

CLIMATE CHANGE (SCOTLAND) BILL

EXPLANATORY NOTES

(AND OTHER ACCOMPANYING DOCUMENTS)

CONTENTS

1. As required under Rule 9.3 of the Scottish Parliament's Standing Orders, the following documents are published to accompany the Climate Change (Scotland) Bill introduced in the Parliament on 4 December 2008:

- Explanatory Notes;
- a Financial Memorandum;
- the Scottish Government's Statement on legislative competence; and
- the Presiding Officer's Statement on legislative competence.

A Policy Memorandum is printed separately as SP Bill 17-PM.

EXPLANATORY NOTES

INTRODUCTION

2. These Explanatory Notes have been prepared by the Scottish Government in order to assist the reader of the Bill and to help inform debate on it. They do not form part of the Bill and have not been endorsed by the Parliament.

3. The Notes should be read in conjunction with the Bill. They are not, and are not meant to be, a comprehensive description of the Bill. So where a section or schedule, or a part of a section or schedule, does not seem to require any explanation or comment, none is given.

THE BILL

4. Climate change is one of the most serious threats facing Scotland and the world. The most severe consequences include famine, drought and extinction of species. Urgent action is needed by all nations to avoid the most severe climate change.

5. The aim of the Climate Change (Scotland) Bill is to establish a framework to drive greater efforts at reducing Kyoto Protocol greenhouse gas emissions in Scotland. The Bill will create mandatory climate change targets to reduce Scotland's greenhouse gas emissions. This will signal clearly that the Scottish Government is serious in tackling greenhouse gases and wishes to set a strong example to other countries in the global effort to reduce climate change.

6. 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, but certain climate change mitigation and adaptation policies have been identified which do require legislation and this Bill contains provisions in Part 5 to allow these to be taken forward.

7. The Bill policy areas are separated into five parts.

- **Part 1** creates the statutory framework for the 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 order, 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 – Chapter 1** requires the Scottish Ministers to lay programmes on adaptation to climate change before the Scottish Parliament and 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.
- **Part 5 – Chapter 2** will allow modification by secondary legislation of the functions of the Forestry Commissioners to enable the Forestry Commission in Scotland to play a greater role in tackling climate change.
- **Part 5 – Chapter 3** contains three distinct sets of provisions.
 - The first set of provisions require the Scottish Ministers to produce an action plan setting out their current and proposed measures to promote the energy efficiency of buildings in Scotland, as well as measures to encourage behavioural change towards energy efficiency.
 - 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 places a duty on the Scottish Ministers to take such steps as they consider appropriate to promote the use of heat from renewable sources.
- **Part 5 – Chapter 4** contains provisions which will enable the Scottish Ministers to make regulations relating to the acquisition of accurate information about waste and the promotion of waste reduction and recycling by different methods.

PART 1 – EMISSIONS REDUCTION TARGETS

8. The provisions set out in Part 1 of the Bill create the statutory framework for the 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.

The 2050 target

9. Section 1 sets out the 80% target for 2050. Subsection (1) defines the obligation on the Scottish Ministers as reducing the net Scottish emissions account by 80% by 2050 relative to the defined baseline year. The net Scottish emissions account is defined in section 12 of the Bill. For any one year it will consist of the total of Scottish emissions, reduced by the amount of Scottish removals and adjusted to reflect carbon units credited and debited to the account.

The interim target

10. Section 2 sets out the 50% interim target for 2030. It will work in the same way as the 2050 target.

Annual targets

11. Subsection (1) of section 3 requires that the Scottish Ministers set annual targets for the maximum amount of the net Scottish emissions account for each year in the period 2010-2050 and must ensure that those targets are not exceeded.

12. Subsection (2) establishes criteria that the annual targets must meet. Subsection (2)(a) specifies that the annual target for the year 2010 is an amount which is less than the estimated net Scottish emissions account for 2009. Subsection (2)(b) requires that the targets for each year in the period 2011-2019 must be set so that each is an amount which is less than the target for the preceding year. Subsection (2)(c) requires that the targets for each year in the period 2020-2050 must be set so that each is an amount which is at least 3% less than the target for the preceding year.

Setting annual targets

13. Section 4 contains a number of conditions which must be met when the Scottish Ministers set annual targets. Subsections (1) and (2) establish that the targets must be set by order and must be set for certain periods by prescribed dates.

14. Subsection (3) imposes a duty on the Scottish Ministers to take account of both the interim 2030 target and the final 2050 target when setting the annual targets up to 2030. After 2030, the Scottish Ministers must consider the 2050 target when setting the annual targets from 2031 onwards.

15. Subsection (4) details a number of scientific, economic, social and international criteria which must be considered by the Scottish Ministers when setting annual targets. This list is not intended to be the sole list of factors that the Scottish Ministers consider when setting annual targets and additional factors can also be considered.

Advice before setting annual targets

16. Section 5 requires the Scottish Ministers to request expert advice before laying an order containing annual targets and to publish a statement explaining why the annual targets are being set at certain levels, and how these annual targets take account of the target-setting criteria described in section 4(4) of the Bill. If the Scottish Ministers have chosen to set annual targets in a manner which differs from the expert advice provided, they must publish a statement setting out the reason why. Subsection (5) defines “relevant body” for the purposes of the Part, which will be the UK Committee on Climate Change or a Scottish body designated under section 19.

Modifying annual targets

17. Section 6 allows the Scottish Ministers to modify, by order, annual targets, the minimum annual target percentage reduction applying from 2020, dates by which annual targets must be set and target-setting criteria. The annual targets set by order may only be modified if the Scottish Ministers believe there have been significant changes to the basis on which an annual target was set.

18. Subsection (6) further constrains this ability to modify by preventing its use in the year to which a target relates and its use in a way which would result in the target for the year being greater than the target for the preceding year (i.e. allowing emissions to increase between years). An order to modify the 3% minimum reduction in emissions applying from 2020 may be made only where it is no longer considered necessary for that minimum to be achieved, and it can expressly not be used to substitute a percentage of less than zero. An order to modify either the date by which annual targets are to be set, or the target-setting criteria, may be made only where the Scottish Ministers consider it appropriate.

19. Section 7 requires the Scottish Ministers to request expert advice from the relevant body before laying an order for modification under section 6 and if this advice is not followed, this provision requires the Scottish Ministers to publish a statement explaining why.

Progress towards targets

20. Section 8 requires the Scottish Ministers, from 2011, to request that the relevant body prepare a report on its view on the progress towards achievement of annual targets, the interim target and the 2050 target, a view on whether these targets are likely to be achieved and what further effort may be required to meet the targets.

21. Subsection (2) requires that in the second year following an annual target, the Scottish Ministers must request the relevant body to prepare a report detailing its views on whether the annual target for the target year was met, the way in which the target was or was not met and the action taken by the Scottish Ministers to reduce net Scottish emissions during that year. Subsection (3) requires the Scottish Ministers to lay a response to this report before the Scottish Parliament as soon as reasonably practicable after receiving the report.

Greenhouse gases

22. Section 9 defines the greenhouse gases targeted by the Bill and allows for this list of gases to be amended, by order, by adding gases or modifying their description. The power to add new greenhouse gases may be exercised only if it appears to the Scottish Ministers that European or international agreements or arrangements recognise the contribution to climate change of a gas. Before laying an order modifying section 9(1), the Scottish Ministers must request advice from the relevant body.

The baseline

23. Section 10 defines the baseline years for each greenhouse gas covered by the statutory targets.

Baseline years for additional greenhouse gases

24. Section 11 applies in the situation where the list of target gases for the Bill is expanded and a baseline year is required. If a new greenhouse gas is added to the list of target gases for the Bill, subsections (3) and (4) allow the Scottish Ministers to specify by order what the baseline year is to be and how the net Scottish emissions are to be determined for the baseline year for the new gas.

Net Scottish emissions account

25. Section 12 defines the net Scottish emissions account as the aggregate of net Scottish emissions, minus any carbon units credited to the account for the period plus any carbon units debited from the account for the period. Subsection (2) enables the Scottish Ministers to define in regulations which carbon units can be credited to and debited from the net Scottish emissions account, and how this can be done. Subsection (3) provides that regulations must ensure that, where carbon units are used to reduce the net Scottish emissions account, they are not also used to offset other emissions elsewhere. This would lead to their “double-counting”.

Attribution of emissions to Scotland

26. Section 13 defines which greenhouse gases are attributable to Scotland for the purposes of calculating net Scottish emissions. These are emissions of greenhouse gases emitted from sources in Scotland plus Scotland’s share of emissions from international aviation and international shipping.

Scottish share of emissions from international aviation and international shipping

27. Section 14 allows the Scottish Ministers to make provision, by order, for a proportion of emissions from international aviation and international shipping to be attributed to Scotland. That order may make provision for the period or periods in which gases are to be regarded as Scottish emissions, and as to the manner in which such emissions are to be taken into account. Before laying such an order, the Scottish Ministers must seek advice from the relevant body and if this advice is not followed, they must publish a statement explaining why they are following a different approach.

Scottish emissions and removals

28. Section 15 defines Scottish emissions and Scottish removals of greenhouse gases, and defines the total of these for a period as the net Scottish emissions for that period.

29. Subsection (2) allows the Scottish Ministers to modify the definition of Scottish removals by order. Subsection (3) requires the amount of emissions and removals to be determined, in so far as reasonably practicable, consistently with international carbon reporting practice, defined in section 17.

Measurement of emissions

30. Section 16 provides that emissions, emissions reductions and removals are to be measured in tonnes of carbon dioxide equivalent, and defines that term.

International carbon reporting practice

31. Section 17 defines international carbon reporting practice in terms of the protocols to the United Nations Framework Convention on Climate Change, or other European or international arrangements or agreements which the Scottish Ministers specify by order. This power allows the definition to be updated to take account of new international arrangements and agreements.

Carbon units and carbon accounting

32. Section 18 enables the Scottish Ministers to define “carbon unit” in regulations, and provides the Scottish Ministers with the power by regulations, to establish a scheme or use an existing scheme, for the registering and tracking of carbon units and for establishing and maintaining accounts in which carbon units may be held.

PART 2 – ADVISORY FUNCTIONS

Advisory body

33. The emissions reduction provisions in the 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 or modifying annual targets, adding greenhouse gases to the Bill, or making provision attributing a proportion of greenhouse gases from international aviation and international shipping to Scotland.

34. Subsections (1) and (2) of section 19 give the Scottish Ministers the power to designate a body or person to undertake the advice functions in sections 5, 7, 8 and 9 and the additional advice functions in sections 22 to 27. Thereafter the body or person will be referred to as the advisory body and will take on the role of the UK Committee on Climate Change.

35. Subsection (3) sets out the functions (the “advisory functions”) which the advisory body has.

36. Subsection (4) sets out examples of what may be included in an order under subsection (1), such as the information requirements for the advice. Subsection (5) defines the term “public body” as used in subsection (1).

Scottish Committee on Climate Change

37. Section 20 allows the Scottish Ministers to establish, by order, a body to undertake the advisory functions under the Bill. If established, this body would be known as the Scottish Committee on Climate Change.

38. Subsection (3) gives effect to schedule 1 which sets out details of the constitution and operation of this Committee and subsection (4) identifies the types of further provision which may be included in an order establishing a Scottish Committee on Climate Change.

39. Section 21 makes it clear that the obligations for this body to provide advice to the Scottish Ministers under sections 22-27 do not apply until the Scottish Ministers designate, under section 19, a body to exercise advisory functions. Until such an advisory body is designated, the Scottish Ministers will seek advice from the UK Committee on Climate Change (which will be the relevant body for the purposes of sections 5 to 9).

Advice on annual targets

40. Section 22 obliges the advisory body to respond to requests by the Scottish Ministers for advice on proposed annual targets and proposed modifications of annual targets.

41. Subsection (2) requires the body to provide a view on whether a proposal for an annual target is appropriate, and explain that view.

42. Subsection (3) requires the body to express views on a number of factors relating to annual targets. Specifically, it should provide a view on the relative merits of taking action to reduce emissions, compared with the use of carbon units. It should also express a view on the contributions to targets which may be provided by sectors covered by trading schemes and those not covered by such schemes, and the contributions to targets that may be made by reductions in emissions of greenhouse gases in particular sectors of the economy.

43. Subsection (4) requires that the body must provide its advice within the period requested by the Scottish Ministers. Subsection (5) defines the meaning of 'traded sector' for subsection (3)(b)(i). This refers to the definition contained in section 66 of the UK Climate Change Act 2008.

Reporting on progress towards targets

44. Section 23 requires the advisory body to prepare an annual report setting out its views on the Scottish Ministers' progress towards meeting the annual targets, the interim target, and the 2050 target. It should also provide views on whether these targets are likely to be achieved and views on any action considered necessary to achieve these targets. This duty will be switched on by the Scottish Ministers at an appropriate time after an advisory body has been designated.

45. Subsection (3) requires that the body's report in the second year after the year covered by a target ends must express a view on whether the annual target for the target year was met and a view on the action taken by the Scottish Ministers to reduce greenhouse gas emissions during that year.

46. Subsection (4) specifies deadlines for laying the reports before the Scottish Parliament.

Scottish Ministers' response to reports on progress

47. Section 24 obliges the Scottish Ministers to respond to a report provided by the advisory body under section 23 and to lay that response before the Scottish Parliament.

Duty of body to provide advice or other assistance

48. Section 25 obliges the advisory body to respond to requests for advice, analysis, information and assistance by the Scottish Ministers in connection with their functions under the Bill, their other climate change functions, or in relation to climate change generally.

Guidance to advisory body

49. Section 26 requires that the advisory body must have regard to any guidance given by the Scottish Ministers in respect of its functions under the Bill. Subsection (2) provides that the Scottish Ministers may not give the body guidance on the content of any advice or report. Subsection (3) permits the Scottish Ministers to vary or revoke any guidance issued.

Power to give directions to advisory body

50. Section 27 gives the Scottish Ministers the power to direct the advisory body in terms of its functions under the Bill. Subsection (2) provides that the Scottish Ministers may not direct the body on the content of any advice or report and subsection (3) permits the Scottish Ministers the power to vary or revoke the directions. Subsection (4) requires the body to comply with any directions given.

PART 3 – REPORTING DUTIES

51. The Bill 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.

Reports on annual targets

52. Section 28 requires the Scottish Ministers to lay annual reports before the Scottish Parliament in respect of each year from 2010 to 2050. Subsections (2) to (4) specify information that the annual report must contain. Subsection (5) requires the annual report to be laid before the

Scottish Parliament no later than 31 October in the second year after that to which the annual target discussed in the report relates.

53. Section 29 specifies further requirements for the content of the information contained in each annual target report.

Reports on proposals and policies for meeting annual targets

54. Subsection (1) of section 30 requires the Scottish Ministers to produce a report as soon as reasonably practicable after making an order under section 4 setting annual targets. Subsection (2) requires this report to set out the proposals and policies intended to meet the annual targets, and their timescales, with an explanation of how these are expected to contribute towards the delivery of the interim target and the 2050 target.

55. Subsection (3) requires the report to explain how the proposals and policies are expected to affect the different sectors of the Scottish economy and subsection (4) requires the second and each subsequent report to provide an assessment of progress towards implementation of the policies and proposals in earlier reports, and any adjustments to those policies considered appropriate.

Reports on proposals and policies where annual targets not met

56. If the annual report indicates that the annual target has not been met, section 31 requires the Scottish Ministers to lay a report before the Scottish Parliament, which sets out the proposals and policies to compensate in future years for the excess emissions.

Report on the interim target

57. Section 32 requires the Scottish Ministers to lay a report before the Scottish Parliament in respect of the interim target, for the year 2030. Subsections (2) to (8) determine what the report must contain and its timescale for laying.

Report on the 2050 target

58. Section 33 requires the Scottish Ministers to lay a report before the Scottish Parliament in respect of the 2050 target. Subsections (2) to (8) determine what the report must contain and its timescale for laying.

Reports: provision of further information to the Scottish Parliament

59. Section 34(1) requires that where the Scottish Ministers lay various reports before the Scottish Parliament relating to annual targets, the interim target and the 2050 target, they must, as soon as reasonably practicable, make a statement on the report in the Scottish Parliament. Subsection (2) specifies all the reports which trigger this obligation. Subsection (3) requires that in terms of the report on the annual target, the Scottish Ministers must also meet with the

Scottish Parliament committee conveners. All of these duties apply only as far as is reasonably practicable.

Further provision about reporting duties

60. Section 35 permits the Scottish Ministers to impose new duties on themselves, by order, to report to the Scottish Parliament. Subsection (2) sets out further provision which may also be made by such an order.

PART 4 – DUTIES OF PUBLIC BODIES RELATING TO CLIMATE CHANGE

Duties of public bodies

61. Section 36 enables the Scottish Ministers to impose duties relating to climate change, by order, on bodies or persons exercising functions of a public nature, referred to as ‘relevant public bodies’. Subsection (3) allows the order to impose different duties on different public bodies.

62. Subsections (4) and (5) oblige the Scottish Ministers, in so far as reasonably practicable, to consult with such associations of local authorities and such other persons as they consider appropriate before laying an order imposing such duties. Subsection (6) states that the Scottish Ministers must co-operate with the relevant public bodies to help those bodies comply with duties imposed under this section.

Guidance to relevant public bodies

63. Section 37 requires relevant public bodies to have regard to any guidance issued by the Scottish Ministers in relation to climate change duties. Subsections (2) and (3) oblige the Scottish Ministers to consult with such associations of local authorities and such other persons as they consider appropriate before creating guidance, in so far as it is reasonably practicable to do so. Subsection (4) allows the Scottish Ministers to vary or revoke this guidance and subsection (5) requires the Scottish Ministers to publish guidance.

Reporting on climate change duties

64. Section 38 enables the Scottish Ministers, by order, to require relevant public bodies to report on how they are complying with a duty imposed under section 36 and enables the Scottish Ministers to set out what must be in the report, its format, and the time by which it must be submitted to them. Where relevant public bodies are working together on a particular duty, the Scottish Ministers may require them to co-operate with each other to prepare a joint report.

Appointment of monitoring body

65. Section 39 enables the Scottish Ministers, by order, to designate one or more persons or bodies to monitor how relevant public bodies are complying with duties imposed under section

36 or how they are having regard to guidance given under section 37. The person or body is referred to as the “monitoring body”.

Investigations

66. Section 40 enables a monitoring body to carry out investigations into how relevant public bodies are complying with duties imposed under section 36, or whether they are having regard to guidance given under section 37. Section 41 defines the powers of investigators in these circumstances; “investigators” may be either the monitoring body or a person authorised by that body.

Reporting by monitoring body

67. Section 42 enables the Scottish Ministers to direct a monitoring body to prepare a report on its activities, use of resources and any other matters. Those reports will not normally mention continuing investigations unless the Scottish Ministers direct this. Subsection (3) requires the monitoring body to submit the report to the Scottish Ministers.

Guidance to monitoring body

68. Section 43 requires a monitoring body to have regard to any guidance issued by the Scottish Ministers relating to its functions under Part 4 of the Bill. Subsections (2) and (3) oblige the Scottish Ministers to consult with the monitoring body and such other persons as they consider appropriate, in so far as reasonably practicable, before giving guidance.

69. Subsection (4) allows the Scottish Ministers to vary or revoke this guidance and where a variation is substantial, the Scottish Ministers are obliged to consult the persons listed in subsection (3), in accordance with subsection (2), before varying the guidance. Subsection (5) requires the Scottish Ministers to publish any guidance given under this section.

Power to direct monitoring body

70. Section 44 enables the Scottish Ministers to give directions to a monitoring body relating to its functions under Part 4 of the Bill. Subsection (2) allows a direction given under this section to be varied or revoked. Subsection (3) requires the monitoring body to comply with a direction given under this section.

PART 5 – OTHER CLIMATE CHANGE PROVISIONS

Chapter 1 – Adaptation

Programme for adaptation to climate change

71. Section 45 applies when the Secretary of State lays a report before the UK Parliament on the impact of climate change on the United Kingdom under section 56 of the Climate Change Act

2008. Receipt by the Scottish Ministers of this report triggers an obligation under this section for the Scottish Ministers to lay a programme before the Scottish Parliament addressing the risks identified in the report and setting out the Scottish Ministers' objectives, proposals and policies in relation to adaptation to climate change.

72. Subsection (3) requires subsequent programmes to contain an assessment of progress towards objectives set out in the previous programme. Subsection (4) requires the Scottish Ministers to lay each programme under this section before the Scottish Parliament as soon as reasonably practicable after receiving the Secretary of State's report.

Variation of permitted times for making muirburn

73. Section 46 of the Bill inserts a new section 23A into the Hill Farming Act 1946 (the "1946 Act").

74. Subsection (1) of new section 23A enables the Scottish Ministers to make an order specifying the dates before which or after which it is lawful to make muirburn in any year. Subsection (2) of new section 23A clarifies the effect of an order made under subsection (1), that is, to substitute for any of the dates specified in section 23(1), (2) or (3) of the 1946 Act, the dates specified in any such order.

75. Subsection (3) of new section 23A provides that the Scottish Ministers may make an order under new section 23A(1) of the 1946 Act only where they consider it necessary or expedient to do so in relation to climate change. Subsection (5) of new section 23A of the 1946 Act provides that any statutory instrument containing an order made under subsection (1) of that section is subject to negative resolution procedure.

76. Schedule 2 to the Bill provides for a minor amendment of section 23(1) of the 1946 Act, to clarify that section 23 of the 1946 Act is subject to any provision made by order under new section 23A(1) of that Act.

Chapter 2 – Forestry

Power to modify functions of Forestry Commissioners

77. Section 47(1) allows the Scottish Ministers, by order, to modify the functions of the Forestry Commissioners in or as regards Scotland. Subsection (2) provides that such modifications may be made only where the Scottish Ministers consider it necessary or expedient to allow them to comply with their duties under sections 1, 2 or 3(1)(b) of the Bill to reduce greenhouse gas emissions or more generally in relation to climate change.

78. Subsection (3) provides that the order may modify the Forestry Commissioners' functions to allow them to form or participate in corporate bodies or trusts.

79. Subsection (4) provides that the order may also allow the Forestry Commissioners to delegate functions to other bodies.

80. Section 64 makes more general provision in relation to the power to make an order under section 47, and makes provision as to the Parliamentary procedure for such an order. Subsections (2) and (3) of section 64, provide that an order made by the Scottish Ministers under section 47 may make different provision for different cases or purposes, or make any appropriate consequential, incidental, supplementary, transitory, transitional or saving provision, including modification of any enactment. Section 64(4) provides that an order made under section 47 is subject to affirmative resolution procedure.

Chapter 3 – Energy efficiency

Duty of the Scottish Ministers to promote energy efficiency

81. Section 48 requires the Scottish Ministers, within 12 months of the section coming into force, to publish a plan for the promotion of energy efficiency in Scotland. The plan must specifically cover the promotion of the energy efficiency of living accommodation. Under subsections (4) and (5), Ministers are required to review the plan at least every 3 years.

82. Following a review, the Scottish Ministers must in accordance with subsection (6) publish the plan if the review results in changes to the plan.

83. When preparing a plan and when varying it after a review, subsection (7) requires the Scottish Ministers to have regard to the contribution that improvements to buildings and changes in building standards can make to improving overall energy efficiency and lowering carbon emissions in Scotland.

84. “Energy efficiency” is defined in subsection (8) and includes the use of technologies reliant on renewables sources of energy and the use of materials that produce lower greenhouse gas emissions than alternatives. “Fossil fuel” and “renewable sources” are also defined in subsection (8).

Laying of plans and reports

85. Section 49(1) requires the Scottish Ministers to lay the initial plan and any subsequent revised plan before the Scottish Parliament as soon as is reasonably practicable after it is published. Subsections (2) and (3) require Ministers to lay a report before the Scottish Parliament on what steps have been taken to implement the plan. The report must be laid within 12 months of the plan being first published and at least annually thereafter.

Non-domestic buildings: assessment of energy performance and emissions

86. Section 50 confers power on the Scottish Ministers to make regulations providing for the assessment of: (a) the energy performance of non-domestic buildings; and (b) emissions of greenhouse gases produced or associated with such buildings.

87. Subsection (2) sets out some of the provisions which may be included in the regulations, including: the kinds of non-domestic buildings covered; persons who are required to obtain assessments; time periods for carrying out assessments; procedures and methodologies for assessing energy performance and emissions; persons who can carry out such assessments; the issuing of certificates following assessment; enforcement authorities; the keeping of records; enforcement of the regulations; and offences.

88. Subsection (3) makes provision about the enforcement authority provided for in the regulations and subsection (4) allows the enforcement authority to levy charges to recover reasonable costs incurred by exercising the functions under the regulations.

89. Subsection (5) defines “non-domestic building” as all buildings, other than buildings which are dwellings. Yards, gardens, outbuildings and other land or buildings associated with dwellings, and any common areas so associated, are also excluded from the meaning of “non-domestic building”.

Promotion of renewable heat

90. Section 51(1) imposes a duty on the Scottish Ministers to put in place measures, as appropriate, to promote the use of heat produced from renewable sources. These include the measures mentioned in subsection (2) relating to the promotion of the installation of a new renewable energy system fuelled wholly or partly from renewable sources and the adaptation of equipment so that it can be fuelled by renewable sources.

Chapter 4 – Waste reduction and recycling

Waste prevention and management plans

91. Section 52 enables the Scottish Ministers to make detailed provision, by regulations, requiring persons specified in such regulations to make waste prevention and management plans, and to comply with them. Some of the detail which may be included in the regulations is specified in subsection (2), but this is without prejudice to the generality of the section. Some essential terms are defined in subsection (4).

92. The effect of regulations made under this section could be, for example, to provide that a builder should draw up plans for how he proposed to reduce waste generated by a building operation by, for example, the re-use of rubble on-site. On a different scale, they might require an office to prepare a plan showing how it will minimise waste – for example by adopting double-sided printing. A person might be required by virtue of subsection (2)(a) to prepare more than one plan, for instance to deal with different types of waste.

93. Subsection (3) ensures that any enforcement authority appointed in relation to this section must have regard to any guidance the Scottish Ministers may give in relation to its functions, which may include the approval of waste prevention and management plans (subsection (2)(e)(ii)). Further provision about enforcement authorities is made by section 60.

94. It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that plans were actually drawn up and complied with, but this will be a matter for regulations. Maximum penalties which may be imposed in any regulations made under this Chapter are specified in section 61.

Information on waste

95. Section 53 enables the Scottish Ministers to make detailed provision, by regulations, requiring the provision of information by persons specified in those regulations about waste associated with their activities to the Scottish Environment Protection Agency (SEPA). Some of the detail which may be included in the regulations is specified in subsection (2), but without prejudice to the generality of the section. “Waste” is a term which has already been defined in section 52(4): this definition matches that of Directive 2006/12/EC on waste¹.

96. Subsection (3) refers to section 34(5) of the Environmental Protection Act 1990² (the “1990 Act”). This enables the Scottish Ministers to make regulations requiring those who import, produce, carry, keep, treat or dispose of controlled waste to make, retain and furnish documents. The powers have been used to make the Environmental Protection (Duty of Care) Regulations 1991³ (the “1991 Regulations”) and the Special Waste Regulations 1996 (the “1996 Regulations”)⁴. These regulations require notes to be prepared when waste covered by them is transferred. Subsection (3) ensures that regulations made under section 53 are not construed as replacing the separate requirements contained in existing regulations.

97. It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that information is provided correctly and timeously, but this will be a matter for regulations. Powers to make such provision are contained in subsection (2)(g) and (h).

Recyclable waste: facilities for deposit etc.

98. Section 54 enables the Scottish Ministers to make detailed provision, by regulations, requiring persons specified in those regulations to provide facilities for the deposit of waste, and requiring that waste deposited in such facilities be collected by an authorised person and, as far as practicable, recycled. Some of the detail which may be included in the regulations is specified in subsection (2), but without prejudice to the generality of the section. “Waste” and “recycling” are terms which have already been defined in section 52(4). “Authorised person” is defined in subsection (5) in terms of section 34(3) of the 1990 Act, and includes local authorities and holders of waste management licences.

¹ OJ No. L 114, 27.4.2006, p9

² 1990 c.43

³ SI 1991/2839, as amended by SSI 2003/533

⁴ SI 1996/972 as amended by SI 1996/2019, SI 1997/257, SSI 2000/95, SSI 2000/323 and SSI 2004/112

99. The power this section grants could be used to require offices to have facilities to collect paper for recycling, for example. Such facilities might be no more than a box, but more complex facilities, such as can-crushers, could also be required, as appropriate. This section could not be used to require facilities to be provided at temporary public events, which are covered by section 55 (see section 54(4)). Subsection (2)(b) may be used to restrict the categories of person who must be allowed to use the facilities, such as staff only in an office environment.

100. Subsection (2)(d) may be used to require an authorised person to remove the waste deposited, for example where the person providing the facilities could otherwise encounter difficulties in getting the waste uplifted. If this power were exercised, subsection (2)(e) could be used to set charges to finance this collection, and the recycling of the relevant material.

101. It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that facilities were provided and used properly, but this will be a matter for regulations. Relevant powers are contained in subsection (2)(h) and (i).

Provision of facilities for deposit of recyclable waste at events etc.

102. Section 55 enables the Scottish Ministers to make detailed provision, by regulations, empowering local authorities to issue notices requiring organisers of temporary public events to provide facilities for the deposit of waste, and requiring that the waste be collected by an authorised person and, as far as practicable, recycled. Subsection (4) of section 54 ensures that events are not subject to requirements, possibly competing, made under both sections.

103. An example of how the power might be used could be a local authority requiring the holder of a music festival to ensure that facilities to collect the kinds of waste to which such a festival might give rise (such as bottles, cans, or plastic cups) are provided for the duration of that festival.

104. Subsection (2)(g) could be used to ensure that notices were issued sufficiently far in advance of the relevant events. Provision for appeals against notices may be made under subsection (2)(h). Subsection (2)(k) to (n) deal with enforcement and provide for the appointment of an enforcement authority, which need not necessarily be the local authority. Further provision on enforcement authorities is made by section 60.

Procurement of recyclate

105. Section 56 enables the Scottish Ministers to make detailed provision, by regulations, requiring persons specified in those regulations to ensure that specified things procured or constructed by them include or contain a certain amount or proportion of recyclate. Some of the detail which may be included in the regulations is specified in subsection (3), but without prejudice to the generality of the section. “Recyclate” is defined by subsection (6) in relation to the definition of “recycling” in section 52(4).

106. Subsection (3)(d) could be used to deal with measurement of the proportion of recyclate present in complex items. Subsection (3)(e) could be used to allow the requirement to procure

recyclate to be disapplied on application to the Scottish Ministers, for example where this could conflict with Community internal market rules.

107. It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that recyclate was procured in at least the proper proportion, but this will be a matter for regulations.

Targets for reduction of packaging etc.

108. Section 57 enables the Scottish Ministers to make detailed provision, by regulations, setting targets for reducing the amount of packaging in use (subsection (1)(a)(i)), or the amount of greenhouse gas emissions associated with packaging (subsection (1)(a)(ii)). Some of the detail which may be included in the regulations is specified in subsection (2), but without prejudice to the generality of the section. "Packaging" is defined by subsection (4) in terms of Directive 94/62/EC on packaging and packaging waste⁵.

109. Subsection (2)(c) would allow targets to be set by a variety of means, for instance by reference to turnover or market share. Subsection (2)(f) could be used to require the production of baseline information about the amount of packaging in circulation, which might then be used to set targets. It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that accurate information was provided and the targets actually met, but this would be a matter for the regulations.

Deposit and return schemes

110. Section 58 enables the Scottish Ministers to make detailed provision, by regulations, setting up deposit and return schemes for packaging associated with specified products, where Ministers are satisfied that it is necessary or expedient to do so in order to promote recycling. Some of the detail which may be included in the regulations is specified in subsections (3), (4) (5) and (7), but without prejudice to the generality of the section. Subsections (4)(c) and (5)(f) would confer power to require that packaging returned under such a scheme was recycled.

111. Subsection (5) would permit regulations to establish an administrative body to act on behalf of relevant producers and retailers in certain respects. Subsection (7) deals with matters such as mechanisms for identifying packaging as falling within a scheme, customer information and specification of the places to which packaging could be returned and the deposit reclaimed. The latter could for example be used to deal with return of packaging to a different retailer selling similar types of product. It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that deposits were actually taken and repaid, and subsection (7)(i) to (l) contain appropriate powers.

⁵ OJ No. L 365, 31.12.1994, p10

Charges for the supply of carrier bags

112. Section 59 enables the Scottish Ministers to make detailed provision, by regulations, requiring persons supplying carrier bags to take goods away to charge for those bags, and requiring that the net proceeds of such charges be applied to environmental good causes. Some of the detail which may be included in the regulations is specified in subsection (2), but without prejudice to the generality of the section.

113. Subsection (2)(c) provides a power to specify the carrier bags in respect of which a charge would have to be made. This could be used to exempt certain bags, for example where Ministers were satisfied that they were likely to be re-used rather than quickly becoming waste.

114. The amount of the charge is to be fixed, and may be varied, by regulations. The charge is to be levied, not by central or local government, but by the supplier of the bag to which the regulations may apply. Subsection (2)(a) to (c) provide that the regulations may apply the charge to particular kinds of goods, or bags, or suppliers of goods. Subsection (2)(e) enables regulations to provide a mechanism for the calculation of the net proceeds of the charge.

115. Subsections (1)(b) and (2)(f) would allow Ministers to ensure that the net proceeds were spent on broadly environmental purposes, and to define those purposes in more detail if that was thought necessary (such as specifying that funds raised were to be spent in Scotland). It is very likely that a system of enforcement, including offences and penalties, would be required to ensure that charges were levied, appropriately accounted for, and devoted to appropriate causes, but this would be a matter for the regulations.

Enforcement authorities

116. Section 53 names SEPA as the enforcement authority in respect of waste information. Other provisions in this Chapter enable the Scottish Ministers to specify, by regulations, enforcement authorities in respect of them. Section 60 allows the Scottish Ministers to specify SEPA, a local authority or such other person or body as may be selected. Subsection (3) allows the functions of an enforcement authority to be divided between different specified bodies. Subsection (4) provides that enforcement authorities may charge to recover costs reasonably incurred in connection with their functions. SEPA, however, already has a charging power under section 41(1) of the Environment Act 1995, so charging in respect of its functions under section 53 has been dealt with as a consequential amendment of that section (see schedule 2, paragraph 2).

Penalties

117. Section 61 sets out the maximum penalties for offences created by regulations under any section in Part 5 of the Bill (namely, section 50 in Chapter 3 and sections 52 to 59 in Chapter 4). The statutory maximum for summary cases (those heard without a jury) is currently £10,000, and was set by the Criminal Proceedings etc. (Reform) (Scotland) Act 2007⁶. It may, however, be varied by order by the Scottish Ministers by powers given by the Criminal Procedure (Scotland)

⁶ 2007 asp 6

Act 1995⁷. Where a prosecution is on indictment rather than under summary procedure, the court may impose an unlimited fine.

PART 6 – GENERAL AND MISCELLANEOUS

118. Section 62 requires the Scottish Ministers and the advisory body, when exercising their functions under the Bill, to encourage equal opportunities and the observance of the equal opportunities requirements.

119. Section 63 provides that the Bill applies to the Crown, including to Her Majesty in her private capacity.

120. Section 64 provides for the procedure for the making of orders and regulations under the Bill. Subsections (2) and (3) provide that such orders and regulations may make different provision for different cases or purposes, or make any appropriate consequential, incidental, supplementary, transitory, transitional or saving provision, including modification of any enactment. Subsections (4) and (5) provide that all orders and regulations made under the Bill, except a commencement order made under section 67, are subject to affirmative resolution procedure except those listed in subsections (6) and (7). The orders and regulations listed in those subsections are subject to negative resolution procedure, unless they modify an Act of Parliament or an Act of the Scottish Parliament (in which case they are subject to affirmative resolution procedure).

121. Section 65 brings together defined expressions used in the Bill and either defines them or indicates where in the Bill definitions of them can be found.

122. Section 66 introduces schedule 2, which contains amendments and repeals to other legislation.

123. Section 67 provides that all of the provisions of the Bill, except this section, sections 22 to 27 (powers and duties of advisory body) and section 64 (providing for procedure for orders and regulations), are to come into force on a day set by the Scottish Ministers by order. This section and section 64 come into force on Royal Assent. Sections 22 to 27 come into force in accordance with section 21 (i.e. when an order designating the advisory body is made under section 19). This section also provides for the short title of the Bill.

SCHEDULE 1 – THE SCOTTISH COMMITTEE ON CLIMATE CHANGE

124. Schedule 1 makes provision for the detailed constitution, powers and proceedings of the Scottish Committee on Climate Change which may be established under section 20 of the Bill. The Committee is to consist of a chair and no fewer than five and no more than eight other members. These numbers may be varied by order made by the Scottish Ministers, subject to negative resolution procedure. Members are to be appointed for a period of up to five years. Members are eligible to be reappointed for one further period.

⁷ 1995 c. 46

125. In appointing members, the Scottish Ministers are to have regard to the desirability of the Committee (taken as a whole) having expertise or experience in business competitiveness, climate change policy, climate science and other branches of environmental science, economic analysis and forecasting, emissions trading, energy production and supply, financial investment and technology development and diffusion.

126. Schedule 1 provides for the circumstances in which members may be removed, for the disqualification of MPs, MSPs and MEPs from membership, and for remuneration, pensions and allowances.

127. Schedule 1 also provides for the appointment of a Chief Executive of the Committee, with the approval of the Scottish Ministers, and for the appointment of other staff by the Committee. The schedule makes provision for the procedure of the Committee, for the establishment of sub-committees, for its general powers and for the delegation of its functions. The Committee is to be required to keep proper accounts to be audited by the Auditor General for Scotland, and to publish an Annual Report which is to be laid before the Scottish Parliament by the Scottish Ministers.

SCHEDULE 2 – MINOR AND CONSEQUENTIAL MODIFICATIONS

128. Schedule 2 sets out minor and consequential modifications to other legislation required as a result of the Bill.

FINANCIAL MEMORANDUM

INTRODUCTION

129. This document sets out the financial implications of the Climate Change (Scotland) Bill. It should be read in conjunction with the Policy Memorandum and the Bill itself. The Policy Memorandum, published separately, explains in detail the policy intentions of the Bill.

130. The main aim of the Climate Change (Scotland) Bill is to establish a challenging long term target which requires the Scottish Ministers to reduce the emission of those greenhouse gases covered by the Kyoto Protocol by 80% by 2050. The Kyoto Protocol greenhouse gases are carbon dioxide, methane, nitrous oxide and the fluoride gases (hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride), collectively referred to as the basket of greenhouse gases. The Bill also contains provisions on topics with a contribution to make to tackling climate change – through mitigation of greenhouse gases or adaptation to the impacts of climate change.

131. The topics in the Climate Change (Scotland) Bill are set out under five significant parts:

- **Part 1** creates the statutory framework for the 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 order, 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 – Chapter 1** requires the Scottish Ministers to lay programmes on adaptation to climate change before the Scottish Parliament and 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.
- **Part 5 – Chapter 2** will allow modification by secondary legislation of the functions of the Forestry Commissioners to enable the Forestry Commission in Scotland to play a greater role in tackling climate change.
- **Part 5 – Chapter 3** contains three distinct sets of provisions.
 - The first set of provisions require the Scottish Ministers to produce an action plan setting out their current and proposed measures to promote energy efficiency 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 places a duty on the Scottish Ministers to take such steps as they consider appropriate to promote the use of heat from renewable sources.
- **Part 5 – Chapter 4** contains provisions which will enable the Scottish Ministers to make regulations relating to the acquisition of accurate information about waste and the promotion of waste reduction and recycling by different methods.

PART 1 – EMISSIONS REDUCTION TARGETS

2050 Target

132. Part 1 of the Bill establishes the 2050 emissions reduction target for the basket of greenhouse gases and underpins this long term target with a framework of annual targets. This Bill establishes targets which go beyond the findings of known studies and reports which explore and estimate the potential costs of addressing climate change, globally and in the UK.

133. Estimating costs can be done in two ways. One is to look at the resource costs of measures including the introduction of low carbon technologies and changes in land use, compared with the costs of the business as usual alternative. The second is to use macroeconomic models to explore the system-wide effects of the transition to a low carbon economy. These can be helpful in tracking the dynamic interactions of different factors over time. However these approaches are inevitably complex and their results can be affected by a whole range of assumptions. The studies described below provide a useful starting point for identifying the potential costs to Scotland of delivering emission reductions in 2050 in order to meet the 80% target.

134. The Stern Review on the Economics of Climate Change⁸ is considered to be the most comprehensive review carried out to date on the economics of climate change. The Stern Review report states all countries will be affected by climate change and unabated climate change risks raising average temperatures by over 5°C from pre-industrial levels. Based on the assessment of the science carried out by the Intergovernmental Panel on Climate Change on 2001, the Review report states that the dangers of unabated climate change will be an increase in global temperature and that an increase of 2-3 °C will reduce global GDP by between 5% and 20%.

135. By contrast the report estimates the costs of stabilising greenhouse gas concentrations in the atmosphere to avoid such a temperature rise, to be 1% (+/-3%) of global GDP⁹. This range assumes that sensible policies are put in place and deliver the induced technological progress required.

136. Stern goes further to indicate that there are also likely to be economic benefits associated with taking action to shift to a low carbon economy and reports that the global market for low carbon technologies could worth at least \$500 billion per annum by 2050 if the world acts on the scale required..

137. The “80% Challenge: Delivering a low-carbon UK” report by the Institute for Public Policy Research, WWF and RSPB¹⁰, published in October 2007, used the same economic model as that used for the UK Impact Assessment for the UK Climate Change Act¹¹ (refer to paragraph 8), to indicate that an 80% reduction in carbon dioxide emissions, including international aviation and shipping emissions, may cost up to 3% of GDP in 2050. It can be expected that increasing the target to include the other five gases will increase this estimated cost.

138. The Final Impact Assessment for the UK Climate Change Act¹², published April 2008, indicates that the long run costs to the UK of achieving a 60% reduction in carbon emissions are likely to be in the range 0.3-1.5% of GDP in 2050, depending on the price of fossil fuel and the availability of low-carbon technologies.

⁸ The Stern Review was published on 20 October 2006 by HM Treasury and was carried out by Sir Nicolas Stern, Head of the UK Government Economic Service and former World Bank Chief Economist. http://www.hm-treasury.gov.uk/sternreview_index.htm

⁹ World Bank estimates suggest that 1% of global GDP equates to around \$650 billion, taking into account both exchange rates and also the purchasing power of each world currency against the dollar, in 2007.

¹⁰ <http://www.ippr.org/members/download.asp?f=%2Fecomm%2Ffiles%2F80%5Fchallenge%2Epdf>

¹¹ http://www.opsi.gov.uk/acts/acts2008/pdf/ukpga_20080027_en.pdf

¹² <http://www.defra.gov.uk/environment/climatechange/uk/legislation/pdf/ccbill-ia-final.pdf>

139. On 7 October 2008, the expert, independent UK Committee on Climate Change¹³ issued its advice on the level of emissions reductions recommended for the UK. It advised that the UK should aim to reduce emissions of Kyoto Protocol greenhouse gases by at least 80% by 2050. Based on the Stern Review Report data, the Committee estimates that stabilisation of greenhouse gases at levels of 500-550ppm carbon dioxide equivalent, are between **1%-2% of GDP in 2050**. This 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. The Committee also stated that the costs to the UK of this level of emissions reductions can be made affordable with appropriate policies and trajectories.

140. The UK Government has agreed with this recommendation and announced on 16 October 2008 that they would seek to amend the target in the UK Climate Change Act to match these recommendations. These amendments to the UK Bill were agreed on 28 October. Meeting an 80% target is viewed by the Committee as challenging but feasible based on a range of options for reducing emissions including:

- Energy efficiency improvement in buildings and industry (eg. loft and cavity wall insulation, use of more efficient appliances, turning appliances off and using less air conditioning), which will be particularly important for reducing emissions in the period to 2020.
- Decarbonisation of the power sector, starting now and continuing through the 2020s, based on replacing existing conventional fossil fuel fired plant with renewable technologies (eg wind, tidal) and carbon capture and storage.
- Transport sector decarbonisation, first through improving fuel efficiency of conventional engines and increased use of sustainable first generation Biofuels, with progressive introduction of new technologies such as electric cars, plug in hybrids and hydrogen vehicles, and second generation Biofuels.
- Heat sector decarbonisation through increased use of biomass in boilers and combined heat and power, air exchange and ground source heat pumps, and modern electric storage heating.
- Decarbonisation of industry and the energy intensive sector in particular, through the introduction of new technologies such as carbon capture and storage to decarbonise the energy used to produce products such as cement, iron and steel.

2050 target – Costs for the Scottish Government, local authorities, public bodies and Scottish businesses

141. The Scottish Government's assessment of the potential range and timing of options to deliver an 80% reduction are tied up with actions at the EU and UK level. The first overview assessment of potential options has recently been published¹⁴ with a focus on measures likely to have a material and lasting impact on emissions in 2050. This is not to downplay the importance

¹³ The UK Committee on Climate Change is currently operating in shadow form pending its formal establishment under the UK Climate Change Act.

¹⁴ AEA Energy & Environment, 'Mitigating against climate change in Scotland: Identification and initial assessment of policy options.' November 2008

of other supporting policy measures such as advice, procurement and training, but recognition of the overarching nature of the initial study.

142. The study concludes that options available and currently known could generate around a 75% emissions reduction based upon our 1990 emissions figure. This percentage includes options about which there is currently considerable uncertainty so focussing in on the more certain options within this long list, the report concludes that this sub-set of options could potentially deliver around 63% of the total emissions reduction necessary. It is extremely difficult to cost even this sub-set of options but the report further concludes that implementing these measures in 2050 might cost in the region of £1.7 billion (expressed in 2005 prices). This figure is not an assessment of the wider economic costs from implementation nor does it disaggregate the overall cost to show how it falls between producers, consumers or taxpayers. The cost simply relates the cost of implementing those particular measures in that year.

143. A further study covering the wider economic and societal costs and benefits was commissioned and it has also recently been published. The overall conclusions suggest that reductions in carbon dioxide emissions from a number of policy options may be at the cost of a small reduction in GDP, but it is always important to bear in mind Stern's conclusions that the do nothing option will be far more costly in the long run. The results from the Fraser of Allander study¹⁵ should be seen as early findings illustrating the potential trade offs across different sectors of the economy rather than a comprehensive answer on the economic cost of meeting our emissions target.

144. The UK Committee on Climate Change cost estimate for delivering the UK Bill target of 80% emissions reduction in 2050, ie. 1%-2% of GDP is a close cost comparison available for calculating the cost of delivering the Scottish 2050 emissions reduction target. Estimates for the impact on the UK as a whole are an appropriate proxy for the cost for Scotland as the structure of the Scottish economy is broadly similar to the structure of the UK economy. For example the manufacturing sector represents approximately 14% of the output from the Scottish economy, whereas the corresponding figure for the UK is 14.7%.

145. On this basis the potential costs of delivering an 80% emissions reduction in Scotland could also be considered to be in the region of **1%-2% of GDP in 2050**. Were this cost applicable in 2006, not 2050, then Table 1 shows that the potential Scottish costs would be in the region of £1-£2 billion. Clearly 1-2% of GDP in 2050 will generate a higher figure. These costs will apply across the whole of the Scottish economy – Scottish Government, local authorities, public bodies and Scottish businesses.

146. The cost referred to in paragraph 142 is an estimate based on the preliminary work commissioned by the Scottish Government in identifying how Scotland can meet the 80% emissions reduction target in 2050. This preliminary work represents the first steps in a progressive process and will be built on by the Scottish Government's Strategic Overview project, expected to report in 2009. For the purposes of costing the delivery of the 2050 target at

¹⁵ Fraser of Allander Institute and Department of Economics, University of Strathclyde, 'The impact on the Scottish economy of reducing greenhouse gas emissions in Scotland: Illustrative findings from an experimental computable general equilibrium model for Scotland, November 2008

this time, the Scottish Government intends to use the cost information referred to in paragraph 145 ie 1-2% of GDP in 2050.

147. Costs in 2050 are not transferrable to earlier years as there will likely be a very different cost profile in between. Emissions reductions to 2050 are unlikely to follow a straight line trajectory. Reductions will occur through the advancement of technology as well as through changing demand and changing behavioural patterns. The introduction of a small number of measures can be expected to result in a step change in Scottish emissions (eg. new, more carbon efficient power stations coming on line). Others will lead to a gradual change in emissions (eg take up of new vehicle technology) while advances in building efficiencies may be significantly slower to reduce emissions. Each of these changes will impose different costs on different sectors of the economy at different times over the period to 2050. It is not possible to accurately predict when technologies will be introduced or the rates of reductions that will occur from changing behaviours and shifting demand. Overall with all these factors in play, it is impossible to accurately predict what will happen and when. That is why it is not possible to predict cost profiles during the period of change in the years out to 2050.

Table 1: GDP estimates for Scotland, 2006

2006 data	UK £ million	Scotland £ million	Scotland as % of UK
Gross Domestic Product (GDP) current market prices	1,299,622		
Gross Value Added (GVA) GDP at basic prices	1,154,959	91,024	7.88%
Population	000s 60,587.3	000s 5,116.9	8.45%
Estimate of Scottish GDP in market prices 1. based on GVA split 2. based on population split		£ million 102,425 109,759	
Estimate of 2% of GDP in market prices 1. based on GVA split 2. based on population split		2,048 2,195	

148. These costs will be borne by producers and tax payers through higher input prices for goods and public services and by consumers through higher retail prices, leading to lower overall GDP of the order highlighted in the previous paragraph. There is considerable uncertainty about precisely where these costs will fall and how they will impact on output by sector will depend upon the paths chosen to deliver the emissions reductions.

149. However, in a global context, it should be noted that the cost estimate of taking action to reduce emissions is lower than the cost to society if no action is taken to alleviate climate change – estimated by the Stern Review to be in the order of 5-20% of global GDP.

2030 target – Costs for the Scottish Government, local authorities, public bodies and Scottish businesses

150. Similar difficulties arise with costing the delivery of the 2030 target with any certainty. In addition to steady, year-on-year emissions reductions (eg arising from enhanced energy efficiency), some of the more significant emissions reductions will take the form of step changes resulting from, for example, the introduction of new technology. This means that in practice a straight line reduction trajectory is unlikely. For example if carbon capture and storage is successfully introduced as a mechanism for avoiding emissions of carbon dioxide into the atmosphere, the national reduction trajectory will take the form of series of step changes as the technology is adopted at fossil fuelled power stations.

151. Unfortunately no climate change studies have been identified which estimate the costs of reducing emissions by 2030 which could provide a reference point on which to base Scottish costs. Because emissions reductions will not occur in a straight line trajectory, taking a proportion of the cost estimated for delivering the 2050 target would not provide a credible cost estimate. The risks and errors with such an approach are too significant.

Annual targets – Costs for the Scottish Government, local authorities, public bodies and Scottish businesses

152. The long term target 2050 target will be underpinned by a series of annual targets, the first of which will be set by order in 2010. The Bill does not specify the methods by which the annual emissions reductions targets are to be delivered. The costs and efficiencies arising as a result of the proposals will depend on a large number of interrelated factors. These include wider economic variables such as macroeconomic conditions and GDP growth, largely exogenous factors such as average winter temperatures and the stability of European energy markets and points more specific to Scotland such as the level at which the annual targets are set, the gradient of the emissions reductions trajectories selected and the costs of the available abatement technologies adopted over the period to 2050. All statutory orders prescribing annual targets will be accompanied by a regulatory impact assessment (RIA) which details the likely cost implications.

153. The Scottish Ministers will be required by the Bill to seek expert, independent advice to identify the most cost effective emissions reductions available when setting annual targets and when identifying the most cost effective way of delivering the post-2020 emissions reduction trajectory required by the Bill.

154. At this time it is not possible to identify what these annual targets will be or how much it will cost to deliver them, at least in part because baseline future emissions are strongly linked to economic activity. As discussed earlier, costs in 2050 are not transferrable to earlier years as there will likely be a very different cost profile in between. This why it is not possible to provide costs for the delivering the emissions reductions targets in earlier years.

155. More specifically the Scottish Government expects to be informed on a number of issues by independent advice, which in the first instance is to be obtained from the UK Committee on Climate Change. Under the UK Climate Change Act, the Committee is required to provide advice to the UK Government by 1 December 2008 on the recommended emissions budgets for the first three UK budget periods. The Scottish Government intends to ask the Committee to draw on this advice and advise on the level of annual targets to be set under the Scottish Bill and on the most cost effective abatement methods available to deliver these targets. This advice is not expected to be available until the second half of 2009. Pending this advice it is not possible to quantify the cost of delivering the annual targets to be set under the Bill.

156. In the event of Scotland failing to meet an annual target, the Bill includes powers to address any excess in emissions through the purchase of carbon units. Carbon units represent emissions reductions from recognised sources outside of Scotland.

157. Emissions data for Scotland is currently produced by disaggregating UK emissions data. This information is available eighteen to twenty months after the end of a reporting year. Therefore the first year in which these costs might arise for the purchase of units is 2012 in connection with Scotland's emissions performance in 2010. The cost of purchasing carbon units is determined by the market but is expected to range from at least £15 - £30 per tonne of carbon dioxide equivalent. Should Ministers take up the option to purchase carbon units, the cost can be expected to fall to the Scottish Government from 2012 onwards. It is not possible to estimate at this time exact costs of purchasing carbon credits as this will depend on whether the annual targets are met and if there is any failure, the extent of that failure.

158. The cost of meeting a specific annual or interim target will form part of the overall cost of meeting the 2050 target. For information the cost of any carbon unit purchase represents a transfer of money from Scotland to the country generating a validated carbon unit.

Carbon accounting – Costs for the Scottish Government local authorities, public bodies and Scottish businesses

159. In relation to the net Scottish emissions account, the Bill will allow for the Scottish Ministers to create a scheme, by order, for the tracking of carbon units and establishing and maintaining accounts for holding carbon units. Such a scheme could be administered by the Scottish Government and any costs would be absorbed within existing administration budgets. The potential annual cost of this task is estimated to be **£60,000**. This cost is based on the employer costs of employing the equivalent of a policy analyst, costed at approximately £60,000 per annum. It is possible that this cost could also be applied in an alternative manner by employing a range of lower grade staff, with employer costs not exceeding this £60,000 estimate.

160. If the Scottish Ministers do create a carbon accounting scheme, these costs will apply to the Scottish Government. There will not be any associated costs for local authorities or Scottish businesses. If the Scottish Ministers require a public body to undertake this activity on their behalf, for example the Scottish Environment Protection Agency, these costs could apply to the public body instead of the Scottish Government.

PART 2 – ADVISORY FUNCTIONS

Advice from the UK Committee on Climate Change Committee

161. The emissions reduction provisions in the Climate Change (Scotland) Bill impose duties on the Scottish Ministers, which among other things, require the Scottish Ministers to establish annual emissions reductions targets in secondary legislation. Ministers will be required to seek expert, independent advice in advance of setting annual targets. It is expected that this advice will be sought from the UK Committee on Climate Change, or corresponding Scottish Committee, on these annual targets, on the basis of the most cost effective abatement mechanisms for reducing greenhouse gas emissions.

162. If the Bill is approved by Parliament, the first main task for the Scottish Ministers, after it is enacted, will be to set the annual targets for greenhouse gas emissions reductions. These annual targets will be set in batches with the first batch of annual targets expected to cover the period up to and including 2022. Each set of annual targets will be prescribed in orders. All such orders will be accompanied by a fully costed Regulatory Impact Assessment (RIA), detailing the abatement and mitigation policies required to deliver the relevant set of annual targets. The Bill will require the first set of annual targets to be established by June 2010 with subsequent sets established by order at intervals thereafter. This will ensure that a clearly defined statutory reduction pathway is available to guide abatement effort over the short to medium term.

163. The Scottish Ministers intend to seek advice in the short term from the UK Committee on Climate Change. As one of the devolved administrations contributing to the UK target, Scotland has committed to fund this independent, expert Committee and its financial contribution for 2008-09 is **£275k**, which includes set-up costs and the initial phase of research. Future contributions are expected to be similar although additional funding may be required if the Committee is commissioned to provide advice and the cost of that task is particularly expensive, for example, because the Committee requires to recruit more staff or commission external research in order to develop the advice. Analysis related to the Scottish target and trajectory may at times require extra funding for this reason.

164. If the Scottish Ministers decide to establish a Scottish Committee on Climate Change in the future, for which provision is made in the Bill, the annual costs could be in the region of **£2.5m**, similar to the current annual cost of running the UK Committee (refer to Table 2). The nature of the advice required and the range of expertise necessary in such a Committee suggests that it would be difficult to save costs by adopting a scaled down operation for Scotland. This would represent a potential increase in costs. There would be little, if any, saving on the core contribution to the UK Committee which advises all 4 administrations on their shared objective of the UK target in the context of a wide-ranging analysis of the UK situation as a whole. There would be a saving in that it would not be necessary to commission any analysis relating to the Scottish target from the UK Committee on Climate Change which might incur extra costs if the

task were expensive to carry out. 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.

Table 2: Outline of estimated first year and on-going costs for the UK Committee on Climate Change as detailed in the UK Climate Change Act Final Impact Assessment, April 2008

Function	2007/08 Shadow Committee	On-Going Costs – Post Royal Assent
Secretariat	£680,000	£1,300,000
Committee	£62,000	£210,000
Research	£750,000	£500,000
Running Costs	£132,000	£300,000
Accommodation	-	£270,000
Corporate Identity ¹⁶	-	£150,000
Total	£1,624,000	£2,730,000

PART 3 – REPORTING DUTIES

165. The Bill establishes a number of reporting requirements for the Scottish Ministers linked to the greenhouse gas emissions targets. All of these will have a minimal cost impact on the Scottish Government and any costs will be absorbed within existing administration budgets. The potential annual cost of this administration task is estimated to be **£17,000** (50% of a policy officer's employer costs costed at approximately £34,000 per annum).

166. The different reporting requirements are:

- An annual report on greenhouse gas emissions in Scotland;
- A report and statement on proposals and policies designed to meet future annual targets, published as soon as practicable after each set of annual targets are set;
- A report and statement on remedial measures in the event that an annual emissions target is exceeded;
- Reports on policies and proposals for adaptation to climate change (under Part 5, section 45), in response to each UK wide risk assessment issued under the UK Climate Change Act;

¹⁶ Corporate identity costs will only be incurred in 2008-09 when the Committee becomes a statutory body after Royal Assent.

- A statement as to whether the 2030 greenhouse gas emissions reduction target has been met;
- A final statement on whether the 2050 greenhouse gas emissions reduction target has been met.

167. The main emissions target provisions do not apply any reporting duties to local authorities or other public bodies.

PART 4 – DUTIES OF PUBLIC BODIES RELATING TO CLIMATE CHANGE

Power to impose duties on public bodies in relation to climate change

168. The Scottish Ministers anticipate that all sectors of society will play their appropriate part in reducing the emissions of greenhouse gases and therefore contribute to tackling 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 proposes a power to allow, by order, to impose duties on public bodies in relation to climate change. There will be full consultation with the bodies concerned before such provisions would be used.

169. If such powers are introduced, the Scottish Ministers can also be expected to identify an appropriate monitoring body to ensure that the new duties are met. The cost of undertaking such duties will depend on the requirements of the duty and the extent to which the duty is applied across the public sector. There would be full discussion and consultation with the future monitoring body before any monitoring duty is applied. These negotiations would include the provision of additional funding if this is required by the body to meet the monitoring duty.

170. Overall this can be considered to contribute to delivering the emissions targets contained by the Bill and therefore would not pose an additional cost above that required to meet the annual targets, the 2030 target and the 2050 target. If additional duties for public bodies are introduced through an order, such an order would be accompanied by a fully costed Regulatory Impact Assessment.

Table 3: Summary of potential costs for Parts 1-4 Emissions Reductions

Estimated cost for Scotland's economy* for delivering the greenhouse gas emissions reduction target in Scotland 2050	1-2% GDP in 2050
Scottish Government cost (or public body cost) - Estimated annual cost staff cost for managing a carbon unit scheme	£60,000
Scottish Government cost - Estimated annual cost for administering the reporting duties required for the emissions reductions targets	£17,000
Scottish Government cost - Estimated annual cost for advice from a Scottish Climate Change Committee, based on current costs. <i>Note. Potential for some saving on payment to UK Committee on Climate Change for work in relation to Scottish target – see paragraph 164.</i>	£2.5m

** Note - The estimated cost for delivering the 2050 target will apply across all sectors of the economy in Scotland – central government, public sector including local government and private businesses.*

PART 5 – OTHER CLIMATE CHANGE PROVISIONS

CHAPTER 1 – ADAPTATION

Programmes for adaptation to climate change

171. Section 45 requires the Scottish Ministers to take specific action where the Secretary of State lays a report before the UK Parliament on the impact of climate change under section 56 of the Climate Change Act 2008.

172. As soon as reasonably practicable following receipt by them of the Secretary of State's report, the Scottish Ministers must respond by laying a programme before the Scottish Parliament which addresses the adaptation risks identified under section 56 of the UK Act and which sets out the Scottish Ministers' adaptation objectives and their proposals and policies for meeting these objectives. After the first laying of the report, subsequent reports will require the Scottish Ministers to include within their programmes an assessment of progress under the previous programme.

173. This action will initially be triggered within three years of the in-force date of the relevant section of the UK Act, and thereafter at least once every five years. But the response required will form a considerable part of a policy official's workload when it is required. Overall it is anticipated that this work will be absorbed within existing administration budgets and will approximate to 50% of a policy analyst's time during the year in which the duty is triggered. This cost is estimated as **£30,000** based on the employer costs of employing the equivalent of a policy analyst, costed at approximately £60,000 per annum. This cost will only occur for the Scottish Government. It is possible that this cost could also be applied in an alternative manner by employing a range of lower grade staff, with employer costs not exceeding this £30,000 estimate.

Variation of permitted times for making muirburn

174. Muirburn is a current land management activity, which must adapt to the effects of climate change in order to remain effective. The making of muirburn is the act of controlled burning of vegetation on open muir or moorland. Its use provides fresh food sources on rough grassland or actively managed grouse moors and it manages older vegetation which can be a source of fuel for wildfires.

175. The making of muirburn is regulated by the Hill Farming Act 1946 which provides that muirburn is permitted at prescribed times of the year. In Scotland, climate change has altered climate and seasonal weather patterns and as a result, the ability of muirburn as a land management tool has been, and will in the future be adversely affected.

176. The provisions in Part 5, Chapter 1 of the Bill will give the Scottish Ministers the power to use secondary legislation to set and vary the permitted periods for making muirburn where they consider it necessary in relation to climate change. As muirburn is a current activity, the order-making power is not expected to give rise to additional costs. The administrative costs incurred by the Scottish Government in bringing forward an order are expected to be minimal and will be absorbed within existing administration budgets.

CHAPTER 2 – FORESTRY

Renewable energy development and releasing capital for woodland creation

177. These provisions will allow the Scottish Ministers to confer functions on Forestry Commissioners in Scotland by secondary legislation, where they consider it necessary or expedient in relation to climate change. The immediate intent is to take forward proposals to allow the Forestry Commission to enter into joint ventures for renewable energy development and to allow them to let timber cutting rights to fund climate change activity.

The National Forest Estate – renewable energy development

178. Renewable energy development on the National Forest Estate through joint ventures will be revenue generating. Recent studies have shown that there is significant untapped potential for wind and hydro developments on the national forest estate. Annual net income potential might be expected to reach perhaps £10m/yr by 2012 and perhaps £30m/yr by 2020. Initial capital costs

to the Forestry Commission will depend on specific joint venture arrangements, but the use of the renewables sites themselves as the Forestry Commission share is preferred. There are further options to fund initial capital from routine land disposal programmes.

179. Additional cash resources will be required by the Forestry Commission Scotland (FCS) initially to establish joint venture arrangements, estimated at **£0.5m/yr** in 2009/10 and 2010/11. This will be found from FCS's operational budgets.

The National Forest Estate – releasing capital for woodland creation

180. It is intended to secure powers through the Bill to allow, by secondary legislation, the release of capital from the National Forest Estate through the letting of timber cutting rights. The intention is to evaluate options for releasing value from the £850M total estimated value of the Estate. This would be done by letting cutting rights over some of the more commercial parts of the estate. The income would depend upon a range of factors including, critically, the area covered by a lease and its terms; one option being evaluated is a 75 year lease over about 100,000 hectares (or up to 25% of the national forest estate). The receipts might be secured as an up-front payment or as an income stream. Additional cash resources would be required initially to let the cutting rights and establish contracts, estimated at **£0.2m/yr** in 2009/10 and 2010/11. This will be found from Forestry Commission operational budgets. Current timber supply contracts will be safeguarded through the letting process and it is expected that the forestry and timber sectors will benefit from resultant market diversification. All secondary legislation will be accompanied by a fully costed Regulatory Impact Assessment.

181. The receipts from the letting of cutting rights would provide additional funding for woodland creation. One option being consulted upon is to supplement current woodland creation measures by transferring cutting rights receipts to a membership-led body created to use this resource for woodland creation. Such a body might also be given the landlord's interest in the leased land to hold in perpetuity for the nation. Detailed proposals have yet to be developed, and will include consideration of State Aids issues. Additional cash resources would be required initially to establish the appropriate bodies, estimated at **£0.3m/yr** in 2009/10 and 2010/11. This will be found from Forestry Commission operational budgets.

182. This proposal will not create additional financial burdens on local authorities or other public bodies, individuals and businesses. As well as helping to mitigate climate change, an enhanced rate of woodland creation will provide economic stimulus to Scotland's forestry sector.

Table 4: Summary of potential estimated costs for the Scottish Government for Forestry provisions

Additional annual cost for FCS to establish joint venture arrangements	£0.5m
Additional annual cost for FCS to let timber cutting rights	£0.2m
Additional annual cost for FCS to establish a body corporate or trust	£0.3m

* Note – After the first two years it is expected that the annual running costs of these activities will not exceed the figures shown and will be funded from the income generated.

PART 5, CHAPTER 3 – ENERGY EFFICIENCY

183. Chapter 3 of the Bill aims to improve the energy performance of non-domestic buildings and improve energy efficiency generally across Scotland.

Energy efficiency

184. These provisions will put a duty in statute on the Scottish Ministers to produce a plan for promoting energy efficiency in Scotland. The action plan will provide details of the measures to improve energy efficiency and/or to promote micro-generation across all Scottish Government Directorates. This duty is part of current planned activity, is not expected to give rise to additional resources and will be met from within existing Scottish Government administration budgets.

Energy performance of non-domestic buildings

185. The aim of 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 further 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 recent consultation on this 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. To deliver this policy, substantive provision is made in five areas some of which are subject to the results of the ongoing consultation as follows:

- 1) Extending the scope of 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.

- 2) Requiring owners or their delegated persons to obtain enhanced EPCs (even though they are not selling or renting out their buildings).
- 3) 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.
- 4) Developing appropriate standards for such building work e.g. energy efficient lighting, roof space insulation or sub-metering.
- 5) Empowering local authorities, or similar public bodies, to check and enforce enhanced EPCs.

186. The costs and savings outlined in this memorandum are those costs and efficiencies that are directly attributable to responsibilities and tasks set out in the energy performance of existing non-domestic buildings part of the Bill. The provisions in the Bill will clarify the roles and responsibilities of the Scottish Ministers, local authorities, building owners and other responsible persons and authorities for improving the energy performance of existing non-domestic buildings in Scotland. This will result in reductions in emissions and energy use, which will ultimately lead to the reduction in economic costs to occupiers of non-domestic buildings and in general, the greater good of the population.

187. The costs identified are preliminary estimates in the absence of detailed secondary legislation, which cannot be developed until the Bill is enacted and the new responsibilities that will be placed on building owners or their delegated persons and the authorities involved, are agreed. All secondary legislation introduced will be accompanied by costed regulatory impact assessments. The menu of provisions in the Bill can be assembled in different ways and for the purpose of this Memorandum have been formed into seven different scenarios which will be informed by the consultation. This illustrates the range of costs that could occur, depending on the approach to implementation adopted. The consultation, Action on Climate Change: Proposals for Improving the Energy Performance of Existing Non-Domestic Buildings¹⁷ was issued on 2 September 2008 and closed on 25 November 2008.

188. The total cost depends on a number of factors. The variables that could cause the greatest fluctuation in costs will be the type of buildings covered and the extent to which the enhanced EPCs are applied to the stock. 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 (in particular scenarios 3), 4) and 5)) which the provisions in this Bill will enable the Scottish Ministers to create.

189. The seven scenarios are as follows:

- 1) Enhanced EPC 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;

¹⁷ <http://www.scotland.gov.uk/Publications/2008/08/15155233/1>

- 2) Enhanced EPC 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;
- 3) Enhanced EPC 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;
- 4) Enhanced EPC 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;
- 5) Enhanced EPC 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;
- 6) Enhanced EPC and operational rating on sale or rent and for larger public buildings frequently visited by the public; and
- 7) Enhanced EPC and operational rating on sale or rent and for larger public buildings frequently visited by the public with additional guidance.

Improving the energy performance of existing non-domestic buildings

190. Additional costs to the Scottish Government will be incurred as a result of the new Ministerial duties and powers set out in the Bill and are set out below on the basis of the scenario adopted and any financial support.

Table 5: Potential costs for Scottish Government for each energy performance scenario

Scenario	One-off Costs - £m	Average Annual Cost - £m pa
1	£0.5	£0.5
2	£0.5	£0.5
3	£0.6	£1.0
4	£0.6	£2.2
5	£0.6	£12.4
6	£0.3	£0.3
7	£0.5	£0.5

191. The costs have been abstracted from the Partial Regulatory Impact assessment contained within the Consultation Action on Climate Change: Proposals for Improving the Energy Performance of Existing Non-Domestic Buildings¹⁸. Scenarios 1, 2, 6 and 7 require ACEPs to be carried out buildings for sale or rental and for large buildings but there is not compulsion to implement the recommendations. Scenario 3 restricts the compulsory uptake of recommendations to large public buildings and Scenario 4 restricts the compulsory uptake of recommendations to large buildings. The high cost in relation to Scenario 5 in relation to all of the other scenarios is that ACEPs require to be obtained for all buildings irrespective of sale or rental and size and the recommendations have to be implemented for all buildings.

192. The one-off costs include staff costs to develop secondary legislation, impact assessments and guidance, media campaigns to create public awareness, training and research. The average annual cost includes staff for maintaining the system, support funding for businesses where appropriate and additional research and media campaigns where necessary to alert the public of changes to the system.

Costs on local authorities

193. The Bill will have both cost and resource implications for local authorities. It is difficult to estimate the likely total cost of these new duties. The costs of implementing this will again be dependent on how the menu of provisions in the Bill is assembled in the secondary legislation. The secondary legislation will be accompanied by a costed regulatory impact assessment. The scenarios below give an indication of potential costs and are likely to include the commissioning of building surveys, calculating energy and carbon performance of buildings, formulating action plans and carrying out building work. One off costs are not anticipated. If local authorities are exempt through relaxation provisions from enhanced EPCs then as building owners they will not bear any costs. If the provisions do apply, then the estimated costs in Table 6 will fall to local authorities. If enforcement responsibilities are given to local authorities, it is expected that a self financing system based on penalty charges could be utilised.

¹⁸ <http://www.scotland.gov.uk/Publications/2008/08/15155233/1>

Table 6: Potential costs for local authorities

Scenario	Average Annual Cost - £m pa
1	£3.4m - £4.5m
2	£4.1m - £5.5m
3	£21.3m - £28.4m
4	£27.4m - £36.6m
5	£27.7m - £37m
6	£2.6m - £3.5m
7	£3.6m - £4.8m

Costs on other bodies, individuals and businesses

194. Building owners or their delegated persons are likely to incur costs as a result of future secondary legislation brought in under the powers set out in the Bill. The costs of implementing this will be dependent on how the menu of provisions in the Bill is assembled in the secondary legislation. The secondary legislation will be accompanied by a costed regulatory impact assessment. Table 7 outlines the ranges of potential costs, based on scenarios 1-7 and are likely to include the commissioning of building surveys, calculating energy and carbon performance of buildings, formulating action plans and carrying out building work. One off costs are not anticipated.

Table 7: Potential costs for other bodies, individuals and businesses for each energy performance scenario

Scenario	Average Annual Cost - £m pa
1	£6.7m - £7.8m
2	£8.2m - £9.6m
3	£42.6m - £49.7m
4	£54.9m - £64m
5	£55.4m – 64.7m
6	£5.3m - £6.2m
7	£7.2m - £8.4m

Renewable heat

195. These provisions in the Bill are designed to enable the Scottish Ministers to encourage, incentivise and promote the generation of heat from renewable sources. These measures are not expected to give rise to additional costs for the Scottish Government as this activity is currently undertaken and funded as part of the Community and Householder Renewables Initiative and the Scottish Biomass Support Scheme. It is not envisaged that there will be any costs arising from these provisions for local authorities, bodies, individuals or businesses.

196. The Scottish Community and Householder Renewables Initiative aims to bring renewable energy to households and communities across Scotland. It has two funding streams to assist with the installation of a range of renewable technologies, one stream for households and one for communities. The support includes capital grants and advice which is delivered by a team of development officers based across Scotland. The total budget allocation over the current spending review period is £13.5 million per annum.

197. The Scottish Biomass Support Scheme is a capital grants scheme targeted at the business sector to help with the costs of installing a biomass heating system and for demonstration of district heating. The budget for the programme is £2 million over the financial years, 2009-10 and 2010-2011. This total budget is used for renewable heat.

PART 5, CHAPTER 4 – WASTE REDUCTION AND RECYCLING

198. These provisions set out measures aimed at improving waste and recycling in Scotland, to help move Scotland 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.

199. The provisions in this part of the Bill establish enabling powers to introduce secondary legislation. The costs and efficiencies arising as a result of the proposals will vary widely according to how and when they are implemented. Consequently it is not possible to provide exact costings for the proposals which will come forward in secondary legislation. All secondary legislation will be accompanied by a Regulatory Impact Assessment and what follows is an indication of possible costs and savings in a range of scenarios.

Costs for the Scottish Government

200. In the case of all the provisions in this part of the Bill, the Scottish Government would incur the costs of making the regulations. These would arise in the ordinary course of the Scottish Government’s business, and it is anticipated that they will be absorbed into the administration budget.

Waste prevention and management plans

201. Depending on the provisions of the regulations, the Scottish Government may also be required to produce plans of its own to prevent and manage waste. The costs of these plans would depend on their complexity, and the range of issues they are intended to address. Since it

is envisaged that a plan should be made for each individual relevant project the costs would also depend on the number of relevant projects the Government might undertake.

202. A useful comparator may be the costs assessed for Site Waste Management Plans, which are compulsory in England & Wales under the Site Waste Management Plans Regulations 2008. These are likely to represent the minimum set of parameters Scottish regulations might set for plans. (Plans similar to those which are statutory in England are presently optional in Scotland, and are encouraged by Scottish Planning Policy 10.) These plans apply to all aspects of construction work including preparatory work such as demolition and excavation. They are required for civil engineering projects as well as projects involving the maintenance, alteration and decoration of existing structures. The installation, maintenance or removal of all related services such as electrical, gas, water, sewage and telecommunications are also subject to this requirement.

203. Details of these costs are available in the Department for Food and Rural Affairs (Defra) consultation paper (<http://www.defra.gov.uk/environment/waste/topics/construction/index.htm>.) which assesses the costs of writing a site waste management plan over a number of project values, from **£350** in the case of a project worth £70,000, to **£1,600** for a project worth £1,600,000. However, in practice drawing up such a plan can deliver cost efficiencies by reducing waste, and therefore waste costs. At the time the consultation paper was published, these efficiencies were estimated at **£210** for a project worth £70,000 to **£4,800** for a project worth £1,600,000. At the time, it estimated that a site waste management plan was cost-neutral at a project value of £250,000. Above that figure, the larger the project value, the greater the efficiency. Clearly this is an aspect which may be borne in mind when drawing up any Regulations made under this provision.

204. The consultation paper notes that factors such as ongoing increases in landfill tax could further enhance the potential savings of site waste management plans. Landfill tax is currently escalating by £8/tonne per annum for non-inert waste. As time goes on, therefore, it is likely that the break-even point will reduce.

205. These provisions give the Scottish Ministers powers to require a wider range of waste prevention and management plans than site waste management plans drawn up under the 2008 regulations in England & Wales. Costs will relate to the range of aspects which must be considered, and arise through the necessity to carry out an assessment of wastes arising, identifying how the wastes may be dealt with and preparing the plan. In all cases, it is likely that the preparation of a waste prevention and management plan will lead to efficiencies in waste related costs, through minimisation in particular, but also through identifying opportunities to extract value through reuse and/or recycling, leading to resource savings. The value of these efficiencies is likely to increase owing to the landfill tax escalator, irrespective of resource costs. Envirowise currently estimates waste costs at 4% of turnover (<http://www.envirowise.gov.uk/dsur5yhjtw>). Addressing more aspects in a waste plan can increase plan costs, while also increasing opportunities for efficiencies.

Waste data returns

206. The Scottish Ministers will be required to make returns on any waste produced, and which was the subject of regulations. A transfer note containing information on the weight,

nature and destination of the waste must be prepared under the Environmental Protection (Duty of Care) Regulations 1991. In the case of hazardous waste, more detailed provision is made in the Special Waste Regulations 1996. It is likely that similar information would be required. The additional costs would therefore be **marginal**.

Duties to provide recycling facilities

207. The Scottish Ministers may be subject to a requirement to provide receptacles for material to be recycled. Costs will depend on the type of recycling facilities required, which will be a matter for regulations made under these provisions. However, any regulations are likely to concentrate, at least initially, on materials which are easy to collect and for which there is a ready market, and in this respect the Scottish Ministers already provide receptacles for recycling paper, beverage cans, plastic cups and batteries. It is therefore not anticipated that there would be additional costs arising from this provision.

208. An estimate of the costs involved in the provision of recycling facilities may be found in a consultation carried out by Defra last year on public place recycling (on materials which can occur in litter bins) on a voluntary basis, which can be found at <http://www.defra.gov.uk/corporate/consult/recyclebins/consultation.pdf>. This suggested a range of one-off costs for England of £1.1 million to £3.3 million, with annual recurring costs thereafter ranging from £0.3 million to £0.9 million. These costs are for a voluntary scheme: any compulsory scheme would be likely to have a wider reach and could cost more.

209. The provision of the bins was estimated to cost between £484 and £600 per bin. These costs are dependent on the nature of the facilities provided and the cost of receptacles varies widely. For example, at the Scottish Government offices at Victoria Quay, Edinburgh, paper collection boxes are provided free as part of the general waste contract, specialised containers for plastic cups each cost **£60**, can crushers can cost up to **£600** individually and those currently in use cost £120 nine years ago.

210. Organisations which provide these facilities are likely to find that they must arrange for the collection and recycling of wastes for which they are not the producers. This will increase costs but also potentially benefit society through the more efficient use of resources, and a reduction in waste disposal by landfill thereby reducing the generation of methane emissions. As an indication of costs, the total waste for the Victoria Quay offices (about 2000 people) in 2007-08 was approximately 260 tonnes (82% paper and card, 4% wood and 3% plastic). Most was collected in a container whose rental was £1.18 a day and whose daily uplift cost £60.60. The majority of this was recycled - 200 tonnes.

211. On the other hand, there are likely to be some off-setting efficiencies. Where recycling facilities are provided it is likely that the organisation providing them will recycle more of its own wastes. This has the effect of reducing disposal costs. Regulations made under these provisions are not likely to come into force before 2010. In 2010 – 2011, the landfill tax will be £48/tonne for non-inert wastes, and is predicted to increase at a rate of £8/tonne every year thereafter. Gate fees at landfill, net of tax, are in the region of £20/tonne at present.

Procurement contracts and recycle

212. If regulations are established for this provision, the Scottish Ministers would also be subject to their requirements. However, this is unlikely to add any costs. The type of materials likely to be specified are traded widely therefore must be priced competitively. It is reasonable to assume that the replacement of virgin materials with recycled ones is unlikely to increase costs. Rather than a price barrier, the recycling industry often talks of a “perception” barrier preventing the use of products derived from waste. A requirement that recycled products be used is a means of addressing such a perception barrier.

Targets for reducing packaging

213. The Scottish Ministers do not produce packaging therefore are unlikely to be affected by a substantive scheme, except by the costs of making Regulations.

Deposit and return schemes

214. Costs arising from these provisions will depend on the detail of the regulations. There are currently operational deposit and return schemes in Scotland which do not result in costs for the Scottish Ministers, for example the AG Barr scheme. At the other end of the scale, all those who contribute to a particular type of packaging entering the Scottish market could be obliged to participate in a scheme which provides for the return and recycling of that packaging. Clearing-house functions may arise from this and the set-up costs would probably have to be met by the Scottish Government (though they may be recovered through charges to users).

215. Both Norway and Denmark, countries with a similar sized population to Scotland’s, operate deposit and return schemes which depend on a central function. Details may be found at <http://www.resirk.no> and <http://www.dansk-retursystem.dk> respectively. Some indication of the set up costs may be gleaned from the value of the material assets of these organisations at dates close to set-up. Resirk’s “property, plant and equipment” were worth NKR 3.9m (currently c. £40,000) in 2002 (four years after foundation) and Retursystem’s were worth DKR 14.7m (currently c. £161,000) in 2000, the year of founding. This gives a range of **c£40,000** to **c£200,000** for value of physical assets at today’s prices. Beyond this, of course, there would be time costs and fees involved in any set-up process, but much of this would be absorbed into the administration budget.

Carrier bag charges

216. The only costs, other than those incurred through making the regulations, anticipated for the Scottish Government are those related to publicity campaigns.

217. A Member’s Bill to introduce a levy on plastic bags was introduced in an earlier session of Parliament. The Regulatory Impact Assessment (RIA) for this Bill can be found at <http://www.scottish.parliament.uk/business/committees/environment/papers-05/rap05-28.pdf#page=20>. This document contains links to a research report, *Proposed Plastic Bag Levy – Extended Impact Assessment*, which forms the basis for much of its material. The features of the scheme proposed in the Climate Change (Scotland) Bill are somewhat different from this Member’s Bill but much of the information is relevant. For example, the RIA mentions the cost of an education campaign which it estimates at **£750,000**.

Costs for local authorities

Waste prevention and management plans

218. Local authorities could be required by regulation to make waste prevention and management plans – the costs (**£350 - £1,600**) and potential efficiencies (**£210 - £4,800**) attributable to the Scottish Government (detailed in paragraph 203) would potentially apply here also.

219. It is also possible that enforcement duties may fall to local authorities, depending on the nature of the regulations. This could include enforcement powers and duties including the registration of plans, and ensuring that obligated bodies have the necessary plans. The number of obligated bodies would depend on the nature of the plans. However, registration of any single plan is unlikely to take in excess of an hour. Assuming that the average employer cost of a member of staff is £25,000, this would make the cost of registration of any plan unlikely to exceed **£15**, since a FTE is assumed to work about 2,000 hours a year. Any regulations could provide for registration charge to off-set these administrative costs.

220. Where a report is required for the procurator fiscal with a view to prosecution, this may take three hours of an officer's time and be equivalent to a cost of £45. Legal officers' costs could be significantly higher than this, potentially bringing the preparation costs for a case to be in excess of £1,000 - but these are likely to be rare.

Waste data returns

221. Local authorities would be obliged to make returns on any waste produced which was the subject of future regulations. They are already obliged to provide information by the 1991 and 1996 Regulations mentioned above. It is likely that similar information would be required here and the additional costs would be **marginal**. As local authorities handle significant waste for third parties, information is already provided for this waste and no change is anticipated here.

Duties to provide recycling facilities

222. Local authorities may be expected to provide recycling facilities under the provisions of any regulations brought forward on this matter, and the estimate of **£60 - £600** for each receptacle, mentioned in paragraph 209, would apply.

223. The same principle would apply to the enforcement of the provision of recycling facilities. This could apply to local authorities and is particularly likely in the case of the provision of facilities at one-off events. Enforcement is likely to consist of ensuring that facilities are provided, are properly used and that the materials collected are sent for recycling rather than to landfill for disposal. Similarly costs for the officers involved are likely to be in the region of **£15 an hour** plus travelling time and expenses. In the event of any prosecutions becoming necessary, the costs indicated above would also apply.

Procurement contracts and recycle

224. Regulations on this would likely apply to local authorities but are unlikely to add costs. The type of materials which may be specified are already traded widely and the replacement of virgin materials with recycled materials is unlikely to increase costs.

225. Depending on the form of the regulations, local authorities may be the enforcing body. This would involve examining invoices, and perhaps also making spot checks. The amount of work involved is unlikely to amount to as much as 1 FTE per local authority, so no more than 32 FTEs would be needed in Scotland as a whole (at an annual cost of about **£800,000**). In the event of prosecution being necessary the costs outlined earlier could be incurred.

Targets for reducing packaging

226. Costs will be dependent on the eventual form of any regulations and it is possible that local authorities would enforce the targets. As they would apply over Scotland as a whole, this could involve designating “home” or “lead” authorities with a particular connection to main retailers. In these instances particular arrangements would have to be made to support that authority in its work. Local authorities are already responsible for enforcing the Packaging (Essential Requirements) Regulations 2003, which provide that packaging should meet “essential requirements”.

227. Potential costs are unlikely to include visits to retailers and other users of packaging. Instead, the function of enforcing targets may be carried out by examining records, many of which are likely to exist already, such as those relating to materials used, and waste returns. There are approximately 265,000 private sector businesses in Scotland, many of which very small, and either do not produce packaging or are likely to be excluded under a *de minimis* provision. The Scottish Retail Consortium records 13,805 VAT registered enterprises in Scotland, and the Federation of Small Businesses has a membership of over 19,000, which it believes is over 99% of the relevant businesses in Scotland. It seems likely that a figure of 20,000 could reasonably represent the number of enterprises which put packaging on the market in Scotland. If inspection of a data return is estimated to take one hour, inspection of 20,000 returns would take 20,000 hours, which represents approximately 10 FTEs, on the assumption than a FTE is assumed to work about 2,000 hours a year. The cost of 10 FTEs is approximately $10 \times £25,000 =$ **£250,000 per annum**.

228. There will be opportunities for efficiencies through creating less packaging. For local authorities in particular this would mean that household waste disposal costs could reduce. For every 1% reduction, savings in landfill tax costs could amount to £144,000 – based on 60% of household waste being disposed of at landfill at a cost of £48/tonne in 2010-2011. This equates to almost 6 FTEs.

Deposit and return schemes

229. It is not anticipated that any variant of a deposit and return scheme, introduced under regulations would have significant costs for local authorities. These proposals are more likely to have a financial benefit for local authorities, by reducing the amount of waste they have to handle. Materials which have a monetary value when handed back are less likely to become litter

– which local authorities have a duty to clear. Experience in Denmark indicates that 85% of bottles are returned via their scheme.

Carrier bag charges

230. Costs may arise for local authorities if regulations apply an enforcement duty. The RIA produced for the Members Bill indicated a potential cost of **£3.5 million per annum**. It is likely that any eventual Regulations would be aimed at carrier bags generally rather than just plastic bags and this may increase the costs beyond those indicated by the RIA. Enforcing and policing is estimated at **£2.5m**. Occasional prosecution costs may also arise.

Costs on other bodies, individuals and businesses

Waste prevention and management plans

231. Other bodies, individuals and businesses are likely to be among those whom Regulations made under this part of the bill could require to make waste prevention and management plans. Similar costs (**£350 - £1600**) and efficiencies (**£210 - £4,800**) to those outlined in para 203 could apply.

232. The regulations could specify a different enforcement body – for example the Scottish Environment Protection Agency (SEPA). Potential costs are likely to be similar to the **£15 per registration** described before although there could be economies of scale if this function were carried out by a single national body, which could mean that, overall, fewer individuals need to be employed. Again, it is possible that the regulations would enable SEPA (or any other body charged with enforcement) to recover these costs by charging.

233. Where charges were levied for purposes such as registering plans, this could be a cost for all bodies under a duty to prepare such plans, including the Scottish Government and local authorities.

Waste data returns

234. Other bodies and businesses would be required to make returns on any waste produced, which may be covered by future regulations. As described earlier there are already existing controls for the transfer of waste. It is likely that much the same information would be required and additional costs should therefore be marginal. Householders would not be required to make such returns.

235. While these costs should be marginal, they would be dependent on the detail of regulations - including the complexity of the business, and the frequency with which it generated waste. The regulations could also exempt certain bodies or businesses from providing this information.

236. These provisions are aimed at providing information on the volumes of waste which arise to improve information on overall impacts and help create more effective strategies for waste prevention, minimisation and recovery. It will be necessary to collate this data – and to ensure that it is correctly provided. It is appropriate that such a duty would fall on SEPA. SEPA already

collects data on household waste and makes estimates for commercial and industrial waste. These provisions would improve the accuracy of the information for this duty.

237. However it is to be expected that new enforcement costs will arise as additional activity will be required. It would be reasonable to estimate this as one FTE (**£25,000 per annum**). The prosecution costs outlined earlier may also occasionally arise.

Duties to provide recycling facilities

238. Other bodies, individuals and businesses are likely to be amongst those bodies required through regulations to provide recycling facilities and similar costs to those given in paragraph 209 would apply (**£60 - £600 per receptacle**).

239. As before, the Scottish Environment Protection Agency (SEPA) could be designated the enforcement body for any regulations made under these provisions. Similar costs and opportunities for efficiencies and cost recovery would apply.

Procurement contracts and recycle

240. Other bodies, businesses etc would be subject to the requirements made by Regulations. However, this is unlikely to add any costs for the reasons explained previously.

241. A national organisation such as SEPA could be the enforcing body for any regulations. Enforcement would include examining invoices and perhaps also making spot checks. The amount of work involved is likely to cost less than is outlined for enforcement costs by local authorities (**£800,000 per annum**), given that economies of scale would be available. In the event of prosecution being necessary the costs outlined previously could also apply. This would be extremely rare, given that there appears to be little or no cost incentive to avoid the procurement of recycle.

Targets for reducing packaging

242. Another body, possibly SEPA, could oversee the regime established to enforce the targets for packaging reduction. The costs would be similar to those described previously - **£250,000** per annum. Obligated bodies and businesses would be required to return forms. As many bodies and businesses, are obliged to provide similar information for the purposes of the existing Producer Responsibility Obligations (Packaging Waste) Regulation 2007, the additional cost is unlikely to be significant.

243. Meeting the target could involve costs. For example, research and development costs for “lightweighting” and for new methods of presenting products involving less packaging. This could involve the purchase of machines for consumers to insert refillable containers. However these costs could be offset by efficiencies elsewhere in areas such as transportation costs and the resulting reduction in shelf space. Additionally less packaging could mean reductions in obligations to recover packaging in terms of the 2007 Regulations - in July 2008 a packaging waste recovery note for paper cost £2 – 3 per tonne, and for aluminium it cost £60 – 70 per tonne (<http://www.letsrecycle.com/prices/prnPrices.jsp>). This obligation would not impact on householders.

Deposit and return schemes

244. Any form of deposit and return scheme which may be developed under regulations would be likely to have costs for other bodies and for businesses. This cost could be off-set by an increase in re-use and recycling of the materials collected and lower disposal costs.

245. The extent to which such a scheme would cost or benefit individuals would depend on the extent to which they returned all the materials subject to the scheme. Broadly, a 100% return would be cost neutral – the deposit fee, included in the price, would be recovered. Those persons choosing not to return the materials would be unable to recover the deposit fee thereby discouraging thoughtless disposal.

246. If schemes similar to the existing AG Barr scheme were compulsory for a range of Scottish operators, retailers would incur storage and packaging return costs. However, retailers are already obliged, under the Producer Responsibility Obligations (Packaging Waste) Regulations 2007, to recover a certain amount of glass, steel, aluminium paper/board, plastic and wood, which are principally the materials likely to be targeted for deposit and return schemes. Any deposit and return scheme would supplement, and not replace, these producer responsibility obligations. This could make it easier for retailers to meet the relevant targets, which are expected to increase over time.

247. Producers would be likely to incur a one-off cost of arranging for marking to refer to the deposit. Retailers and producers would also incur the cost of maintaining records and possibly making returns.

248. Regulations could require the designation of a competent authority to inspect returns and ensure a scheme is operated. With more ambitious schemes, such as those operated in Norway and Denmark, there is also a clearing house function. In the case of the Danish scheme, packaging captured by the scheme is registered and marked, to indicate that the deposit fee has been paid. Retailers return the materials and the clearing house issues a payment from the deposit fees. The clearing house collects, or arranges to collect, the materials from the retailers and also arranges for it to be recycled. The clearing house may also carry out the functions of overseeing and enforcing the system.

249. This is clearly a more expensive option. In 2006, the Danish and Norwegian systems cost £17.8m and £17.4m respectively to operate. An estimate of **£15-£20 million per annum** running costs for a Scottish system handling the same materials (essentially soft drinks packaging) would appear to be reasonable. These costs would have to be recovered through the deposit fees and other possible means, such as sale of recyclate. A similar system could apply to a wider or narrower range of materials, which would affect the costs accordingly.

250. The greater expense of the Danish/Norwegian model could be off-set by the collection and recycling of greater volumes of materials and the subsequent reduction of disposal costs. There could be added benefits through the greater disincentive for littering and fly-tipping and other forms of unauthorised disposal.

251. The Danish experience illustrates an 85% return rate. Dansk Retursystem is empowered to spend any profit on improving the system as it was set up as a non-profit making body. The same principle could be applied in Scotland. Regulations could permit the scheme to spend money on improvements and these could include supporting recycling facilities or the provision of reverse vending machines, which automate the return of the relevant material.

252. However AG Barr's experience with its current scheme indicates that return rates have dropped from 99% in 1976 to 70% at the beginning in 2007. The firm has recently increased its deposit from 20p to 30p a bottle to address this but it is too early to analyse any results arising from this.

Carrier bag charges

253. The RIA mentions the costs incurred by the Irish Government, which set up a centralised collection service. The set-up costs were approximately €1.5m. This, however, included the costs of an advertising campaign, which would probably be borne by the Scottish Government rather than by other bodies. Ongoing costs are €300,000 (currently c. £240,000) pa, while €12 million (currently c. £9,700,000) a year is raised by the levy. Any scheme the Scottish Government would establish will be subject to set-up and collection costs. It is appreciated that there might be a disproportionate outlay at the beginning of any scheme: for example, the Regulatory Impact Assessment suggests a cost of **£1,349,000** for updating tills etc.

254. Costs would arise for the enforcing authority for the regulations. As discussed earlier, this could be local authorities. The Regulatory Impact Assessment referenced in the Member's Bill estimated that these costs could be **£3.5 million per annum**. It is likely that any eventual Regulations would be aimed at carrier bags in general, rather than just the plastic ones considered in the Member's Bill. Although this may increase the costs, a single enforcement body could derive economies of scale and reduce costs. Enforcement and policing was estimated to cost **£2.5m**.

255. Retailers who issue carrier bags would be subject to a requirement to set a charge and to administer that charge including the potential transfer to good causes approved by the Scottish Ministers. It is expected that any costs would be recoverable from the income realised from charges. The UK Government will levy VAT on the charge, payable to HM Revenue & Customs; this too will be a cost, which will presumably be passed on to the consumer.

256. Users of the carrier bags would pay the charge. The Regulatory Impact Assessment indicated an income of £7.75m on the basis of a charge of 10p per bag. For comparison, in Ireland the income raised from a tax of €0.15, is approximately €12m (£9.7m) a year. If SMEs, charities and promotions were exempted from the charges indicated by the Member's Bill, the Regulatory Impact Assessment calculated the potential income as £5.43m a year. The proposals included in the Climate Change (Scotland) Bill may have a higher cost as a wider range of bags is under consideration. However this could be off-set by greater efficiencies in waste reduction, litter clear-up, loss of amenity etc. The inclusion of paper bags (as is probable under the present proposals) would result, according to the Regulatory Impact Assessment, in an income of **£8.14 million per annum**.

257. Consumers can avoid paying this type of charge by using their own bags (though this may mean they have to purchase other items, such as bin-liners). A “bag-for-life” which may be used for carrying shopping instead of the kind of carrier bag likely to be aimed at costs from £1 - £3 and may last indefinitely.

258. Good causes in Scotland would benefit from any profits arising from the system. It is also possible that the Scottish Ministers could provide that only profit arising from the minimum level of charge would be allocated to good causes. If retailers chose to charge more, it is possible that additional profit could be retained by the retailer.

259. The Regulatory Impact Assessment suggested that the changes proposed in the Member’s Bill would cost 300 – 700 jobs in Scotland. This figure would be likely to increase if non-plastic carrier bags were also subject to a charge. However there would be some off-setting such as increased employment in the manufacture and distribution of bags for life.

Table 8: Summary of potential estimated costs for Part 5, Chapter 4 – Waste provisions

Provision	Costs on Scottish Government	Costs on Local Authorities	Costs on other bodies, individuals and businesses
Waste prevention and management plans	£350 - £1,600 per plan. Savings of £210 - £4,800 per plan	£350 - £1,600 per plan. Savings of £210 - £4,800 per plan Registration costs: £15 per plan	£350 - £1,600 per plan. Savings of £210 - £4,800 per plan Registration costs: £15 per plan
Duties to provide recycling facilities	Receptacles £60 - £600 each	Receptacles £60 - £600 each Enforcement: £15/hour each officer	Receptacles £60 - £600 each Enforcement: £15/hour each officer
Deposit and return schemes	Set-up costs: c£200,000	-	£15 - £20 million per annum
Waste data returns	Marginal	Marginal	£25,000 per annum
Targets for reducing packaging	-	£250,000 per annum	£250,000 per annum
Carrier bag charges	Campaign: £750,000	Enforcement: £3.5 million per annum	Enforcement: £3.5 million per annum Updating costs: £1,349,000 Annual amount of charge: £8.14 million
Procurement contracts and recycle	-	Enforcement: £800,000 per annum	Enforcement: <£800,000 per annum

Note: costs shown are not totalled as they are not cumulative. For example, enforcement costs would generally fall **either** on local authorities **or** on another body, eg SEPA.

SUMMARY OF ADDITIONAL COSTS

Table 9: Summary of potential costs for Parts 1-4 Emissions Reductions and Part 5 Adaptation Programme

Estimated cost for Scotland's economy* for delivering the greenhouse gas emissions reduction target in Scotland 2050	1-2% GDP in 2050¹
Scottish Government cost (or public body cost) - Estimated annual cost staff cost for managing a carbon unit scheme	£60,000²
Scottish Government cost - Estimated annual cost for administering the reporting duties required for the emissions reductions targets	£17,000³
Scottish Government cost - Estimated annual cost for advice from a Scottish Climate Change Committee, based on current costs. <i>Note. Potential for some saving on payment to UK Committee on Climate Change for work in relation to Scottish target – see paragraph 164.</i>	£2.5m⁴
Scottish Government cost – Estimated cost for the Scottish Ministers response to a report on impact of climate change laid under the UK Climate Change Act. In the first instance, this cost will occur within the first three years. Thereafter, this cost will only occur once every five years.	£30,000⁵

These documents relate to the Climate Change (Scotland) Bill (SP Bill 17) as introduced in the Scottish Parliament on 4 December 2008

** Note - The estimated cost for delivering the 2050 target will apply across all sectors of the economy in Scotland – central government, public sector including local government and private businesses.*

Key to financial data in Table 9

1 – Paragraph 146

2 - Paragraph 159

3 - Paragraph 165

4 - Paragraph 164

5 – Paragraph 173

Table 10: Part 5, Chapter 2 – Forestry costs for the Scottish Government*

Additional annual cost for FCS to establish joint venture arrangements	£0.5m⁵
Additional annual cost for FCS to let timber cutting rights	£0.2m⁶
Additional annual cost for FCS to establish a body corporate or charitable trust	£0.3m⁷

** Note – After the first two years it is expected that the annual running costs of these activities will not exceed the figures shown and will be funded from the income generated.*

Key to financial data in Table 10

5 – Paragraph 179

6 - Paragraph 180

7 - Paragraph 181

Table 11: Part 5, Chapter 3 – Non-Domestic Buildings – Summary of potential costs for each energy performance scenario

Scenario	One-off Costs - £m Scottish Government⁸	One-off Costs - £m Local Authorities⁹	One-off Costs - £m Bodies, Individuals, Businesses¹⁰	Average Annual Cost - £m Scottish Government⁸	Average Annual Cost - £m Local Authorities⁹	Average Annual Cost - £m Bodies, Individuals, Businesses¹⁰
1	£0.5m	-	-	£0.5m	£3.4m - £4.5m	£6.7m - £7.8m
2	£0.5m	-	-	£0.5m	£4.1m - £5.5m	£8.2m - £9.6m
3	£0.6m	-	-	£1.0m	£21.3m - £28.4m	£42.6m - £49.7m
4	£0.6m	-	-	£2.2m	£27.4m - £36.6m	£54.9m - £64m
5	£0.6m	-	-	£12.4m	£27.7m - £37m	£55.4m - 64.7m
6	£0.3m	-	-	£0.3m	£2.6m - £3.5m	£5.3m - £6.2m
7	£0.5m	-	-	£0.5m	£3.6m - £4.8m	£7.2m - £8.4m

Key to financial data in Table 11

8 – Table 5 (page 37)

9 – Table 6 (page 39)

10 – Table 7 (page 39)

Table 12: Part 5, Chapter 4 – Waste Reduction and Recycling Costs

Provision	Costs on Scottish Government	Costs on Local Authorities	Costs on other bodies, individuals and businesses
Waste prevention and management plans	£350 - £1,600 per plan ¹¹ Savings of £210 - £4,800 per plan ¹¹	£350 - £1,600 per plan ¹⁶ Savings of £210 - £4,800 per plan ¹⁶ Registration costs: £15 per plan ¹⁷	£350 - £1,600 per plan ²⁴ Savings of £210 - £4,800 per plan ²⁴ Registration costs: £15 per plan ²⁵
Duties to provide recycling facilities	Receptacles £60 - £600 each ¹²	Receptacles £60 - £600 each ¹⁸ Enforcement: £15/hour each officer ¹⁹	Receptacles £60 - £600 each ²⁶ Enforcement: £15/hour each officer ¹⁹
Deposit and return schemes	Set-up costs: c£200,000 ¹³	-	£15 - £20 million per annum ²⁷
Waste data returns	Marginal ¹⁴	Marginal ²⁰	£25,000 per annum ²⁸
Targets for reducing packaging	-	£250,000 per annum ²¹	£250,000 per annum ²⁹
Carrier bag charges	Campaign: £750,000 ¹⁵	Enforcement: £3.5 million per annum ²²	Enforcement: £3.5 million per annum ³⁰ Updating costs: £1,349,000 ³¹ Annual amount of charge: £8.14 million ³²
Procurement contracts and recycle	-	Enforcement: £800,000 per annum ²³	Enforcement: <£800,000 per annum ³³

* **Note:** costs shown are not totalled as they are not cumulative. For example, enforcement costs would generally fall **either** on local authorities **or** on another body, eg SEPA.

Key to financial data in Table 12

*11- Paragraph 203, 12 – Paragraph 209, 13 – Paragraph 215, 14 – Paragraph 206
15 – Paragraph 217, 16 – Paragraph 218, 17 – Paragraph 219, 18 – Paragraph 222
19 – Paragraph 223, 20 – Paragraph 221, 21– Paragraph 227, 22 – Paragraph 230
23 – Paragraph 225, 24 – Paragraph 231, 25 – Paragraph 232, 26 – Paragraph 238
27 – Paragraph 249, 28 – Paragraph 237, 29 – Paragraph 242, 30 – Paragraph 254
31 – Paragraph 253, 32 – Paragraph 256, 33 – Paragraph 241*

**SCOTTISH GOVERNMENT STATEMENT ON LEGISLATIVE
COMPETENCE**

260. On 4 December 2008, the Cabinet Secretary for Finance and Sustainable Growth (John Swinney MSP) made the following statement:

“In my view, the provisions of the Climate Change (Scotland) Bill would be within the legislative competence of the Scottish Parliament.”

**PRESIDING OFFICER’S STATEMENT ON LEGISLATIVE
COMPETENCE**

261. On 4 December 2008, the Presiding Officer (Alex Fergusson MSP) made the following statement:

“In my view, the provisions of the Climate Change (Scotland) Bill would be within the legislative competence of the Scottish Parliament.”

These documents relate to the Climate Change (Scotland) Bill (SP Bill 17) as introduced in the Scottish Parliament on 4 December 2008

CLIMATE CHANGE (SCOTLAND) BILL

EXPLANATORY NOTES

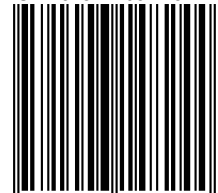
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