

# **CLIMATE CHANGE (SCOTLAND) BILL**

---

## **POLICY MEMORANDUM**

### **INTRODUCTION**

1. This document relates to the Climate Change (Scotland) Bill introduced in the Scottish Parliament on 4 December 2008. It has been prepared by the Scottish Government to satisfy Rule 9.3.3(c) of the Parliament's Standing Orders. The contents are entirely the responsibility of the Scottish Executive and have not been endorsed by the Parliament. Explanatory Notes and other accompanying documents are published separately as SP Bill 17–EN.

### **POLICY OBJECTIVES OF THE BILL**

#### **General overview**

2. The provisions in this Bill will set a long-term target to reduce Scotland's emissions of Kyoto Protocol greenhouse gases by 80% by the year 2050. This long term target will be supported by a framework of annual targets intended to drive the policies necessary for achieving this target. Many of the policy measures required to meet these targets will not require legislation to implement them, but certain climate change mitigation and adaptation policies have been identified which do require legislation and this Bill contains provisions in Part 5 which will allow these to be taken forward.

3. The Bill policy areas are separated into five Parts:

- *Part 1* creates a statutory framework for greenhouse gas emissions reductions in Scotland by setting a 50% reduction target for 2030 and an 80% reduction target for 2050. To help ensure the delivery of these targets, this Part of the Bill also requires that the Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.
- *Part 2* contains provisions which will allow the Scottish Ministers to establish a Scottish Committee on Climate Change, or to designate an existing body, to exercise advisory functions.
- *Part 3* places duties on the Scottish Ministers requiring that they report regularly to the Scottish Parliament on Scotland's emissions and on the progress being made towards the emissions reduction targets set in the Bill.
- *Part 4* contains powers to allow the 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.

- *Part 5* contains other climate change provisions and is divided into the following four chapters:
  - *Chapter 1* contains provisions relating to adaptation to the impact of climate change. It requires that the Scottish Ministers produce a report setting out their objectives in relation to adaptation to climate change, proposals and policies for meeting them and the timescales within which they will be introduced. Part 5 Chapter 1 of the Bill also contains an enabling power for the Scottish Ministers to vary the permitted times during which muirburn may be made where they consider it necessary or expedient to do so in relation to climate change.
  - *Chapter 2* will allow modification by regulations of the functions of the Forestry Commissioners to enable the Forestry Commission in Scotland to play a greater role in tackling climate change.
  - *Chapter 3* contains three distinct sets of provisions. The first set of provisions in this Chapter 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. The second set of provisions contains 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. The third set of provisions in this Chapter place a duty on the Scottish Ministers to take such steps as they consider appropriate to promote the use of heat from renewable sources.
  - *Chapter 4* contains provisions which will enable the Scottish Ministers to make regulations addressing issues of importance in moving towards a zero waste society, and securing a more sustainable use of resources, thereby limiting the emissions of greenhouse gases which contribute to climate change.

## **BACKGROUND**

### **Scientific context**

4. Radiation from the sun is necessary to sustain all life on Earth. A proportion of this radiation passes through the atmosphere and warms the atmosphere and the surface of the Earth. The short wavelength radiation is absorbed by the Earth's surface, which is heated as a result. This energy is then re-irradiated at longer wavelengths as infra-red radiation. A proportion of the out-going infra-red radiation is absorbed by greenhouse gases in the atmosphere. The higher the concentration of greenhouse gases in the atmosphere, the greater the proportion of longer-wave radiation that is trapped and so the greater is the warming. This process naturally keeps the Earth's surface warmer than would be the case otherwise - an average surface temperature of +15°C as opposed to an average of -18°C without it. However, human-induced greenhouse gas emissions enhance this effect to create greater warming than would occur naturally.

5. The main greenhouse gases are water vapour and carbon dioxide (CO<sub>2</sub>). Other important greenhouse gases include methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) perfluorocarbons (PFCs)

hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF<sub>6</sub>). With the exception of water vapour, the concentration of these gases in the atmosphere has been increasing since the beginning of the industrial era. This increase is due largely to human activities. For example, carbon dioxide concentrations in the atmosphere have increased from a range of 275 to 285 parts per million (ppm) in the pre-industrial age to 375ppm in 2005 and the rate at which this concentration is increasing, is accelerating.

6. The weight of international scientific evidence highlights the serious and urgent nature of climate change. The Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC)<sup>1</sup> is clear that emission of greenhouse gases caused by human activity is the primary driver of the observed changes in climate.

7. According to AR4, mean global temperatures are projected to rise between 1.1 and 6.4°C above 1990 levels by the end of this century, depending on the level of global emissions. Such an increase in temperature will result in continued melting of ice caps, glaciers and sea ice, changes in rainfall patterns, intensification of tropical cyclones and a further rise in global sea levels of between 20 and 60cm by the end of this century.

### **International action**

8. The international community has already begun a coordinated response to the challenge. The United Nations Framework Convention on Climate Change (UNFCCC) has as its ultimate objective “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system”.

9. The current international agreement to reduce greenhouse gas emissions is the Kyoto Protocol. In ratifying the Protocol a number of industrialised countries have committed to reduce their emissions of carbon dioxide, methane, nitrous oxide, HFCs, PFCs, and sulphur hexafluoride (collectively known as the “basket of six greenhouse gases”) by on average, 5.2% below 1990 levels by 2008-2012. Another international agreement is needed to set commitments beyond 2012. Negotiations on this are set to be concluded by the end of 2009 at the UNFCCC Conference of the Parties in Copenhagen.

10. The European Union (EU), as a signatory to the Kyoto Protocol, has committed to reducing its collective greenhouse gas emissions by 8%. The United Kingdom share of the EU collective target is a reduction of 12.5% in its emissions of the basket of gases. At the Spring European Council on 8 and 9 March 2007, EU Heads of Government agreed a unilateral binding target to reduce the EU’s greenhouse gas emissions by at least 20% by 2020 (compared to 1990 levels) and to increase this commitment to a 30% reduction if an international agreement is reached.<sup>2</sup>

---

<sup>1</sup> IPCC, Fourth Assessment Report, 2007, available from: <http://www.ipcc.ch/ipccreports/ar4-wg1.htm>

<sup>2</sup> This commitment forms part of the European Commission’s proposed Energy and Climate Change Package. More information about this is available from: [http://ec.europa.eu/energy/climate\\_actions/index\\_en.htm](http://ec.europa.eu/energy/climate_actions/index_en.htm)

## **United Kingdom action**

11. The UK Government introduced a Climate Change Bill into the House of Lords on 14 November 2007. The Bill received Royal Assent on 26 November 2008. The UK Act contains a headline target of reducing the UK's emissions of the basket of six greenhouse gases by 80% by 2050 and it provides a framework for setting a limit on the total amount that can be emitted by the UK over successive five-year periods (carbon budgeting). It also establishes an independent Committee on Climate Change to advise on the level of those carbon budgets and on a range of other climate change issues. It contains reporting requirements, enabling powers to create trading schemes relating to greenhouse gas emissions, and provisions on adaptation to the effects of climate change. Following the Scottish Parliament's agreement on 20 December 2007 to a Legislative Consent Motion, most of the provisions of the UK Act, on enactment, will extend to Scotland, although some provisions, such as those on waste, do not extend to Scotland.

## **Scottish action**

12. In its Fourth Assessment Report, the Intergovernmental Panel on Climate Change states that global emissions should be 50 to 85% lower (than 2000 levels) in 2050 to limit warming to 2.0°C - 2.4°C. Although Scotland only accounts for 0.15% of global greenhouse gas emissions, the Scottish Ministers believe that it is right that Scotland, a country which led the industrial revolution, should show leadership in legislating to reduce emissions of greenhouse gases and should aim to achieve the top end of the scale indicated.

## **CONSULTATION**

### **Proposals for a Scottish Climate Change Bill**

13. Between 29 January and 23 April 2008, the Scottish Government held a public consultation on proposals for a Scottish Climate Change Bill. The consultation document provided a summary of the science of climate change and set out the Scottish Government's proposals for legislating to reduce Scotland's emissions and to adapt to the ongoing effects of climate change. The consultation document was made available on the Scottish Government's website and a wide range of stakeholders were invited to respond<sup>3</sup>.

14. A total of 21,046 responses were received. 318 non-campaign responses were received from individuals and organisations. A further 20,728 responses were received from campaigns run by five non-governmental organisations. Copies of the non-campaign responses and examples of campaign responses were published on the Scottish Government website where permission was given to do so by the respondents concerned.

### **Consultation workshops**

15. As part of the consultation process, the Scottish Government held four stakeholder workshops. Three of these events were hosted in partnership with the Convention of Scottish Local Authorities, Highlands and Islands Enterprise and Scottish Enterprise respectively. All aspects of these workshops including the presentations, workshop notes for participants, and

---

<sup>3</sup> The consultation on proposals for a Scottish Climate Change Bill and related documents are available from: <http://www.scotland.gov.uk/Topics/Environment/Climate-Change/16327/Climate-Change-Bill/SCCBCConsultation>

detailed reports on the views expressed, were recorded and made available on the Scottish Government website<sup>4</sup>.

### **Strategic Environmental Assessment**

16. A Strategic Environmental Assessment of the consultation proposals was also undertaken, and the environmental report was published on 8 February 2008<sup>5</sup>.

### **Analysis of consultation responses and the Scottish Government response**

17. The majority of respondents welcomed the consultation, the commitment and intention to introduce legislation or establish a framework, and/or the leadership shown by Scotland. A large amount of primarily qualitative information was provided around four main themes: targets; supporting framework; reporting and scrutiny framework; and supporting measures. Some common themes or core messages arose repeatedly, in respondents' consideration of the consultation questions, including: the seriousness of climate change and the need for early action; a commitment to taking action in Scotland; the need for targets and actions to be specified; the complexity of the issue of climate change; the need for a basis in science, knowledge and advice; the need for research; the need for regular monitoring and reporting; the need for scrutiny within a flexible but robust framework; the need for everyone in Scotland to play their part in tackling climate change; the need for leadership, direction, clarity and certainty in the way forward; and the need for links to other relevant work.

18. Given the large number of responses and variety of views expressed in answer to the open questions which were asked, it is not possible to go into further detail about the outcomes of the consultation in this Policy Memorandum. However, the Scottish Government commissioned an analysis of the consultation responses, the report of which was published on 20 August 2008. This report presents in detail the themes and messages which emerged from the consultation responses and is available on the Scottish Government's website<sup>6</sup>.

19. On 27 October 2008, the Scottish Government published its response to the main points raised during the consultation on proposals for a Scottish Climate Change Bill. This response included the main policies proposed for the Bill. The response document is available on the Scottish Government's website<sup>7</sup>. The policy content of the Bill is described in detail below.

20. The consultation on proposals for a Scottish Climate Change Bill principally covered the policies addressed by the provisions contained in Parts 1 to 4 of the Bill. Additional separate consultations were carried out in respect of the policies addressed by the provisions contained in

---

<sup>4</sup> Ibid.

<sup>5</sup> All of the published documents associated with the Strategic Environmental Assessment of the consultation on proposals for a Scottish Climate Change Bill are available from:

<http://www.scotland.gov.uk/Topics/Environment/Climate-Change/16327/Climate-Change-Bill/SEAClimatebill>

<sup>6</sup> The analysis of responses to the consultation on proposals for a Scottish Climate Change Bill is available, with related documents, from: <http://www.scotland.gov.uk/Topics/Environment/Climate-Change/16327/Climate-Change-Bill/SCCBConsultation>

<sup>7</sup> Ibid.

the chapters of part 5 of the Bill. Details of these additional consultations are given under each of the respective topic headings of this Policy Memorandum.

## **PART 1: EMISSIONS REDUCTION TARGETS**

### **Policy objectives**

21. The provisions set out in Part 1 of the Bill create the statutory framework for greenhouse gas emissions reductions in Scotland by setting a 50% reduction target for 2030 and an 80% reduction target for 2050. To help ensure the delivery of these targets the Bill requires that the Scottish Ministers set annual targets, in secondary legislation, for Scottish emissions from 2010 to 2050.

### **Net Scottish emissions account**

22. The 2050 target is defined by placing a duty on the Scottish Ministers to ensure that the net Scottish emissions account for the year 2050 is at least 80% lower than the baseline year. 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.

23. The Bill establishes that the following are "**greenhouse gases**": carbon dioxide, methane and nitrous oxide, for which the baseline year is 1990; and perfluorocarbons, hydrofluorocarbons and sulphur hexafluoride, for which the baseline year is 1995. This is in accordance with the international practices established under the Kyoto Protocol.

24. "**Scottish emissions**" are defined as being those greenhouse gases which are emitted in Scotland or which represent the Scottish share of emissions of gases from international aviation and international shipping. In the case of the latter, this recognises that Scottish emissions from international aviation and international shipping will, by their very nature, occur in part outside Scotland's borders.

25. The Bill defines the term "**net Scottish emissions**" as the amount of Scottish emissions minus the amount of Scottish removals. "Scottish removals" are defined as being removals of greenhouse gases from the atmosphere due to land use, land use change and forestry activities in Scotland. The Bill allows the Scottish Ministers to modify the definition of Scottish removals to take account of potential additional types of removal which may be recognised in the future.

26. The term "**net Scottish emissions account**" is established in the Bill as a point of reference against which the target can be measured. It is defined as the net Scottish emissions plus or minus any carbon units credited to or debited from the account. Any units purchased may be used to offset Scottish emissions. Any carbon units generated in Scotland and sold to customers outside Scotland, count as emissions made in Scotland. It is the overall sum of these elements that form the net Scottish emissions account: i.e. net Scottish emissions (emissions plus removals) plus carbon units sold, minus carbon units purchased and used to offset emissions.

27. Carbon units represent emissions reductions or removals and emissions allowed under trading schemes. The Bill allows for the Scottish Ministers to make regulations specifying which carbon units are recognised for the purpose of the net Scottish emissions account. It is the Scottish Ministers intention that such regulations specify units that are compliant with the internationally recognised criteria established under the Kyoto Protocol<sup>8</sup>.

28. The Bill also allows the Scottish Ministers to create regulations providing for a scheme for registering carbon units and for establishing accounts in which they may be held and/ or transferred between. These regulations may also make provision for appointing a person or body to administer such a scheme. The number of carbon units purchased, held, used and sold in a given calendar year will be reported upon annually.

### **Interim and annual targets**

29. 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.

30. To ensure early and consistent action, the Bill requires that the Scottish Ministers set **annual emissions reduction targets** 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. The Scottish Ministers are required to set the first batch of targets for 2010 to 2022 no later than 1 June 2010. Subsequent batches must be set no later than 31 October in the 12th year before the beginning of the period in question. This is intended to give stakeholders certainty of the Scottish Government's emissions reduction trajectory so that they can plan with certainty over the longer term. These batches of annual targets will also coincide with the carbon budgets established under the provisions of the UK Climate Change Act 2008, to assist organisations operating throughout the UK. This approach also recognises that reserved policy measures introduced in support of the UK carbon budgets will bear down on emissions in Scotland, thereby contributing to the achievement of Scotland's targets.

31. 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.

### **Measurement of emissions**

32. The measurement of Scottish emissions and removals must be carried out, as far as reasonably practicable, in accordance with international carbon reporting practice. It is intended that this will be achieved by using data disaggregated from the UK Greenhouse Gas Inventory. This Inventory is submitted each year by the UK Government to the United Nations Framework

---

<sup>8</sup> Details of the units compliant with emissions trading under the Kyoto Protocol are available from: [http://unfccc.int/kyoto\\_protocol/mechanisms/emissions\\_trading/items/2731.php](http://unfccc.int/kyoto_protocol/mechanisms/emissions_trading/items/2731.php)

Convention on Climate Change. The Bill establishes that if this information is in accordance with the protocols of the United Nations Framework Convention on Climate Change it is considered to be in accordance with international practice. The Bill also gives the Scottish Ministers the power to specify a different European or international agreement, to allow flexibility should the basis of international carbon reporting change. The term “as far as reasonably practicable” is used in recognition of the fact that Scotland is not a full member of the United Nations or Member State of the European Union so may not be able to satisfy those requirements within international carbon reporting practice that can only be achieved by full members of such organisations.

## **PART 2: ADVISORY FUNCTIONS**

33. The emissions reduction provisions in the Climate Change (Scotland) Bill impose duties on the Scottish Ministers, which require them to establish annual emissions reductions targets in secondary legislation. Ministers will be required to seek expert, independent advice in advance of setting annual targets.

34. The UK Climate Change Act 2008 establishes a Committee on Climate Change to provide expert advice to the UK Government and Devolved Administrations. Initially, the Scottish Ministers intend to seek independent, expert advice from the UK Committee. As one of the Devolved Administrations contributing to the UK emissions reduction target, Scotland contributes to the funding of this independent, expert Committee. In the longer term, the Scottish Ministers will take a view on the effectiveness of the advice from this Committee for Scotland’s interests. 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.

35. Climate change is a wide-ranging and complex subject. The Bill requires that the Scottish advisory body, should one be established or designated, must provide advice, analysis, information or assistance regarding the Scottish Ministers’ functions relating to climate change when asked to do so by the Scottish Ministers. The UK Climate Change Act 2008 contains similar provisions requiring that the UK Committee on Climate Change provide relevant advice to the Scottish Ministers when requested to do so.

36. Each year, following the annual report on emissions, detailed in paragraph 37 below, the Scottish Ministers must, if no Scottish body has been tasked with carrying out the advisory functions mentioned in section 19 of the Bill, request the Committee to publish its views on the progress towards achievement of the annual targets that have been set, the interim 2030 target and the 2050 target. If a Scottish body has been tasked with carrying out the advisory functions, that body will, by virtue of the provisions in section 23 of the Bill, be required to publish an equivalent report. Ministers will be required to publish a response to the points made in these reports.

## **PART 3: REPORTING DUTIES**

37. It is intended that the Scottish Ministers be subject to strong and robust reporting requirements. The Bill therefore requires that the Scottish Ministers report regularly to the

Scottish Parliament on Scotland's emissions and on the progress being made towards the emissions reduction targets set in the Bill. The reporting requirements in Part 3 are as follows:

- **Annual reporting duty:** the Scottish Ministers are placed under a duty to lay an annual report before the Parliament giving details of Scotland's emissions, including the net Scottish emissions account; the use of carbon units; Scotland's electricity consumption; and Scotland's electricity generation. If the annual emissions target has been exceeded, the report should also explain why.
- **Report and statement on proposals and policies designed to meet future annual emissions targets:** as soon as reasonably practicable after setting any set of annual emissions targets, the Scottish Ministers will be required to lay a report before the Scottish Parliament setting out proposals and policies for meeting the current and future annual emissions targets, up to and including the annual targets just set. In practice, this report will require to be made at least once every five years.
- **Report and statement on proposals and policies designed to compensate for exceeding annual emissions targets:** where the net Scottish emissions account exceeds an emissions target, the Scottish Ministers are also required lay a report setting out the proposals and policies by which they intend to compensate for the excess emissions.
- **Final statements for 2030 and 2050:** the Scottish Ministers will also lay statements setting out whether the 2030 and 2050 emissions reduction targets have been met and, if not, why not. These reports will be distinct from the annual reports for 2030 and 2050 which will focus on the action in these two calendar years as opposed to the long-term targets.

#### **PART 4: DUTIES OF PUBLIC BODIES RELATING TO CLIMATE CHANGE**

38. The Scottish Ministers anticipate that all sectors of society in Scotland will contribute appropriately to taking action on climate change. In this context, the public sector in Scotland has a pivotal role to play, by showing leadership and by setting and delivering policies that encourage and enable action by others.

39. 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. This is why the Bill contains a power to allow the Scottish Ministers, by regulations, to impose duties on public bodies in relation to climate change (these could concern emissions reduction or adaptation to the effects of 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.

40. This part of the Bill also contains powers which enable the Scottish Ministers to designate one or more persons or bodies to monitor whether relevant public bodies are discharging their climate change duties appropriately. It is intended that, should the Scottish Ministers exercise this power, an existing body or bodies, or a person or persons already carrying out a similar function, would be designated for this purpose.

41. The Bill enables the Scottish Ministers to require the monitoring body to make reports on their activities and to issue guidance or directions to the monitoring body relating to the exercise of its functions. These measures are intended to ensure that any such monitoring body operates in a transparent way and that Ministers can ensure that it performs its monitoring functions in a way considered best suited to securing the best possible oversight and scrutiny of public bodies' action on climate change.

42. If the Scottish Ministers decide to use these provisions in the future it is intended that there will be full consultation with the public bodies concerned.

#### **Alternative approaches considered for Parts 1 to 4**

43. The first consideration was whether a Scottish Climate Change Bill was required since the UK Government was in the process of legislating for a UK Climate Change Bill, now Act, at the time these proposals were first being considered. The Scottish Ministers are fully supportive of the UK efforts to reduce greenhouse gas emissions. In recognition of the fact that the UK Act relates in large part to areas which are devolved under the Scotland Act 1998, a Legislative Consent Motion was passed by the Scottish Parliament on 20 December 2007<sup>9</sup>.

44. The Scottish Ministers wish to set a target to reduce greenhouse gas emissions by 80% by 2050, in line with the upper end of the 50 to 85% range set out in the Intergovernmental Panel on Climate Change's Fourth Assessment Report. Proposals for the Scottish Climate Change Bill were originated at the time when the UK Government's 2050 target was for 60% reduction of carbon dioxide emissions. In addition to participating in the shared UK objective, the Scottish Ministers wished to make a clear commitment for Scotland.

45. The UK Government requested early advice from the Committee on Climate Change (operating in a shadow capacity prior to the enactment of the UK Bill). This advice was issued on 7 October 2008<sup>10</sup> and, as a result, the UK Government, with the agreement of the Scottish Ministers, amended the UK Bill on 28 October 2008 to increase the 2050 target to 80% and to include all six greenhouse gases. Nevertheless, the Scottish Ministers consider that there should be separate, complementary UK and Scottish climate change legislation which allows Scotland to drive forward emissions reductions and break down barriers to reducing climate change and which will have the dual effect of meeting the Scottish target and contributing towards the achievement of the UK target.

46. Paragraphs 13 to 19 provide details on the public consultation on the proposals for a Scottish Climate Change Bill. Stakeholder views were sought on a wide range of issues during this exercise and the responses helped the development of the policies included in the Scottish Bill. Amongst the issues considered in the consultation the following issues were key:

- **Should the Bill's targets focus solely on carbon dioxide rather than the basket of the six Kyoto Protocol greenhouse gases, which all contribute towards climate change?** Carbon dioxide has the lowest global warming potential per unit of the six

---

<sup>9</sup> LCM(S3) 4.1, available from:

<http://www.scottish.parliament.uk/business/legConMem/LCM-2007-2008/pdf/ClimateChange-LCM.pdf>

<sup>10</sup> The interim advice from the Committee on Climate Change to the UK Government is available from: <http://www.theccc.org.uk/downloads/Interim%20report%20letter%20to%20DECC%20SofS.pdf>

gases but is emitted in vastly greater quantities than the others combined. However, it may be difficult or even impossible to eliminate some greenhouse gases and if other greenhouse gases prove difficult and/or very costly to abate, greater reductions in carbon dioxide will be needed to compensate. Therefore a target based on a basket of greenhouse gases could place additional costs on the economy as compared to a carbon dioxide only target.

The majority of responses to the consultation on proposals for a Scottish Climate Change Bill favoured targeting the basket of six gases. Based on the Stern Review Report<sup>11</sup> data, the Committee on Climate Change estimates that the cost of stabilising greenhouse gases at levels of 500-550ppm carbon dioxide equivalent is between 1%-2% of GDP in 2050. This sum is significant, but is fully consistent with continued growth and development, in contrast with unabated climate change which will eventually pose significant threats to growth, estimated by Stern at between 5%-20% of global GDP. The Scottish Ministers therefore decided that the 2050 emissions reduction target set in the Climate Change (Scotland) Bill should cover the basket of six greenhouse gases.

- **Should the framework supporting the delivery of the long term emissions reduction targets be based upon multi-year emissions budgets or annual targets?** 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. The Scottish Ministers decided that the Bill should establish a framework of annual targets which will be based on expert advice from the Committee on Climate Change and will be set more than 10 years in advance so that private and public sector organisations can plan with certainty over the longer term. The science and economics of climate change will continue to develop between now and 2050 and the annual target model will create a credible framework which is flexible enough to adapt to changing circumstances but strong enough to drive sustained emissions reductions over the coming decades.
- **Should the expert advisory body be the UK Committee on Climate change or an equivalent Scottish body?** The Scottish Ministers intend to seek advice initially from the UK Committee on Climate Change. This approach was supported by the majority of consultation responses on this issue. As one of the Devolved Administrations, contributing to the UK target, Scotland contributes to the funding of this independent, expert Committee. This currently costs the Scottish Ministers £275,000 a year. If the Scottish Ministers decide to establish a Scottish Committee on Climate Change in the future, the annual costs could be in the region of £2.5 million, based on achieving a number of efficiencies on the current annual cost of running the UK Committee. Utilising the expertise of the UK Committee on Climate Change remains the most cost effective option for obtaining advice currently available to the Scottish Ministers. However, this must be balanced with the need to obtain suitable advice which recognises Scotland's individual circumstances. That is why the Climate Change (Scotland) Bill contains provisions to allow the Scottish

---

<sup>11</sup> Stern Review on the Economics of Climate Change, available from: [http://www.hm-treasury.gov.uk/stern\\_review\\_climate\\_change.htm](http://www.hm-treasury.gov.uk/stern_review_climate_change.htm)

Ministers to create a Scottish body (or confer the functions on an existing body) to provide advice in the future. This recognises that the UK Committee on Climate Change is a new expert and independent body which has not yet been given the opportunity to prove itself. Should the Scottish Ministers find this Committee cannot provide the advice required by Scotland, the Bill makes adequate provision to take forward a tailored Scottish solution in the future.

47. The alternative approaches considered for the policies addressed by the provisions contained in the chapters of part 5 of the Bill are given under each of the respective topic headings of this Policy Memorandum.

## **PART 5: OTHER CLIMATE CHANGE PROVISIONS**

### **PART 5, CHAPTER 1: ADAPTATION**

#### **Adaptation programmes**

48. The UK Climate Change Act 2008 requires that the Secretary of State lay reports in the UK Parliament setting out an assessment of the risks for the United Kingdom of the current and predicted impact of climate change. These reports must also be sent to the Scottish Ministers. The Scottish Government will contribute to the preparation of these UK-wide risk assessments.

49. The UK Act requires that the Secretary of State lay programmes before the UK Parliament setting out the objectives of the UK Government in relation to adaptation to climate change. This is to be done as soon as reasonable practicable after the UK-wide risk assessment is laid in Parliament. The UK Act does not place these duties on the Scottish Government. The Scottish Government chose not to take part in this provision of the UK Act as the Scottish Ministers have the powers to direct their own adaptation programmes in devolved areas of responsibility and can introduce any necessary provisions through legislation made in the Scottish Parliament. Part 5 Chapter 1 of the Climate Change (Scotland) Bill therefore places a duty on the Scottish Ministers to produce an equivalent report for Scotland, setting out their objectives in relation to adaptation to climate change, proposals and policies for meeting them and the timescales within which they will be introduced. These reports should respond to the risks posed by climate change identified in each UK-wide risk assessment. In practice, the UK climate change impact report will be published at least every five years and the Scottish Ministers response should be made as soon as practicable thereafter.

#### *Alternative approaches*

50. Adapting to the effects of changing weather patterns is a fundamental part of the measures required to respond to climate change. Consideration was given requiring that a climate change risk assessment for Scotland be carried out separate from the UK assessment detailed in paragraph 48 above. However, it was felt that the information contained in the UK report will be sufficient for Scotland's purposes. Scottish Government officials sit of the steering group for the UK risk assessment.

### **Variation of permitted times for making muirburn**

51. Part 5 Chapter 1 of the Bill also provides for an enabling power for the Scottish Ministers to vary the permitted times during which muirburn may be made where they consider it necessary or expedient to do so in relation to climate change.

52. Muirburn is an essential land management tool, the majority of which is currently carried out throughout the Scottish uplands; however it can be carried out on any land regardless of altitude. It is the act of controlled burning of vegetation on open semi-natural habitats such as muir (Scottish word for moor) or moorland, and includes the burning of plants such as gorse, heather and grass. It is predominantly carried out by land managers such as hill farmers, crofters, estate managers and gamekeepers. The use of muirburn enables the provision of fresh food sources on rough grassland or managed moorland for livestock, game and wildlife, and the management of older vegetation which can act as a source of fuel for wildfires.

53. Some 8.7% of Scotland is covered by heather moorland, 15.7% by heather moorland and peatland mosaics and 14.5% by rough grassland and moorland mosaics. Moorland is an important breeding and feeding habitat for invertebrates, mammals and bird species. Well managed muirburn is important to maintain diversity of moorland vegetation. The aim of muirburn is to provide a mosaic of young, intermediate and mature heather and vegetation, which supports a range of habitats. Rough grasslands support a wide variety of plant species and this provides food and shelter for many invertebrates, birds and small mammals, along with providing grazing for livestock. Rotational muirburn carried out in small patches improves botanical diversity and vegetation structures. Aging plants become less productive and viable, and as they age the amount of dead material increases as the amount of live vegetation decreases.

54. The majority of Scottish soils are organic and most of the UK's peat resource is in Scotland. 50% of the UK's total soil carbon store is in Scotland and 80% of this is in peat. The approximate carbon storage is three thousand million tonnes of carbon. The majority of the land on which muirburn is carried out lies on top of these soils. Controlled burning aims to burn the vegetation above the height of the soil and for the fire not to penetrate into the soil and peat. Although carbon dioxide and nitrous oxide are released through muirburn, by burning, in particular, old heather, new heather growth is encouraged and plant density increases. The quantity of greenhouse gases released from burning can be minimised by the use of controlled muirburn as a measure to minimise the risk of wildfires occurring.

55. Wildfires are any unplanned and uncontrolled wildland fire that, regardless of ignition source, may require suppression response or other action. Although wildfires can occur naturally in the Scottish uplands as a result of lightning strikes, a number of such fires also occur as a result of man and can be the result of a vehicle exhaust, bonfire, campfire or a dropped cigarette. The risk of a wildfire occurring in remote upland areas of Scotland is significantly increased where effective muirburn has not been carried out, as muirburn reduces available fuel sources.

### *The impact of climate change*

56. Climate change poses a serious challenge for our plants and wildlife, changing the natural environment at a faster rate than some species can adapt to. In Scotland, climate change has altered our climate and seasonal weather patterns. A number of key changes have been recorded

in Scotland since 1961<sup>12</sup>. Temperatures have risen in every season. Scotland became 20% wetter by 2004, with an increase in precipitation of almost 70%. The snow season has shortened and there has been more than a 25% reduction in the number of frost days across the country. The growing season has lengthened significantly. Future climate scenarios produced in 2002<sup>13</sup> suggest there will be a number of further changes to the Scottish climate. Annual temperatures will rise, winters may become wetter and summers will become generally drier. Average snowfall will decrease and snowless winters may become normal in some areas. There are no consistent or robust estimates of wind speed changes. Soil moisture changes will be dependant on precipitation, temperature and wind speed. In summer, Scotland as well as the rest of the UK will experience a decrease in the average soil moisture.

57. These climatic changes have impacted on the ability to undertake muirburn and have reduced the frequency of suitable burning days. As a result, the ability of muirburn to be used as a land management tool has been adversely affected.

#### *Policy objective*

58. As a result of the need to adapt to the effects of climate change, greater flexibility is now required in relation to the periods during which muirburn is permitted. This is proposed to be achieved through an order-making power for the Scottish Ministers to specify the permitted muirburn dates in subordinate legislation. The policy objective is to enable the effective future continuation of this necessary land management activity.

#### *Legislation*

59. The making of muirburn is regulated by the Hill Farming Act 1946 (“the 1946 Act”), which permits muirburn in Scotland in respect of land below 450m (1500ft) above sea level, between 1 October and 15 April inclusive. This period may be extended to 30 April in the circumstances provided for under the 1946 Act. For lands more than 450m (1500ft) above sea level there is the possibility of a further extension to 15 May. The permitted muirburn season has not varied since the 1946 Act came into force and, at present, there are no powers available to the Scottish Ministers, to vary the permitted muirburn season to enable the exercise of this land management tool to adapt to the changing climate.

60. In addition to the 1946 Act, the Muirburn Code published by the Scottish Government<sup>14</sup> provides guidance for those making muirburn, and sets out the types and areas of land which are suitable for making muirburn and identifies those areas which are considered unsuitable for muirburn, such as exposed peat hags and gullies. The Code is supported by the Prescribed Burning on Moorland. A Supplement to The Muirburn Code: A Guide to Best Practice<sup>15</sup>, a technical support document. Although the Code itself is not legally binding, it requires to be

---

<sup>12</sup> The Scotland & Northern Ireland Forum for Environmental Research (SNIFFER), A Handbook of Climate Trends Across Scotland, 2006. Available from: [http://www.sniffer.org.uk/Resources/CC03/Layout\\_Default/0.aspx](http://www.sniffer.org.uk/Resources/CC03/Layout_Default/0.aspx)

<sup>13</sup> The UK Climate Impacts Programme (UKCIP), Climate Change Scenarios for the United Kingdom, April 2002. Available from: [http://www.ukcip.org.uk/index.php?id=161&option=com\\_content&task=view](http://www.ukcip.org.uk/index.php?id=161&option=com_content&task=view)

<sup>14</sup> The Muirburn Code, available from: <http://www.scotland.gov.uk/Publications/2008/04/08154231/0>

<sup>15</sup> Prescribed Burning on Moorland. A Supplement to The Muirburn Code, available from: <http://www.scotland.gov.uk/Resource/Doc/158521/0042977.pdf>

followed by those in receipt of Single Farm Payment as muirburn is also regulated through cross-compliance requirements. Suspected breaches of cross-compliance requirement obligations in relation to the Code are investigated by the Scottish Government, Scottish Natural Heritage or Scottish Environmental Protection Agency (SEPA).

61. This Part of the Bill contains a provision to enable the Scottish Ministers to vary, by order, the permitted muirburn season in subordinate legislation, in order for this activity to adapt to climate change.

#### *Consultation process*

62. The Scottish Government's Consultation on Provisions Relating to Muirburn Dates<sup>16</sup> started on 25 August 2008 and concluded on 17 November 2008. The consultation was sent to key non-government organisations and individuals and sought their views on whether it was necessary for the Scottish Ministers to be given powers to vary the permitted dates for muirburn in the future. The consultation also sought views on whether there are other amendments required to the muirburn provisions within the 1946 Act which are considered necessary in order to adapt to climate change. The consultation also requested views on the climate change related impacts that affect how practitioners carry out muirburn. The Scottish Government received 56 responses to the muirburn consultation, the detail of which was being analysed at the time this Bill was introduced to the Scottish Parliament.

#### *Alterative approaches*

63. The muirburn season could remain as specified in section 23 of the 1946 Act with no provision for the Scottish Ministers to be able to vary the permitted muirburn season. However, if the status quo is retained it is highly likely that in the future the Scottish Government will come under pressure to seek such a power to enable land managers to adapt to climate change, as weather patterns continue to show evidence of change, which has an adverse effect on the ability to effectively undertake muirburn.

64. If no action is taken, there is likely to be an adverse reduction in the number and frequency of available burning days as a result of changing climatic conditions. As a result, heather and other moorland and grassland vegetation will become less productive. This will lead to a reduction in available habitats for species, some of which are specially protected, and the future viability of those plant species will reduce. The increase in the amount of dry fuel sources resulting from less pro-active muirburn will lead to an increased risk of wildfires burning down into the soil and reaching the peat layer. This in turn will lead to the risk of significant releases of carbon from the peat. It is anticipated that the fire and rescue services will be required to attend more wildfires as this risk increases. Any increase in incidences of wildfires could also impact on the economy through disturbance to tourism in rural areas.

---

<sup>16</sup> Consultation on Provisions Relating to Muirburn Dates, available from: <http://www.scotland.gov.uk/Publications/2008/08/Muirburn>

### *Implementation*

65. Implementing this policy proposal will require subordinate legislation and a Regulatory Impact Assessment. It is anticipated that the current permitted muirburn season will not be changed immediately.

## **PART 5, CHAPTER 2: FORESTRY**

### **Maximising the potential of Scotland's forest estate to support the Scottish Government's climate change objectives**

66. Part 5 Chapter 2 of the Bill will allow modification by order of the functions of the Forestry Commissioners to enable the Forestry Commission in Scotland to play a greater role in tackling climate change. The immediate intent is to take forward proposals relating to renewable energy development on the National Forest Estate and the release of capital from the National Forest Estate for woodland creation. A consultation on these proposals was launched on 4 November 2008 to help inform the detailed development of these regulations<sup>17</sup>. The consultation will close on 27 January 2009.

#### **The National Forest Estate – renewable energy development**

67. The National Forest Estate – land owned by the Scottish Ministers – extends to 665,000 hectares and has the potential to make a significant contribution to Scotland's renewable energy targets through wind and hydro power generation. The Bill will enable the Scottish Ministers to make an order which will allow the Forestry Commissioners to enter into joint ventures with developers and local communities to accelerate renewable energy development. The joint venture approach offers enhanced returns from developments on the National Forest Estate will give local communities an opportunity to have a stake in the developments and will facilitate a strategic approach to developing the renewables potential of the Estate.

#### **The National Forest Estate – releasing capital for woodland creation**

68. The Scottish Forestry Strategy<sup>18</sup> articulates the significant potential of forestry to help Scotland mitigate and adapt to climate change. Many types of woodland creation can contribute cost-effectively towards net emissions reduction and there is good potential to increase Scotland's woodland area. This is being encouraged through grant incentives and through direct woodland creation on the National Forest Estate. However, a new approach is needed to achieve a step-change in activity commensurate with the challenges of climate change.

69. One option being explored, and covered by the consultation, is to release capital from the National Forest Estate, through the letting of cutting rights, to provide additional funding for woodland creation.

70. The Scottish Government places a high priority on efficient management of its capital assets. The National Forest Estate is the single largest public land resource held by the Scottish

---

<sup>17</sup> Consultation on forestry provisions in the Scottish Climate Change Bill, available from:

<http://www.forestry.gov.uk/fcsclimateconsultation>

<sup>18</sup> The Scottish Forestry Strategy and associated documents are available from: <http://www.forestry.gov.uk/sfs>

Government with a capital value in the order of £850 million. Forestry Commission Scotland has been evaluating the contribution that each part of the estate makes to delivery of the Scottish Forestry Strategy. It is clear that many parts of the estate are widely appreciated for the public benefits they bring, for example in terms of recreation, conservation, and community involvement. However, for a proportion of the estate these benefits are limited and the focus is likely to remain on commercial outputs. These areas are the most appropriate for the letting of cutting rights.

71. The Bill will provide an order making power that will allow for the delegation of the Forestry Commission's land management function. This will enable the Scottish Ministers to lease land for forestry purposes and enable Forestry Commission Scotland to let cutting rights over that land, with the land management function being delegated to the lessee. Public benefits will be safeguarded through careful structuring of the agreements and rigorous selection of appropriate areas. The shaping of proposals will be in discussion with stakeholders. The consultation paper launched on 4 November 2008 seeks views on transferring the proceeds from leases and cutting rights to a not-for-profit trust, for investment in woodland creation. It also seeks views on transferring the landlord's interest in this land to a not-for-profit trust, and on Ministers stipulating the constitution of such a not-for-profit trust.

### **Alternative approaches**

72. Alternative approaches were considered in relation to (i) maximising the potential of the National Forest Estate to contribute to Scotland's renewable energy targets (ii) the use of woodland creation as a means of helping to mitigate climate change and (iii) the funding and delivery of an enhanced woodland creation programme.

73. It would be possible to continue with the current approach to developing renewable energy generation on the National Forest Estate, whereby land is leased to developers. While leases have worked reasonably well, joint ventures have the potential to offer better financial returns and to provide a vehicle for allowing the local community to have a stake in the development. Another option is direct development of renewables by the Forestry Commission itself; however, without access to major capital finance and the necessary technical expertise, this is only feasible for very small-scale (e.g. hydro) schemes.

74. Given the challenging nature of the 80% emissions reduction target, woodland creation is a cost effective way of reducing net greenhouse gas emissions. A strategy that did not utilise this potential would have to place greater reliance on more expensive mitigation measures, or increase the risk of exceeding the annual emissions targets. Given the Scottish Government's level of ambition in emissions reduction this is not seen as a sensible alternative. Well-designed woodlands can also deliver a wide range of economic, social and environmental co-benefits. A recent discussion paper produced by Forestry Commission has demonstrated that suitable land is available to meet the Scottish Forestry Strategy aspiration of 25% of Scotland woodland cover by the second half of the century. These new woodlands would be sequestering over 4 million tonnes of carbon dioxide per year by 2050<sup>19</sup>.

---

<sup>19</sup> Forestry Commission Discussion Paper on Woodland Expansion in Scotland, available from: <http://www.forestry.gov.uk/forestry/infd-7fweq5>

75. Current sources of funding for woodland creation are the Scotland Rural Development Programme (SRDP), and, to a much lesser extent, proceeds from land sales through an existing “repositioning” programme on the National Forest Estate. The SRDP has made provision for £23 million per year (over the period 2007-13) for woodland creation, but grant rates are constrained by the Rural Development Regulation (EC 1698/2005)<sup>20</sup>. Given the complex range of cultural and fiscal factors affecting land use change, woodland expansion under the SRDP is likely to fall well short of the desired 10,000 hectares per year. Another alternative is to scale up the repositioning programme on the National Forest Estate, selling more land for investment in woodland creation. However, undertaking this on the required scale would require a change in strategic direction, leading to concern over loss of public benefits in relation to land that was sold.

## **PART 5, CHAPTER 3: ENERGY EFFICIENCY**

### **Promotion of energy efficiency**

76. The provisions on energy efficiency are intended to cover how the Scottish Ministers will promote energy efficiency in Scotland, particularly in relation to how this will improve the energy performance of buildings in Scotland. The provisions require the Scottish Ministers to produce an action plan setting out current and proposed measures to improve the energy efficiency of buildings in Scotland, as well as measures to encourage behavioural change.

77. Section 179 of the Housing (Scotland) Act 2006<sup>21</sup> requires the Scottish Ministers to prepare a strategy for improving the energy efficiency of living accommodation. Section 179(6) allows that strategy to be part of a strategy for improving energy efficiency generally. The proposals for an action plan in the Climate Change (Scotland) Bill will have that practical effect. The Scottish Ministers therefore propose to repeal section 179 of the 2006 Act to avoid duplication. In addition, the proposals in the Bill will strengthen the existing statutory duty in the 2006 Act in terms of reporting and publishing. Bringing the duty in relation to living accommodation within the general duty in the Bill will ensure a consistent approach to tackling energy efficiency across all sectors, and will allow for better alignment of reporting on implementation and carbon savings, which can then be accounted against the overall target of this Bill.

78. The Scottish Ministers are required to report on the action plan annually, and to revise the action plan on a regular basis, but as a minimum every three years in line with the Spending Review process.

79. The action plan could be developed without the need for primary legislation, but the Scottish Government believes that a legislative requirement to develop, revise and report on an action plan will give it the weight which this issue requires. It will show the level of importance that these measures will play in tackling climate change and helping with rising fuel costs. It will also be an important means for delivering a coordinated approach.

---

<sup>20</sup> Rural Development Regulation (1698/2005/EC), OJ No L 277, 21.10.2005, p. 1, available from: <http://eur-lex.europa.eu/Notice.do?val=413503:cs&lang=en&list=413503:cs.&pos=1&page=2&nbl=11&pgs=10&hwords=1698/2005>

<sup>21</sup> Housing (Scotland) Act 2006, asp 1, available from: [http://www.opsi.gov.uk/legislation/scotland/acts2006/asp\\_20060001\\_en\\_1](http://www.opsi.gov.uk/legislation/scotland/acts2006/asp_20060001_en_1)

### *Consultation*

80. The then Scottish Executive published a draft consultation on an energy efficiency and microgeneration strategy for Scotland which ran from 12 March to 11 June 2007<sup>22</sup>. There were 38 responses to the consultation which were analysed to produce a consultation analysis report. The consultation analysis report<sup>23</sup> and a separate Scottish Government response to the issues raised by respondents were published on 4 June 2008<sup>24</sup>. There was broad support for steps to be taken to encourage improvements in energy efficiency across Scotland. Recognition was given to the role that the public sector must play, encouraging others by leading by example. The responses to the consultation have been taken into account in determining what measures to improve energy efficiency in Scotland would be supported under the current spending period. These will be considered as part of the development of the action plan.

81. A Strategic Environmental Assessment of the draft strategy was also undertaken, and the environmental report was published on 30 March 2007 as part of the consultation process<sup>25</sup>.

### *Alternative approaches*

82. There are limitations on the actions that are within the legislative competence of the Scottish Government for promoting energy efficiency. The Scottish Government considered developing an Energy Efficiency Strategy for Scotland; however it was decided that an Action Plan would be a more appropriate way of articulating all the actions being taken to improve energy efficiency in Scotland. It would provide a consistent way of recording targets and monitoring performance against these, including: energy savings; financial savings; and where possible the carbon savings which were a result of these measures. This would then allow the Scottish Government to report on how this is contributing to the overall target of this Bill.

## **Energy performance of existing non-domestic buildings**

83. The aim of the provisions for improving the energy performance of existing non-domestic buildings is to raise the contribution that the existing non-domestic stock can make to mitigating climate change. Buildings account for over 40% of emissions and there is scope to reduce these levels. They are to be subject to an assessment of the emissions of greenhouse gases and energy performance, an enhanced form of energy performance certificate (EPC). The results of the ongoing consultation will inform the detailed route forward but could call on building owners or their delegated persons to draw up improvement action plans. These plans may include building work actions for owners to follow which lead to improved performance, and where appropriate could also include operational measures that building users may choose to act on. This would also apply to traditional and historic buildings, recognising that appropriate environmental improvements should be undertaken with due consideration to the historic character of the buildings in question.

---

<sup>22</sup> Energy Efficiency and Microgeneration: Achieving a Low Carbon Future: A Strategy for Scotland - draft for consultation, available from: <http://www.scotland.gov.uk/Publications/2007/03/09144516/0>

<sup>23</sup> Energy Efficiency and Microgeneration: Achieving a Low Carbon Future: A Strategy for Scotland – Consultation Analysis Report, available from: <http://www.scotland.gov.uk/Resource/Doc/225368/0060949.pdf>

<sup>24</sup> Energy Efficiency and Microgeneration: Achieving a Low Carbon Future: A Strategy for Scotland - The Scottish Government Response, available from: <http://www.scotland.gov.uk/Publications/2008/06/03113737/0>

<sup>25</sup> Energy Efficiency and Microgeneration: Achieving a Low Carbon Future: A Strategy for Scotland - draft for consultation – Environmental Report, available from: <http://www.scotland.gov.uk/Publications/2007/03/28154502/0>

## *Background*

84. The EU Directive 2002/91/EC on the energy performance of buildings (EPBD)<sup>26</sup> introduced a requirement for existing non-domestic buildings to have EPCs in certain circumstances. EPCs provide important information on the energy performance of buildings; however, the EPBD does not require any action to be taken following the EPC to improve energy performance. It relies instead on the operation of market forces and wider forces in society, such as growing awareness of the importance of climate change, to drive improvements. Building owners may consider that there is a market advantage in making energy performance improvements following an EPC, or they may wish to do so for environmental reasons, but there is no other encouragement for them to take action at present.

85. In addition, EPCs are only required at the points of sale or rental, and for large public buildings of over 1000m<sup>2</sup>. There is potential scope to go beyond the regime already required by the EPBD. This cannot be done using the powers contained within the European Communities Act 1972.

86. EPCs have a lifespan of 10 years and, in Scotland, legislation requires that all EPCs be produced using an asset rating. An asset rating is a calculated rating based on standard weather data and building use. It is similar in principle to “typical use” consumption figures for cars and is useful when comparing two buildings with different users, i.e. provides like-for-like figures. This is not only useful for potential owners and occupiers of buildings, but also has the ability to drive those who invest in buildings, the building owners, to spend money on appropriate carbon emission reducing building fabric and services.

87. A Low Carbon Building Standards Strategy for Scotland (The Sullivan Report)<sup>27</sup> includes the following recommendations for Scottish Government concerning existing non-domestic buildings and energy performance certificates. These recommendations have helped to develop the provisions:

- consideration of developing practical performance standards for existing buildings (aligned with the energy performance certificates);
- introduction of legislation to require all owners of non-domestic buildings to conduct a carbon and energy assessment and produce a programme for upgrading;
- empowerment of local authorities, or similar public bodies, to check such assessments;
- publication of guidance for different types of non-domestic buildings to assist in this process;
- consideration of ways to encourage owners to implement recommendations arising from the carbon and energy assessment; and
- primary legislation to allow the Scottish Ministers the opportunity to extend the provision and type of Energy Performance Certificates.

---

<sup>26</sup> Energy Performance of Buildings Directive (2002/91/EC), OJ L 1, 4.1.2003, p. 65–71, available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0091:EN:NOT>

<sup>27</sup> A Low Carbon Building Standards Strategy for Scotland (The Sullivan Report), available from: <http://www.sbsa.gov.uk/sullivanreport.htm>

88. Subject to the results of the consultation the Bill provisions will allow for a range of options for improving the energy performance of existing buildings, in the following ways:

- extending the scope of energy performance certificates into enhanced EPCs to take account of operational ratings as well as asset ratings and also embodied energy/carbon when a robust methodology is available to address the issue of historic and traditional buildings. This includes varying the lifespan of such assessments/certificates;
- requiring owners or their delegated persons to obtain enhanced EPCs (even though they are not selling or renting out their buildings);
- requiring owners of non-domestic buildings to formulate action plans for building work arising from the advice on their enhanced EPCs and encouraging them to implement their action plans;
- developing appropriate standards for such building work e.g. energy efficient lighting, roof space insulation or sub-metering; and
- empowering local authorities, or similar public bodies, to check enhanced EPCs.

89. The provisions are enabling in nature and provide for regulations in a number of areas to be made in due course. This is particularly the case in relation to the content and form of assessment.

#### *Consultation*

90. A public consultation, Action on Climate Change: Proposals for Improving the Energy Performance of Existing Non-Domestic Buildings ran from 2 September to 25 November 2008<sup>28</sup>. It set out proposals for measures to require the assessment of the energy performance of non-domestic buildings and the implementation of measures to reduce carbon emissions, including the costs and benefits of seven different scenarios, which could arise depending on the regulations which are developed from the provisions in this Bill. A total of 69 responses were received and were being analysed at the time this Bill was introduced to the Scottish Parliament. The responses to this consultation will inform the development of the regulations.

#### *Policy objectives*

91. The provisions in the Bill enable the Scottish Ministers to create regulations which could be used to place obligations on building owners, responsible authorities and other bodies for improving the energy performance of non-domestic buildings.

92. These regulations could require that the owners of non-domestic buildings, or persons delegated by those owners, obtain an enhanced Energy Performance Certificate of their building, even if they are not required to obtain Energy Performance Certificate under the Energy Performance of Buildings Directive. Following such an assessment, owners could simply be given guidance to encourage them to implement the recommendations; or they could be legally required to develop a programme of cost-effective improvements to reduce emissions and improve energy performance, and thereafter they can carry out any necessary improvements.

---

<sup>28</sup> Action on Climate Change: Proposals for Improving the Energy Performance of Existing Non-domestic Buildings, available from: <http://www.scotland.gov.uk/Publications/2008/08/15155233/0>

93. Enhanced EPCs will encourage adoption of improvement measures by building owners or their delegated persons, when they consider it to be the most appropriate solution to reducing carbon emissions. Improvement measures could include insulation, measures to reduce air infiltration, equipment efficiency and equipment controls, and low carbon equipment where these are cost-effective.

94. It is intended that owners, or their delegated persons, will be required to retain the assessment and keep a record of the improvements that are made. They would also be expected to obtain a further enhanced EPC after a further period of time and draw up a further programme of improvements. One criticism of the EPBD is that at 10 years, the lifespan of an EPC is too long and when such a certificate reaches 7-8 years, it may no longer reflect the energy performance of the building. The provisions therefore allow for the lifespan of EPCs to be varied.

95. The provisions also allow for the regulations to require operational ratings to be undertaken alongside asset-based ratings. An operational rating takes account of how the building is used and managed and is useful for energy managers of the building because it includes factors they control. This has the scope to encourage those who manage non-domestic buildings to deliver carbon savings from the equipment already installed. With the inclusion of operational ratings, as well as asset ratings, not only would improvements affecting comfort loads be incorporated, but also improvements that affect how the building is managed.

#### *Assessment of historic and traditional buildings*

96. In certain cases the characteristics of historic and traditional buildings will require that the enhanced EPC process be developed to ensure that historic and traditional buildings are treated appropriately.

97. For the assessment process, taking into account the needs of traditional and historic buildings would require determining appropriate measures to reduce carbon emissions with due consideration to the historic character of the building; including the embodied energy of existing materials and any replacement materials. Any improvement programme would be designed to ensure that environmental improvements are undertaken with due consideration.

#### *Implementation*

98. Implementation of such duties would be phased in gradually through regulations introduced in secondary legislation. One approach would be to start with the largest buildings then progress in a series of well publicised stages until all non-domestic buildings were covered. The provisions would apply to public buildings, including the Government estate. The Scottish Ministers would have the ability to relax the provisions where appropriate.

99. Assessments would be targeted at building owners who frequently have complex decisions to make relating to the management of their buildings. Building owners may be able to delegate their enhanced EPC responsibilities to others, for example the tenants of buildings in certain instances. With operational ratings adopted as well as asset ratings it is appropriate that the person who does the asset rating also completes the operational rating.

### *Alternative approaches*

100. Consideration has been given to the possibility of taking no action to legislate further in this area. This would mean that the production of enhanced EPCs would be wholly related to the turnover of buildings for sale or rental and there would be no incentive to improve existing non-domestic buildings other than by market forces.

101. The Bill allows for regulations to be created which will enable various approaches to be taken to the extent to which the enhanced EPCs are applied to the existing non-domestic building stock.

102. The consultation on proposals for improving the energy performance of existing non-domestic buildings sought views on these scenarios. The responses to this consultation will inform the development of the regulations which the provisions in this Bill will enable the Scottish Ministers to create.

103. Seven scenarios are possible as follows:

- enhanced EPCs on sale or rent for all buildings and for larger public buildings frequently visited by the public with additional guidance to promote uptake of recommendations;
- enhanced EPCs on sale or rent for all buildings and all large buildings with additional guidance to promote uptake of recommendations and an increase in the frequency of certification;
- enhanced EPCs on sale or rent for all buildings and for larger public buildings frequently visited by the public with additional guidance, an increase in the frequency of certification, and compulsory uptake of recommendations;
- enhanced EPCs on sale or rent for all buildings and for all large buildings with additional guidance, an increase in the frequency of certification, and compulsory uptake of recommendations;
- enhanced EPCs on sale or rent for all buildings and for all buildings with additional guidance, an increase in the frequency of certification, and compulsory uptake of recommendations;
- enhanced EPCs and operational rating on sale or rent and for larger public buildings frequently visited by the public; and
- enhanced EPCs and operational rating on sale or rent and for larger public buildings frequently visited by the public with additional guidance.

### **Renewable heat**

104. Part 5 Chapter 3 of the Bill also places a duty on the Scottish Ministers to take such steps as they consider appropriate to promote the use of heat from renewable sources.

105. The Scottish Ministers have devolved responsibility for the promotion of heat from renewable sources. Its policy aim is to build a commercially viable, diverse, renewable heat

industry in Scotland. Renewable heat take-up across the UK is very low (<1%) and making progress on renewable heat will be crucial if we are to meet the EU 2020 target of 20% of final consumption of energy from renewable sources (which is made up of individual targets for electricity, heat and transport).

### *Consultation*

106. Between 6 October and 1 December 2008 the Scottish Government, in cooperation with the Forum for Renewable Energy Development in Scotland, consulted on a framework for the development and deployment of renewable energy in Scotland<sup>29</sup>. The consultation sought views on the Scottish Government's target of 20% of total Scottish energy use from renewables by 2020. It sets out what the Scottish Government is doing and what more it considers requires to be done to achieve this target. The intention is that the framework should contribute to the Scottish element of the UK National Action Plan for renewable energy if and when the proposed EU directive on renewable heat comes into force. In terms of renewable heat the consultation recommended that Scotland will need to produce 11% of heat from renewable sources in order to meet the overall target of 20%.

107. This framework includes a Scottish Action Plan on renewable heat which sets out a range of actions the Scottish Government is pursuing on renewable heat under devolved competence, details are:

- providing existing financial support to the renewable heat market through Scottish Community and Householder Renewables Initiative and Scottish Rural Development Programme;
- providing an additional round of the Scottish Biomass Support Scheme focusing on heat only projects by businesses and demonstrator district heating schemes;
- providing a consumer information pack and case studies on best practice;
- introducing a target by April 2009 of 11% heat demand to come from renewables sources by 2020;
- preparing a National Waste Management Plan considering banning waste biomass being sent to landfill therefore providing fuel source for renewable heat;
- funding pilot projects for biomass heating to combat fuel poverty in off-gas-grid areas, with recommendations from Scottish Fuel Poverty Forum to follow; and
- consultation on proposed changes to energy building standards.

108. A total of 63 responses to this consultation were received by the closure date of 1 December 2008. These were being analysed at the time this Bill was introduced to Parliament.

109. The Scottish Government considers that there is a clear role for an incentive mechanism to promote the use of renewable heat to help accelerate the growth of renewable heat take-up thereby ensuring that Scotland meets its target. The UK Government recently consulted on the

---

<sup>29</sup> Making Scotland a Leader in Green Energy - Renewable Energy Framework consultation, available from: <http://www.scotland.gov.uk/Publications/2008/10/09093312/0>

forms of a likely incentive as part of its Renewable Energy Strategy<sup>30</sup>. The work to introduce a regulatory and financial incentive mechanism to increase the take-up of renewable heat is at an early stage. The use of such a mechanism is a new step and involves certain challenges given the nature of the heat market – decentralised deployment; variety of fuel sources; no heat unit source or traded sector. Such a broad mechanism will take time to phase in and could touch on reserved matters. The Scottish Government is working closely with the UK Government as this work develops.

#### *Alternative approaches*

110. An alternative to taking these powers would be to do nothing. However, that risks Scotland and the UK not being able to meet the heat component of the EU renewable energy targets by 2020 as it is unlikely that voluntary action will result in sufficient growth of the renewable heat sector. The provisions in this Part of the Bill will enable the Scottish Ministers to introduce measures deemed appropriate to incentivise the production of heat from renewable sources.

## **PART 5, CHAPTER 4: WASTE REDUCTION AND RECYCLING**

### **Policy objectives**

111. This Chapter of the Bill sets out measures aimed at improving waste and recycling. These will help Scotland move to a “zero waste” society. “Zero waste” is about reducing the unnecessary use of raw materials, sustainable design of products, preventing waste, and recovering value from products and materials when they reach the end of their lives through recycling, composting or energy recovery. “Zero waste” contributes to our work on combating climate change. Waste management alone contributes about 2.5% of Scottish greenhouse gas emissions. However, reducing these emissions is a very small part of what can be achieved in combating climate change by adopting a zero waste strategy. Preventing and reducing the unnecessary use and processing of raw materials, using recycle and getting value from waste rather than just throwing it away can all contribute much more to tackling climate change.

112. The provisions in this Chapter of the Bill enable the Scottish Ministers to make regulations addressing issues of importance in moving towards a zero waste society, and securing a more sustainable use of resources, thereby limiting anthropogenic climate change. It is important to note that implementing the provisions in this Chapter of the Bill would require secondary legislation which would be developed following further consultation and also be scrutinised by the Scottish Parliament.

113. Part 5 Chapter 4 of the Bill gives powers to the Scottish Ministers to make regulations in the following areas:

- waste prevention and management plans;
- waste data;
- deposit of recyclable waste;

---

<sup>30</sup> UK Government Renewable Energy Strategy consultation, available from: <http://renewableconsultation.berr.gov.uk/>

- procurement of recycle;
- reduction of packaging;
- deposit and return schemes;
- charges for carrier bags.

### **Consultation Paper on Potential Legislative Measures to Implement Zero Waste**

114. The consultation paper summarised the Scottish Government's proposals for legislative proposals on zero waste<sup>31</sup>. The consultation was made available on the Scottish Government's web site, and a wide range of stakeholders were invited to respond to the consultation. The consultation period ran from 28 July to 6 October 2008.

115. Some 80 organisations and individuals responded to the consultation. Opinion on the proposals was relatively balanced, especially given the small nature of the sample. Non-governmental organisations and private individuals tended to favour legislation, whereas business bodies, particularly those in retail, tended to be more opposed. Support was greatest for waste prevention and management plans, and for mandatory waste data returns, and least for action on carrier bags.

### **Alternative approaches**

116. Details of any possible alternative approaches are given in the consideration of the individual topics. In the case of all the proposals in this Chapter of the Bill, however, an alternative approach to taking these powers would have been not to take them. Adopting this approach would not change the short-term position. Whether or not powers are taken, they have no immediate effect until they are turned into regulations. It is possible that voluntary action will achieve some of the goals for such legislation, in which case further action will be unnecessary. If voluntary action does not achieve these goals, however, legislative action will be, in the Scottish Government's view, necessary. Without the powers now being proposed, appropriate legislation would not be possible.

### **Waste prevention and management plans**

117. Commercial and industrial waste makes up the vast majority of Scotland's waste. Although there is guidance and advice available to businesses on reducing the amount of waste they generate, there is no legal obligation requiring them to plan formally for such a reduction. Scottish Government policy on waste management is to move away from landfill towards ensuring that waste is re-used, recycled or recovered where possible. This leads to more efficient use of resources and a need for fewer waste disposal facilities. In both cases, this helps tackle climate change. As with prevention, the commercial and industrial sectors have a large contribution to make to this.

---

<sup>31</sup> Consultation Paper on Potential Legislative Measures to Implement Zero Waste, available from: <http://www.scotland.gov.uk/Publications/2008/07/24155248/0>

118. Site waste management plans are encouraged by Scottish Planning Policy (SPP) 10<sup>32</sup> and by voluntary work through bodies such as Envirowise. The Bill gives the Scottish Ministers a power to make regulations imposing a duty on prescribed persons to prepare waste prevention and management plans; as well as making plans compulsory, a wider range of activities would be aimed at than by SPP 10.

119. This proposal is for a power to place a duty on businesses and public bodies to prepare formal waste prevention and management plans. Ministers would prescribe in regulations the businesses and bodies required to prepare a plan (or plans), as well as the matters to be included in a plan. It is intended that the plans can be required for a range of different matters. For example, the eventual regulations might require a plan for an individual construction project. Alternatively, they might require a plan for waste generated by a business on an on-going, day-to-day basis (e.g., office waste). It is intended that these regulations would deal with measures to prevent as well as manage waste, and would not necessarily be restricted to individual projects.

120. Should the preparation of waste prevention and management plans be made compulsory by regulations under this Chapter of the Bill, a regime will need to be established to ensure that plans are drawn up, that they are sufficiently rigorous, and that they are followed. A body will need to be established, or nominated, to do this. The provisions of this Chapter of the Bill grant powers enabling such a regime to be set up.

121. The revised Waste Framework Directive which was adopted on 20 October 2008 states that by 2020 the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the European Waste Catalogue (EWC) shall be increased to a minimum of 70% by weight. These provisions would help meet that requirement.

### **Waste data returns**

122. These provisions enable the Scottish Ministers, through the creation of regulations, to require businesses and public bodies to provide information to SEPA about the waste that they produce. It will be difficult to move to a zero waste society without much better information about waste arising and their management, treatment and disposal in Scotland. Good, reliable waste data informs policy-makers when they are developing new ways of reducing and managing waste. It informs the private sector when it is seeking to invest in waste infrastructure as part of the move away from landfill. Such information would also help to meet the obligations under the Waste Statistics Regulation (2150/2002/EC)<sup>33</sup>. This establishes a framework for the production of Community statistics on the generation, recovery and disposal of waste. It requires Member States and the European Commission to produce Community statistics on the generation, recovery and disposal of waste.

---

<sup>32</sup> Scottish Planning Policy (SPP) 10 (paragraph 51 refers), available from: <http://www.scotland.gov.uk/Publications/2007/08/28161910/9>

<sup>33</sup> Waste Statistics Regulation (2150/2002/EC), OJ No L 332, 9.12.2002, p1, available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002R2150:EN:NOT>

123. There are other Community considerations. The Waste Framework Directive, as revised on revised on 17 June 2008 and adopted on 20 October 2008, states:

*“In order to comply with the objectives of this Directive, and to move towards a European recycling society with a high level of resource efficiency, Member States shall take the necessary measures designed to achieve the following targets:*

- (a) by 2020 the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households, shall be increased to a minimum of overall 50% by weight*
- (b) by 2020 the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the European Waste Catalogue (EWC) shall be increased to a minimum of 70% by weight.<sup>34</sup>”*

124. The Scottish Government and SEPA currently lack reliable data with which to assess compliance with (b).

125. Other means were considered for achieving better information on waste. For example, there is an obligation under section 34 of the Environment Protection Act 1990<sup>35</sup> to transfer a written description of waste at the time that waste is transferred. This obligation is set out in detail in the Environmental Protection (Duty of Care) Regulations 1991<sup>36</sup> (SI 1991/2839). Furthermore, use could be made of section 2(2) of the European Communities Act 1972<sup>37</sup> to make regulations dealing with waste information, on the basis of the Waste Statistics Regulation. However, the former does not cover non-controlled waste (gaseous effluents; radioactive waste; mineral waste; animal carcasses, faecal matter etc; waste waters and decommissioned explosives). The latter excludes radioactive waste. To ensure that a full range of statistics is available for all wastes, new primary legislation is necessary.

126. A regime of enforcement would be necessary to ensure that the statistics required are actually returned, and are accurate. SEPA is mentioned in this context because it already collates waste statistics. There are enforcement powers attached to the 1991 Regulations, but these are not very efficient, since no body is given a specific duty to enforce them. Provision to address these matters is in this Chapter of the Bill.

---

<sup>34</sup> Directive of the European Parliament and of the Council on waste and repealing certain Directives, doc. 3646/08, available from: <http://register.consilium.europa.eu/pdf/en/08/st03/st03646.en08.pdf>

<sup>35</sup> Environmental Protection Act 1990, c.43, available from: [http://www.opsi.gov.uk/acts/acts1990/Ukpga\\_19900043\\_en\\_1.htm](http://www.opsi.gov.uk/acts/acts1990/Ukpga_19900043_en_1.htm)

<sup>36</sup> Environmental Protection (Duty of Care) Regulations 1991, SI 1991/2839, available from: [http://www.opsi.gov.uk/si/si1991/uksi\\_19912839\\_en\\_1.htm](http://www.opsi.gov.uk/si/si1991/uksi_19912839_en_1.htm)

<sup>37</sup> European Communities Act 1972, c.68, available from: [http://www.opsi.gov.uk/Acts/acts1972/ukpga\\_19720068\\_en\\_1](http://www.opsi.gov.uk/Acts/acts1972/ukpga_19720068_en_1)

## **Deposit of recyclable waste**

127. The intention behind this provision is to encourage recycling by providing people with opportunities to deposit waste for recycling when they are not at home. This will contribute to a more efficient use of resources, cut the need for landfill, and help to combat littering and other improper waste disposal.

128. In recent years there has been a significant improvement in recycling and composting facilities provided by local authorities for householders which has led to increased recycling and composting rates for household waste. It is now intended to give people more opportunities to recycle their waste when they are at work or in some public places or attending certain public events. Although many employers provide recycling facilities for their staff there is no legal requirement for them to do so. Recycling facilities are also found in other places such as at airports, in the street and at various retail outlets (for example, plastic bag recycling facilities), but again there is currently no legal requirement to provide these facilities.

129. There are some statutory obligations on businesses to take back certain types of waste, for example retailers of electrical and electronic equipment must take back waste electrical and electronic equipment in certain circumstances. It is not intended that these provisions should affect these producer responsibility schemes, except to the extent that businesses under obligations to take back waste and send it for recycling or re-use (e.g., under the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (SI 2007/871)<sup>38</sup>) should be able to use material collected in receptacles provided under these new duties to meet those obligations.

130. It is intended that the regulations may require receptacles to be provided for a broad range of types of waste. Without prejudicing detailed considerations, it is possible that, for example, supermarkets could provide recycling facilities at or near tills for packaging which customers could remove in situ. Offices could provide receptacles in which employees could recycle their own paper, as well as that of the workplace. This would not be a complete innovation: already such facilities are available in places. In practice, Ministers would only prescribe types of waste if there was capacity to recycle that waste and a market for the resulting recyclate.

131. It is intended that businesses or public bodies or event organisers which are under a duty to provide these facilities will also be under a duty to transfer the waste collected in them to a person with the correct environmental authorisations, specifically to be recycled or re-used, and that there may be a duty to ensure that it actually is recycled or re-used.

132. These provisions would also enable those who hold sporting or cultural events to be placed under a duty to provide receptacles in which those attending could leave materials such as plastic cups and programmes. These materials could also be recycled. Again, there are already examples of those who hold events giving their customers the opportunity to recycle.

---

<sup>38</sup> the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (SI 2007/871), available from: [http://www.opsi.gov.uk/si/si2007/uksi\\_20070871\\_en\\_1](http://www.opsi.gov.uk/si/si2007/uksi_20070871_en_1)

133. Should duties to provide such facilities be established through regulations, it will be necessary for a monitoring and enforcement regime to be established to ensure that they are provided, and used and operate correctly. This Chapter of the Bill contains provisions allowing such a regime to be set up, and to establish or nominate a body to operate the regime.

134. These provisions are not intended to implement any specific European obligations, although they will contribute to the UK's obligations under the Landfill Directive (1999/31/EC)<sup>39</sup> to reduce the amount of waste being put to landfill. The revised Waste Framework Directive which was adopted on 20 October 2008 states that Member States shall take measures to promote high quality recycling and to this end they shall set up separate collection of waste where technically, environmentally and economically practicable and appropriate to meet the necessary quality standards for the relevant recycling sectors. These provisions would help meet that requirement.

### **Procurement of recycle**

135. These provisions give the Scottish Ministers powers to set binding requirements in regulations on businesses and public bodies requiring them to include a specification that a minimum percentage of materials used will be made from recycle or re-used materials in certain procurement contracts. (Recycle is material which has been reprocessed, whereas re-used materials are put to their new use without further processing.) This will encourage more efficient use of resources in itself and could help to generate a wider market for, and broader acceptance of, the use of recycle and re-used materials.

136. Again, there is a possible alternative to statutory requirements. There are voluntary arrangements in place which set targets for recycled content in public sector procurement contracts in Scotland. In November 2006 the then Scottish Executive requested public bodies to set minimum levels of recycled content in certain procurement contracts.

137. These voluntary arrangements relate to construction projects and procurement of paper. They specify that at least 10% of the total value of materials used in construction projects over £1million should be derived from recycled or re-used content; there should be at least 50% recycled content products used in printing and writing paper contracts; and there should be 100% recycled content in products used in tissue paper contracts.

138. It is possible that voluntary action by public bodies and others could result in widespread use of recycle and re-used materials. This is not yet the case, however, and the Scottish Ministers note that the voluntary arrangements described above apply only to public bodies, whereas the proposals in this Chapter of the Bill could apply to businesses as well.

139. It is likely that in very many cases the use of recycle and re-used materials would cut the costs of contracts, for both public bodies and businesses, particularly as recycling markets improve. However, the Scottish Ministers are aware that there may be a reluctance to use former

---

<sup>39</sup> The Landfill Directive (1999/31/EC), OJ No L 182, 16.7.99, p1, available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31999L0031:EN:HTML>

wastes. Essentially, this is a kind of market failure which may be addressed by Government action.

140. Again, in the event of making the specification of recycle and re-used materials compulsory through regulations, arrangements would be required to ensure that these materials were specified, and that the contractual obligations were observed. A body would have to be set up or nominated to do this. This Chapter of the Bill contains provisions allowing such a regime to be developed.

### **Reduction of packaging**

141. The Bill gives the Scottish Ministers powers to set binding targets for overall reductions in packaging. The purpose of these targets is to reduce the amount of packaging that ends up as waste, thus reducing the use of resources and cutting the need for waste disposal facilities.

142. The Packaging and Packaging Waste Directive (94/62/EC)<sup>40</sup> divides packaging into three types: sales packaging or primary packaging (packaging conceived so as to constitute a sales unit to the final user or consumer at the point of purchase); grouped packaging or secondary packaging (packaging conceived so as to constitute at the point of purchase a grouping of a certain number of sales units whether the latter is sold as such to the final user or consumer or whether it serves only as a means to replenish the shelves at the point of sale, it can be removed from the product without affecting its characteristics); and transport packaging or tertiary packaging (packaging conceived so as to facilitate handling and transport of a number of sales units or grouped packagings in order to prevent physical handling and transport damage).

143. It is intended that targets might be set either for all three types of packaging taken together, or in respect of each type individually.

144. The duty to meet the targets would fall primarily on retailers, but might also be placed on those who put packaging on the market in Scotland, i.e., those supplying packaged goods to retailers.

145. The targets would be set in regulations and could be either in absolute or relative terms. They might require a reduction in a certain weight or volume of packaging, or they might require a reduction of a certain percentage in the amount of packaging supplied by a particular retailer. Alternatively, they might be based on factors such as retail growth or market share. It is also possible that instead of requiring a reduction in the actual amount of packaging, the regulations might instead require a reduction in the potential amount of greenhouse gases generated by the packaging.

146. The reduction of the overall amount of packaging supplied to consumers could be met in a variety of different ways. It would be up to the retailers and suppliers to decide how to meet those targets. The intention is to encourage retailers and others to seek, for example, alternatives to traditional packaging and marketing techniques. For example, if a retailer was required to

---

<sup>40</sup> The Packaging and Packaging Waste Directive (94/62/EC), OJ No L 365, 31.12.94, p10, available from: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31994L0062:EN:HTML>

reduce the amount of packaging it provided to consumers by 5%, the retailer would be able to choose how to meet this target. Among the means it may use to do so could be one or more of the following:

- “light-weighting” the packaging used, such as reducing the weight of glass bottles (this has been a common practice in recent years);
- using different forms of packaging, such as greaseproof paper for meat, instead of plastic trays and sleeves;
- incentivising consumers to buy in bulk, or disincentivising purchases in small amounts using more packaging;
- encouraging refills;
- altering display arrangements to obviate the need for packaging
- removing packaging altogether;
- supplying concentrated products which require less packaging; and
- removing layers of packaging.

147. Although retailers, suppliers and wholesalers are not directly responsible for packaging all goods supplied in shops, they may change the way in which some goods are packaged (e.g., own brands and loose goods provided in shops) and also feed these targets back up the supply chain to their suppliers by requiring them through ordinary contractual arrangements to provide different forms of packaging.

148. At present, it is difficult to disaggregate statistics about packaging for Scotland from those provided for the UK as a whole, and the methods used to do so may be inexact. This is because there is no obligation to provide Scottish statistics. As a first step, therefore, the regulations would contain provisions requiring those subject to them to supply information about the amount of packaging used in Scotland, which would then be used as a baseline measure for setting the targets.

149. Alternative means of meeting this objective are possible. The Courtauld Commitment is an agreement between WRAP (the Waste and Resources Action Programme) and major retailers to, first of all, halt the growth in packaging provided to consumers and then to reduce the overall amount of such packaging. Preliminary data suggests the first target may have been met. Real progress under this Commitment towards genuine reductions in packaging could obviate the need to make these reductions a statutory requirement; however, it is important to take the powers now so that measures may be taken if the Commitment fails to yield satisfactory results.

150. Should binding packaging reduction targets be set through regulations, provision will be needed to monitor and enforce these targets. Enforcement would include ensuring that returns were properly and correctly made. A body would have to be established or empowered to do this (it could, for example, be SEPA, which already has some responsibilities in relation to packaging). This Chapter of the Bill contains provisions allowing such a regime to be set up.

## **Deposit and return schemes**

151. There are voluntary schemes in operation in Scotland whereby food packaging, particularly drinks bottles, may be returned to retailers against repayment of a deposit notionally included in the purchase price of the product. The retailer then returns the packaging to the producer and is reimbursed for payment of the deposit. There are some statutory deposit and return schemes in operation in other parts of the world, including within the EU, for example in Denmark, Sweden and Germany.

152. The Bill gives the Scottish Ministers powers to set up a statutory deposit and return scheme through regulations. This would require retailers to include a specified deposit as part of the price of the product when supplying certain types of packaging to purchasers. The deposit would then be repaid to the purchaser (or anyone else who brought it back) on return of the packaging (whether to the same retailer or another). The intention is that regulations would specify the types of packaging for which a deposit must be charged, and the amount of the deposit.

153. A deposit and return scheme would reduce the use of resources by ensuring that more packaging was recycled, since deposits would be paid against return of the actual packaging, which could then be recycled or re-used. At the same time, by taking packaging out of the general waste stream, it should reduce reliance on waste disposal (landfill and incineration) as well as reducing the amount of littering and fly-tipping.

154. Provision is also included regarding the administration of the system, obligations as between producers of packaging and retailers, and record-keeping and enforcement. A central administrative body is responsible for the operation of the Danish scheme, for example, and it may be felt necessary to establish an equivalent here. An approval mechanism of alternative bodies with which those under the obligation to operate deposit and return schemes might also be required.

155. An alternative to providing powers through this Chapter of the Bill would be to consider the use of sections 93 – 95 of the Environment Act 1995<sup>41</sup> to set up a producer responsibility scheme, which might have deposit-and-return characteristics. However, such a scheme – like one set up under the provisions of this part of the Bill - would have to be carefully tailored both to meet the requirements of the Scottish situation, and Community requirements on the circulation of goods. The regulations would have to deal with the need for an organising body, its establishment, and its powers and duties. A great deal of flexibility is required, and the provisions in the 1995 Act do not appear to provide this, appearing in fact to be rather detailed and prescriptive and designed to provide the kind of producer responsibility scheme currently operated for packaging, waste electrical and electronic equipment, and end-of-life vehicles, rather than a deposit-and-return scheme.

## **Charges for carrier bags**

156. The Scottish Ministers are given powers in this part of the Bill to make regulations about charging by sellers of goods for the supply of carrier bags. Carrier bags are given away freely in large numbers. Many goods are already packaged and carrier bags are often simply “add on”

---

<sup>41</sup> Environment Act 1995, c.25, available from: [http://www.opsi.gov.uk/acts/acts1995/Ukpga\\_19950025\\_en\\_1](http://www.opsi.gov.uk/acts/acts1995/Ukpga_19950025_en_1)

packaging that has no essential purpose. The provisions in the Bill are designed to reduce the number of these bags in circulation. The objectives of doing so by means of a charge are to protect the environment both by the reduction in the number of carrier bags and by investing the charges raised in an appropriate manner, and to raise awareness of environmental issues such as recycling and litter.

157. These powers enable Ministers to prescribe in regulations which retailers are required to charge for carrier bags. This may be done by reference to the type of goods sold, the type of seller, turnover or other factors. The regulations would also define “carrier bags” and specify either the amount to be charged for each bag, or provide for how that amount is to be determined. The regulations would also be able to specify how the net proceeds are to be used, to ensure (if necessary) that the proceeds are applied to causes which operate in Scotland.

158. Records will need to be kept about matters such as the number, type and tonnage of carrier bags for which a seller has imposed the charge. The powers also extend to appointing a body or bodies to monitor the accuracy of these records, and also to enforce the regulations, including ensuring that the proceeds were actually spent on the required good causes and to impose sanctions for failure to comply with the regulations.

159. Alternative means of achieving these aims have been considered. The Scottish Government is actively working with retailers on voluntary measures aimed at reducing the number of carrier bags used by consumers. At a meeting between the Scottish Government and retailers on 15 May 2008, it was agreed to set up a Zero Waste Retailers Group which will consider various options to cut bag use on a voluntary basis. Retailers have recently announced that they will aim to cut carrier bag use by 50% by Spring 2009, using 2006 as a baseline. Some retailers have independently introduced a charge for such bags.

160. The Scottish Ministers want to continue working with retailers on a voluntary basis and see legislation in this area as the course of last resort. However, they wish to have powers available to them to require retailers to charge consumers for carrier bags in the event that voluntary measures are unsuccessful.

## **EFFECTS ON EQUAL OPPORTUNITIES, HUMAN RIGHTS, ISLAND COMMUNITIES, LOCAL GOVERNMENT, AND SUSTAINABLE DEVELOPMENT**

### **Equal opportunities**

161. The Climate Change (Scotland) Bill contains a broad framework which will enable the Scottish Government to tackle climate change, with a limited number of specific provisions, mostly in the form of powers enabling the creation of secondary legislation, to reduce emissions directly or adapt to the risks associated with climate change impacts. Rather than the framework created by the Bill, it is the specific policies which will need to be introduced at a later date to meet the targets in the Bill which may have an impact on equal opportunities, including age, disability and gender. These measures will be subject to appropriate assessment and consultation prior to implementation. A provision is included in the Bill to ensure that the Scottish Ministers and the advisory body take account of equal opportunities when carrying out their functions under this Bill.

162. An Equality Impact Assessment of the Climate Change (Scotland) Bill has been carried out and is published on the Scottish Government website<sup>42</sup>.

## **Human rights**

163. Section 29 of the Scotland Act 1998 sets out the limits on the legislative competence of the Scottish Parliament. One of those limits is that the Bill must not include any provision which is incompatible with any of the rights granted by the European Convention on Human Rights (ECHR) which are listed in Schedule 1 to the Human Rights Act 1998<sup>43</sup> (known as “the Convention rights”). Ministers’ view is that none of the provisions in the Bill is incompatible with any of the Convention rights.

164. *Part 1* of the Bill creates a framework of powers and duties setting a framework for the reduction of greenhouse gas emissions. Nothing in *Part 1* of the Bill directly affects the rights or obligations of any person in such a way as to engage their Convention rights.

165. *Part 2* of the Bill provides powers which would enable the Scottish Ministers to create a new, independent, non-departmental public body and confer functions on it. There are also powers to confer equivalent functions on a designated existing body. It also confers related duties upon the Scottish Ministers. Neither the powers to enable the creation of a public body nor the creation of any of the functions or duties in *Part 2* has any direct effect on the rights or obligations of any person in such a way as to engage their Convention rights.

166. *Part 3* of the Bill creates duties on the Scottish Ministers to make reports and provides for the Scottish Ministers to create additional reporting requirements. These provisions contain no elements which interfere with any person’s Convention rights.

167. *Part 4* of the Bill creates powers which enable the Scottish Ministers to place duties on public bodies in relation to climate change and to give guidance to public bodies in relation to climate change. These enabling powers do not in themselves affect any person’s Convention rights and it is very unlikely that the exercise of the powers could affect any person’s human rights. Section 6 of the Human Rights Act 1998 also requires that a public authority, which includes the Scottish Ministers, must act in a way that is compatible with the Convention rights. Therefore no interference in the Convention rights is expected to result from the use of these powers.

168. *Part 5 Chapter 1* of the Bill creates a power which enables the Scottish Ministers to vary by order the permitted times during which muirburn may be made where they consider it necessary or expedient to do so in relation to climate change. This order-making power has the potential, upon exercise, to engage Protocol 1 Article 1 of the European Convention on Human Rights, which provides for the right to the peaceful enjoyment of one’s possessions. Restricting the times during which muirburn may be made on land may be considered to amount to a control of use of that land. However, this power is considered to be in the public interest, and therefore compliant with the Convention, as its exercise is dependant on the legitimate social and

---

<sup>42</sup> Climate Change (Scotland) Bill Equality Impact Assessment, available from:

<http://www.scotland.gov.uk/Topics/Environment/Climate-Change/16327/Climate-Change-Bill>

<sup>43</sup> Human Rights Act 1998, c.42, available from: [http://www.opsi.gov.uk/ACTS/acts1998/ukpga\\_19980042\\_en\\_1](http://www.opsi.gov.uk/ACTS/acts1998/ukpga_19980042_en_1)

environmental aim of adapting to climate change. The power is also considered to comprise a proportionate legislative response to changing climatic conditions.

169. *Part 5 Chapter 2* of the Bill creates powers for the Scottish Ministers to modify the functions of the Forestry Commissioners by regulations where it is necessary or expedient to do so in relation to climate change. These enabling powers do not in themselves affect any person's Convention rights; it is only in the exercise of the power that a person's rights may be engaged. However, as detailed above, section 6 of the Human Rights Act 1998 requires that a public authority, which includes the Scottish Ministers, must act in a way that is compatible with the Convention rights. Therefore no interference in the Convention rights is expected result from the use of these powers.

170. The requirement in *Part 5 Chapter 3* for the Scottish Ministers to produce an energy efficiency action plan contains no elements which could interfere with any person's Convention rights.

171. *Part 5 Chapter 3* of the Bill also contains provisions for improving the energy performance of existing non-domestic buildings. These provisions, upon exercise, have the potential to engage Protocol 1 Article 1 of the European Convention on Human Rights, which provides for the right to the peaceful enjoyment of one's possessions. Placing requirements on building owners or their delegates to certify or improve the energy performance of their buildings may be considered to amount to a control of use of that property. However, this power is considered to be in the public interest, and therefore compliant with the Convention, as its exercise is dependant on the legitimate social and environmental aim of acting to reduce greenhouse gas emissions and mitigate against the effects of climate change. Any powers which may be given to local authorities to check enhanced EPCs would have the potential to engage Article 8, the right to respect for private and family life, home and correspondence, by gathering and holding information in that process. However, local authorities will be bound by the Data Protection Act 1998 to prevent the disclosure of personal information.

172. The final set of provisions in *Part 5 Chapter 3* of the Bill contains a duty on the Scottish Ministers to promote the use of heat produced from renewable sources. These powers in themselves are not considered likely to affect a person's human rights. However, the Scottish Ministers actions in establishing a grant scheme may engage Article 8 the right to respect for private and family life, home and correspondence, by gathering and holding information in that process. The Scottish Ministers will be bound by the Data Protection Act 1998 to prevent the disclosure of personal information. The Scottish Ministers are also required to put in place measures to protect people who might be unduly disadvantaged by the introduction of such a scheme.

173. *Part 5 Chapter 4* of the Bill contains measures aimed at reducing waste and increasing recycling. This Chapter of the Bill has no immediate effect on any rights granted by the Convention. Any effect would be experienced only if the powers to make regulations it sets out were actually to be exercised by the Scottish Ministers, and the effect would then depend on the form that those regulations might take. Proposals for such regulations would be subject to detailed consultation with interested parties in accordance with normal practice, and in each

instance Ministers would be subject to the need, established by section 54(2)(a) of the Scotland Act 1998, not to contravene any of the rights granted by the Convention.

### **Island communities**

174. The Climate Change (Scotland) Bill contains provision which requires that the Scottish Ministers take account of those living in remote and rural communities, such as island communities, when setting the annual emissions reduction targets. The relevance of this is that these targets will drive the policies put in place over the decades to 2050 and it is those policies which may potentially have an effect on those living in remote communities such as the Scottish islands.

175. The Scottish Ministers are committed to ensuring that every policy which is designed to reduce emissions directly will be subject to the appropriate level of assessment and consultation prior to implementation. If any of the measures developed under the provisions within this Bill were to present a risk of an undesirable impact, it could be possible to adapt the measures in order to avoid that impact. For example, if measures on packaging reduction were thought likely to have an undesirable effect on the transport of goods to or from island communities, it could be possible to exempt those communities from the legislation. This would be considered as part of the Regulatory Impact Assessment for any secondary legislation brought forward.

### **Local government**

176. Certain provisions within the Bill allow for the creation of regulations which may impact on local government. Part 4 provides the Scottish Ministers with the ability to impose, by regulations, duties on bodies with functions of a public nature, which could include local authorities. This Part also provides the Scottish Ministers with the ability to give guidance to bodies with functions of a public nature in relation to these duties and to report upon their compliance with climate change duties. The effects will vary greatly, depending on a range of factors including whether the regulations are introduced and the nature of the duties or guidance created. A provision is included in the Bill to ensure that the Scottish Ministers consult with such associations of local authorities as are appropriate when creating duties under Part 4 of the Bill.

177. *Part 5 Chapter 3* of the Bill contains provisions for improving the energy performance of existing non-domestic buildings. Local authorities will have interests in these provisions both as building owners and as enforcement bodies through the menu of Bill provisions, subject to the results of the ongoing consultation, as follows:

- extending the scope of energy performance certificates into enhanced EPCs to take account of operational ratings as well as asset ratings and also embodied energy/carbon when a robust methodology is available to address the issue of historic and traditional buildings. Varying the lifespan of such assessments/certificates;
- requiring owners or their delegated persons to obtain enhanced EPCs (even though they are not selling or renting out their buildings);

- requiring owners of non-domestic buildings to formulate action plans for building work arising from the advice on their enhanced EPCs and encouraging them to implement their action plan;
- developing appropriate standards for such building work e.g. energy efficient lighting, roof space insulation or sub-metering; and
- empowering local authorities, or similar public bodies, to check enhanced EPCs.

178. *Part 5 Chapter 4* of the Bill includes provisions on waste reduction and recycling. These provisions may result in savings, such as from the costs of using a landfill service, including landfill tax, or from the reduced need for litter collection. The provisions may result in modest increases in administrative costs. More detail on the financial implications is available in the Financial Memorandum.

### **Sustainable development**

179. The goal of sustainable development is to enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations. This lies at the core of the Scottish Government's aim to reduce emissions of Scottish greenhouse gases by 80% by 2050, which represents a major step in making Scotland more sustainable.

180. Climate change is a global issue which, ultimately, requires a global response. However, by taking action, Scotland can demonstrate leadership and do its part in addressing some of the problems which would otherwise be expected to arise from climate change, such as the impact on communities of increased flooding and chaotic weather; and the economic damage, estimated by the Stern Review as costing the world economy between 5% and 20% of GDP each year.

181. It is intended that the framework introduced by this Bill will drive government policies over the coming decades which will in turn mainstream activities to reduce emissions. The Scottish Government wants to be able to create an environment in Scotland which will help position Scottish businesses to take advantage of new markets for low-carbon technologies, estimated by the Stern Review as being worth at least \$500 billion globally by 2050.

182. The muirburn provisions in *Part 5 Chapter 1* of the Bill have potential benefits for the sustainability of the rural economy, upland habitats and species. If land managers cannot continue muirburn in a manner which takes account of changing climate, there could be an increased risk of reduced grazing for livestock in rural areas across Scotland, including those on the Scottish islands. This could compound the effects of any economic downturn in hill farming. There could also be an increased risk of land abandonment, which would impact on the viability and sustainability of rural communities including the loss of land used to help supply local sustainable food sources. Muirburn has the potential to support the continued sustainability and diversity of upland habitats and the species these habitats support, through well managed burning proving regeneration, habitat mosaics, botanical diversity and vegetation structures.

183. The shooting and stalking industry, which relies on actively managed moors, is worth £240 million to the Scottish economy. Heather requires active land management to encourage its

regeneration and seeding through a range of activities including muirburn. The exact value of Scottish heather to the economy is not known, but it is known that 78% of UK visitors and 89% of international visitors explore the Scottish scenery. All of these elements have the potential to adversely impact on economic sustainability, particularly in more rural areas.

184. The forestry provisions in *Part 5 Chapter 2* of the Bill allow the role played by the Forestry Commission in tackling climate change to be extended through increased woodland creation and renewable energy developments. Many types of woodland creation can contribute cost-effectively towards net emissions reduction through the resulting photosynthesis potential of the trees and plants. Woodland creation also has strong potential benefits to the sustainability of both rural and urban areas, creating sustainable wood fibre and renewable fuel resources, sustaining employment in forestry, supporting development of forest habitat networks, extending the role of woodlands in natural flood and water management, supporting urban regeneration, and increasing opportunities for recreation, access, outdoor learning and community participation in woodlands.

185. *Part 5 Chapter 3* concerns energy efficiency, energy performance of non-domestic buildings and renewable heat. As well as supporting the reduction of greenhouse gas emissions these provisions should also have the additional benefit of driving forward more efficient use of resources and improving the security of Scotland's energy supply.

186. Energy – its generation and usage – are key areas from which emission reductions will be sought. The Review of Fuel Poverty in Scotland, published on 22 May 2008<sup>44</sup>, indicates that around half of pensioner households in private homes were estimated to be fuel poor in 2005-06. Increases in fuel costs may affect those in pensioner households and those with a disability/long-term illness proportionately more in a negative way. However, measures in the Bill, such as the duty on the Scottish Ministers to prepare and publish an action plan for the promotion of energy efficiency, may result in greater energy efficiency measures which may affect these households more positively.

187. By providing for regulations to be made designed to improve the energy performance of non-domestic buildings, the Bill could enable steps to be taken which would help the owners of these buildings, including many Scottish businesses, to reduce over the long-term the amount of energy they consume, helping to control their costs and therefore improve economic viability. In the Scottish public sector, making more efficient use of resources in this way could result in significant improvements to the social benefit of public spending.

188. The waste management and recycling provisions in *Part 5 Chapter 4* of the Bill will help to reduce the local and global environmental impact of our consumption and production through a more efficient use of resources and the generation of less waste, and a concomitant reduction in the amount of greenhouse gases generated by its management. This Chapter of the Bill will also

---

<sup>44</sup> Review of Fuel Poverty in Scotland, available from:  
<http://www.scotland.gov.uk/Topics/Built-Environment/Housing/access/FP/fuelpovertyreview>

*This document relates to the Climate Change (Scotland) Bill (SP Bill 17) as introduced in the Scottish Parliament on 4 December 2008*

help protect the natural environment is for future generations, by minimising the land set aside for waste disposal facilities.



*This document relates to the Climate Change (Scotland) Bill (SP Bill 17) as introduced in the Scottish Parliament on 4 December 2008*

# **CLIMATE CHANGE (SCOTLAND) BILL**

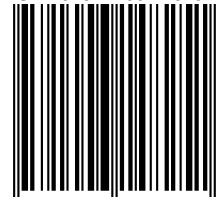
## **POLICY MEMORANDUM**

© Parliamentary copyright. Scottish Parliamentary Corporate Body 2008.

Applications for reproduction should be made in writing to: Information Policy, Office of the Queen's Printer for Scotland (OQPS), St Clements House, 2-16 Colegate, Norwich NR3 1BQ, or by e-mail to [licensing@oqps.gov.uk](mailto:licensing@oqps.gov.uk). OQPS administers the copyright on behalf of the Scottish Parliamentary Corporate Body.

Produced and published in Scotland on behalf of the Scottish Parliamentary Corporate Body by RR Donnelley.

ISBN 978-1-4061-4825-1



9 781406 148251