



The Scottish Parliament
Pàrlamaid na h-Alba

Infrastructure and Capital Investment Committee

3rd Report, 2013 (Session 4)

Report on Low Carbon Scotland: Meeting our Emissions Reductions Targets 2013-2027 - The Draft Second Report on Proposals and Policies

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3rd Report, 2013 (Session 4)

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The Scottish Parliament
Pàrlamaid na h-Alba

Infrastructure and Capital Investment Committee

Remit and membership

Remit:

To consider and report on infrastructure, capital investment, transport, housing, and other matters falling within the responsibility of the Cabinet Secretary for Investment and Cities apart from those covered by the remit of the Local Government and Regeneration Committee.

Membership:

Jim Eadie
Adam Ingram (Deputy Convener)
Alex Johnstone
Gordon MacDonald
Margaret McCulloch
Elaine Murray
Maureen Watt (Convener)

Committee Clerking Team:

Clerk to the Committee

Steve Farrell

Senior Assistant Clerk

Clare O'Neill

Assistant Clerk

Kelly Forbes

Committee Assistant

Myra Leckie



The Scottish Parliament
Pàrlamaid na h-Alba

Infrastructure and Capital Investment Committee

3rd Report, 2013 (Session 4)

Draft Report on Low Carbon Scotland: Meeting our Emissions Reductions Targets 2013-2027 - The Draft Second Report on Proposals and Policies

The Committee reports to the Parliament as follows—

GENERAL CONCLUSIONS

- 1. The Committee welcomes the Scottish Government's efforts in setting out its proposals and policies for meeting Scotland's world leading climate change targets for 2013 to 2027 and the publication of the draft RPP2.**
- 2. The Committee also acknowledges that achieving the emission reduction targets set out in the Climate Change (Scotland) Act 2009, will require an ambitious approach and behavioural change across Scottish society.**
- 3. The Committee believes that the transformational change required in the housing and transport sectors in order to meet the challenging emissions reduction targets must involve a combination of all the proposals and policies contained within the draft RPP2 being implemented and adequately funded, appropriate timescales for action and incentives for individuals and society as a whole to make the necessary step change required.**
- 4. The Committee acknowledges the difficulties faced by the Scottish Government in setting out proposals and policies so far into the future and recognises the uncertainties involved in considering potential future scenarios across all sectors of Scottish society.**
- 5. The Committee looks forward to the publication of the final RPP2, which will take into account the comprehensive parliamentary scrutiny undertaken by this Committee and the Rural Affairs, Climate Change and Environment Committee (RACCE), the Economy, Energy and Tourism Committee (EET) and the Local Government and Regeneration (LGT) Committee**

INTRODUCTION

Background

6. On 29 January 2013, the Scottish Government published *Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2)*¹. This was accompanied by a technical annex² which provides methodological and technical detail that underpins the draft RPP2.

7. The RPP2 is required under section 35 of the Climate Change (Scotland) Act 2009³ (the Act). The Act states that the RPP2 must set out proposals and policies for meeting annual emissions reduction targets; how the proposals and policies will contribute towards the interim target and the 2050 target, and the timescales over which they are expected to take effect.

Climate Change (Scotland) Act 2009

8. The Act was passed by the Scottish Parliament in June 2009. It provides a statutory framework under which to reduce emissions of greenhouse gases in Scotland by setting an interim 42 per cent reduction target for 2020 (with Scottish Ministers having powers to vary this target based on expert advice) and an 80 per cent reduction target for 2050. To help ensure the delivery of these targets, the Act also requires the Scottish Ministers to set annual targets for Scottish emissions from 2010 to 2050.

First report on proposals and policies (RPP1)

9. The first statutory report on proposals and policies⁴ (RPP1), required under section 35 of the Act, set out how the Scottish Government intended to meet its climate change targets from 2010-2022, including a target of 42% reduction by 2020. A draft report (RPP1) was laid in November 2010 and was subject to a 60 day period for parliamentary consideration. The draft RPP1 was structured around a number of chapters covering energy supply, homes and communities, business and the public sector, transport, rural land use and waste. Proposals and policies for meeting annual climate change emission reduction targets were identified for sectors referred to in each chapter.

Parliamentary consideration of the draft RPP1

10. The draft RPP1 was considered by the Transport Infrastructure and Climate Change Committee (TICC), which had responsibility for scrutinising climate

¹ Scottish Government (2013) *Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies*. Available at: <http://www.scotland.gov.uk/Publications/2013/01/3958> [accessed February 2013]

² Scottish Government (2013) *Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies: Technical Annex*. Available at: <http://www.scotland.gov.uk/Publications/2013/01/2702> [accessed February 2013]

³ Climate Change (Scotland) Act 2009. Available at: <http://www.legislation.gov.uk/asp/2009/12/contents> [accessed February 2013]

⁴ Low Carbon Scotland: Meeting the Emissions Reductions Targets 2010-2022: The Report on Proposals and Policies. This forms part of a set of publications by the Scottish Government on the development of a low carbon society in Scotland. All can be found on the Scottish Government's website at: <http://scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/lowcarbon>

change matters in Session 3. The TICC Committee reported on RPP1 on 23 December 2010⁵. The TICC Committee consulted a number of other Committees on the draft RPP, however, the timescale for considering and reporting was extremely challenging and, as a result, the engagement from other subject Committees was limited. A Parliamentary debate⁶ on the TICC Committee report was held on January 12, 2011.

11. The final Scottish Government report (RPP1), incorporating changes as a result of parliamentary scrutiny, was laid in March 2011.

DRAFT SECOND REPORT ON PROPOSALS AND POLICIES (RPP2)

Parliamentary procedure for consideration of the draft RPP2

12. The Scottish Government published the draft RPP2 on 29 January 2013. The Parliament had a period of 60 days from that date in which to consider the draft RPP2 report (of which a minimum of 30 must be days on which the Parliament is not dissolved or in recess). It was open to any committee to consider relevant aspects of the draft RPP2 and report to Parliament, after which there would be a parliamentary debate.

13. Before laying the final report before the Parliament, Scottish Ministers are required to have regard to: any representations on the draft report made to them, any resolution relating to the draft report passed by the Parliament and any report relating to the draft report published by any Parliamentary Committee. The final RPP2 report must identify the changes (if any) that have been made in response to such representations, resolutions or reports and the reasons for those changes.

Parliamentary scrutiny of the draft RPP2

A co-ordinated parliamentary approach to scrutiny

14. In seeking to apply the lessons learned in scrutinising the draft RPP1 and to further strengthen the mainstreaming of climate change scrutiny, the RACCE Committee proposed that the subject committees with an interest in the draft RPP2 adopt a co-ordinated approach to scrutiny of the draft RPP2.

15. This coordinated approach was agreed to and involved scrutiny by the RACCE, ICI, EET and LGR Committees.

Scrutiny focus of the Committees

16. Each committee focused its scrutiny on the issues within its respective remit and took evidence from stakeholders and their relevant Ministers and Cabinet Secretaries. The focus for the Committees' scrutiny is outlined below:

⁵ Scottish Parliament Transport, Infrastructure and Climate Change Committee. 9th Report, 2010 (Session 3). *Report on Low Carbon Scotland: The Draft Report on Proposals and Policies* (SP paper 554). Available at: <http://archive.scottish.parliament.uk/s3/committees/ticc/reports-10/trr10-09.htm> [accessed February 2013]

⁶ Scottish Parliament. *Official Report, 12 January 2011*. Available at: <http://www.scottish.parliament.uk/parliamentarybusiness/28862.aspx?r=6230&i=56686&c=0&s=Committee%20report%20on%20the%20draft%20of%20Low%20Carbon%20Scotland> [accessed February 2013]

- **RACCE Committee:** Development of RPP2; climate change governance (including monitoring); rural affairs (fisheries and agriculture); land use; resource use; behaviour change;
- **EET Committee:** Energy supply, heat, and business – energy efficiency;
- **LGR Committee:** Communities; local government; planning;
- **ICI Committee:** Housing – energy efficiency; transport; procurement; Scottish Water; broadband infrastructure.

Key questions

17. In scrutinising the draft RPP2, the committees agreed to issue a joint call for views based on the following key questions:

- the effectiveness of progress towards implementing the proposals and policies set out in the RPP1 and the appropriateness of the proposed adjustments to the proposals and policies within the RPP1;
- the effectiveness of the proposals and policies with the draft RPP2 for meeting the annual emissions targets;
- how these proposals and policies are likely to contribute towards the achievement of the interim target, the 2050 target and, in each target year, the domestic effort target;
- the appropriateness of the timescales over which the proposals and policies within the draft RPP2 are expected to take effect.

Infrastructure and Capital Investment Committee consideration of the draft RPP2

Scrutiny focus

18. The Committee agreed to focus its scrutiny on chapters five and seven of the draft RPP2 on homes and communities and transport respectively. In addition, the Committee invited written submissions on other areas relating to its remit namely, procurement, broadband infrastructure and Scottish Water.

19. This report will focus mainly on the proposals and policies relating to energy efficiency measures in the housing sector and the transport sector contained in the draft RPP2. For a comprehensive picture of scrutiny of the draft RPP2, including its development, monitoring and behavioural change, the reports of the RACCE, EET and LGR committees should also be referred to. In particular, it should be noted that Scottish Water gave evidence to the EET Committee, which is referred to later in this report.

20. The Committee considered a range of issues regarding the format of and the transparency and detail contained within the draft RPP2 which were pertinent to both chapters and the document as a whole. This report makes a number of

recommendations for the Scottish Government to consider prior to laying the final RPP2 in relation to these issues. It then focuses on the specific homes and communities and transport proposals and policies.

Evidence to this Committee

21. The Committee heard from stakeholders at its meetings on 6 and 20 February 2013 and questioned the Minister for Housing and Welfare and the Minister for Transport and Veterans at its meeting on 27 February 2013. The minutes of these meetings are attached at Annexe A. Annexe B contains details of the oral and associated written evidence provided to the Committee. The Committee issued a joint call for views on RPP2, based on the key questions as set out in paragraph 17 of this report and received 23 submissions which are attached at Annexe C. The Committee would like to thank all those who took the time to share their views on the draft RPP2 and assist the Committee in its scrutiny of the draft report.

22. The Committee had planned to hear from other witnesses including academics at its meeting on 20 February however some of those invited were unable to attend. The Committee considers it unfortunate that it was not able to hear a wider range of views on the draft RPP2.

FORMAT AND CONTENT OF THE DRAFT RPP2

23. The Draft RPP2 sets out the Scottish Government's proposals and policies for achieving the statutory greenhouse gas emission reduction targets for 2013 to 2027. As with RPP1, the document seeks to outline short, medium and long-term actions and potential actions aimed at meeting the targets set out in the Climate Change (Scotland) Act 2009.

24. The Scottish Government policies contained within the draft RPP2 are courses of action that have been decided upon and funding allocated. The proposals are suggestions for action, some of which may in future become Scottish Government policy where funding allows or development work completed.

25. The draft RPP2 is structured around chapters addressing sectors in which greenhouse gas emissions are generated and significant emission reductions must take place in order to meet the statutory climate change targets. These areas are energy, homes and communities, business, industry and public sector, transport, waste and resources efficiency and rural land use.

26. In addition, under the Act, the draft RPP2 must contain an assessment of the progress towards implementing proposals and policies set out in RPP1.⁷

Progress since RPP1

27. The Committee considered the draft RPP2's assessment of progress towards implementing proposals and policies in relation to energy efficient housing and transport as set out in RPP1.

⁷ The Climate Change (Scotland) Act 2009 (asp 12). Section 35 (11)

28. Concerns were raised in evidence regarding the difficulties associated with assessing progress since the publication of RPP1 across both the homes and communities and the transport chapters of the draft RPP2.

29. Witnesses expressed concern over the format and clarity of both of these chapters and also on the lack of detail in relation to proposals and policies contained within the transport chapter.

30. Tom Ballantine representing Stop Climate Chaos Scotland (SCCS) expressed concerns regarding a lack of transparency in the document when he told the Committee—

“We want to be shown precisely what will be done and how that will meet targets. That needs to be monitored and evaluated, and we can then come back and think about it again. A lot more should be done on transparency.”⁸

31. The evidence from the 2020 Climate Group was typical of what was heard by Committee when Nigel Holmes representing the Group said—

“I see a big contrast between the clarity of reporting on energy by means of the renewables route map, which sets out annual progress and targets for 2020, and the clarity of reporting for the transport sector.”⁹

32. Elizabeth Leighton from the Existing Homes Alliance Scotland (EHAS) giving evidence on the homes and communities chapter, made the point in relation to lack of detail contained in the draft RPP2 and the ability to undertake effective scrutiny as a result when she said—

“In summary, we feel that the committee, which has been asked to scrutinise RPP2, has been given the accounts but no balance sheet. You do not know how the programmes have done. Are they reaching the annual abatement figures that were suggested in RPP1, or are they completely missing them? What is the justification for the changes that have been made for smart metering, for example? Much information that needs to be given to the committee to allow for adequate scrutiny of the report is not there.”¹⁰

33. The Minister for Housing and Welfare responded to these criticisms by saying to the Committee—

“We recognise and take on board some of the criticisms that were heard. The draft RPP2 is a large and complex document. It is longer than RPP1 and also has 77 pages of technical annex.

⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1402

⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1402

¹⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1352

It is a draft. During the drafting, there was a view that we should try to avoid complication, but I do not know whether that was successful. We will be happy to reflect on suggestions that members of the committees and other stakeholders make at this stage.

We chart progress in housing against our milestones. I cannot commit to having clear tabular progress right across to enable comparisons, but we are certainly happy to say to members that we want to make sure that the document will be understood and that progress can be shown.

If the committee would like, we can show it the progress that we have made on housing. We will certainly be monitoring and charting our progress on that. ¹¹

34. The Minister for Housing and Welfare spoke of missing the first annual target in relation to housing and the contributing factor of an extremely cold winter. She said—

“Even though more houses were built, we missed a target. However, we are dealing with that as best we can.

Emissions were 7 per cent lower in 2011 than they were in 2010. We are confident that housing-related emissions are coming down and that we will contribute to meeting the shortfall and the overall target. We are not expecting that winters will be so cold. We are putting energy efficiency measures into homes, and related emissions are showing a downward trend. ¹²

35. Witnesses criticised the lack of detail in the transport chapter and the absence of policies was a recurring theme. As RPP2 supersedes RPP1 and covers a longer time period up until 2027, comparisons were made between the structures of the two documents. In its written submission, SCCS made the point the change in format from RPP1 also makes it impossible to compare the effort expected from different policies despite the policies being essentially unchanged. The written submission stated—

“SCCS calls on the Committee to request the Government to provide a disaggregation of the data in the same format as presented in p143 of RPP1 so that proper scrutiny can be carried out.”¹³

36. SCCS also expressed concerns regarding missing the first annual climate change target, telling the Committee—

“it is difficult to say how well we have progressed, because of the lack of clear data. However, we know that we have missed our first target on

¹¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Cols 1463-4

¹² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1465

¹³ Stop Climate Chaos Scotland. Written submission, page 5, paragraph 2

overall emissions and we know that transport emissions have gone up, not down, so the big-scale indicators are certainly not encouraging.”¹⁴

37. The Minister for Transport and Veterans made the point that the Scottish Government needs a long term strategy in the context of steadily evolving technologies and behaviours. He stated—

“That is why it is appropriate that the transport chapter focuses on the broad approach of how we want to reduce emissions from transport.”¹⁵

38. The Minister for Transport and Veterans stated that the Scottish Government was still on track for meeting the 2050 target and that the abatement potential described in the draft RPP2 transport sector was broadly in line with the Committee on Climate Change advice. He also confirmed that the Scottish Government are working on developing a database in order that the effectiveness of individual interventions could be measured.¹⁶

39. The Committee acknowledges the Scottish Government’s challenge as it is difficult to be certain how particular proposals and policies will develop over time, given the uncertainties regarding technology development and behavioural change. The Committee further notes that this difficulty is reflected in the Scottish Government’s ability to spell out specific policies through to 2027 and its capacity to provide a detailed breakdown of the projected emission reduction impact of individual proposals and policies.

40. The Committee notes, however, the overwhelming evidence presented to it on the fact that the draft RPP2 contains considerably less detail than RPP1, which set out proposals and policies for achieving the annual emission reduction targets for 2010-2022.

41. The Committee notes that the proposals listed in the transport chapter of the draft RPP2 do not necessarily represent a reduction in the number of proposals compared with RPP1. Instead, it appears to be the case that a number of proposals have been amalgamated under one of the four new proposal headings.

42. The Committee shares the concerns expressed by some witnesses regarding both the clarity and format of the draft RPP2 and the specific concerns regarding the lack of detail contained within the transport chapter in particular.

43. Whilst the Committee was pleased to see more detail in the homes and communities chapter compared to the transport chapter of the draft RPP2, it believes however that for both chapters, the format was unhelpful in providing an accessible means with which comparisons with RPP1 could be easily made and the effectiveness of proposals and policies contained in RPP1 be properly assessed.

¹⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1404

¹⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1438

¹⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1447

44. **The Committee is concerned that the draft RPP2 does not allow for a robust assessment of progress on proposals and policies, particularly in relation to the transport sector, since the publication of RPP1.**

45. **The Committee recommends that the Scottish Government, in publishing the final RPP2, ensures that the format of the report is clear and transparent and contains sufficient information to allow for a proper assessment of progress on proposals and policies since the publication of RPP1.**

HOMES AND COMMUNITIES

46. Chapter five of the draft RPP2 on homes and communities was one of two chapters on which this Committee agreed to focus its scrutiny. The Committee spoke to witnesses on energy efficiency measures in the housing sector which could be used to contribute to the emission reduction targets set out in the draft RPP2. The Committee concentrated mainly on progress on targets since RPP1; improving existing and new housing in relation to building standards; responsibility for energy efficiency; and the impact of the current economic climate and welfare reform on the climate change agenda. The scrutiny undertaken by the Economy, Energy and Tourism Committee's consideration of fuel poverty issues is of relevance to this section of the report and should be read in conjunction with it.

Background

47. Around 25 per cent of Scotland's carbon emissions come directly from household energy.¹⁷ Household projections suggest over half a million additional homes will be needed to meet expected demand to 2035.¹⁸

48. Over three-quarters of household energy use is from gas-fired boilers for space and hot water heating and reported emissions from homes arise almost exclusively from the use of gas for heating and cooking.¹⁹ In 2010, the residential sector produced 8.4 MtCO_{2e} of greenhouse gas emissions which was 15 percent of Scotland's total that year.²⁰

49. This chapter of the draft RPP2 outlines the proposals and policies for reducing emissions through fabric improvement and heating efficiency, building standards, the decarbonisation of heat, and information measures such as smart meters.²¹ The Committee notes that chapter 4 of the document sets out the

¹⁷ Scottish Government (2010) *A Low Carbon Economic Strategy for Scotland: Scotland - A Low Carbon Society*. Available at: <http://www.scotland.gov.uk/Publications/2010/11/15085756/0> [Accessed February 2013]

¹⁸ General Register Office for Scotland (2012). *Household Projections for Scotland 2010-based*. Available at: <http://www.gro-scotland.gov.uk/statistics/theme/households/projections/2010-based/index.html> [Accessed February 2013]

¹⁹ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 90

²⁰ Scottish Government (2012) *Scottish Greenhouse Gas Emissions 2010*. Available at: <http://www.scotland.gov.uk/Publications/2012/07/9583> [Accessed February 2013]

²¹ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 4

Scottish Government's ambitions for decarbonising Scotland's energy supply, including the use of alternative energy sources.

Related strategies

Sustainable Housing Strategy

50. The Scottish Government, in setting out its ambition for homes and communities refers to the Sustainable Housing Strategy²² (SHS) which will include a route map to 2030. The draft RPP2 states that the SHS is currently under consultation and will be published in the first half of 2013.²³

Heat Generation Policy Statement

51. The draft RPP2 also outlines the Scottish Government's vision for a largely decarbonised heat sector by 2050 through a combination of reduced demand and energy efficiency, together with a significant increase in the use of renewable or low carbon heating. It states that the detail on how the Scottish Government intends to achieve this target will be set out in its Heat Generation Policy Statement due to be published later in 2013.²⁴

Low Carbon Scotland: Behaviours Framework

52. The draft RPP2 highlights the importance of understanding and influencing behaviour if climate change targets are to be met and states that the Scottish Government is committed to supporting the proposals and policies contained in the draft RPP2 with a broad spectrum of behaviour related programmes and incentives. These were outlined in its Low Carbon Scotland: Behaviours Framework which was published shortly after the Committee concluded its evidence taking.

53. During evidence, the Committee heard of the importance of the Sustainable Housing Strategy and that the step change required to meet the energy efficiency housing targets would require incentive packages to encourage the necessary behavioural change.

54. The Committee also considered the importance of behavioural change in relation to meeting the Scottish Government's transport emission abatement targets. The specific issues in relation to behavioural change within both the housing and transport sectors are discussed in more detail under the relevant section of this report.

55. The Committee notes that the Sustainable Housing Strategy will be published in spring 2013 and that the Behaviours Framework was published on 4 March 2013, during the period for parliamentary scrutiny of the draft RPP2. The Committee also notes that the Heat Generation Policy Statement will be published later in 2013.

²² Scottish Government *Sustainable Housing* <http://www.scotland.gov.uk/Topics/Built-Environment/Housing/sustainable> [Accessed February 2013]

²³ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 89

²⁴ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 89

Sustainable Housing Strategy milestones

56. The Sustainable Housing Strategy will set out the Scottish Government's vision for the homes and communities sector. Its aims are to:

- Make sure no-one in Scotland has to live in fuel poverty, as far as practicable, by 2016;
- Deliver a step change in provision of energy efficient homes to 2030 through retrofit of existing housing stock and improved building regulations for new build homes;
- make a full contribution to the climate change targets; and
- Enable the refurbishment and house building sectors to contribute to and benefit from Scotland's low carbon economy and to drive Scotland's future prosperity.

57. The Committee believes that it is of the utmost importance that the Scottish Government's key strategic documents are interlinked and notes that the Sustainable Housing Strategy, Heat Generation Policy Statement and Behaviours Framework are key to the Scottish Government achieving its emissions reductions targets set out in the draft RPP2.

58. Given the importance of these documents in relation to the draft RPP2, the Committee is disappointed that these were not published in time for it to consider as part of its scrutiny of the draft RPP2 and were not available to stakeholders and this Committee during its consideration.

59. The Committee is concerned that, given these key documents were not available during its scrutiny, it was constrained in its ability to undertake a comprehensive assessment of the appropriateness and robustness of the Scottish Government proposals and policies within the housing sector as part of its scrutiny.

60. The Committee believes that the Scottish Government must ensure that a strategic approach across all policies is adopted and recommends that the Scottish Government ensure that strategic policy documents are interlinked and a read-across exists between these future publications and the final RPP2.

Proposals and policies

61. The draft RPP2 contains a number of Scottish and UK policies and proposals and the Scottish Parliament's Information Centre (SPICe)²⁵ undertook some work to compare the proposals and policies contained in the draft RPP2 compared to RPP1.

²⁵ Scottish Parliament Information Centre (2013) *RPP2 and Scotland's Climate Change Targets*. SPICe Briefing 13/07. Available at: http://www.scottish.parliament.uk/ResearchBriefingsAndFactsheets/S4/SB_13-07.pdf [accessed February 2013]

62. During its consideration, the Committee discussed the key challenges in relation to improving the energy efficiency of existing housing. It also discussed the extent to which the proposals and policies in the draft RPP2 would be effective in addressing these challenges, the ambitiousness of the targets set out in this chapter and the extent to which the abatement potentials associated with the proposals and policies are realistic.

63. In focusing on the key challenges in improving energy efficiency in the homes and communities sector, the Committee considered how regulation for minimum standards in private housing and energy efficient building standards for new homes could help with addressing these issues. The Committee also considered funding and the market transformation required to achieving energy efficiency housing targets and how the wider economic climate and welfare reform could impact on individuals' priorities in relation to energy efficiency measures in homes.

Policies

64. The homes and communities abatement summary lists seven policies and five proposals, some of which were discussed in more detail than others during the Committee's consideration. The Committee noted that a number of policies and proposals contained in RPP1 have been updated or superseded in the draft RPP2.

65. The seven policies listed are:

- Smart Metering;
- Domestic Buildings Energy Standards (2010) – New Build Properties
- Renewable Heat Incentive (Domestic)
- Energy Company Obligation (ECO) and Green Deal (GD)
- National Retrofit Programme: Scottish Government Fuel Poverty and Energy Efficiency Programmes
- Warm Homes Fund
- District Heating Loan Fund

66. The five proposals listed are:

- Domestic Buildings Energy Standards (2014) – New Build Properties
- Regulation of Private and Social Housing
- National Retrofit Programme: Insulation and Heat Programme
- Low Carbon Heat (Domestic)
- Additional Technical Potential in Fabric and Energy Efficiency.

Smart metering

67. The draft RPP2 highlights the importance of good information regarding energy use and supports the UK Government's plan to install smart meters for gas and electricity in every home by 2020. It states that the roll-out across the UK by energy suppliers will take place between 2014 and 2019.²⁶

68. The technical annex provides further information on the methodology for estimating emissions abatement potential and associated costs for the smart metering policy. It states that the estimated roll-out costs in the Scottish domestic sector is £1.13bn with associated benefits totaling £1.58 bn over the RPP2 period.²⁷

Domestic Buildings Energy Standards (2010) – New Build Properties

69. The Domestic Buildings Energy Standards (2010) – New Build Properties²⁸ set energy standards through regulations which are applicable to new buildings and to most building work which takes place in existing buildings.

70. Following publication of the 2007 Sullivan Report – A Low Carbon Building Standards Strategy for Scotland²⁹, the Scottish Government gave a commitment to the investigation of the recommendations of that report which included proposals for staged improvements to energy standards within building regulations in 2010 and 2013. Housing built to 2010 energy standards emit around 70 per cent less CO₂ than housing built to the standards that existed in 1990.³⁰

71. It should be noted that this policy was considered in conjunction with the proposal for new build domestic energy standards 2014 and is discussed later in this report.

Renewable Heat Incentive (Domestic)

72. The Renewable Heat Incentive (RHI)³¹ is a UK Government scheme set up to encourage uptake of renewable heat technologies among householders, communities and businesses through the provision of financial incentives. The UK Government expects the RHI to make a significant contribution towards its 2020 ambition of having 12 per cent of heating coming from renewable sources.

²⁶ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 94

²⁷ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2). Technical annex, page 20

²⁸ Scottish Government. *Building Standards*: <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards> [accessed March 2013]

²⁹ Scottish Building Standards Agency (2007) *A Low Carbon Building Standards Strategy for Scotland: Report of a panel appointed by Scottish Ministers*. Available at: <http://www.scotland.gov.uk/Resource/Doc/217736/0092637.pdf> [accessed March 2013]

³⁰ Scottish Government (2013) *Outline Draft for Heat Vision*. Available at: <http://www.scotland.gov.uk/Resource/0041/00413386.pdf> [Accessed March 2013]

³¹ UK Government. *Renewable Heat Incentive (RHI)*: <https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies/supporting-pages/renewable-heat-incentive-rhi> [accessed February 2013]

73. The draft RPP2 states that this incentive is key to the Scottish Government meeting the Scottish target of 11 per cent of heat demand from renewables by 2020. It also highlights that under the Renewable Heat Premium Payment Scheme, the up-front costs for the installation of renewable heat generation will be met by installation owners, with the incentive guaranteeing them a reasonable return on investment.³²

Energy Company Obligation (ECO) and Green Deal (GD)

74. The Energy Company Obligation (ECO)³³ and the Green Deal (GD)³⁴ are UK policies. The ECO has two elements: it requires energy companies to deliver energy efficiency measures to homes with a focus on reducing heating costs for vulnerable consumer groups; and to saving carbon in hard to treat homes. It will replace both the Carbon Emission Reduction Target (CERT)³⁵ and the Community Energy Saving Programme (CESP).³⁶

75. The ECO will work alongside the GD. The GD allows occupants and housing providers to install energy efficient measures without upfront costs. Costs will be paid over a period of years through energy bills and the GD remains with the property. The Draft RPP2 states that the ‘golden rule’ at the heart of the GD funding is that estimated savings on bills must equal or exceed the cost of improvements undertaken.³⁷

Evidence

76. During evidence Mike Thornton representing the Energy Saving Trust Scotland (ESTS) commented on the ability of GD to encourage home owners to invest in energy efficiency measures by providing incentives , saying—

“Obviously, we support the green deal, but the question whether it will deliver is unclear at this point. It is a mechanism—it can drive the market—but at the moment it is a bet that it is the way forward. It may be a bit one-club as well, though. That is our concern.”³⁸

77. A representative from EHAS echoed this uncertainty as to whether the GD could deliver, stating—

³² Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 96

³³ UK Government. *Energy Company Obligation*: <https://www.gov.uk/government/publications/the-energy-company-obligation-find-out-if-you-are-eligible> [accessed March 2013]

³⁴ DECC. *Green Deal*: www.decc.gov.uk/en/content/cms/tackling/green_deal/green_deal.aspx [accessed March 2013]

³⁵ Energy Savings Trust. *Carbon Emissions Reduction Target (CERT)*: <http://www.energysavingtrust.org.uk/Organisations/Government-and-local-programmes/Free-resources-for-local-authorities/Local-authority-funding-guide/Funds/Local-Authorities/Carbon-Emissions-Reduction-Target-CERT> [accessed March 2013]

³⁶ OFGEM. *Community Energy Saving Programme (CESP)*: <http://www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/cesp/Pages/cesp.aspx> [accessed March 2013]

³⁷ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 92

³⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1343

“We need the green deal to work, but there are issues relating to its attractiveness to householders. Our research suggests that, at the moment, it will have only a marginal impact in reducing emissions and bringing in private money. There is a great deal of work to be done to see how local authorities working together can help to reduce some of the costs of the green deal for the consumer. Economies of scale will help to reduce costs. There are a lot of unknowns at the moment. However, how that integrates with the national retrofit programme will be very important.”³⁹

78. Scott Restrict representing Energy Action Scotland (EAS), spoke of householder costs for energy efficiency measures and the assertion that the GD ensures there are no up-front costs to the consumer. He stated—

“There is enough evidence to suggest that that might not be the case, particularly for the higher-cost measures, and there might well need to be some degree of householder contribution. Funds not being available can create a barrier to uptake.”⁴⁰

79. Dr Stephen Garvin from BRE Scotland spoke of the GD and the need for it to be properly marketed to ensure uptake. He told the Committee—

“The message about what the green deal is and how it works has not got out to the public yet, so the need to market and sell it is a key issue.”⁴¹

80. A representative from EAS spoke of the potential of the ECO in supporting the work which needed to be done in improving existing housing stock stating—

“..there is technical potential in Scotland to do a lot of work on that, and it would be specifically supported by the energy company obligation...One outcome of the industry’s review of the energy company obligation was about the costs of finding properties to work on. If the Scottish Government and other key stakeholders can do things to make it easier for suppliers to spend their energy company obligation money in Scotland, we should focus on those things as soon as possible.”⁴²

81. The draft RPP2 states that the Scottish Government will work to ensure that GD finance providers are able to support households across Scotland and will ‘work with the UK Government to ensure that Scotland-specific issues are fully recognised in the delivery of both schemes’⁴³.

82. Modelling estimations of the installation of external and internal wall insulation and heating systems for lower incomes under the ECO and energy

³⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1343

⁴⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1345

⁴¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1349

⁴² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1351

⁴³ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 93

improvements under the GD have been based on impact assessments published by the Department of Energy and Climate Change.

83. The technical annex explains that, at the time of modeling, there were neither specific figures available for take-up of other measures nor were there data for the interaction of Green Deal with natural uptake, so no additional additional potential abatement was assumed to be solely due to Green Deal. It states 'In 3-5 years' time there will be a much better sense of the additional abatement that Green Deal is bringing forward and the interaction with both ECO and Scottish Government programmes.'⁴⁴

84. The Committee notes the evidence heard on these UK schemes and notes the lack of detail available to fully understand with certainty the additional abatement potential these policies could provide and how they would interact with Scottish policies.

85. The Committee recommends that the Scottish Government works closely with the UK Government to ensure that Scotland-specific issues are fully recognised as part of the delivery of the UK schemes and uptake is maximised to ensure these policies are as effective in Scotland as they can be.

National Retrofit Programme: Scottish Government Fuel Poverty and Energy Efficiency Programmes and Warm Homes Fund

86. The draft RPP2 refers to a new National Retrofit Programme that will be area based and focus initially on fuel poor areas.⁴⁵ This will be complemented by the Warm Homes Fund (WHF)⁴⁶ which was launched in 2012. This is a new £50 million Scottish Government initiative which aims to provide loan funding for renewable energy projects (including district heating) to support communities in fuel poverty. In the longer term, criteria for the identification of fuel poor communities will be consistent with those being used by the Fuel Poverty Forum⁴⁷ for future development of area-based schemes. In 2012/13, funding will be made available to any scheme which demonstrates it is targeted to a fuel-poor area, and will reduce fuel poverty within that community.

87. From April 2013, the NRP and WHF will replace a number of existing fabric improvement and heating efficiency schemes, namely the Energy Assistance Package (EAP),⁴⁸ the Universal Home Insulation Scheme (UHIS),⁴⁹ and the Boiler Scrappage Scheme (BSS).⁵⁰

⁴⁴ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), technical annex, page 15

⁴⁵ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 91

⁴⁶ Scottish Government. *Warm Homes Fund*: <http://www.scotland.gov.uk/Topics/Built-Environment/Housing/sustainable/Warm-Homes-Fund> [Accessed February 2013]

⁴⁷ Scottish Government. *Scottish Fuel Poverty Fund*: <http://www.scotland.gov.uk/Topics/Built-Environment/Housing/warmhomes/fuelpoverty/ScottishFuelPovertyForum> [accessed March 2013]

⁴⁸ Scottish Government. *Energy Assistance Package Scheme*: www.scotland.gov.uk/Topics/Built-Environment/Housing/warmhomes/eap [accessed February 2013]

88. The technical annex explains that it is assumed that from 2012 to 2017 the installation of loft and wall insulation along with draught-proofing and heating systems would be prioritised under these two policies with a total of £60m - £65m per annum for five years until 2017⁵¹.

Evidence

89. Evidence to the Committee was unanimous in welcoming the new national retrofit programme. Written evidence from the Scottish Federation of Housing Associations (SFHA) whilst welcoming the new programme, also called for funding levels to be increased in order to meet climate change targets. It stated —

“We are calling on the NRP to be doubled, and for 4% of European Structural Funds to be ring fenced to fund energy efficiency and renewables in social housing.”⁵²

90. The Minister outlined the current level of funding for this scheme and made the point that exact levels of funding could only be set for the period of the spending review. She stated—

“The Scottish Government has committed funding of £79 million to it, and Mr Swinney’s most recent statement added £14 million to that. The programme is for 10 years, but we can take the figures only to the end of the next spending review period.

With the £79 million, we hope to lever in funding from the energy company obligation and bring the figure up to about £200 million. That is a good target. With £3.5 million, the pilot schemes have brought in a further £13 million from the energy companies and money from the landlords that operate those schemes. We think that the figure that has been set is realistic and can be achieved.”⁵³

District Heating Loan Fund

91. The Scottish Government’s District Heating Loan Fund⁵⁴ provides loans to support the development of district heating networks in Scotland. It provides loans for both low carbon and renewable technologies to help organisations implement district heating projects to benefit local communities.

92. The Scottish Government has allocated £5 million to this scheme over the current spending review period and the technical annex states that to 2014, this

⁴⁹ Scottish Government. *Universal Home Insulation Scheme*: www.scotland.gov.uk/Topics/Built-Environment/Housing/warmhomes/uhis [accessed February 2013]

⁵⁰ Scottish Government. *Boiler Scrappage Scheme*: www.scotland.gov.uk/Topics/Built-Environment/Housing/warmhomes/boilerscrappage [accessed February 2013]

⁵¹ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2). Technical annex, page 15

⁵² Scottish Federation of Housing Association. Written submission, paragraph 2.3

⁵³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1470

⁵⁴ Energy Savings Trust. *District heating loan fund*: <http://www.energysavingtrust.org.uk/scotland/Take-action/Get-business-funding/District-heating-loan-fund2> [accessed March 2013]

scheme could potentially reduce annual emissions in Scotland by up to 50ktCO_{2e}.⁵⁵ Further details on this scheme are set out in the Outline Draft for Heat Vision⁵⁶ which was published alongside the Draft RPP2 and states that recommendations have been made to the Scottish Government to undertake a major move forward on district heating.

Proposals

Domestic Buildings Energy Standards (2014) – New Build Properties

93. The draft RPP2 states that new build domestic energy standards 2014, would aim to reduce new-build emissions by around 45 percent compared to 2007.⁵⁷ RPP1 previously stated that new building regulation standards would be introduced in 2013 with its aim to reduce new-build emissions by 60 per cent compared to 2007.⁵⁸

The Committee considered this proposal and the domestic building energy standards 2010 during oral evidence and these are discussed together later on in this report. Regulation of Private and Social Housing

94. The Act⁵⁹ introduced wide ranging enabling powers to introduce requirements to assess the energy performance of houses and to require action to be taken based on these assessments. The Scottish Government has acknowledged that such regulation may be required to underpin emission savings from proposals in relation to fuel poverty and insulation programmes.

95. The Energy Efficiency Action Plan⁶⁰ sets out the Scottish Government's thinking in relation to development of options for regulation of private and social housing. The draft RPP2 states that consultation responses to the draft Sustainable Housing Strategy supported a lead in time between consulting on draft regulations and the application of any standards to allow time for householders and landlords to prepare for the changes. This proposal assumes a minimum standard for all private sector housing to be introduced in 2018.

96. It also states the Scottish Government's intention to introduce a new energy efficiency standard for social housing in 2013, setting initial targets to be met by 2020.⁶¹

⁵⁵ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2). Technical annex, page 22

⁵⁶ Scottish Government (2013) *Outline for a Draft Heat Vision*:

<http://www.scotland.gov.uk/Resource/0041/00413386.pdf> [accessed March 2013]

⁵⁷ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 95

⁵⁸ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2010-2022 – The Report on Proposals and Policies (RPP1), page 56

⁵⁹ The Climate Change (Scotland) Act 2009 (asp 12). Section 6

⁶⁰ Scottish Government. *Energy Efficiency Action Plan*:

<http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Action/energy-efficiency-policy/ActionPlan> [accessed March 2013]

⁶¹ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 94

National Retrofit Programme: Insulation and Heat Programme

97. The NRP is discussed in the previous policy section of this report. The insulation and heat programme appears in the list of proposals with an earliest start date of 2018.

98. The programme contains continued support for insulation and heating efficiency measures for the period 2018 to 2027. The technical annex provides context for this proposal where it states that the on-going structure and delivery of the NRP would depend on future spending decisions.⁶²

Low Carbon Heat (Domestic)

99. This proposal acknowledges the need for a more strategic approach if the milestone of a largely decarbonised heat sector by 2050 with significant progress by 2030 is to be reached. This proposal would include both the domestic and non domestic sectors. However, as the majority of emissions abatement is likely to fall in the non-domestic sector, further details are set out in the business, industry and public sector chapter of the draft RPP2, a chapter which was outwith the remit of this Committee's consideration.

100. The start date as listed in the abatement summary is 2013 with expected annual abatement of 609 ktCO_{2e} in 2027. The Scottish Government has also acknowledged that, given the significant policy work still to be done in this area, it is unclear at the moment the extent to which abatement potentials will fall between the homes and communities sector and the business, industry and public sectors.⁶³

Additional Technical Potential in Fabric and Energy Efficiency.

101. The draft RPP2 states that the Scottish Government's modeling suggests that there is an additional technical abatement potential in fabric and energy efficiency of approximately 650 ktCO_{2e} by 2027 through improvements to the carbon efficiency of the housing stock.

102. There is no additional information in the technical annex to the draft RPP2, it simply states—

“We intend to produce a detailed proposal in RPP3 on how we realise this potential.”⁶⁴

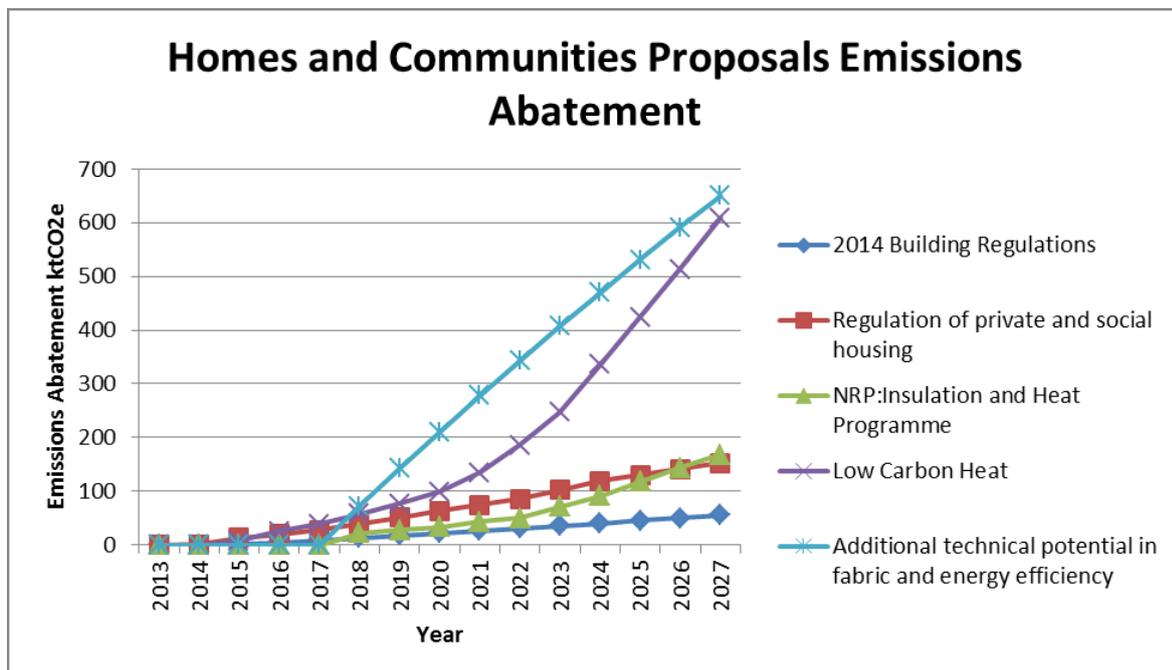
103. The draft RPP2 predicts significant abatement potential from the additional technical potential in fabric and energy efficiency proposal with a sharp rise in the

⁶² Low Carbon Scotland: Meeting our Emissions Reduction Targets 2010-2022 – The Report on Proposals and Policies (RPP1). Technical annex page 16

⁶³ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 97

⁶⁴ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2). Technical Annex page 27

figures from 2017 to 2027. The graph⁶⁵ below illustrates the predicted abatement potential for proposals in the homes and communities sector.



Evidence

104. A representative from EHAS expressed concern regarding the additional technical abatement potential telling the Committee—

“There is more reliance on proposals in RPP2. One might expect that, as it stretches further, but we would like more information, in particular on the line for “Additional Technical Potential in Fabric and Energy Efficiency”. Quite a big chunk of emissions reduction is set against that up to 2020, but especially beyond then, to 2027. There is no explanation, either in the main report or in the technical annex, and I find that concerning.”⁶⁶

105. When asked about the detail of this proposal and the levels of expected abatement potential, the Minister said—

“The reference is to additional technical proposals on energy efficiency that we know can be achieved. We are looking ahead to 2027, which is 14 years away. In that time, technology could change and measures could be done more cheaply or differently. We know that the abatement can be done, but we have not determined at this stage how we will do it, because we do not know what is ahead of us. We would hope to lay that out in the next RPP, which I think will be issued in 2016.”⁶⁷

⁶⁵ Scottish Parliament Information Centre (2013) SPICe Briefing [SB 13/07 RPP2 and Scotland's Climate Change Targets](#) [Accessed February 2013]

⁶⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col1352

⁶⁷ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col1471

106. **The Committee also acknowledges the difficulties associated with setting proposals so far into the future and the uncertainties involved in predicting future potentials and the extent to which technological developments and innovations could influence future proposals**

107. **The Committee believes, however, that in the absence of further detailed information, it is difficult to be confident that these abatement projections are realistic and robust.**

108. **The Committee notes the reliance on a significant amount of carbon abatement from the additional technical potential from 2017 to 2027. The Committee recommends that the Scottish Government reflect on what this Committee has heard in relation to the Additional Technical Potential in Fabric and Energy Efficiency.**

109. **The Committee recommends that the Scottish Government include further information in the final RPP2 on what the additional technical potential figures are based on and the modeling used in its abatement projections.**

110. **In addition, the Committee recommends that, in advance of laying RPP3 in 2016, further work be done on developing this proposal in light of emerging technologies and when the impact of measures to increase market transformational change are known**

Regulation for minimum standards in private housing

111. The Committee considered the issue of regulation and minimum standards in relation to existing private homes. David Bookbinder from the Chartered Institute of Housing Scotland (CIHS), stated that these were needed in order to ensure energy efficiency measures were carried out. He also made the point that it was important that these minimum standards were introduced early, particularly for self standing properties and acknowledged that introducing standards for tenements posed more difficulties. He stated—

“There will always be arguments, some of which are apparently quite persuasive, that it is not the right time for such standards and that their introduction might impact on the housing market.

When we responded to the consultation on the sustainable housing strategy last year, we made the point that there may be a case for introducing minimum standards more quickly for self-standing properties. We should not let the problems with tenemental properties delay the introduction of standards, given that it will be easier for self-standing properties.”⁶⁸

112. The Committee discussed the issue of market inertia notwithstanding the well-known economic benefits associated with energy efficiency measures and how this could be overcome. A representative from EST suggested that regulation was the key to this, telling the Committee—

⁶⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1348

“ Our view of regulation is that relatively few people would require to be regulated, but it is the foreshadowing of regulation that overcomes inertia in the market and drives the numbers.

My take on regulation is that it sounds like a sort of legislative solution, but in fact it is a way of super-charging the market; it is more of a market-based solution, and a very effective one.”⁶⁹

113. Mike Wagner from the Association of Local Authority Chief Housing Officers (ALACHO), also reiterated the need for regulation. He told the Committee—

“Local authorities have been subject to various energy regulations for well over 20 years, and the output of that is that, as the Scottish house condition survey and our data show, we have already achieved more than the 2020 target. The City of Edinburgh Council has achieved carbon savings of some 47 per cent based on the 1990 baseline. Most local authorities in Scotland have achieved the 42 per cent target. However, we all recognise that that is an interim target and it is not something to be relaxed about. It does not mean that we can put our feet up until 2020. We have a 2050 target to achieve, which is part of the new standards.”⁷⁰

Timescales

114. David Stewart representing the SFHA highlighted that hard-to-treat properties were a key challenge and suggested that in order to address this, minimum standards for private housing should be brought in earlier, telling the Committee—

“I point out that housing associations have a significant number of houses in mixed-tenure tenements or blocks, but there are no minimum standards to encourage owner-occupiers or private landlords to improve their properties. It is therefore difficult for them to improve properties to the standards that they would want to in order to cut carbon emissions and alleviate fuel poverty. We support the call for minimum standards from 2015 in the private sector.”⁷¹

115. A representative from EHAS also supported the introduction of minimum standards in the private sector but had concerns regarding the timescales for implementing the standards telling the Committee—

“The sooner we have those regulations in place, the better.”⁷²

116. Philip Hogg representing Homes for Scotland pointed out that existing homes are where the biggest difference could be made in terms of energy efficiency improvements. He said—

⁶⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1346

⁷⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1348

⁷¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1344

⁷² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1343

“..our existing housing stock is disproportionately the biggest contributor of carbon and therefore where the biggest opportunity lies.

117. ..there is an argument to say that the ones that are being built now are the least of the problems; the problem is the ones that are getting older.⁷³ A representative from EAS spoke of the need for regulation in the private sector when he said to the Committee—

“..Perhaps the fact that a number of unfilled cavities and lofts still exist might support the view that we need some regulation in the private sector to push that work.”⁷⁴

118. The Minister outlined the current work being done by the Scottish Government on looking at energy efficiency standards in owner-occupied houses and houses in the private rented sector which will include setting up a working group to look specifically at this issue. In response to the criticisms regarding the timescales involved, she told the Committee—

“In England, regulation is due in 2018, and our regulation is likely to tie in with that. However, in England, the regulations will cover only the private rented sector, whereas we are looking at the whole private sector. We are looking at a fair bit of work.”⁷⁵

119. The Committee understands that that the regulations will apply to all private sector properties in Scotland where much of the housing stock includes hard to treat properties. The Committee notes that it is intended that these minimum standards will be introduced in 2018 in line with the introduction in England and Wales for the private rented sector.

120. The Committee acknowledges the ambitiousness of the proposal to introduce minimum standards across all of the private housing sector. However, it requests that the Scottish Government investigates whether the timescales for the introduction of these minimum standards could be revised with a view to an earlier than 2018 introduction on the basis that this would allow further progress to be made in Scotland.

Energy Efficient Building Standards

121. The Committee discussed the need for new homes and the potential impact this could have on carbon emissions. It was explained to the Committee that the bigger opportunities for carbon emission reduction lie within existing stock. However the issue of building new homes to appropriate energy saving standards was still a key factor in reducing future carbon emissions and in keeping with proposals and policies in the draft RPP2.

⁷³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1355

⁷⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1345

⁷⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1467

122. The Committee discussed the experiences of developer compliance regarding building regulations and whether RPP2 adequately addresses the issues. The Committee heard conflicting views on this issue.

123. The overwhelming view expressed to the Committee was that that it was imperative that energy efficient standards were included in new builds not least as it was more sensible and cost effective to construct to these standards at the outset rather than trying to upgrade to energy efficient standards at a later date.

124. However, concerns were raised regarding the current economic climate and the impact on house builders more generally. The Committee was reminded however that it was far more cost effective to put energy efficient measures in place at the outset rather than to add measures to existing properties. A representative from EST told the Committee—

“If we do not build standards into houses when they are new, over the trajectory of the climate change targets we will have to build them in when the houses are not new, which will cost a lot more..

..I personally do not believe that there are no economic advantages to Scotland in maximising the energy efficiency of new build...there is a competitive advantage for Scotland in having an industry that builds to high carbon standards, which are generally, as one might expect, high-quality standards.

..I feel that the important role for Government is to set the boundaries of the playing field and then let the market decide how to meet the standards most cost effectively. “⁷⁶

125. The Committee heard that increasing costs associated with building new homes with high energy efficiency standards could have a detrimental effect on the number of new houses being built. It also heard that this was not a priority for new home buyers.

126. A representative from ALACHO, agreed that robust standards were required but made the point that significant investment would be needed to do this. He said—

“Once the bar of the building standards has been lifted, that also—unfortunately—lifts bodies out of the opportunity of leveraging in ECO-type funding. The problem is that organisations cannot reduce the affordability gap. They have a ceiling and they need somehow to lever in funding for measures.

The vision is big and a lot of money is involved, but the issue is the timescale and getting the vision and money into work on the ground. A

⁷⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1357

massive amount of resource is required to realise the vision so that builders can tap into it. ⁷⁷

127. BRE Scotland recognised the difficulties associated with constructing homes to such energy efficiency standards and referred to building standard regulations. A representative said—

“ I will go back to new-build standards. Building standards are the preserve of building regulations, but they are also driven by Europe, through the directive on the energy performance of buildings.

That said, I believe that we must recognise the difficulties of delivering standards, whether that is through design and construction or through the on-going maintenance and upkeep of homes in the future, which may be more challenging for home owners or housing associations. ⁷⁸

128. The Minister was asked why the implementation of new building regulations standards have slipped from 2013 in RPP1 to 2014 in the draft RPP2 and that the ambition in relation to emissions reduction had gone down from 60 per cent to 45 per cent. The Committee heard that the initial 60 per cent came from the recommendation in the Sullivan report which was published in 2007 and since then, the economic situation has changed dramatically and the figures for house building are significantly lower. The Minister told the Committee—

“we have had to strike a balance between ensuring that we build houses—after all, we want to keep building houses, but it is much more expensive to build them to higher energy efficiency standards—and reducing carbon emissions. The balance that has been struck in RPP2, which we think is the right one, is being consulted on at the moment.”⁷⁹

129. The Committee believes there is no doubt that robust energy efficient building standards are necessary in new builds if Scotland are to meet its ambitious targets as set out in the Homes and Communities section of RPP2.

130. Furthermore, the Committee recommends that the Scottish Government details in the final RPP2 what plans it has to better demonstrate developer compliance to ensure the latest energy efficient standards are met in all new homes.

Funding and market transformation

131. The draft RPP2 recognises that meeting climate change targets is not just a matter for the Scottish Government but depends on funding and action on the part of everyone. It states that the proposals and policies will require significant

⁷⁷ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1359-1360

⁷⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1360

⁷⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1472

investment in housing from the Scottish Government, consumers, energy companies and other sources.⁸⁰

132. The Committee explored with witnesses the issue of who should bear the cost of energy efficiency improvements, taking into account the potential impact of the recession and welfare reform on the ability to advance the energy efficiency agenda.

Funding

133. A representative from EST spoke of solid wall insulation in terms of key challenges when he told the Committee—

“The challenge of meeting the required numbers with regard to solid wall insulation on domestic properties is a key area in which it is difficult to plot a clear path forward. I think that there has been an increase of 2 percentage points since 2007 in that area. The UK policy is focused on achieving something in that sector, but it is difficult for the public to take up, it is capital intensive, and some fairly radical policies are required to drive that sector.”⁸¹

134. A representative from EST further clarified his comments on solid wall insulation and the fact that home owners would have to bear the costs when he explained—

“ There is still a lot to do on cavity wall insulation and there is still some work to do with regard to loft insulation, but they are the lower-cost, technically easier measures..

I note that solid wall insulation costs thousands of pounds per property as opposed to hundreds of pounds per property for loft and cavity wall insulation. There are sources of funding and so on, but a lot of the money will have to come from home owners investing in their own properties.”⁸²

135. A representative from SFHA explained to the Committee that both adequate funding and appropriate incentives would be needed in addition to the introduction of minimum standards in order to achieve the energy efficiency emission reduction targets required. He stated—

“To improve energy efficiency generally—in the social rented sector as well as the private rented sector—we need a combination of appropriate funding and incentives. However, we also need the standards to drive uptake and push people to take up those incentives. With the national retrofit

⁸⁰ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 99

⁸¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col1342

⁸² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1343

programme and the use of schemes such as ECO, combined with minimum standards, it should be possible gradually to improve standards.”⁸³

Market transformation

136. As discussed during its consideration of the need for regulation, the Committee was told of the need for market transformation in terms of energy efficiency and the importance that economics would play in being able to achieve progress in this area.

137. A representative from EHAS told the Committee that she felt the biggest challenge would be transformational change where the value of making energy efficiency measures in homes is better known and more widely understood in Scottish society as a whole. She said—

“A wider issue that is one of our biggest challenges is pushing for a market transformation so that Scottish society and the Scottish Government will really value energy efficiency.”⁸⁴

138. She said that in order to make this transformation change across society, people would have to be offered incentives to make their homes energy efficient and regulations might have to be considered to make such measures a requirement. She explained—

“All that money should not be coming from the public sector, but the public sector has to use its money wisely as well as its powers to introduce things such as regulation and incentive programmes to lever in the necessary private investment.”⁸⁴

139. A representative from Homes for Scotland agreed with the general view that the biggest challenge lay in market transformation but told the Committee—

“..as yet I have seen no evidence of movement towards achieving that market transformation that we need.”

“We are talking about consumer behaviour and we have to accept that we live in a world in which people make illogical and irrational decisions...We therefore have to understand and take positive action on market transformation. We also have to take care with regulation. It is easy to jump to the conclusion that there should be certain standards or certain work should be undertaken when people come to sell their homes. At face value, that sounds logical and sensible, but the unintended consequences of that might be that people decide that they cannot afford to move, which creates stagnation in the marketplace.”⁸⁵

⁸³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1344

⁸⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1342

⁸⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Cols 1346-1347

140. In written evidence to the Committee, ESPC highlighted the fact that research had shown that energy efficiency was not of paramount importance to house buyers, therefore the incentive for sellers to act upon energy efficiency measures was low because the level of importance was low.⁸⁶

141. A representative from Homes for Scotland commented on the need to change house buyers' views if the message of the importance and advantages of buying energy efficient homes was to get through. He told the Committee—

“I have spoken about consumer behaviour, but there is another point to take into account. Some will say that people go out and search for energy-efficient homes, but the fact is that when people purchase a brand-new home, they expect it to be a given that it will be energy efficient.

..For the vast majority of people, energy efficiency is not a reason for purchasing a brand-new home.”⁸⁷

142. A representative from EAS spoke about the need to educate people of the benefits of making energy efficient improvements to their home and echoed comments made by other witnesses.⁸⁸

143. A representative from ALACHO explained the complexities involved in mixed tenure properties and the difficulties faced by local councils in rolling out energy efficiency measures due to funding issues and the lack of uptake from homeowners for energy efficiency measures.⁸⁹

144. The Committee agrees that a combination of funding incentives and regulation will be required if Scotland is to achieve the transformational change required to meet its domestic energy efficiency targets set out in the draft RPP2.

145. The Committee notes the evidence heard in relation to tax relief incentives in relation to land and buildings transaction tax and council tax and recommends that the Scottish Government, in discussion with local authorities explores the possibilities of tax incentives to encourage home owners and all those involved in the housing sector to adopt measures to ensure all the housing stock can deliver the step change required for energy efficient homes by 2030.

146. The Committee does not underestimate the importance of adequate funding of energy efficiency initiatives within the homes and communities sector. The Committee also believes that abatement potential targets will only be met if transformational change takes place which is a challenge in itself.

⁸⁶ ESPC. Written submission.

⁸⁷ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1355

⁸⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1351

⁸⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Cols 1353-1354

147. The Committee agrees with the comments made by witnesses on the importance of funding and transformational change and recommends that the Scottish Government takes into account the evidence heard by this Committee and in doing so, sets out its response to these issues when publishing the final RPP2.

Wider economic climate and impact of welfare reform

148. The Committee considered the impact of the current economic climate and the welfare reform agenda on the Scottish Government's climate change agenda and individuals' priorities in relation to energy efficiency measures in the homes and communities sector.

149. A representative from Homes for Scotland said to the Committee on the wider economic climate —

“The debate on climate change cannot be conducted in isolation from the wider economic impacts...

.. We need to consider those issues, and perhaps council tax could be linked to that because it is a transactional tax. Council tax has to be paid every year, so perhaps it could be linked to the energy performance of a home, which would create real incentives for people to move forward and use initiatives such as the green deal as an enabler for that market transformation.”⁹⁰

150. A representative from SFHA highlighted the connection between the costs of building new homes and the pressures faced by housing associations under the current economic climate when he said—

“Housing associations face real challenges. Since the economic crisis there have been significant cuts to the overall global funding that is available to fund new-build affordable rented housing. There have also been cuts in the average grant per unit that have taken it from around £70,000 to £40,000. Both those factors are impacting on housing associations' ability to build new-build affordable rented housing.

..Kingdom Housing Association built the Fife housing innovation showcase, which looked at meeting future standards and moving towards zero carbon housing within current funding guidelines. However, although some housing associations have the skills, there are challenges in the longer term. A lot of our members say that they can use reserves or funds that they have this year, but in two or three years they will be not be able to build with grants at the current level.”⁹¹

⁹⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Cols 1346-1347

⁹¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1358

151. A representative from EAS echoed other witnesses on the impact of the welfare reform agenda on consumer's qualifying for energy efficiency funding streams telling the Committee—

“In the past we have been used to identifying people as being vulnerable because they are eligible for a certain type of benefit, and we use that benefit as a passport into other services and so on. Under welfare reform, it will become more difficult to identify people quickly in that way and the process might become more complicated. What impact will that have on eligibility under things such as the energy company obligation? The affordable warmth element of that programme targets a fairly defined group of people. How will that relate to their status under universal credit, for instance?”⁹²

152. A representative from ALACHO also stressed the importance of recognising the impact of the welfare reform agenda on housing professionals and the need to simplify funding streams. He told the Committee—

“Welfare reform is probably the biggest single issue that housing professionals are struggling with. They see major issues coming out of what is happening, starting in April with the bedroom tax and how that will wash through..

On the energy side, the RPP takes a broad-brush approach on quite a few of the new funding streams that are coming out. They are all welcome, but it would be nice if the mechanism could be simplified.”⁹³

153. The Committee agrees with the concerns expressed during evidence in relation to the impact of welfare reforms on energy efficiency initiatives within the homes and communities sector and the wider climate change agenda.

154. The Committee welcomes the Scottish Government's policies such as the National Retrofit Programme and the Warm Homes Fund, which aims to encourage energy efficiency initiatives focusing on the most fuel poor areas and could help to mitigate some of the negative impact of welfare reforms from the UK Government.

155. Given the strategic role local authorities will play in identifying fuel poor areas and stock requiring upgrading, the Committee recommends that the Scottish Government works with local authorities and stakeholders to consider ways in which, through a wider partnership approach, the negative impact these reforms on achieving the energy efficiency targets set out in the draft RPP2 could be reduced

⁹² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1369

⁹³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6 February 2013, Col 1370

TRANSPORT

Transport 2020 milestones

156. The draft RPP2 confirmed that the milestones to 2020 for the decarbonisation of road transport by 2050 remain the same as those outlined in RPP1 which are:

- A mature market for low carbon cars resulting in achievement of an average efficiency for new cars of less than 95 gCO₂e/km;
- an EV charging infrastructure in place in Scottish cities;
- Personalised travel planning advice provided to all households;
- Effective travel plans in workplaces with more than 30 employees; and
- At least 10% of all journeys made by bicycle.⁹⁴

Proposals and policies

157. The transport abatement summary contains five proposal lines and two policies for achieving the emission reduction targets for the transport sector. The policy listed is “decarbonising vehicles”, which refers to two EU Directives on carbon dioxide from cars and EU biofuels target.

158. The draft RPP2 states that the interventions listed are treated as proposals for emissions accounting purposes as—

“While in most cases they are already being taken forward, they are not yet being implemented at the intensity required for the abatement figures in this document.”⁹⁵

159. The proposals for reducing transport emissions are set out under the four headings: decarbonising vehicles, road network efficiencies, sustainable communities including modal shift to walking, cycling and public transport, and business engagement around sustainable transport.⁹⁶ Network efficiencies and lower emission potential in transport is listed as the fifth proposal with an earliest start date of 2025.

160. The draft RPP2 contains no estimated abatement potential and costs for individual policies and initiatives undertaken by the Scottish Government set out in this section, as was the case with the RPP1, there are only figures for the five

⁹⁴ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 121

⁹⁵ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 124

⁹⁶ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 4

proposals headings which are new headings and headings which were not used in RPP1.⁹⁷

Policies contained within the decarbonising vehicles package

161. Decarbonising vehicles is the only area where the Scottish Government has listed actual policies in relation to reducing emissions from the transport sector and they consist solely of two European directives. The EU Directive on carbon dioxide from cars requires new car fleet average emissions to be 130gCO₂e/km by 2015 with a target of 95gCO₂e/km by 2020. For vans, there is a 175gCO₂e/km by 2017 and 147gCO₂e/km by 2020.

162. The draft RPP2 states that it is supporting the UK Government in pressing the European Commission for higher standards beyond 2020 where the UK Government considers a range of car emissions between 50gCO₂e/km and 70gCO₂e/km in 2030 and for vans, a range of between 75gCO₂e/km and 105gCO₂e/km.⁹⁸

163. The EU biofuels target, implemented through the UK Renewable Transport Fuel Obligation (RTFO)⁹⁹ is listed as the second policy. It is acknowledged that it is unlikely that biofuels will make up more than 10 per cent of transport fuel by volume by 2020 but may have a role to play in market segments where there is limited scope for emission reductions through electrification of vehicles.

Reliance on EU policies

164. A representative from SCCS provided views on whether RPP2 is sufficiently ambitious and credible given the transport chapter relies solely on two EU policies stating that—

“From what we have seen so far, we know that RPP2 relies heavily on the European Union shifting its targets for reductions in emissions and, unless we deliver on all the policies and proposals, we will not meet our targets. That leaves us no headroom. There is no room for error in any of that, and we must deliver everything to the maximum, which is not a very good situation. The big concern is that too much of RPP2 is unfunded and unspecific, and it is difficult to tell how it will deliver particular amounts of emission reductions. There is a great concern there. A lot of the stuff on transport is given as proposals. There is virtually nothing in the way of policies—it is basically just about there being a shift in EU policy.”¹⁰⁰

165. Colin Howden representing Transform Scotland also raised concerns about the absence of any Scottish policies within the transport chapter, saying—

⁹⁷ Low Carbon Scotland: Meeting the Emissions Reductions Targets 2010-2022: The Report on Proposals and Policies, page 96

⁹⁸ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 123

⁹⁹ UK Government. *Renewable Transport Fuels Obligation*: <https://www.gov.uk/renewable-transport-fuels-obligation> [accessed February 2013]

¹⁰⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1402

“It is certainly true that RPP2 as drafted has no policies that are led by the Scottish Government. The only policies are EU measures; they are European Union car-emissions standards, in essence. It is important that the Scottish Government move one or more of the proposals in the transport section up into the policies section.”¹⁰¹

166. The Minister responded to the concerns raised in relation to the reliance on EU policies, telling the Committee—

“The fact that the two policies are based on the EU vehicle emissions standards directives simply recognises the fact that the directives will play a substantial role, not least because of the international context of vehicle production. We support the EU’s efforts to create levers on that.”¹⁰²

167. The questions raised by witnesses regarding the level of ambition contained within the transport section and the absence of any Scottish Government policies were also put to the Minister. He replied—

“We have concentrated on broad packages of interventions rather than more detailed accounts, not least because we do not at this stage know how quickly things will develop; for example, one could invest in a particular electric vehicle and find that is superseded by another within six or 12 months.

“It is right to concentrate on the broad packages and to put in place the foundations to ensure that the behavioural change and any benefits from technological change can be maximised. However, we cannot always specify that at the start.”¹⁰³

168. The Minister explained that concentrating on developing a long-term strategy requires a flexible approach with broad high level packages which can adapt to changing technologies and evolving behavioural changes and that funding of initiatives aimed at supporting climate change action within the transport sector is continuing. He told the Committee—

“As far as the transport contribution to the low-carbon agenda is concerned, we are continuing to invest in sustainable transport and to support climate change action. Considerable work is under way on a broad range of fronts, in line with what is set out in RPP1. Work is being done on modal shift to active and public transport and to rail and water transport for freight, as well as on new technologies such as low-carbon vehicles and hybrid buses.

¹⁰¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1415

¹⁰² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1443

¹⁰³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1442

In the current spending review period, we have committed substantial funding to reducing the carbon impact of transport; more than £200 million is being spent between 2012-13 and 2014-15.”¹⁰⁴

169. The Committee notes the evidence heard regarding the lack of policies contained within the transport chapter. However it also acknowledges that the Scottish Government is currently funding a wide range of initiatives and programmes related to the decarbonisation of vehicles, promoting sustainable communities and encouraging behavioural change.

Initiatives contained within the decarbonising vehicles proposal

UK Plugged-in Places

170. In this area, the Scottish Government states that it will focus its energy on decarbonising vehicles through encouraging the purchase of electric vehicles (EVs) and supporting the development of electric vehicle charging infrastructure.

171. The draft RPP2 states that ‘We are now in our third year of funding the installation of EV charging facilities and participating in the Department for Transport (DfT) - via its offshoot organisation the Office of Low Emission Vehicles (OLEV) - UK Plugged-in Places initiative’. It outlines that this will result in the installation of a high powered interoperable network of charging facilities across Scotland's seven cities and primary road network together with commercial workplace and home charging facilities. By the end of 2012-13, expenditure on EV charging infrastructure and EVs for all of Scotland's community planning partnerships will total £9million.¹⁰⁵

Low Carbon Vehicle Procurement Programme

172. This section states that the Low Carbon Vehicle Procurement Programme (LCPP)¹⁰⁶ has been used to purchase low carbon vehicles and support the change of public attitudes towards these vehicles. The technical annex provides further information on low carbon vehicles and predicts that by 2020, plug-in hybrid cars could account for 16 per cent of new cars and around 5 per cent of the total fleet. It points out that, for EVs to dominate fleet sales in the late 2020s, the reduction in battery cost and an increase in range are key, although data on the profile of battery cost was very uncertain.¹⁰⁷

173. The Committee is aware of and welcomes the on-going work by the Scottish Government to fund schemes aimed at encouraging public bodies to use low carbon vehicles. It believes successful schemes such as these will be of benefit in encouraging the use of electric vehicles amongst the general public.

¹⁰⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1439

¹⁰⁵ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 124

¹⁰⁶ Transport Scotland. *Low Carbon Vehicle Procurement Programme*: www.transportscotland.gov.uk/road/sustainability/low-carbon-vehicles [accessed February 2013]

¹⁰⁷ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2). Technical annex, page 46

E-cosse Partnership

174. To advance the adoption of EVs in Scotland to the required level, Transport Scotland and WWF Scotland jointly initiated the E-cosse Partnership with WWF Scotland. This purpose of this initiative is to encourage collaboration across industry, government and other key stakeholders who have a role in developing the technologies required and costing models to ensure that these vehicles could become a practical and cost effective alternative to petrol and diesel powered vehicles.

175. During evidence, the Minister highlighted the need for a collaborative approach across the public and private sectors if the decarbonising vehicles milestone is to be achieved. He told the Committee—

“To that end, we are working in partnership with a range of organisations and are pulling in matched funding from local authorities and the private sector to increase leverage. A highly significant example of that is the E-cosse partnership, which we established to develop and support the strategic direction in relation to our core aim of decarbonising vehicles in the coming decades. That work is also about getting economic benefit from such developments, by producing or developing things in Scotland.”¹⁰⁸

176. A representative from SCCS stated that there was an emphasis in RPP2 on the development of electric vehicles.¹⁰⁹ The Minister acknowledged that the Scottish Government had made significant investment in relation to EV but argued that the wider issue was the fact that the Scottish Government must have flexibility to amend its proposals and policies in response to developing technologies. He stated—

“We have invested substantially in electric vehicles, but we will have to see how they develop over time. We must retain the flexibility to move investment and proposals around to reflect how the technologies are developing.”¹¹⁰

177. On decarbonising vehicles and the alternative technologies which may be available, a representative from the 2020 Climate Group told the Committee that the general opinion is that there will be no dominant type of transport platform, rather a range of choices from EVs, plug-in hybrids and fuel cell vehicles. He went on to say—

“I do not think that anybody has all the answers yet. The key thing is that the Scottish Government needs to keep a close eye on how things evolve. It should participate actively in UK and EU projects that are helping to demonstrate the technologies as they come out, so that Scotland is ready to take the technology at the point when that makes sense. You should therefore be a close follower, taking advantage of the technologies as they

¹⁰⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1439

¹⁰⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1407

¹¹⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1441

become available and not closing off any options... It could be a mistake to be very prescriptive about what to do.”¹¹¹

Buses

178. Buses account for 6 per cent of Scotland’s surface transport emissions and the draft RPP2 states that ‘A market penetration of 50 per cent hybrid buses by 2027 is thought to be achievable, provided the technology improvements continue to remove the price differential between hybrid and diesel engines.’¹¹²

179. The Scottish Government primarily supports the purchase of low emission buses through the Scottish Green Bus Fund¹¹³. The Fund has a budget of £3 million in financial year 2012-2013.

180. In addition, the Scottish Government and Scottish Enterprise will commit up to £1.65 million to support the Aberdeen Hydrogen project (which has a total budget of £22.5 million), a project aimed at the operation of ten hydrogen buses by 2014 and will support hydrogen bus pilots ‘in the coming years’.

181. A representative from the 2020 Climate Group welcomed the work being done on hydrogen buses. He told the Committee—

“The progression from Euro 1 to Euro 6 has seen air quality get much better but the miles per gallon figure get much worse. However, hybrid buses can claw back some efficiencies in that regard.

Another potential option, which Aberdeen is leading in, is the use of hydrogen buses. That would mean that the bus fleet would be completely decarbonised. What is more important is that Aberdeen is making a link between hydrogen buses and the renewables sector, because the hydrogen comes from a remote wind farm site north of Aberdeen. That is an example of getting the benefits from renewables into transport.”¹¹⁴

182. During evidence, the Committee was also told that more could be done to realise the emissions abatement potential from bus schemes. A representative from Transform Scotland said—

“Obviously, I would say that it can continue with the Scottish green bus fund to allow Lothian Buses and others to purchase hybrid buses. The Government could also consider opportunities for retrofitting the existing fleet, which might be more cost-effective than the purchase of hybrid buses.

In Scotland we have a real opportunity in buses. We have one of the world’s largest bus manufacturers in Alexander Dennis and we have two of Britain’s five largest bus operators in FirstGroup and Stagecoach. As a nation, we

¹¹¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1411

¹¹² Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 126

¹¹³ Transport Scotland. *Scottish Green Bus Fund*: www.transportscotland.gov.uk/public-transport/Buses/Bus-Fund [accessed February 2013]

¹¹⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1410

should be making more of the situation. There is a real industrial opportunity.
“¹¹⁵

183. The Committee was told of the work being undertaken with regard to the Aberdeen project led by Aberdeen City Council and SSE which will see ten hydrogen buses operate on bus routes within central Aberdeen by 2014. The Minister told the Committee—

“We are actively supporting the Aberdeen hydrogen project in a partnership that involves Scottish Enterprise and industry, and the cycling action plan for Scotland is very much a partnership endeavour, which relies on local authorities and others playing their part.”¹¹⁶

184. The Committee welcomes the work being undertaken by the Scottish Government under the decarbonisation of vehicles proposal, such as working in partnership with Scottish Enterprise and other organisations to support hydrogen pilot projects such as the Aberdeen Hydrogen project and the on-going investment in electric vehicles operated by public bodies. The Committee recommends that the Scottish Government continues to support this work and monitor future technological developments which could further assist efforts to decarbonise vehicles across the transport sector.

Maritime and aviation

185. The Scottish Government’s Ferries Plan¹¹⁷ which was published in December 2012 and considered by this Committee, sets out a programme of investment including fuel efficiency improvements from 2015. All the proposals contained within the plan are subject to spending review commitments.

186. The draft RPP2 acknowledges that the EU is responsible for the main policy lever for addressing aviation emissions through the EU Emissions Trading Scheme (EU ETS) under which emissions from both domestic and international aviation are capped.

Road network efficiencies proposal

187. This short section describes how the Scottish Government will complement its work on low carbon vehicles with road network efficiency initiatives such as congestion management and efficient driving.¹¹⁸ It refers to Intelligent Transport Systems (ITS)¹¹⁹ such as variable speed limits, ramp metering and hard shoulder

¹¹⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1412

¹¹⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1439

¹¹⁷ Transport Scotland. *Final Ferries Blueprint for Next Decade*: <http://www.transportscotland.gov.uk/news/final-ferries-blueprint-for-next-decade> [accessed February 2013]

¹¹⁸ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 129

¹¹⁹ Transport Scotland. Intelligent Transport Systems: www.transportscotland.gov.uk/road/technology/intelligent-transport-systems [accessed February 2013]

running, which are planned to be applied across the most congested parts of Scotland's trunk road network.

188. The Committee discussed road network efficiencies and the use of intelligent transport systems and average speed cameras. It was suggested to the Committee that this may not be the most important area for the Scottish Government to focus by a representative from Transform Scotland, who said—

“The table on page 165 of RPP2 shows that the figures in the network efficiencies line are very small compared with those in the other lines—for example, decarbonising vehicles and sustainable communities, so I am not sure that network efficiencies are the most important aspect that we should be looking into...In addition, from my reading of RPP1 and the research that it was based on, network efficiencies did not come through strongly as one of the most cost-effective areas.”¹²⁰

189. A representative from the 2020 Climate Group also questioned the effectiveness of the network efficiencies proposal, and questioned the merit in concentrating on ITS over other measures when he said—

“In the table in RPP1 showing the costs per tonne of CO2 reduction for different approaches, intelligent transport systems emerge as the most expensive measure. I found that to be quite surprising for a number of reasons; the issue should be revisited and the numbers examined carefully.

I am suggesting only that we take another look at the cost benefit analysis of ITS in RPP1, find out whether it is still valid, reference it with what is going on in the commercial sector and see whether that might give any pointers.”¹²¹

190. Keith Irving from Living Streets made the point that reducing speeds in urban areas can improve people's quality of life and encourage more cyclists on to the roads by reducing the fear of collisions with motor vehicles. He explained that, rather than actually reducing carbon emissions significantly, reduced urban speed limits could be used more to encourage modal shift. He told the Committee—

“...I think that this is all about creating an environment that is conducive to making low-carbon transport choices—walking, cycling or taking the bus. Some London boroughs adjust traffic lights in order to smooth traffic flow and get a green wave, which means that if you drive at 20 mph you hit green lights the whole way...Such systems play a role in creating a better environment but, as far as I am aware, there is less evidence of their direct impact on climate change.”¹²²

¹²⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1413

¹²¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1414

¹²² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1414

191. This view was echoed by a representative from Transform Scotland who told the Committee that it was in favour of moving to 20mph as the limit in urban areas, but that this was less to do with climate change reasons and more to do with improving quality of life.”¹²³

192. The 2020 Climate Group told the Committee that a view was held that 40 mph was the speed limit thought to have the most positive climate change impact stating—

“the 2020 climate group recently held a public debate on reducing speed limits, and part of the evidence that was presented was that, in built-up areas, 40mph is seen to be the optimum speed limit from the point of view of emissions reduction. That is not to say that we should have a 40mph limit everywhere; it is just what the academics came back with. That speed is seen as the sweet spot for minimising carbon emissions.”¹²⁴

193. When asked about the benefits of intelligent traffic systems, the Minister said—

“Apart from reducing journey times, which is obviously a consideration, smoothing the traffic flow has an environmental benefit, and we should not set it against the other measures that we are taking. It is beneficial to the efficient movement of people and goods across the network, and it is good for the economy, which is a positive improvement...

By deploying ITS systems on congested sections of the trunk roads and motorways, we will encourage more efficient driving and smoother traffic flow. However, we must balance that approach with other efforts on a range of fronts, including the promotion of new low-carbon vehicles and fuel options as well as alternatives to private car use.”¹²⁵

194. The Committee notes the evidence heard from witnesses on the road network efficiencies proposal and the response from the Minister. The Committee believes that, given the relatively small emissions abatement potential, it is unclear as to whether Scottish Government activity in this area represents a cost-effective approach. It therefore recommends that the final RPP2 contains further information on the benefits in emissions reduction terms associated with ITS.

¹²³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1412

¹²⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1413

¹²⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1454

Sustainable communities proposal

195. The sustainable communities package ‘aims to help people understand their options and use more carbon friendly modes of travel through travel planning, walking and cycling and the use of car clubs.’¹²⁶

196. The draft RPP2 states that it aims to achieve this by continuing to develop community-based travel planning strategies by learning lessons from the Smarter Choices Smarter Places (SCSP)¹²⁷ demonstration programme which ran in seven local areas between 2008 and 2012 and had funding of £15 million and from ‘other similar initiatives’.¹²⁸

197. The role of the Energy Saving Advice Centres in offering advice on travel options is referred to and, in addition, it highlights the key role for local authorities in delivering both behavioural change and infrastructure improvements if the concept of a sustainable community where people chose sustainable transport options is to become a reality.

198. This section lists a number of initiatives¹²⁹ aimed at encouraging modal shift from the car to bus and rail under this sustainable communities package and states that on-going measures to encourage more people to use the bus through improving services will be achieved by local authorities establishing Bus Quality Contracts and statutory Bus Quality Partnerships.

199. In terms of achieving the 2020 milestone of at least 10 per cent of all journeys to be made by bicycle, this section refers to the Cycling Action Plan for Scotland (CAPS)¹³⁰ which sets out the Scottish Government’s plans for achieving this milestone. It states that its active travel policy beyond 2020 will continue to work to encourage cycling and walking through further infrastructure improvements and promotion of active travel and development of a National Walking Strategy.¹³¹ This section also states that it will continue to work with partners on developing a network of car clubs¹³² to support energy efficiency and carbon reduction in transport.

¹²⁶ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 129

¹²⁷ Transport Scotland. Smarter Choices Smarter Places: www.transportscotland.gov.uk/roads/sustainable-transport/funding-for-projects/smarter-choices-smarter-places [accessed February 2013]

¹²⁸ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 129

¹²⁹ Transport Scotland. *Bus Policy*: www.transportscotland.gov.uk/public-transport/Buses/Policy [accessed February 2013] Transport Scotland. *Rail Policy*: www.transportscotland.gov.uk/rail [accessed February 2013]

¹³⁰ Transport Scotland. *Cycling Action Plan for Scotland*: www.scotland.gov.uk/Publications/2010/06/25103912/0 [accessed February 2013]

¹³¹ Scottish Government. *National Walking Strategy*: www.scotland.gov.uk/News/Releases/2012/05/walkingstrategy17052012 [accessed February 2013]

¹³² Car Clubs in Scotland: www.carplus.org.uk/our-work/car-clubs-in-scotland/ [accessed February 2013]

200. The Committee considered the initiatives contained within this proposal and issues relating to current levels of funding and the potential for some initiatives to become Scottish Government policy.

Funding

201. Peter Hawkins representing SPOKES expressed concerns regarding the lack of focus on cycling when he said—

“There is not much about cycling in RPP2 and we are missing out on possible easy wins...The vast majority of RPP2 is about decarbonising cars.”¹³³

202. On the issue of the need for behavioural change in relation to active travel choices in favour of travelling by car, a representative from SPOKES told the Committee—

“The document contains almost nothing about alternatives to the car, yet we know that 40 per cent of car trips are of less than 2 miles and that two thirds of car trips are of less than 5 miles. Distances of up to 2 miles could be walked and distances of up to 5 miles could be cycled. A possibility exists, which will require behaviour change by the public, but the Government does not seem to be making any effort to encourage that behaviour change. RPP2 makes virtually no mention of behaviour change.”¹³⁴

203. He also spoke more generally about the levels of investment on cycling initiatives telling the Committee—

“As you know, the overall transport budget is £2 billion. RPP1 called for 5 per cent of that to be devoted to active travel—which, by my calculations, should be about £100 million a year. It is difficult to disaggregate walking, cycling, the use of electric charging points and so on to find out how much is going towards cycling, and I would like the committee to work on that issue, if possible, to ensure that, instead of having to look at some aggregated mass, we can actually see how much money is being spent in that area.

RPP1 called for 5 per cent several years ago. Given that there has been no investment in cycling, that figure will have to be increased; indeed, a number of organisations have called for 10 per cent of the transport budget to be spent on active travel. It is time that the issue was addressed.”¹³⁵

204. The Committee also considered the levels of funding per head required to achieve the targets set out in the sustainable communities proposal and the evidence base for the figure of £5 per head as listed in the technical annex to the draft RPP2.

¹³³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1404

¹³⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1404

¹³⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1408

205. The Scottish Government confirmed that, it looked at the range of figures across Europe on spends-per-head on cycling before deciding on its own approach. A official told the Committee—

“In putting the numbers together, we have to plump for a figure. There is a recognition that we forecast the numbers based on the information that is available. Rather than having a huge range of figures for expenditure and how much impact it might have, we plumped for something that is somewhere in the middle, recognising the fact that a lot of those cities in Europe are spending a lot of money because cycling already accounts for a significant modal share in those cities. Our target under the cycling action plan is for 10 per cent of journeys to be made by bicycle.”¹³⁶

206. The Scottish Government provided further supplementary written evidence on the work it had carried out to arrive at the £5 investment per head figure and this is reproduced in annexe B to this report.

Number of policies

207. A representative from SPOKES agreed that in order for the Scottish Government to meet its 10 per cent modal share for cycling, it has to become a Scottish Government policy within the RPP2. He said—

“I always understood that the cycling action plan for Scotland—CAPS—was a policy. It is certainly referred to as such in other documents. That is definitely an example that could become one of the policies.”¹³⁷

208. Written evidence¹³⁸ suggested that one of its milestones the CAPS for 2020 is that 10 per cent of all journeys will be made by bicycle and that the Scottish Government should upgrade its cycling initiatives under the sustainable communities proposal to a policy under the transport section. A representative from Transform Scotland’s comment summed up evidence to the Committee on this issue when he said—

“...the Government is not spending enough money on sustainable transport measures, although it is spending some: it is investing in cycling, walking, car clubs and eco-driving, for example—all of which will reduce climate emissions. The Government not only has policies in such areas but is investing in them. Such items should be moved above the line from proposals to policies. A specific example is the Government’s target to hit 10 per cent modal share for cycling by 2020. It is imperative that that be moved into the policies section.”¹³⁹

¹³⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1460

¹³⁷ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1415

¹³⁸ SPOKES. Written submission, page 2, paragraph 2

¹³⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1415

209. A representative from the 2020 Climate Group made a similar point with regard to eco-driving initiatives and whether there should be more policies and that action on these initiatives could be speeded up. He told the Committee—

“In considering which proposals might become policies, we should consider the overall cost benefit that is delivered. For example, the numbers suggest that for the investment that is put into eco-driver training there is a much bigger return in cost savings and consequential benefits. Can we bring forward the measures that bring the greatest return and do them sooner rather than later? The Government is talking about training people in eco-driving by 2027—I think that that is the objective. Why do we need to wait 13 years to get people through eco-driver training? If something will deliver good, positive results, we should be doing it sooner rather than later.”¹⁴⁰

210. A representative from Transform Scotland discussed the level of funding that had been allocated of the Smarter Choices, Smarter Places programme and suggested that future action could be based on the lessons learned from this programme. He told the Committee that—

“...the smarter choices, smarter places programme was not a policy but a programme of investment in a number of towns across Scotland. It followed the sustainable travel towns programme in England, which demonstrated very high benefit to cost ratios with regard to delivering emissions reductions and a modal shift to cycling. I encourage the committee to pursue that line, because it would be a really good way of driving really good examples of cycle use in Scotland.”¹⁴¹

211. The Minister told the Committee that the Scottish Government was constantly developing initiatives and taking opportunities to ‘add to the policy agenda’. In relation to the Smarter Choices, Smarter Places programme, he told the Committee that the programme would undergo a full evaluation in late spring 2013. He said —

“There is another milestone for travel planning. The smarter choices, smarter places demonstration programme is now undergoing a full evaluation, following which we will determine the next steps for it. Work is also under way with businesses through Scotland’s climate 2020 group.”¹⁴²

212. The Minister also explained to the Committee that it was imperative that the draft RPP2 provides enough flexibility to allow the Scottish Government to respond to developing technologies and changing behaviours. He stated—

“The draft RPP2 attempts to balance the need for a long-term credible plan to meet our emissions targets, with the need to remain flexible. It is perfectly appropriate to have that mix of policies and proposals; the Climate

¹⁴⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1416

¹⁴¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1408

¹⁴² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1448

Change (Scotland) Act 2009 provides for that mix. It is also important to have flexibility. However, the scale and nature of the programme will depend on spending decisions.”¹⁴³

213. The Minister further addressed the call for the the Scottish Government to consider upgrading some proposals to policies. He told the Committee—

“We intend to be responsive and to continue to listen. If it seems appropriate to us to change a proposal into a policy, we will do that.”¹⁴⁴

214. The Committee welcomes the Scottish Government’s commitment and funding of sustainable transport initiatives within this proposal and the impact this can have on encouraging behavioural change. The Committee acknowledges the impact of the current economic climate and the Spending Review on the Scottish Government’s ability to fund initiatives under this proposal.

215. In December 2012, the Committee expressed its concerns that funding available to support the implementation of CAPS appeared inadequate to meet the 10 per cent target by 2020 and recommended the Scottish Government used the opportunity afforded by the CAPS refresh, due in 2013, to identify and direct realistic and appropriate levels of funding to its delivery from other areas of the transport budget. The Committee also stated that should the required level of investment not be made, the Committee believed that there was a very real risk that the 10 per cent target would not be met.¹⁴⁵

216. The Committee believes that initiatives aimed at promoting sustainable communities need not only adequate funding but a joined up approach with businesses, local authorities and individuals all having their part to play.

217. The Committee welcomes initiatives such as the Smarter Choices Smarter Places programme where relatively small investments can achieve significant emissions reductions. It therefore recommends that following the evaluation of the programme in 2013, the Scottish Government writes to this Committee with details of the evaluation and setting out whether it intends to continue or replace this programme.

Business engagement on sustainable transport proposal

218. The fourth package focused on achieving the carbon emission reductions within the transport sector is under the heading of business engagement and sustainable transport. The draft RRP2 states that 10 per cent of all travel is accounted for by business activity (which does not include commuting which

¹⁴³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1443

¹⁴⁴ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1443

¹⁴⁵ Scottish Parliament Infrastructure and Capital Investment Committee (2012). *The Scottish Government’s Draft Budget 2013-14*. Paragraph 178. Available at: <http://www.scottish.parliament.uk/parliamentarybusiness/CurrentCommittees/57606.aspx>

accounts for a further 20 per cent of annual individual travel) and that this is an area where significant reductions could be made.¹⁴⁶

219. The proposals under this package focus on fuel efficient driving,¹⁴⁷ workplace travel planning¹⁴⁸ and freight efficiencies. Workplace travel planning is being supported by the ChooseAnotherWay¹⁴⁹ initiative which is a resource centre for organisations in Scotland wanting to reduce the costs, environmental impacts and duty of care risks associated with how we work and travel. The draft RPP2 also cites the Worksmart¹⁵⁰ initiative and states that research is being undertaken to measure the impacts of this and other local authority schemes aimed at reducing work-related travel and lever significant financial benefits as well as carbon abatement.

220. Fleet efficiency is being encouraged through promoting fuel efficient driving practices for cars vans and HGVs and in addition, the draft RPP2 states that—

“We will continue to work with the haulage sector on alternatives to road haulage (freight modal shift to rail and water) and encourage more efficient freight vehicle usage(fuel efficient driving practices for HGVs and vans, fuels, encouraging load sharing and consolidation etc.”¹⁵¹

221. The technical annex provides more detail regarding the assumptions behind the abatement figures for the Freight Modal Shift proposal which aims to transfer freight movements from road to rail and water and to rationalise the movement of freight more generally. The emissions abatement as a result of reduced fuel consumption is based on an assumption of a 5 per cent modal shift from HGVs from 2022, which is described as a ‘moderately ambitious scenario.’¹⁵²

222. A representative from the 2020 Climate Group said more opportunities could be made from road haulage transport when he told the Committee—

“RPP2 is a bit light on road haulage and on how we might work with that sector to decarbonise freight logistics. There could be opportunities for not total but partial decarbonisation by using different fuels, such as liquid natural gas—work is starting on that, but that does not seem to be reflected in RPP2.”¹⁵³

¹⁴⁶ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 131

¹⁴⁷ Energy Saving Trust. *Fuel Efficient Driving*: www.energysavingtrust.org.uk/scotland/Travel/Driving/Fuel-Efficient-Driver-training [accessed February 2013]

¹⁴⁸ Chooseanotherway.com. *Workplace Travel Planning*: www.chooseanotherway.com/ [accessed February 2013]

¹⁴⁹ www.chooseanotherway.com [accessed February 2013]

¹⁵⁰ Flexibility.co.uk. *Worksmart initiative*: www.flexibility.co.uk/cases/Aberdeenshire-Council-Worksmart.htm

¹⁵¹ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 132

¹⁵² Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2)p. Technical annex, page 53

¹⁵³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report,20 February 2013*, Col 1404

223. The lack of detail on the opportunities which could be realised from freight transport was also raised in written evidence to the Committee from Dr Piecyk from Heriot Watt University who wrote—

“Overall, there is very little mention of freight transport in the RPP2 draft so there isn't very much to comment on.

To achieve significant reductions in GHG emissions from the sector, a combination of technological and operational measures will be required...The operational measures should include efforts to shift more freight onto less GHG-intensive transport modes, better utilisation of vehicles (i.e. fewer but fuller trucks), re-considering delivery patterns (e.g. allowing night-time deliveries, changing access restrictions), supporting drivers training, etc. ¹⁵⁴

224. The Minister responded to concerns regarding the lack of detail on decarbonising freight by telling the Committee—

“Perhaps the matter is given the space that it is given in RPP2 because we are still trying to make further progress on it and because of some of the constraints on doing more—you mentioned the ORR. However, that should not be taken to mean that we are not keen to do more on it. We are actively doing more, and we are considering some proposals. “

225. A representative from the 2020 Climate Group told the Committee of the work currently undertaken by the 2020 climate group on encouraging modal shift. He said—

“One of the measures that the 2020 climate group is looking at in the transport challenge is greater use of public transport. One route is to consider whether businesses can help their employees make that choice and take the bus to work, for example, rather than the car. We could also work with the retail sector to assess, for example, whether retail locations can use more public transport routes to get people to shopping centres and the like. We are not working directly with everybody on the issue, but we are starting to target certain areas in which we think public transport could play a part. ¹⁵⁵

226. The Committee welcomes the commitment by the Scottish Government to continue to work with the logistics sector on alternatives to road haulage through the Freight Modal Shift proposal.

227. The Committee calls on the Scottish Government to consider whether the draft RPP2 could place greater emphasis on the emissions reduction benefits which could be realised from developments in the freight sector through modal shift and technological and operational changes.

¹⁵⁴ Dr Maja Piecyk. Written submission.

¹⁵⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1410

Behavioural change

228. The draft RPP2 acknowledged the importance of encouraging behavioural change if targets are to be met across all transport proposals, (an issue which was also raised during discussion on the homes and communities chapter.) The Committee discussed encouraging people to buy low carbon vehicles, to drive in a more ecofriendly manner, or to make the choice not to drive at all and use public transport or walk or cycle instead, not only as part of their recreational activity but as a sustainable mode of transport as part of their daily lives.

229. The Committee considered what witnesses felt were the main challenges in relation to encouraging behavioral change and the Committee was told that funding played a key part and demand management had to be tackled if people's behavior were to change in the scale required to meet Scotland's climate change targets.

230. A representative from from Living Streets explained the importance of changing people's behavior when he said—

“Behaviour change is a fundamental aspect of cutting climate change emissions. There is action that we can take now and in the medium term to create an environment in which we do not need so much transport and goods and services are available within shorter distances.”¹⁵⁶

231. On changing people's behaviour, a representative from from Living Streets went on to say—

“The challenge for the RPP and Scotland is to demonstrate that a modern country is not a car-based economy, that we have learned from all the difficulties that that creates and that we are trying to turn back the clock, if you like, to a time when walking, getting on a bike and using public transport were the natural choices.”¹⁵⁷

Funding

232. The Committee was told of the importance of adequate funding of initiatives and incentives was key if people were to change their attitudes and behaviours when making travel choices. The discussion around funding covered a range of issues from funding active travel initiatives in order that people feel safe when walking and cycling to funding public transport in order to make using buses a more attractive option than taking the car. A representative from SCCS told the Committee—

“Yes, we need to shift; after all, transport emissions have gone up instead of down. Moreover—to come back to my point about behavior change—as I said earlier, if you want people to change their behavior, you have to reward them for the behaviours that you want. As far as roads and transport are

¹⁵⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6/20 February 2013, Col 1407

¹⁵⁷ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 6/20 February 2013, Col 1406

concerned, we are actually rewarding the behaviours that we do not want
“¹⁵⁸

Demand management

233. Witnesses spoke of the need for road traffic demand management if behaviours were to change and the fact that the draft RPP2 does not contain enough action on this. There were strong views expressed regarding the need for the draft to contain more detail on transport demand management, despite the possible unpopular nature of such proposals and policies.

234. The issue of demand management and the lack of any measures in the draft RPP2 was raised by A representative from SCCS who stated—

“As I said, when it comes to leadership, consideration needs to be given to what happens when people take cars into towns. We need to think about demand management. Is it appropriate not to have congestion charging? Should there be workplace parking levies? Those are difficult questions, but they need to be considered. It would be useful to know what will happen in those respects. “¹⁵⁹

235. On demand reduction efforts, a representative from Living Streets compared the transport section with the energy chapter of the draft RPP2 and said —

“There are two fundamental objectives in the energy section: decarbonising the energy supply and reducing demand, which are objectives that everyone around this table would sign up to.

When we look at the transport section, decarbonising transport is an objective, but it says absolutely nothing about reducing demand. Everyone would admit that that is a difficult challenge, but it is a nettle that needs to be grasped. We would like to see an acknowledgement within the RPP that more transport is not necessarily the objective of Government. Transport is a means rather than an end in itself. “¹⁶⁰

236. A representative from SCCS referred to the Committee on Climate Change’s view that there is a need to address traffic demand management and went on to tell the Committee—

“One of the obvious ways forward is to introduce demand management measures. Our position is that, if you are going to do that, you should look at introducing measures in, say, four major cities in 2016. You might argue that there should be workplace levies for parking places. If people know what is going to happen and there is a lead-in, they can prepare for and deal with it. There are a number of demand management measures and,

¹⁵⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1415

¹⁵⁹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1415

¹⁶⁰ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1406

although they might not be easy, they need to be looked at. However, they are not mentioned at all in RPP2. ¹⁶¹

237. The Committee asked the Minister to respond to the concerns relating to traffic demand management and why the draft RPP2 does not appear to tackle this difficult issue. The Minister responded frankly when he said—

“It is interesting that we have not had suggestions about demand reduction from any other political party—I think that I am right in saying that. We have received such suggestions from interest groups; there is no question about that. It is worth saying that, although we have climate change targets, we are not trying to discourage travel per se.”¹⁶²

238. The Minister went on to tell the Committee that the Scottish Government intends to concentrate on encouraging behavioural change and the technological developments as opposed to demand management measures. He stated quite clearly—

“There is no concealed intention to hit anyone with a huge swathe of demand-restrictive practices. That is not part of our agenda. It is perfectly legitimate that we mention that such things have been suggested by other people and we should never discount them, but we are concentrating on behavioural and technological change.”¹⁶³

239. The Committee notes the response from the Minister stating that the Scottish Government will focus on encouraging behavioural change as opposed to introducing measures aimed at reducing demand for travel. The Committee recommends that the Scottish Government continues to monitor the impact of initiatives in relation to encouraging behavioural change and whether certain demand management initiatives might require to be considered as potential future options in advance of the publication of the RPP3.

Lower Emission Potential in Transport

240. The draft RPP2 states that a range of models had been used to predict transport emissions and they suggest that ‘it may be possible to reduce predicted emissions, perhaps by as much as 0.75 Mt by 2027.’¹⁶⁴ It acknowledges the uncertainties involved in predicting traffic growth level, the scope to manage reductions in road use in favour of public transport and improved travel planning and aims to include an appraisal on realising this predicted abatement potential for 2025-27 in the subsequent RPP3.

¹⁶¹ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1407

¹⁶² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1448

¹⁶³ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1450

¹⁶⁴ Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 – The Draft Second Report on Proposals and Policies (RPP2), page 132

241. Concerns were raised regarding this proposal and the predictions regarding its abatement potential. A representative from SCCS said—

“We are certainly in the territory of wanting evidence as to how that figure is to be achieved. We want to see the detail that will show us how it is to be achieved. At the moment, it certainly has the look of a figure that has been plucked out of the air, slightly, without any apparent justification.”¹⁶⁵

242. A representative from Transform Scotland expressed similar concerns regarding the robustness of the abatement potential of this proposal, telling the Committee—

“The emission saving that comes in during the final three years—2025 to 2027, I think—comes at no additional financial cost. The table shows that the total costs of the proposals are essentially flat. Such a large emission saving of 750 kilotonnes CO₂e in the final year is almost as large as the whole emission saving from decarbonising vehicles, with electric cars and so forth. What is that saving, and how will it be funded? A charitable reading is that it could involve road traffic demand management measures coming in, which could be delivered in a fiscally neutral way, or potentially through raising revenue. The Scottish Government’s current position is quite averse to road traffic demand management, however.

The figure needs to be explained. Why is the reduction being put off until the end? Surely we are trying to reduce emissions quickly, so that saving should surely be coming in at an early stage, rather than right at the end.”¹⁶⁶

243. The Committee questioned the Minister on the abatement potential figures associated with this proposal. The Minister reiterated the fact that inherent uncertainties exist in predicting technologies and costs up to fourteen years in advance and that the abatement analysis is based on what is actually technically feasible. The Minister also gave a commitment to undertake further work in advance of the next RPP on a proposal to realise abatement potentials into the future. He told the Committee—

“We do not believe that we should put in place definitive proposals to achieve further reductions well into the future because we cannot know the technical and policy contexts that will apply up to 14 years from now. In the future, there might be more effective and economical ways in which we can meet the targets, but those are not yet known to us.

However, the proposal gives us the assurance that the targets can be met in principle. In the future, we could be talking about stronger incentives, but that will be for future consideration. We intend to carry out further analysis and to develop a proposal on how we may realise the abatement potential in the next RPP. That is the right approach to take.”¹⁶⁷

¹⁶⁵ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1403

¹⁶⁶ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 20 February 2013, Col 1403

¹⁶⁷ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1444

244. The Committee also questioned the Minister on the wider issue of progress on meeting emission reductions targets within the transport sector since the publication of RPP1. The Minister told the Committee—

“It is worth reiterating that it is an extremely long-term agenda and that transport’s contribution to emissions reduction will be more pronounced in future decades, not least because we are trying to change behaviours, as I have described. Transport is a highly significant area, but we are at the stage of laying the foundations for the future changes that we want. Given that it is less than two years since RPP1 was published, many of the proposals and policies that it set out remain in RPP2, as you would expect.”¹⁶⁸

245. The Committee acknowledges the uncertainties in making projections of possible abatement potential as a result of emerging technologies, behavioural change and funding options.

246. However, the Committee believes the predicted abatement potential from the lower emission potential in transport proposal for the years 2025 to 2027 is not insignificant and is concerned that it is unclear as to how these abatement figures have been calculated.

247. Given the reliance on significant abatement potential from 2025 to 2027, the Committee recommends that the final RPP2 contains more detailed information on how the abatement potential figures for this proposal have been calculated. In addition, the Committee recommends that in advance of laying RPP3 in 2016, further work is done on developing this proposal as new technologies emerge and the effects of work towards changing behaviours are known.

OTHER ISSUES

Procurement

248. Although part of this Committee’s remit, issues relating to procurement, Scottish Water and broadband did not feature heavily in the draft RPP2 and the Committee’s scrutiny reflects this fact. These topics were not addressed in oral evidence, but written submissions were invited from stakeholders in the call for views on the draft RPP2.

249. The draft RPP2 did not examine the topic of procurement in detail, and this was noted in the response from Stop Climate Chaos Scotland—

“It is difficult to make any substantial analysis on the level of importance placed on procurement as a means to reduce emissions in the RPP2 as there is very little reference to this important lever within the document...While sustainable procurement processes are one of the three

¹⁶⁸ Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1440

areas identified to achieve this, there are no proposals or policies relating to sustainable public procurement within the RPP2.”¹⁶⁹

250. SCVO viewed the potential impacts of the forthcoming procurement reform bill with optimism but expressed concern regarding a policy shift away from sustainability. In its written submission it stated—

“This single piece of legislation will have a huge impact on emissions through the delivery of billions of pounds of public services and their associated carbon emissions. When the draft bill comes before Parliament it is important that its potential impact on emissions reductions is scrutinised.

Changing the name from the Sustainable Procurement bill sent out a worrying message about where the priorities of the new bill will lie.”¹⁷⁰

251. SEPA also expressed the need for sustainability to be the focus of the forthcoming bill when it stated—

“Moving towards sustainable procurement has the potential to yield a range of co-benefits – economic, employment, environmental and community. We would support moves to ensure that public sector procurement effectively evaluates and takes into account the carbon impacts of the products and services being procured. Doing so would not only help to drive down emissions (by making carbon equal to cost as a key feature in whether a tender will be successful or not), but could also lead to positive economic benefits (for the local food and drink sector for example).”¹⁷¹

252. The Minister for Housing and Welfare was questioned during evidence on the perceived move away from sustainability in the forthcoming bill and confirmed that this was not the case. She told the Committee—

“The proposed change in name reflects no such policy shift. I do not think that the bill’s title matters; what is more important is the intention behind it, which is clearly to provide a legislative framework for procurement decisions that supports the greater use of clauses on social and environmental sustainability. That is what we are committed to and the change in title does not reflect any change in policy.”¹⁷²

253. The Committee welcomes this clarification and confirmation that sustainability issues will still be a focus of the procurement bill. It is expected that the Committee will be designated as lead committee for scrutiny of the forthcoming bill and will consider these issues in detail as part of its consideration of the general principles of the bill when it is introduced later in 2013.

¹⁶⁹ Stop Climate Chaos Scotland. Written submission, page 7, paragraph 2 - 3

¹⁷⁰ SCVO. Written submission, page 5, paragraph 6

¹⁷¹ SEPA. Written submission, page 6, paragraph 1

¹⁷² Scottish Parliament Infrastructure and Capital Investment Committee. *Official Report*, 27 February 2013, Col 1473

Scottish Water

254. Scottish Water submitted a written statement outlining its ongoing and planned work, and achievements in terms of carbon reduction and efficiencies work to date. This stated that—

“Scottish Water supports Scottish Government goals on carbon and climate change and is taking a number of steps to deliver appropriate actions to both mitigate and adapt to climate change.”¹⁷³

255. It should be noted that Scottish Water gave evidence to the Economy Energy and Tourism Committee at its meeting on 27 February on issues in relation to renewable energy and carbon abatement measures.

Broadband

256. No issues were raised in written evidence in relation to broadband infrastructure however, Consumer Focus Scotland note in their evidence—

“Access to fast, reliable broadband is increasingly critical to enable consumers to access the best deal for a range of services, including energy and delivery of goods. It would be helpful to examine how far investment in IT infrastructure can and does, in practice, reduce the need for travel at lower cost than investment in physical infrastructure.”¹⁷⁴

CONCLUSION

257. This report outlines the Committee’s scrutiny of the draft RPP2 and recommends that Scottish Government takes note of this report and responds to all the conclusions and recommendations when laying the final RPP2.

¹⁷³ Scottish Water. Written submission, page 2, paragraph 1

¹⁷⁴ Consumer Focus Scotland. Written submission, page 4, paragraph 2

ANNEXE A: EXTRACTS FROM MINUTES OF THE INFRASTRUCTURE AND
CAPITAL INVESTMENT COMMITTEE

2nd Meeting, 2013 (Session 4), Wednesday 23 January 2013

Low Carbon Scotland: the Scottish Government's second draft report on proposals and policies (in private): The Committee agreed its approach to the second draft report on proposals and policies on climate change.

3rd Meeting, 2013 (Session 4), Wednesday 6 February 2013

Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 (RPP2): The Committee took evidence in round table format from—

Scott Restrick, Technical and Training Manager, Energy Action Scotland;

Philip Hogg, Chief Executive, Homes for Scotland;

Mike Thornton, Director, Energy Savings Trust;

Elizabeth Leighton, Independent Consultant, Existing Homes Alliance Scotland;

Dr Stephen Garvin, Construction Director, BRE Scotland;

David Bookbinder, Head of Policy and Public Affairs, Chartered Institute of Housing Scotland;

Mike Wagner, Association of Local Authority Chief Housing Officers.;

David Stewart, Lead Officer, Scottish Federation of Housing Associations.

4th Meeting, 2013 (Session 4), Wednesday 20 February 2013

Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies: The Committee took evidence in round table format from—

Mr Tom Ballantine, Chair, Stop Climate Chaos;

Peter Hawkins, Member of Planning Group, Spokes;

Mr Nigel Holmes, Co-chair, Transport sub-group, Climate 2020;

Colin Howden, Director, Transform Scotland;

Keith Irving, Manager, Living Streets Scotland.

Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies (in private): The Committee considered the evidence heard earlier in the meeting.

5th Meeting, 2013 (Session 4), Wednesday 27 February 2013

Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies: The Committee took evidence from—

Keith Brown, Minister for Transport and Veterans

Jonathan Dennis, Economic Advisor, Transport Scotland

Dr Katherine Falconer, Head of Sustainable Transport Team, Transport Scotland

Margaret Burgess, Minister for Housing and Welfare

David Fotheringham, Team Leader, Housing Sustainability and Innovation Funding Division

Steven Scott, Team Leader - Energy and Energy Performance Buildings Directive, Building Standards Division

Peter Brown, Programme Manager, Scottish Government.

Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies (in private): The Committee considered the evidence heard earlier in the meeting.

7th Meeting, 2013 (Session 4), Wednesday 13 February 2013

Low carbon Scotland: the Scottish Government's second draft report on proposals and policies (in private): The Committee considered a draft report.

8th Meeting, 2013 (Session 4), Wednesday 20 March 2013

Low Carbon Scotland: Meeting our Emissions Reduction Targets 2013-2027 - The Draft Second Report on Proposals and Policies (in private): The Committee considered and agreed a draft report, subject to minor amendments.

ANNEXE B: ORAL EVIDENCE AND ASSOCIATED WRITTEN EVIDENCE

3rd Meeting, 2013 (Session 4), 6 February 2013

ORAL EVIDENCE

Scott Restrick, Technical and Training Manager, Energy Action Scotland;
Philip Hogg, Chief Executive, Homes for Scotland;
Mike Thornton, Director, Energy Savings Trust;
Elizabeth Leighton, Independent Consultant, Existing Holmes Alliance Scotland;
Dr Stephen Garvin, Construction Director, BRE Scotland;
David Bookbinder, Head of Policy and Public Affairs, Chartered Institute of Housing Scotland;
Mike Wagner, Association of Local Authority Chief Housing Officers.;
David Stewart, Lead Officer, Scottish Federation of Housing Associations.

4th Meeting, 2013 (Session 4), 20 February 2013

ORAL EVIDENCE

Mr Tom Ballantine, Chair, Stop Climate Chaos;
Peter Hawkins, Member of Planning Group, Spokes;
Mr Nigel Holmes, Co-chair, Transport sub-group, Climate 2020;
Colin Howden, Director, Transform Scotland;
Keith Irving, Manager, Living Streets Scotland.

5th Meeting, 2013 (Session 4), 27 February 2013

ORAL EVIDENCE

Keith Brown, Minister for Transport and Veterans
Jonathan Dennis, Economic Advisor, Transport Scotland
Dr Katherine Falconer, Head of Sustainable Transport Team, Transport Scotland
Margaret Burgess, Minister for Housing and Welfare
David Fotheringham, Team Leader, Housing Sustainability and Innovation Funding Division
Steven Scott, Team Leader - Energy and Energy Performance Buildings Directive, Building Standards Division
Peter Brown, Programme Manager, Scottish Government.

SUPPLEMENTARY WRITTEN EVIDENCE.....

- [Supplementary Written Evidence from Transport Scotland \(67KB pdf\)](#)

ANNEXE C: LIST OF OTHER WRITTEN EVIDENCE

SUBMISSIONS RECEIVED IN RESPONSE TO CALL FOR VIEWS

- [BSW Timber \(151KB pdf\)](#)
- [Climate 2020 Transport sub-Group \(204KB pdf\)](#)
- [Consumer Focus Scotland \(98KB pdf\)](#)
- [Doug McLaren \(Individual\)\(65KB pdf\)](#)
- [Energy Savings Trust \(304KB pdf\)](#)
- [ESPC \(267KB pdf\)](#)
- [Existing Homes Alliance Scotland \(239KB pdf\)](#)
- [Glasgow City Council - Land and Environmental Services \(128KB pdf\)](#)
- [Glass and Glazing Federation \(143KB pdf\)](#)
- [Homes for Scotland \(151KB pdf\)](#)
- [M Piecyk, Dr \(11KB pdf\)](#)
- [National Federation of Roofing \(254KB pdf\)](#)
- [Pedal on Parliament \(142KB pdf\)](#)
- [Scottish Council for Voluntary Organisations \(222KB pdf\)](#)
- [Scottish Federation of Housing Associations \(206KB pdf\)](#)
- [Scottish National Heritage \(70KB pdf\)](#)
- [Scottish Water \(349KB pdf\)](#)
- [SEPA \(234KB pdf\)](#)
- [Spokes \(201KB pdf\)](#)
- [Stop Climate Chaos Scotland \(220KB pdf\)](#)
- [Sustrans \(157KB pdf\)](#)
- [Tingle Consulting \(143KB pdf\)](#)
- [Wood Panel Industries Federation \(207KB pdf\)](#)

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