the complementary approach of encouraging public bodies to roll out more widely examples of good practice in addressing climate change which were highlighted in evidence to this Committee may be more effective in delivering early action.

\textsuperscript{195} Scottish Government. Letter from the Minister for Transport, Infrastructure and Climate Change to the Convener of the Transport, Infrastructure and Climate Change Committee dated 18 March 2009.
289. The Committee notes the indication that the Minister is considering creating certain specific climate change duties on public bodies, rather than merely establishing an enabling power. **However, the Committee is concerned at the lack of clarity over the nature of such duties, and considers that discussion of the details at Stage 1 would have given witnesses representing the public sector the opportunity to respond.**

290. The Committee notes that the imposition of specific new duties may also have funding implications which Parliament would take an interest in. The Committee notes, for example, the written evidence of Falkirk Council which stated—

> ‘Falkirk Council acknowledges the role that local authorities can and should play in reducing greenhouse gas emissions and also acknowledges that it is appropriate that national and international government commitments should be reflected by targets at local government level. The Council reiterates its request for additional funds to support such action.’

291. It is clear from the written evidence from Falkirk Council and other local authorities and public bodies that the creating of duties would have funding implications which may vary. The Committee looks forward to further dialogue with the Scottish Government about the specific duties it is considering in this regard. The Committee notes, for example, the possibility of specific duties on the subject of travel or green procurement.

292. The Committee finally notes the concerns of the Subordinate Legislation Committee which argued in its report to this Committee that the power in the Bill to impose climate change duties on public bodies ‘is extremely wide in its scope, in particular as neither the public bodies which may be subject to climate change duties nor climate change duties themselves are adequately and clearly defined.’

293. The Subordinate Legislation Committee recommended that this power could be mitigated to some extent by provision of a list of public bodies to whom the power is to apply along with a power to add to the list subject to affirmative procedure. This would be in line with the approach adopted to other regimes regulating public bodies such as freedom of information. **This Committee endorses this recommendation and seeks a response from the Scottish Government on this point ahead of Stage 2. The Committee recommends that full consultation should be carried out in advance of any affirmative subordinate legislation being brought to the Parliament under this section.**

**ADAPTATION**

**Adaptation programmes**

294. The UK Secretary of State is required, under the UK Climate Change Act 2008, to lay a report before the UK Parliament containing an assessment of the

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187 Scottish Parliament Subordinate Legislation Committee. 2009 (Session 3) *Report on Climate Change (Scotland) Bill.*
risks for the UK of the current and predicted impact of climate change. The Bill requires that when this happens, Scottish Ministers must ‘as soon as reasonably practicable’ lay a programme addressing the risks in the report for Scotland, and more generally setting out the Scottish Ministers’ thinking in relation to adaptation to climate change, and from the second report on, for this to include as assessment of progress towards objectives set out in the previous programme. The first UK report must be produced by around the start of 2012, with a further report in 2017.

295. A number of witnesses who gave evidence to the Committee highlighted the importance of adaptation to climate change as an issue, including Professor John Mitchell of the Met Office, Ken Gibb of the Sustainable Scotland Network, and Richard Dixon of WWF Scotland and Stop Climate Chaos Scotland. Matthew Farrow of the CBI commented that ‘adaptation has been the Cinderella of the climate change debate for a long time, and politicians and business groups are all guilty of that.’

296. Professor Colin Galbraith of Scottish Natural Heritage welcomed the inclusion of provisions on adaptation in the Bill—

‘The adaptation plan will be fundamental to the implementation of the bill. It is good to see that there is one, as it is unusual in the European context to see such a bill and plan together. That is an encouraging development.’

297. A number of written submissions commented on the issue of adaptation. The Association of British Insurers argued, for example, that the Bill should set a series of targets to reduce flood risk across Scotland. Other written submissions argued that the Bill should provide for Ministers to be more accountable for their activities in relation to adaptation, including the suggestion that they should report annually to the Parliament on progress in relation to adaptation, and that a separate climate change impact report should be published for Scotland.

298. In evidence to the Committee, the Minister explained that ‘we will undertake a second consultation on adaptation, which will be based on what emerged from the first consultation and will play an important role in developing a way forward’.

299. The Committee supports the provisions in the Bill in relation to adaptation to climate change and looks forward to considering the first report on this subject published by the Scottish Government under this Bill.
Muirburn

300. Muirburn is a mainly upland land management technique, and is the act of controlled burning of vegetation on open, treeless, semi-natural habitats (including muir or moorland) and involves the burning of gorse, heather and grass to stimulate new growth. Dates on which muirburn can take place are set down in statute (the Hill Farming Act 1946).

301. The provisions in the Bill allow Scottish Ministers to amend, by subordinate legislation, these dates to adapt to the effects of climate change as there is concern that, given changing weather patterns and rising temperatures, the ecology of these areas could now be compromised by burning within the currently permitted limits.

302. This provision was considered by the Rural Affairs and Environment (RAE) Committee as a secondary committee on the Bill and its conclusions were included in its report to this Committee.

303. The RAE Committee considered the muirburn provision during a roundtable discussion on 11 February 2009 and at an evidence session with the Minister for Environment on the same day. The Scottish Rural Property and Business Association commented during the discussion that its members had been anxious about supporting the proposal because it was unclear how the new power would be used. It reported that it had received insufficient information to make an informed decision about any changes to the muirburn dates.

304. The RAE Committee noted that the Minister for Environment had suggested that he had been surprised by the opposition expressed in some of the responses to the muirburn consultation and considered that the lack of detail in the Bill may have led to some overly cautious responses. He assured the RAE Committee that the power would not be used without full consultation with stakeholders and the power would only be used in such a way so as to allow muirburn practices to adapt to the impact of climate change.

305. In its report to this Committee, the RAE Committee reported that it appreciated the Minister’s reassurances that the Scottish Government will actively consult with all key stakeholders at an early stage in its deliberations on how to use this power.

306. The Minister stated in a letter dated 18 March 2009—

‘It is Scottish Ministers intention to bring forward an amendment to section 46 of the Bill (which contains a new section 23A of the Hill Farming Act 1946), so the order making power is subject to affirmative parliamentary procedure, and so that the power cannot be exercised so as to reduce the current number of days comprising the permitted muirburn season.’

307. On the basis of the comments made by the Rural Affairs and Environment Committee, and following the Minister's stated intention to bring forward an amendment to the muirburn provisions at Stage 2, the Committee is content with these proposals.

FORESTRY

308. Section 47 of the Bill provides for subordinate legislation to allow Forestry Commissioners within the Forestry Commission Scotland to form or participate in corporate bodies or trusts. In addition, Commissioners would have the power to provide loans and act as an officer of a body corporate, or a trustee of a trust.

309. The detail of the proposals behind section 47 are described in the Policy Memorandum, which states that the Scottish Government is proposing two specific policies. The Forestry Commission would be allowed to enter into joint venture arrangements for renewable energy developments. Such provisions on joint ventures replicate provisions already in force in England and Wales. The second proposal is to release capital by leasing up to 25% of Forestry Commission Scotland land for up to 75 years with the intention of using the funding gained to implement measures to contribute towards mitigating climate change.

310. This issue was considered by the Rural Affairs and Environment (RAE) Committee.

311. The RAE Committee report considered in some detail the leasing proposals in the Bill and noted the concerns about the proposals identified in both written and oral evidence. The main conclusion reached in its report to this Committee is set out below—

'The Committee appreciates that consultations should not have a preconceived outcome and is concerned that consultation was undertaken during Stage 1 on a proposal already contained in documents supporting the Bill. There is sufficient concern about the leasing proposal for the Committee to be unwilling to recommend that the Bill allow this proposal to go ahead.

As detailed below the leasing proposal is contentious for numerous reasons and the consultation process for this proposal is considered to be inadequate by key stakeholders.

The Committee recommends that the Government does not progress this leasing proposal and amends the enabling section in the Bill.'

312. The Minister for Environment subsequently wrote to the Convener of the RAE Committee in a letter dated 13 March 2009 providing the Scottish Government’s response to the consultation on the forestry provisions in the Bill and noted—

'We do not intend to use the powers provided for in section 47 of the Bill to make an order allowing leases and cutting rights over parts of the national
forest estate. Accordingly we will propose an amendment to delete subsection 47(4)\textsuperscript{204}

313. This intention was confirmed in a letter to this Committee from the Minister for Transport, Infrastructure and Climate Change dated 18 March 2009.

314. In respect of the proposal in the Bill for Forestry Commission Scotland to enter into joint ventures with private companies for the development of sustainable energy, the RAE Committee stated—

‘The [RAE] Committee acknowledges that joint ventures may not generate the same level of funds as the leasing proposal, or generate funds to the same timescale. However given the notable support for the joint ventures policy the [RAE] Committee recommends that, in considering alternative approaches to leasing, the Government should explore the full potential of encouraging and supporting the establishment of joint ventures schemes.’

315. The Committee notes that the Minister for Environment’s letter to the Convener of the RAE Committee dated 13 March 2009 confirms that the Scottish Government plans to use these joint venture powers.

Conclusion on forestry
316. This Committee endorses the recommendations in the report of the Rural Affairs and Environment Committee and notes that the Scottish Government has recently changed its position on one of these recommendations – the leasing proposals. This Committee notes that further clarification may be needed on the implications of the Scottish Government’s policy change, particularly the status of the funding for the mitigation of climate change which was mentioned in the Policy Memorandum as resulting from this proposal. This is something which the Rural Affairs and Environment Committee may wish to pursue with the Scottish Government. This Committee comments on the consultation arrangements for the forestry and other provisions in the Bill later in this report.

ENERGY EFFICIENCY

317. This Chapter in Part 5 of the Bill contains three distinct sets of provisions. The first set of provisions require the Scottish Ministers to produce an action plan setting out their current and proposed measures to promote the energy efficiency of buildings in Scotland, as well as measures to encourage behavioural change towards energy efficiency.

318. The second set of provisions contain measures for assessing the energy performance of existing non-domestic buildings in order to raise awareness of the contribution that those buildings can make to mitigating climate change through reducing energy demand and thereby emissions of greenhouse gases.

\textsuperscript{204} Scottish Government. Letter from the Minister for Environment to the Convener of the Transport, Infrastructure and Climate Change Committee dated 13 March 2009.

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319. The third set of provisions place a duty on the Scottish Ministers to take such steps as they consider appropriate to promote the use of heat from renewable sources.

320. The Economy, Energy and Tourism (EET) Committee considered these provisions in the Bill and made 17 recommendations to the Parliament and to this Committee. The recommendations are set out in full in the EET Committee’s report.

321. The report included recommendations in relation to the improvement of energy efficiency and the take-up of renewable heat and micro-generation technologies, the extension of energy performance certificates to the non-domestic sector, and the production of an action plan to improve the take-up of renewable heat technologies in Scotland. Specifically, the EET Committee recommended that the Scottish Government—

- Takes all the necessary steps to ensure that efforts are made to improve and not just promote energy efficiency and the take-up of renewable heat and micro-generation technologies, and that the Minister brings forward amendments at stage 2 to maintain and extend the existing legislative provision in respect of living accommodation
- Clearly sets out how the monitoring and reporting procedures within this Bill will work and clarifies the roles of various bodies in this respect
- Adds the setting of targets for its energy efficiency and renewable heat initiatives to the relevant sections of the Bill and brings forward the necessary amendments
- Investigates and reports back to the EET Committee, if possible before Stage 2, on whether some form of rebate through local taxation systems to incentivise the take-up of energy efficiency, renewable heat and/or micro-generation technologies in the domestic and non-domestic sectors should be introduced, drawing on the experience and the success of such schemes in other parts of the UK
- Makes all efforts to ensure that the education and training sector in Scotland is well-prepared and can respond to the growth in employment opportunities by providing the right number of people with the right skills at the right time, and reports back to the Committee on this as soon as possible
- Ensures that energy efficiency projects are in a position to play a full and meaningful part in meeting the statutory targets for 2010 and thereafter
- Ensures that a revised financial memorandum be produced and we would expect the costs identified above to be covered within this
- Introduces, within a reasonable timeframe, an action plan to improve the take-up of renewable heat technologies in Scotland and to work with all the necessary parties to achieve progress in this area, and provides a clear
timetable from the Minister for the introduction of the heat plan before Stage 2 of the Bill

- Ensures that combined heat and power systems, preferably using sustainable energy sources, are a part of its action plans for renewable heat and energy efficiency

322. The Committee notes that the recommendations in the EET Committee’s report are made directly to the Scottish Government, rather than this Committee as lead committee on the Bill. The Committee endorses many of the recommendations contained in the EET Committee’s report. For example, like the EET Committee, this Committee would recommend that the Scottish Government provides clarity on its position in relation to the proposed Energy Efficiency and Micro-Generation (Scotland) Bill. The Committee also agrees that all the secondary legislation under sections 48-51 should be subject to affirmative resolution and agrees with the recommendation that the issue of the skills gap and employment opportunities is addressed by the Scottish Government, an issue which is covered elsewhere in this report.

323. The EET Committee recommended in its report that the Minister for Transport, Infrastructure and Climate Change ensures that energy efficiency projects play a full and meaningful part in meeting the statutory targets for 2010 and thereafter. The EET Committee indicated that it saw no reason why the action plan had to await the passing of the Bill and wished to see the Scottish Government publish a full draft of the action plan before Stage 2 of the Bill. The Minister for Enterprise, Energy and Tourism wrote to the Convener of the Economy, Energy and Tourism Committee on 3 April 2009 to provide an outline of the Scottish Government’s Energy Efficiency Action Plan. This Committee notes that the Minister indicated that he anticipated that the Climate Change (Scotland) Bill would be passed in summer 2009 and that the Energy Efficiency Action Plan would be published thereafter.

324. This Committee notes the EET Committee’s recommendation that the Scottish Government amends the Bill to include specific targets for energy efficiency and renewable heat initiatives. While the Committee does not believe setting specific sectoral targets is appropriate for all sectors, it regards land use, energy generation, energy efficiency and transport as the key sectors in which the Scottish Government should be required to define and quantify the expected emissions reduction. Setting targets for energy efficiency and renewable heat initiatives is consistent with that approach.

325. The EET Committee report recommends that various amendments are brought forward at Stage 2 in relation to the energy efficiency chapter of the Bill. This Committee will consider any amendments brought forward on this subject at Stage 2.

WASTE REDUCTION AND RECYCLING

326. Part 5, Chapter 4 of the Bill sets out measures aimed at improving waste reduction and recycling. The Bill gives powers to Scottish Ministers to make regulations in the following areas:
Transport, Infrastructure and Climate Change Committee, 2nd Report, 2009
(Session 3)

- waste prevention and management plans
- waste data
- deposit of recyclable waste
- procurement of recyclate
- reduction of packaging
- deposit and return schemes
- charges for carrier bags.

327. The Rural Affairs and Environment Committee considered these provisions in the Bill and recommended to this Committee that the Scottish Government should ‘have regard to—

- the urgent need to focus on reducing commercial and industrial waste being sent to landfill
- the need to address the lack of infrastructure available to implement the policy intentions in the Bill
- the need to consider issues raised by the Environment and Rural Development Committee in Session 2 on charging by sellers of goods for the supply of carrier bags
- the opportunity that current international market conditions could present for Scottish market development
- the need to ensure measures undertaken are in accordance with both the Government’s definition of ‘recycling’ and with the waste hierarchy set out in the Waste Framework Directive
- the benefits of the Government endorsing one method of measuring ‘carbon footprints’ and to establish criteria based on this reflecting which practice is more sustainable than another
- the need to take into account any potential negative impact on social and economic factors, including in remote and rural areas, of aiming towards ambitious targets to reduce carbon emissions.’

328. This Committee endorses the conclusions of the RAE Committee’s report on the Bill and calls on the Scottish Government to respond in full to its recommendations. In relation to the specific issue of charging for the supply of carrier bags, the RAE Committee noted that it had received numerous written submissions opposing the policy behind this section of the Bill. This opposition was based on evidence which suggested that that proceeding with this policy is unlikely to deliver the intended environmental benefits and instead lead to
increased emissions. The RAE Committee noted the work conducted on this issue by the Environment and Rural Development Committee in 2006 in session 2 and commented—

‘The [RAE] Committee appreciates that there has been movement on this issue since the publication of the report in 2006, through the voluntary agreement with retailers and also by the cultural shift amongst the public towards bringing reusable bags to shops with them instead of using carrier bags once. However the considerable scrutiny undertaken by the previous committee should be used as a valuable assessment of the issue and this Committee draws the contents of the Stage 1 report to the attention of the lead committee on this basis.’

329. Matthew Farrow of the CBI commented in evidence to this Committee—

‘The carrier bag issue is endlessly rehearsed and is a symbolic issue, and to be honest I would say that the proposal for carrier bag charges is probably not the best way to increase diversion from landfill. The effort that would be put into that policy could be better expended elsewhere.’

330. Grant Hodges representing the Climate Change Business Delivery Group went on to say—

‘I suggest that the debate on carrier bags has moved on. A few years ago, the introduction of a tax on carrier bags would have been good, but many retailers have now come up with their own solutions. I wonder about the costs of enforcement and whether the tax is necessary now.’

331. In evidence to this Committee, the Minister for Transport, Infrastructure and Climate Change commented—

‘We are not minded at present to make any changes to section 59 as it is important for ministers to have the power to use in future.’

332. The Minister explained—

‘The provision has the potential to influence behaviours in ways that undoubtedly support the climate change agenda by reducing the consumption of what are perhaps unnecessary quantities of goods. That feeds into the reduction of the manufacturing carbon cost of the associated items and the transport costs of goods going from wholesalers and distribution centres to supermarkets.’

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333. The Committee notes that there exists opposition to the inclusion of this enabling power within the Bill. The RAE Committee draws the attention of this Committee to the scrutiny its predecessor committee conducted on this issue in 2006. This Committee notes that the proposal in 2006 was subject to a separate and full bill scrutiny process, rather than being included as a piece of enabling legislation within a wide-ranging bill.

334. This Committee also notes the evidence that action is already being taken by some retailers in respect of charging for carrier bags, and that public attitudes in relation to recycling and reusing carrier bags appear also to have shifted within the last few years. The Committee recognises that either the current provisions or a separate Bill could provide the means to implement a carrier bag charging regime.

335. The Committee recommends that the Scottish Government reflects seriously as to whether its approach in relation to this provision is the correct one. The Committee is not convinced as to the value of this approach, and notes that the timing of the proposal may owe more to the availability of this Bill as a suitable legislative vehicle for introducing enabling powers rather than the powers being urgently required.

CONSULTATION ON PROVISIONS IN PART 5

336. The Committee notes that a full Scottish Government consultation process had not been completed for many of the provisions in Part 5 of the Bill by the date of introduction. Of the consultations run on the Part 5 provisions, only one, on energy efficiency, had been completed and the Scottish Government’s analysis of responses published, by the time of the introduction. This attracted criticism from the committees scrutinising these sections of the Bill.

337. The report of the Rural Affairs and Environment Committee stated—

‘Before commencing evidence taking on the Bill the Committee wrote to the Scottish Government to express its frustration at the late stage at which a number of consultations on the provisions were undertaken.\(^{209}\) The letter focused specifically on the forestry consultation which closed on 27 January. Given the need for this Committee to report to the lead Committee in advance of its evidence session with the Minister for Transport, Infrastructure and Climate Change as the final session of evidence taking at Stage 1, this Committee has had to scrutinise these provisions without copies of the responses to the Scottish Government’s consultation being available.

The Committee acknowledges that the Minister for Environment at that time, Michael Russell, offered an apology for the late introduction of the consultation, and the Committee also appreciates that the Government provided a preliminary analysis of responses to a short timescale. Regardless of this, introducing a Bill in advance of the conclusion of consultations on its contents is not appropriate. Parliamentary committees

\(^{209}\) Scottish Parliament Rural Affairs and Environment Committee. 2009 (Session 3) \textit{Report on Climate Change (Scotland) Bill.}
should be afforded the right to undertake scrutiny of legislation with all of the relevant information at their disposal.

The Committee is also concerned that a number of areas of uncertainty remain about the specifics of the Government’s proposals that the Bill’s provisions would enable. Limitations in the accompanying documents and in the supplementary information provided by the Government creates a perception that the Government’s proposals are still evolving despite the Bill having been introduced a number of months ago.

The Committee wishes to express its frustration that it has been asked to scrutinise and potentially endorse broad enabling powers to a relatively tight timescale and with a lack of sufficiently detailed information at its disposal.  

338. The Economy, Energy and Tourism Committee raised similar concerns in its report to the Parliament and this Committee, commenting—

‘It is clear to the Committee that in relation to the provisions on energy efficiency (section 48), the energy performance in non-domestic buildings (section 50) and the promotion of renewable heat (section 51), an excessive amount of the policy detail remains unclear or is still subject to consultation either in Scotland or by the UK Government.’

339. This Committee questioned the Minister for Transport, Infrastructure and Climate Change on the way that these consultations had been handled by the Scottish Government. He commented—

‘We would certainly prefer to have completed the consultations, wherever we can, not simply to inform the deliberations of committees, important though they are, but to give us a different basis for proceeding. I would prefer to avoid the situation that you describe… I made the point before…that we are willing to engage in further evidence sessions at stage 2 if that is felt to be assistance to the committee.’

340. In the view of this Committee, the consultation arrangements for the provisions in Part 5 of the Bill were poorly handled by the Scottish Government. It is concerned that several consultations were not completed prior to the introduction of the Bill. In particular, it seems that the consultation process related to the forestry provisions of the Bill was badly out of sync with the introduction of the Bill. This meant that the Rural Affairs and Environment Committee, and a number of other interested parties, devoted time to scrutinising the leasing proposals in the Bill, only for them to be dropped once the outcome of the consultation was known. Whilst the Committee welcomes the fact that the Scottish Government was responsive to the results of this consultation, the Committee believes that the process could have been better managed to ensure that all parties were adequately informed and able to provide meaningful input.

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210 Scottish Parliament Rural Affairs and Environment Committee. 2009 (Session 3). Report on Climate Change (Scotland) Bill.
particular consultation, the Committee considers it is unfortunate that Parliament’s time and that of witnesses was in effect wasted in this way.

341. The Committee recognises that this Bill presents an opportunity to legislate on matters which relate to tackling climate change. However, it is a concern that the Scottish Government considered it appropriate to include several provisions on the face of the Bill for which the policy development process was plainly inadequate. The Committee therefore recommends that in future, where there is a strong possibility that legislative proposals will be substantially altered by the outcome of a consultation, they are only brought to the Parliament once that consultation has been completed and the results properly assessed.

FINANCIAL MEMORANDUM

342. Under Standing Orders Rule 9.6, the lead committee at Stage 1 is required to consider and report on the Bill’s Financial Memorandum. In doing so, it is required to consider any views submitted to it by the Finance Committee.

Report by the Finance Committee

343. At its meeting on 13 January 2009, the Finance Committee agreed to adopt level three scrutiny in relation to the Bill.213 The Committee took oral evidence at its meeting on 10 February 2009 from SEPA, the Federation of Small Businesses (FSB) and from Scottish Government officials. The Scottish Government and the FSB submitted supplementary written evidence after they gave oral evidence to the Committee. The Finance Committee received ten additional written submissions.

344. The Finance Committee’s report contains a summary of the costs outlined in the Financial Memorandum and outlines the evidence received, which focused in particular on the advisory functions provisions in the Bill and issues around forestry, waste reduction and recycling.

345. The conclusions of the Finance Committee are as follows—

‘The Committee acknowledges the uncertainty over some of the costs associated with the Bill, particular in relation to the performance of unproven technologies and methods for reducing carbon emissions. The Committee accepts that the Financial Memorandum adequately reflects these margins of uncertainty.

The Committee notes the enabling nature of the Bill, particularly regarding the provisions contained in Part 5. Significant concern was raised, however, in evidence that not enough details have been made available on the likely cost impacts of these possible, future regulations. The Committee considers that the Financial Memorandum would have been stronger if modelling work had been carried out on the potential financial impact of the measures on businesses and public bodies. The Committee also considers that in a

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number of areas insufficient policy direction has been provided, which has made it difficult for local authorities and businesses to be able to assess the financial impact of the proposals.

The Committee notes that the Scottish Government is currently undertaking significant pieces of work to finalise some aspects of its policy, namely, the Scottish Government’s strategic overview project, an options review on the forestry proposals and the consideration of energy efficiency scenarios. The Committee considers that this work will provide vital indications of future costs. Given the significant implications of this work, the Committee would have preferred that it had been completed in time for its consideration of the Financial Memorandum to the Bill. As a result, the Committee expects to take an interest in scrutinising the financial impact of the outcomes of this work.

The Committee, nonetheless, welcomes the Government’s commitment that all substantive regulations will be accompanied by a fully costed regulatory impact assessment.

Where significant expenditure associated with a bill will only become apparent with subordinate legislation, the Committee has in the past noted that it will track the subsequent statutory instruments and seek to scrutinise the financial implications. The Committee gives notice that it may seek to do so for instruments arising from this Bill.

Given the long-term perspective of the Bill, and the wide range of policy streams that may contribute to its implementation, the Committee recommends that the Scottish Government should consider how it will monitor and control the cumulative costs of implementation.

Views expressed to this Committee

346. The views expressed to the Finance Committee regarding the uncertainty in relation to some of the costs associated in the Bill were reflected in evidence to this Committee. Councillor Alison Hay of COSLA commented, for example—

‘As I understand it, the bill is broad ranging. I agree that we need to know the cost…We talked about the need for a minister-led body that could examine the issue, including the gaps, the barriers and where new resource will be needed. Such a discussion needs to be led from the top, but we are happy to engage in it.’214

347. The Committee also notes that there is a degree of uncertainty regarding the impact of the Bill on jobs. Stephen Boyd of the STUC commented—

‘We are supportive of that [climate change] agenda and believe that jobs can be derived from that. On balance, we expect that to be beneficial to Scotland. However, I do not think that the detailed work has been done that would

allow us to make a properly informed estimate of the net jobs impact. There are bound to be pluses and minuses, but it is difficult to give detail.\textsuperscript{215}

348. Stephen Boyd went on to comment that ‘we would support work on job impact evaluation’.\textsuperscript{216} Grant Hodges of the Climate Change Business Delivery Group suggested that—

‘The potential exists for the creation of green jobs to result in a net positive. Many more jobs will arise from a sensible and well-thought-through programme that meets the targets. We are going through tricky economic times. The challenge is to ease the switch of jobs from the old economy to the new economy.’\textsuperscript{217}

349. In relation to the impact of the Bill on jobs, the Minister for Transport, Infrastructure and Climate Change commented on a suggestion that it may result in 16,000 jobs. The Minister stated—

‘The figure is for 16,000 new jobs—I do not claim that it is a net figure. However, in industries that will have to make changes in response to the climate change agenda, there will be considerable work in conversion and adaptation, as we add technologies. There will be the potential for employment opportunities even in the industries in which the greatest amount of change takes place.’\textsuperscript{218}

350. The Committee notes that this figure appears to derive from the UK Renewable Energy Strategy consultation document published in 2008 which estimates that there could be 16,000 jobs in energy-related opportunities in Scotland over the next decade.\textsuperscript{219}

351. In relation to the uncertainties contained in the Financial Memorandum, the Minister for Transport, Infrastructure and Climate Change told the Committee—

‘Will we update the financial memorandum? As a matter of course, we certainly expect to update it to reflect any changes that we make at stage 2. However, it is inevitable in such a bill that we are dealing with estimates. The figures are not undebatable and they cannot be made so. They give the best ranges of figures that we can give.’\textsuperscript{220}

Conclusion on Financial Memorandum

352. This Committee endorses the conclusions contained in the report of the Finance Committee, and in particular its strong comments regarding the uncertainty of the figures contained in the Financial Memorandum. The Committee welcomes the intention of the Finance Committee to take an interest in the financial impact of the outcomes of the Scottish Government’s ongoing work on climate change, and the indication that it may scrutinise the financial impact of any subordinate legislation brought forward under the Bill. However, the Committee believes that the financial information provided is totally inadequate given the scope and importance of this piece of legislation and a revised financial memorandum is required before the Bill can be approved. **This Committee therefore recommends that the Scottish Government prepare a revised financial memorandum in advance of Stage 3 consideration of the Bill.**

353. The Committee is extremely concerned that the job implications of the provisions in the Bill have not been properly assessed. The Minister has indicated that 16,000 new jobs may be created in one particular sector, but there is no indication as to the net impact on jobs, both positive and negative, of the Bill proposals. The Committee notes that this unfortunate situation has arisen because the Bill sets framework for targets, but the specific policies needed to meet these targets have not yet been articulated.

354. The Committee is very disappointed that it is being required to consider a Bill whilst having little indication from the Scottish Government as to its impact on jobs. The Committee believes that this information must be included as an integral part of detailed plans brought forward by the Scottish Government for the meeting of the targets. **The Committee therefore recommends that the Scottish Government provides, as a matter of urgency, details on how it intends fully to assess and present the job implications of plans it brings forward under this Bill. The Committee recommends that these plans must be developed in partnership with employers and trade unions to ensure that potential job losses can be avoided and job opportunities in sustainable industries are maximised.**

SUBORDINATE LEGISLATION

355. The Subordinate Legislation Committee (SLC) considered the delegated powers provisions in the Bill at Stage 1. The SLC Committee submitted a report to this Committee as the lead committee for the Bill under Rule 9.6.2 of Standing Orders. A copy of the report can be found at Annexe B and the key conclusions are set out below.

*Section 19 – Meaning of advisory body*

*Section 20 and Schedule 1- Scottish Committee on Climate Change*

356. The SLC considered the delegated powers in sections 19, 20 and Schedule 1 to be acceptable. The SLC draws to the attention of the lead and secondary committees for the Bill (in relation to the effect of the delegated powers contained in sections 19, 20 and Schedule 1) that the Explanatory Notes with the Bill (paragraph 33) and the Policy Memorandum (paragraph 31) indicate that
Ministers will require to seek expert, independent advice from the advisory body, but the Bill provides –

(a) in section 19(1) and (5), that a designated advisory body may be any public body as Ministers consider appropriate, which may be a person or body with functions of a public nature (not necessarily independent of the Scottish Ministers or Government), and

(b) in Schedule 1, paragraph 2, that the members of the Scottish Committee on Climate Change shall be appointed by the Scottish Ministers.

357. The SLC acknowledged, however, that in relation to those statements in the Policy Memorandum and Explanatory Notes, “independent” is capable of having different meanings and does not necessarily refer to a body which is wholly independent of the Scottish Ministers.

Section 26 – Guidance to advisory body
Section 27 – Power to give directions to the advisory body

358. The SLC drew to the attention of the lead and secondary committees for the Bill the delegated powers conferred on the Scottish Ministers in sections 26 and 27 to issue directions and guidance to the advisory body given that the Explanatory Notes (at paragraph 33) and the Policy Memorandum (at paragraph 31) indicate that the advisory body shall provide independent advice to the Scottish Ministers.

Section 36 - Duties of public bodies relating to climate change

359. The SLC reported to the lead committee that the power under section 36(1) to impose climate change duties on public bodies is extremely wide in its scope, in particular as neither the public bodies which may be subject to climate change duties nor climate change duties themselves are adequately and clearly defined.

360. The SLC also recommended that this could be mitigated to some extent by provision of a list of public bodies to whom the power is to apply along with a power to add to the list subject to affirmative procedure. This would be in line with the approach adopted to other regimes regulating public bodies such as freedom of information.

Section 37 – Guidance to relevant public bodies

361. The SLC considered that the Scottish Government response did not aid its consideration of this power. The SLC concluded that it would be appropriate for the Parliament to have a role in scrutinising the guidance produced under section 37 because of its potential impact, and recommends that guidance under this section should be laid before Parliament for a period prior to implementation, and any resolutions of the Parliament made in respect of the draft guidance during that period taken into account.

Section 47 - Power to modify functions of Forestry Commissioners

362. The SLC drew to the attention of the lead committee that the power under section 47(1) to modify the functions of the Forestry Commissioners in or as
regards Scotland is, in the opinion of the SLC Committee, very wide in its scope as there is no limitation within the power on what may be done in exercise of the power beyond that it must deliver a climate change purpose.

Section 52(1), (2) and (4) - Waste prevention and management plans
Section 53(1), (2), (3) and (5) - Information on waste
Section 54(1), (2), (4) and (5) - Recyclable waste: facilities for deposit etc.
Section 56(1), (2), (3) and (6) - Procurement of recyclate - regulations

363. The SLC reports to the lead committee and to the Parliament that these powers are expressed in very broad terms and that there is nothing on the face of the Bill to restrict their application to purely commercial activity.

Section 57(1), (2) and (4) – Targets for reduction of packaging etc.

364. The SLC reports that the Parliament should be made aware that these powers are expressed in very broad terms and that there is nothing on the face of the Bill to restrict their application to commercial activity.

Conclusion on subordinate legislation

365. This Committee notes all of these recommendations and is minded, in particular, to support the call for the Bill to include a list of public bodies to whom the duties under section 36 will apply. The Committee recommends that the Scottish Government provides a written response to this Committee and the Subordinate Legislation Committee ahead of the start of Stage 2 which addresses the points raised in the Subordinate Legislation Committee's report. Subject to the response from the Scottish Government, these are issues which this Committee may return to at Stage 2.

GENERAL PRINCIPLES OF THE BILL

366. The Committee has discussed in this report the significance of the Climate Change (Scotland) Bill in setting out a framework for delivering challenging reductions in greenhouse gas emissions in the years to 2050. The Committee welcomes the Bill and endorses its general principles.

367. The Committee believes, however, that the Bill as introduced can and should be improved, to ensure that it meets the aspiration of being a leading example of climate change legislation. The Committee has made a number of recommendations in this report on how this could be achieved, but highlights two in particular.

368. First, strong early action is needed in order to secure the necessary reductions in greenhouse gas emissions. The Committee recommends that, in order to achieve this, the framework set out in the Bill in respect of targets between 2010 and 2019 needs to be altered, with the Scottish Government specifying much more precisely what emissions reductions will be expected during this period. The proposed new 2020 interim target will directly influence the annual targets during this period and the Committee has made recommendations which suggest either bringing forward the date at which Scotland reaches the 3%
annual reduction or providing explicit percentage reduction targets for each year from 2010.

369. Second, the Committee recommends that the Scottish Government should focus its attention on how the reductions in greenhouse gases required by the Bill will actually be delivered. We are concerned to avoid drift in bringing forward strategies and implementation plans, at the lack of detail in the financial memorandum and at the lack of risk analysis in such an obvious area as job impacts and opportunities. Given the emphasis on early action we cannot wait for perfect assessment tools or for comprehensive plans. The Scottish Government must demonstrate its intent by action, by adapting its policies and budgets to meet the over-riding importance it claims tackling climate change should be given.

370. It is vital that the Scottish Government addresses these and other key recommendations in this report if the Climate Change (Scotland) Bill is to provide a framework which will deliver fully on the objective of contributing to the global efforts to reduce dangerous climate change. The Committee looks forward to further dialogue with the Scottish Government as the Bill progresses through the Parliament.
ANNEXE A

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

25th Meeting, 2008 (Session 3)
Tuesday 16 December 2008

Climate Change (Scotland) Bill (in private): The Committee considered its approach to the scrutiny of the Bill at Stage 1.

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

3rd Meeting, 2009 (Session 3)
Tuesday 20 January 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—

Philip Wright, Deputy Director Climate Change, Fiona Page, Head of Scottish Climate Change Bill Team, Andrew Henderson, Policy Officer Scottish Climate Change Bill Team, and Cameron Maxwell, Climate Change Policy Team, Scottish Government.

Climate Change (Scotland) Bill - witness expenses: The Committee agreed to delegate to the Convener responsibility for arranging for the SPCB to pay, under Rule 12.4.2, any expenses of witnesses on the Bill.

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

4th Meeting, 2009 (Session 3)
Tuesday 27 January 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—

Professor John Mitchell, Director of Climate Science, Met Office;
Professor Peter Smith, Professor of Soils and Global Change, University of Aberdeen;
Phil Matthews, Senior Policy Advisor, Sustainable Development Commission Scotland;
Dr Andy Kerr, Assistant Director of Scottish Alliance for Geoscience, Environment and Society, University of Edinburgh;
David Kennedy, Chief Executive, and Katherine White, Economic Adviser, Committee on Climate Change.
TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

5th Meeting, 2009 (Session 3)
Tuesday 3 February 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—
Richard Dixon, Director, WWF Scotland;
Duncan McLaren, Chief Executive, Friends of the Earth Scotland;
Dave Watson, Scottish Organiser, UNISON;
Chris Hegarty, Advocacy Manager, SCIAF;
Gavin McLellan, Head of Christian Aid Scotland;
Judith Robertson, Head of Oxfam in Scotland.

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

6th Meeting, 2009 (Session 3)
Tuesday 10 February 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—
Chris Austin, Head of Public Affairs, Association of Train Operating Companies;
Marjory Rodger, Director of Government Relations in Scotland, Confederation of Passenger Transport UK;
Derek Halden, Director, DH Consultancy;
Gordon Dewar, Managing Director, Edinburgh Airport, BAA Scotland;
Robert Ashdown, Head of Technical Division, Chamber of Shipping;
Gordon Wilmsmeier, Senior Research Fellow, Transport Research Institute, Napier University;
Dr Alice Bows, Lecturer in Energy and Climate Change, Sustainable Consumption Institute & Tyndall Centre;
Paul Tetlaw, Chair, Transform Scotland;
Jeff Gazzard, Coordinator, GreenSkies Campaign;
John Lauder, National Director for Scotland, Sustrans.
TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

7th Meeting, 2009 (Session 3)
Tuesday 24 February 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—

Ken Gibb, Chair, Sustainable Scotland Network;

Councillor Alison Hay, Spokesperson for Regeneration and Sustainable Development, and Anil Gupta, Team Leader for Environment and Regeneration, COSLA;

John Stocks, Manager, Scotland, Carbon Trust;

Mike Thornton, Director, Scotland, Energy Saving Trust;

Chas Booth, Senior Press and Parliamentary Officer, Association for the Conservation of Energy;

Stephen Boyd, Assistant Secretary, STUC;

Anne Douglas, National Secretary, Prospect.

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

8th Meeting, 2009 (Session 3)
Tuesday 3 March 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—

Matthew Farrow, Head of Environment Group, CBI;

Brendan Dick, and Grant Hodges, Climate Change Business Delivery Group;

Jason Ormiston, Chief Executive, Scottish Renewables;

Colin Galbraith, Director, Policy and Advice, and Clive Mitchell, Strategy and Communications Manager, Scottish Natural Heritage;

Dr Chris Spray, Director of Environmental Science, and David Gorman, Head of Environmental Strategy, SEPA;

Geoff Aitkenhead, Asset Management Director, and Mark Williams, Business Strategy and Climate Change Manager, Scottish Water.
Transport, Infrastructure and Climate Change Committee, 2nd Report, 2009
(Session 3) — Annexe A

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

9th Meeting, 2009 (Session 3)

Tuesday 10 March 2009

Climate Change (Scotland) Bill: The Committee took evidence on the Bill at Stage 1 from—

Stewart Stevenson MSP, Minister for Transport, Infrastructure, and Climate Change, Philip Wright, Deputy Director, Climate Change, Fiona Page, Head of Scottish Climate Change Bill Team, Cameron Maxwell, Climate Change Policy Team, Madeleine Cusack, Climate Change Policy Team, and Kevin Philpott, Waste Regulation Senior Policy Officer, Scottish Government; David Henderson-Howat, Policy Adviser, Forestry Commission Scotland.

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

10th Meeting, 2009 (Session 3)

Tuesday 31 March 2009

Climate Change (Scotland) Bill: The Committee considered a draft Stage 1 report.

TRANSPORT, INFRASTRUCTURE AND CLIMATE CHANGE COMMITTEE

EXTRACT FROM THE MINUTES

11th Meeting, 2009 (Session 3)

Tuesday 21 April 2009

Climate Change (Scotland) Bill (in private): The Committee considered a draft Stage 1 report. The Committee agreed the report subject to minor amendments.
Members who would like a printed copy of this Numbered Report to be forwarded to them should give notice at the Document Supply Centre.