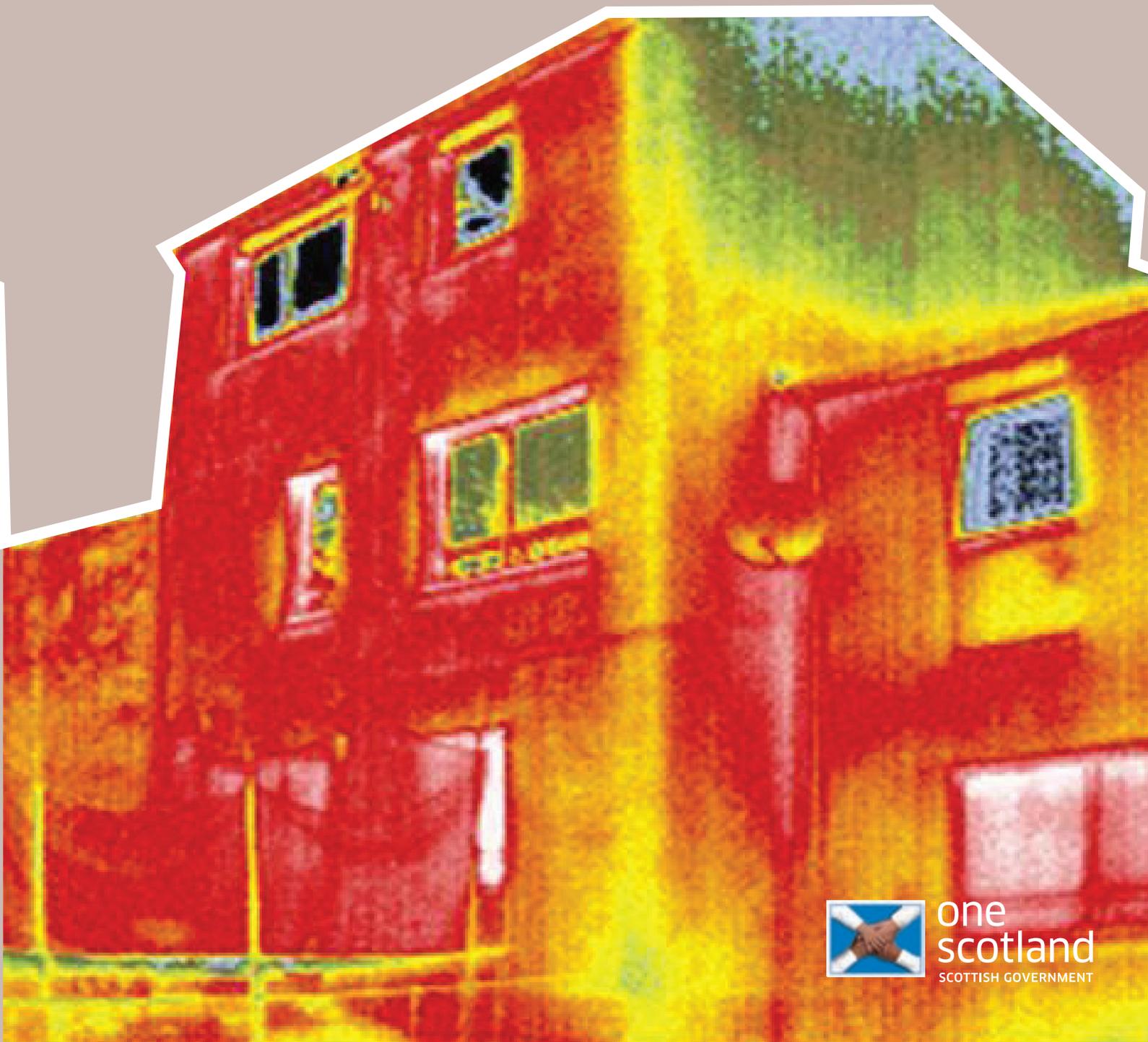


Homes that don't cost the earth

A consultation on Scotland's Sustainable Housing Strategy



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A consultation on Scotland's Sustainable Housing Strategy



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Members of the Sustainable Housing Strategy Group have agreed to allow their organisational logos to appear within this strategy on the basis that they have contributed to its development, recognise the importance of the issues raised and the need for debate. However, this does not confer their approval or agreement to all the detailed material in the document.

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FOREWORD

The Sustainable Housing Strategy will set out our vision for warm, high quality, affordable, low carbon homes and a housing sector that helps to establish a successful low carbon economy across Scotland.

In this consultation we ask the big questions about how we can achieve a long term and lasting transformation in the way we refurbish, build and value our homes. Such transformative action is needed to achieve the step change in provision of energy efficient housing by 2030 we promised in the Infrastructure Investment Plan, and to meet our commitments on the demanding targets for fuel poverty and emissions reduction set by the Scottish Parliament.

We set out the action we are already taking to develop a National Retrofit Programme to help hard pressed families across Scotland benefit from lower energy bills and to maximise the leverage of investment needed to provide opportunities and jobs for Scottish businesses and communities.

This consultation paper has been developed with significant input from leading organisations from the housing, fuel poverty, environmental and consumer protection fields as part of my Sustainable Housing Strategy Group. These organisations share with us a recognition of the importance of the issues raised in this document, the need for debate and a commitment to consider seriously the responses we receive.

We want people from all over Scotland to consider our proposals and let us know their views to help shape a final Sustainable Housing Strategy for Scotland – whether they are from local councils, the building industry, private and social landlords; are home owners or tenants or anyone with a commitment to improve the quality and sustainability of our homes.

We want everyone in Scotland to live in high quality, sustainable homes that they can afford and that meet their needs. We want to hear your views, so that we can work together to achieve this.



A handwritten signature in black ink, appearing to read 'Alex Neil'.

Alex Neil
Cabinet Secretary for Infrastructure and Capital Investment

Executive Summary

Our vision - towards 2030

- 1 The Sustainable Housing Strategy will set out our vision for warm, high quality, affordable, low carbon homes and a housing sector that helps to establish a successful low carbon economy across Scotland. Our route-map to 2030 sets out the key steps we need to take. The strategy's objectives are to :
 - deliver a step-change in provision of energy efficient homes to 2030 through retrofit and new build, as promised in the Infrastructure Investment Plan;
 - ensure that no-one in Scotland has to live in fuel poverty, as far as practicable, by 2016;
 - make a full contribution to the Climate Change Act targets, as set out in the Report on Proposals and Policies; 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 economic prosperity.
- 2 This consultation document has been developed with input from the Sustainable Housing Strategy Group, chaired by the Cabinet Secretary for Infrastructure and Capital Investment, and made up of leading organisations from the housing, fuel poverty, environmental and consumer protection fields. Its **five themes** emerged from the Greener Homes Summit held last November. We have focussed on the energy efficiency component of sustainability, while recognising the wider aspects of this agenda which are set out in more detail in other Scottish Government documents.

A National Retrofit Programme

- 3 Around 85 percent of homes in Scotland today should still be in use when our final emission targets are to be met in 2050. That means we must focus on the existing housing stock in order to tackle fuel poverty and achieve the housing milestones needed to meet our emissions targets¹. These milestones are:
 - Every home to have loft and cavity wall insulation, where this is cost-effective and technically feasible.
 - Every home heated with gas central heating to have a highly efficient boiler with appropriate controls.
 - At least 100,000 homes to have adopted some form of individual or community renewable heat technology for space and/or water heating.

¹ As set out in the Homes and Communities chapter of Low Carbon Scotland : Meeting the Emissions Reduction Targets 2010-2022 – The Report on Proposals and Policies. This will be updated in 2012.

- 4 We need a national programme which prioritises action to tackle fuel poverty, while maximising the measures and funding opportunities available to all, as part of a planned and co-ordinated approach, backed by standards, where necessary. We want to make Scotland the most attractive place in Great Britain for energy companies to invest to meet their obligations which opens up the prospect of a combined energy efficiency funding pot of at least £200m per annum, in addition to contributions from householders themselves.
- 5 The Fuel Poverty Forum has been working with the Scottish Government to advise on the principles of a new fuel poverty and energy efficiency programme, in the context of new UK schemes, ECO and Green Deal being introduced in the Autumn. This will lead to a new National Retrofit Programme from April 2013, with a leading role for local councils, making an offer available to all households in relevant areas. This may include free or discounted measures, interest free loans and the Green Deal, working alongside the Warm Homes Fund. The programme would prioritise fuel poor areas first and cover the whole of Scotland in around 10 years finishing the job started by our area-based insulation schemes.
- 6 Stepping up the level of energy efficiency work across Scotland will involve developing delivery models that go beyond fuel poverty work, in line with local housing strategies, taking advantage of the opportunities associated with the Green Deal and ECO and securing economic benefits for local people. To help with this, the Scottish Futures Trust has examined emerging Green Deal delivery models.
- 7 We welcome your views on what action Scottish Government, local councils and other partners should be playing to maximise uptake of the measures needed.

The Role of Standards

- 8 For people to live in warm, high quality, affordable, low carbon homes by 2030, we need to consider what action is necessary to improve both the physical condition and the energy efficiency of housing, including the use of regulation and enforcement powers.
- 9 This chapter seeks views on possible legislative amendments that could help improve private sector house condition and energy efficiency, particularly in tenements. It highlights work being consulted on concurrently in relation to setting minimum standards for energy efficiency in the social sector, and, it seeks views on issues affecting the potential future use of minimum standards for energy efficiency in the private sector.
- 10 Scottish Ministers stated in March 2011 that powers to set minimum standards in private sector housing – owner-occupied and privately rented - would not be used before 2015, but the date at which they could be applied from is still to be determined. The purpose of this consultation is to provide further steers on the key issues which will be developed by a working group, drawing on interests from a variety of backgrounds, as part of the implementation of this strategy. The new devolved Scottish land transaction tax to replace Stamp Duty Land Tax could provide a potential longer term option for promoting energy efficiency.

11 Key issues on which we seek your views include:

- Should local authorities be able to require that owners improve their properties in the same way they can require that they repair them?
- What should be the role of regulation of energy efficiency and the provision of incentives ?
- If, how and when should regulation be introduced ?

Financial Market Transformation

12 Energy efficient homes should be warmer and cheaper to run because of lower energy bills and may even attract tariff income. However, this is not currently reflected in more favourable lending terms or higher property values. This is due to two inter-linked factors –the current systems, practices and regulatory frameworks for valuing properties and advancing loan finance, and the knock-on effects these have on the priority consumers place on having a sustainable, energy efficient home.

13 Similar issues affect housing quality and maintenance. Although home owners are spending more than £2bn each year on their homes, the underlying level of disrepair is not improving. We want to encourage a greater emphasis on structural work and routine maintenance, as opposed to more cosmetic improvements.

14 Our vision is to see a housing market where sustainability, for both new and existing housing, is positively valued by consumers and attracts a financial premium. This is needed to drive the market for the action needed to achieve our emission reduction and fuel poverty goals and improve the quality of our homes. Whenever householders or landlords are making choices about improving their homes, we want the default option to be a sustainable one.

15 The kind of change we want to see will take time to achieve, however we need to start now.

- We will build on the work that has already taken place with lenders, valuers and other partners, within the context of UK legislation, to identify how practice can be changed to recognise the value of greener homes; and to encourage extending the development and use of 'green mortgages', that recognise and reward the added value in low carbon homes, beyond their current niche position in the market.
- We will continue to share information and evidence on the benefits of more sustainable housing, for example, through the Greener Homes Network, Energy Saving Scotland Advice Centres and the Greener Together campaign building on the evidence from research into how behaviour change works.
- We have set out a Private Sector House Condition Action Plan designed to support a cultural shift in how home owners approach the maintenance of their home.

- 16** We welcome your views on these actions and what else may be required to ensure that sustainable housing is appropriately valued in order to drive the market.

New Build Market Transformation

- 17** National Records of Scotland projections show that we will need around 450,000 extra homes in Scotland to meet expected demand by 2033. We want to work with the building industry to maximise the potential of the innovative design and construction techniques being developed here in Scotland, not only to deliver more sustainable homes and neighbourhoods, but also to create export and other economic opportunities. This will help to meet the expected future demand for homes in a more sustainable way that supports the low carbon economy and prevents fuel poverty.
- 18** Regular reviews of Scottish building standards will take us closer to our aspiration of net zero carbon new homes, if practicable, alongside our system for sustainability labelling of new buildings. However, we propose further action to support the transformation of the delivery of new homes, including:
- Promoting good practice in design and place-making to ensure that these new low carbon homes are part of sustainable neighbourhoods.
 - Incentivising innovation and modernisation through our £710m Affordable Housing Supply Programme.
 - Reviewing construction procurement arrangements, including those for affordable housing, to support greater consistency of procedures and improve delivery across the Scottish public sector.
 - Using examples and case studies in our Greener Homes Prospectus, to be published alongside this consultation, to demonstrate how high quality materials and modern methods of construction can deliver cost-effective outcomes.

Skills and Training

- 19** Making Scotland's homes more energy efficient has the potential to create many jobs in the years to 2030 - in building new homes, upgrading existing ones, installing domestic renewable technologies and developing export markets. This will require new skills, for example, to enable greater use of modern methods of construction, and changes in the pattern of skills, for example, multi-skilling to enable retro-fit. It will also require the retention of specialist traditional skills so that older buildings can make their contribution. We will only be able to take advantage of these opportunities with a skilled and adaptable workforce that meets the new requirements.
- 20** We need to encourage the industry to recognise the important role of training, even in times of economic difficulty, in preparing for the opportunities for growth. Given the scale of opportunities that should be on offer, there may also be the need for new recruits, including women and others currently under-represented in the industry, or returners affected by the recent economic downturn.

21 We are contributing to this through Scottish Government's National Training Programmes which commit to a record 25,000 Modern Apprenticeships in each year of this parliamentary term with at least 500 of these places in energy and low carbon industries.

22 The introduction of the Green Deal will result in training being required for Green Deal assessors, and potentially an element of upskilling for installers. We are mapping out the existing provision and potential relationships between our Scottish Government funded fuel poverty and energy efficiency programmes and Green Deal delivery models. This will enable us to develop a strategic approach to delivering the relevant training provision to meet industry needs.

Action on all of these themes will be required to meet our objectives and we welcome your views. The key steps towards our objectives are set out in our route-map to 2030.

Sustainable Housing Strategy Route-map to 2030

2012

- Consultation on 2013 Building Standards; Architecture and Place-making Policy Statement; Energy Efficiency Standard for Social Housing; and the Sustainable Housing Strategy
- Green Deal-ECO commences
- Warm Homes Fund commences
- Microgeneration Strategy in place
- Updated Report on Proposals and Policies
- Heat mapping and District Heating loan scheme opens for next round
- National Planning Framework 3 Participation Statement published

2013

- Energy Efficiency Standard for Social Housing launched
- Launch of National Retrofit Programme
- Revised new build energy standards within building regulations from 2012 review

2014

- Independence referendum

2015

- Deadline for Scottish Housing Quality Standard to be met by social landlords
- Statutory target for ECO to be met
- Earliest date for regulation of energy efficiency standards in private housing

2015-18

- Potential for changes to SG programmes over next Spending Review period to ensure targets remain on track

2016

- Deadline for Scotland's fuel poverty targets to be met
- Revised newbuild energy standards within building regulations (programmed)

2017

- Updated Report on Policies and Proposals

2018-21

- Potential for changes to SG programmes over Spending Review period to ensure targets remain on track

2020

- Energy Efficiency Standard for Social Housing to be met
- RPP1 Homes and Communities milestones to be met
- Energy Efficiency Action Plan target : Scotland's energy consumption to be 12% lower than in 2005-7

2021-24

- Potential for changes to SG programmes over Spending Review period to ensure targets remain on track

2022

- New energy company obligation in place?

2027

- RPP2 Homes and Communities milestones to be met

2030

- A step-change in provision of energy efficient homes with fuel poverty, emissions and energy targets met and a housing sector at the heart of Scotland's low carbon economy

Background

Introduction

- 1 We said in last year's housing policy paper, [Homes Fit for the 21st Century](#), that we would develop a sustainable housing strategy bringing together policies on climate change, energy efficiency, fuel poverty, planning and the built environment. Last November the [Infrastructure Investment Plan](#)², signalled the Scottish Government's intention to 'deliver a step change in the provision of energy efficient homes to 2030 through new-build programmes and the retrofitting of existing homes'.
- 2 Sustainability³ is integral to the Scottish Government's overall purpose - to focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. Scottish Ministers have set world-leading climate change targets and the [Low Carbon Economic Strategy](#)⁴ positions Scotland as a major player in the development of global low-carbon markets.
- 3 Growing demand for housing from an increasing number of households means we need to transform the way we build, value and live in our homes. Our ambition for a transformation in the energy efficiency of existing stock and new homes that meet the highest sustainability standards will bring significant opportunities for innovation and investment in the housing sector.
- 4 This strategy will set out our vision for warm, high quality, affordable, low carbon homes that will help to establish a successful low carbon economy across Scotland. This reflects the Scottish Government's overall vision for housing⁵, which includes enabling people to be able to live in warm homes that are resource efficient in the way that they are built, retrofitted, heated and maintained.
- 5 The Strategy focuses on improving the energy efficiency of housing to support our fuel poverty and emission reduction objectives, while recognising the wider aspects of sustainability that is addressed in more detail in other Scottish Government documents⁶. As well as action to improve the energy efficiency of existing houses, it also considers how to ensure that properties are well maintained to retain the benefit of energy efficiency measures and provide safe, quality homes to live in and meet people's needs over the longer term.

² Scottish Government (2011), [Infrastructure Investment Plan](#)

³ <http://www.scotland.gov.uk/Topics/Environment/SustainableDevelopment>

⁴ Scottish Government (2010), [Low Carbon Economic Strategy](#)

⁵ Scottish Government (2011), [Homes Fit for the 21st Century](#)

⁶ For example : [Designing Places](#)

How this consultation document has been developed

- 6 To support this work the Cabinet Secretary for Infrastructure and Capital Investment set up a Sustainable Housing Strategy Group (SHSG) with members drawn from the housing, energy, fuel poverty, consumer and environmental sectors (see **Annex A**). The group has met regularly since October 2011 and has discussed and contributed to early drafts of this paper. All the papers considered by the Group are available on the [Sustainable Housing](#) page of the Scottish Government website.
- 7 A relationship diagram showing the links between the Group, other key bodies and workstrands and the themes of the strategy is shown in **Annex C**. SHSG members have agreed to allow their organisational logos to appear within this strategy on the basis that they have contributed to its development, recognise the importance of the issues raised and the need for debate. However, this does not confer their approval or agreement to all the detailed material in the document.
- 8 In between formal meetings a number of events with stakeholders have helped to shape this draft strategy.
 - Housing developers, finance and technology experts took part in a Greener Homes Summit in November 2011, getting involved in a discussion about how Scotland can exploit opportunities for investment in sustainable housing - and identifying the main themes for this strategy. The Summit established the key principle of a “fabric first” approach in which insulation and other building fabric measures were prioritised over and above more innovative technologies with longer pay-back periods. This would mean development costs could be controlled and achieve greater economies of scale.
 - Members of SHSG took part in a seminar in February 2012 to discuss recommendations from a ‘Housing Futures’ research project on priorities for the next decade.
 - Another seminar with members of the SHSG in April 2012 focused on proposals for a national retrofit programme and standards for existing homes.
 - A sub-group of the 2020 Climate Group contributed significantly to the chapter on financial market transformation.
- 9 Publishing this draft for consultation is the next stage in developing the strategy. We want as many people as possible to consider our proposals and let us know their views to help shape a final strategy for sustainable housing in Scotland. It is relevant to a wide audience, including local councils, the building industry, private and social landlords, home owners and tenants. We particularly want to hear how it may affect different groups of people, for example those with disabilities, older people, those from different ethnic backgrounds or cultures.

Why we need a sustainable housing strategy

- 10 Scotland has set out world leading emission reduction targets and made a commitment to tackle fuel poverty. These commitments are described in box 1 below.

Box 1: The Climate Change (Scotland) Act and fuel poverty

The Climate Change (Scotland) Act 2009 sets world-leading targets for Scotland to reduce its greenhouse gas emissions – 42 % by 2020 and 80% by 2050, compared to the 1990 ‘baseline’ year. [Low Carbon Scotland: The Report on Proposals and Policies](#) sets out the homes and communities contribution to these targets.

Section 60 of the Act requires Ministers to publish a plan for promoting and improving energy efficiency and to set targets for improvement. The [Energy Efficiency Action Plan](#) has set a target to reduce energy consumption by 12% by 2020 compared to a baseline average taken over three years (2005-2007).

Fuel poverty

Scottish Ministers have a commitment to ‘to ensure, so far as reasonably practicable, that people are not living in fuel poverty by 2016’ (Scottish Fuel Poverty Statement, 2002). The statement fulfils Ministers’ duty under Section 88 of the Housing (Scotland) Act 2001 to publish a statement saying how they will eradicate fuel poverty in Scotland and their target date for doing this.

- 11 Housing and activities within the home account for more than a quarter of Scotland’s carbon emissions and nearly a third of its energy use. In 2009, according to the Department for Energy and Climate Change, nearly two-thirds of all energy used in homes was used for space heating and a further 18 per cent of energy was used for water heating. As might be expected, domestic fuel consumption (both gas and electricity) are higher in Scotland than in other parts of Great Britain.⁷ With a steadily growing number of households we must act now to make sure homes are energy efficient, and designed or adapted, so that living in a sustainable way becomes the norm in the years ahead. National Records of Scotland estimates that over the next two decades the number of households could increase by more than a fifth – an average of 19,250 extra households each year.
- 12 Demographic trends have implications for the size, type and location as well as the number of houses that will be needed in the future. Overall, the household projections suggest we will need around 450,000 extra homes in Scotland to meet expected demand by 2033⁸. But the changing profile of households suggests there will be much less need for large detached houses and more for housing to meets the needs of smaller, older households, with lower running costs, access to services and good transport links. The Scottish Government recognises this in its

⁷ Scottish Government (2012), **Energy Efficiency topic report** (forthcoming)

⁸ National Records of Scotland [Household Projections for Scotland, 2008-based](#)

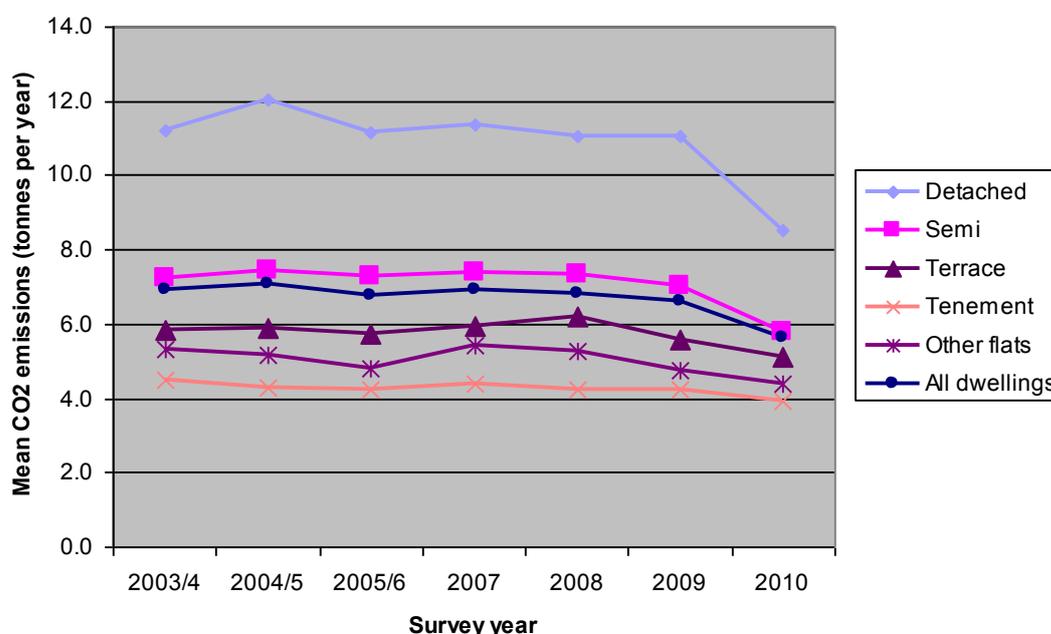
[Strategy For Housing For Scotland's Older People](#)⁹ : ‘Our vision for 2021 is that a greater proportion of older people will live in well-maintained and warm homes, which are adapted where necessary, and which increase their independence and quality of life.’

- 13 Sustainable, energy efficient housing will be more comfortable, easier and cheaper to run as well as better for the environment. Household energy costs rose by 76 percent in real terms between 2000 and 2010 and there is every indication that prices will continue to rise because of pressures in international energy markets. Households on low incomes suffer disproportionately from cold weather and high fuel bills. A sustainable housing strategy will to help to tackle the injustice of fuel poverty as well as driving forward the low carbon economy.

Scotland’s housing and progress so far

- 14 Scotland’s housing and communities are diverse and our strategy needs to recognise that. Around a fifth of the Scottish housing stock is now over 90 years old and a third is more than 60 years old. A fifth of the stock has been built within the last 30 years. Detached houses have dominated the new-build market since the early 1980s. This contrasts with earlier periods – a large proportion of pre-1919 dwellings were tenements, while semi-detached and terraced housing predominated between 1945 and 1982. Although age is also a factor (older housing tends to have higher carbon emissions) detached houses have the highest level of CO2 emissions and tenements the lowest. This can be seen in figure 1 below, which compares carbon emissions by type of house over the last few years.¹⁰

Figure 1 - Average CO2 emissions (tonnes per year) 2003-4 to 2010 by dwelling type (SHCS, 2010)



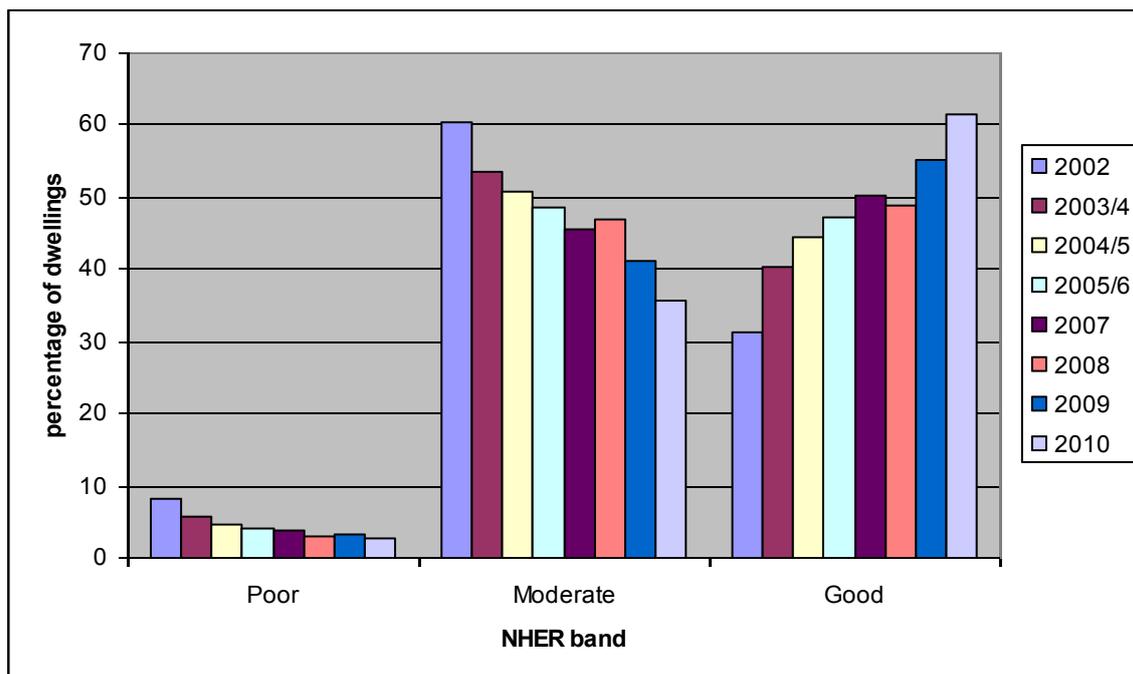
⁹ Scottish Government (2011), [Age, Home And Community: A Strategy For Housing For Scotland's Older People: 2012 - 2021](#)

¹⁰ Scottish Government (2011), [Scottish House Condition Survey: Key Findings 2010](#)

- 15** Overall, the chart shows some reduction in carbon emissions since 2003, with a more marked decrease since 2007. This reflects (at least in part) the fact that the Scottish Government has been working hard over the last few years to make houses more energy efficient and to meet targets under the Climate Change (Scotland) Act and Ministers' commitment to tackle fuel poverty and reduce energy use. We have a successful track record of running area-based home insulation schemes, drawing in substantial private funding through energy company obligations to supplement Scottish Government funded programmes.
- Since 2009 our Home Insulation Scheme and its successor, the Universal Home Insulation Scheme, have offered energy advice and free or very low-cost insulation to over three-quarters of a million households in Scotland.
 - Over the last year the Universal Home Insulation Scheme has drawn in £500,000 in private funding, through energy company obligations, for every £1 million of Government funding.
 - The Scottish Government also provides incentives for householders to replace old inefficient gas boilers through its Boiler Scrappage Scheme.
 - Our four-stage Energy Assistance Package aims to tackle fuel poverty as well as emissions. By April 2012 more than 200,000 households had been assisted and the scheme had been extended to include a wider range of vulnerable groups and carers.
- 16** There is more information about Government-funded programmes in Chapter 1. The full range of our actions to improve the energy efficiency of our housing is set out in the annual report on progress on Conserve and Save, our Energy Efficiency Action Plan for Scotland, published in October 2010¹¹.
- 17** Figure 2 shows the change in home energy efficiency ratings over the last decade, based on the National Home Energy Rating (NHER).
- 18** Scottish Government schemes, and progressive enhancements to building standards, have already contributed to significant improvements in energy efficiency. But we know that much more has to be done to achieve the transformational change required over the next decade or two. Without such a change, despite our best efforts, rising fuel bills threaten to push ever more households into fuel poverty while growing household numbers are a challenge to Scotland's climate change and energy efficiency targets.

¹¹ Scottish Government (2012), [Second Progress Report on the Energy Efficiency Action Plan](#)

Figure 2 – Percentage of dwellings by NHER bands 2002-2010 (SHCS, 2010)



Our vision - towards 2030

19 Looking further ahead, our strategy will set out our vision for warm, high quality, affordable, low carbon homes and a housing sector that will help to establish a successful low carbon economy across Scotland. The strategy's objectives are to:

- deliver a step-change in provision of energy efficient homes to 2030 through retrofit and new build, as promised in the Infrastructure Investment Plan;
- ensure that no-one in Scotland has to live in fuel poverty as far as practicable, by 2016;
- make a full contribution to the Climate Change Act targets, as set out in the Report on Proposals and Policies; and
- enable the refurbishment and house-building and sectors to contribute to and benefit from Scotland's low carbon economy and to drive Scotland's future economic prosperity.

20 The strategy's main themes emerged from the Greener Homes Summit. We believe that by addressing these inter-linked issues we can meet our objectives. They are:

- **A national retrofit programme** to tackle fuel poverty, ensure we meet the climate change milestones set for housing and enable Scottish households and businesses to get maximum benefit from energy company and other investment.

- **Standards** - to consider the role that regulation could play, alongside incentives, in driving uptake of energy efficiency measures.
- **Financial market transformation** to create long-term change in perception among surveyors, lenders and consumers of the real value of low carbon, energy efficient homes - in order to drive the market.
- **New build market transformation** to maximise the potential of the innovative design and construction techniques being developed by Scottish companies to create greener homes and neighbourhoods, which will in turn create export and other economic opportunities.
- **Skills and training** to capitalise on opportunities to make Scotland a market-leader in providing and exporting low-carbon housing solutions.

21 Each of these themes is explored more fully in the following chapters. The need to influence behaviours - of all players and at all stages of the move to a more sustainable housing sector – is an over-arching theme which runs through the strategy.

Q1: Are the vision and objectives as set out in sections 19 and 20 appropriate for Scotland’s Sustainable Housing Strategy

Please answer Yes or No and provide further explanation if you wish.

22 This consultation document provides the strategic context and overall framework for sustainable housing. A separate consultation on a new Energy Efficiency Standard for Social Housing has been published alongside this paper, together with draft impact assessments.

23 It is intended that this strategy will stimulate action that impacts positively on climate change and hence on the environment. Consideration has been given as to whether a full Strategic Environmental Assessment was required and a Screening Report was submitted to the consultation authorities, Scottish Environment Protection Agency, Historic Scotland and Scottish Natural Heritage. Their view confirmed our own, that this strategy sits within a hierarchy of other plans and proposals that have already been undertaken or will undertake full assessments in future, and thus to proceed with an SEA would not be necessary at this stage. The Screening Report and determination are available on the Scottish Government website¹². An Interim Equality Impact Assessment and partial Business and Regulatory Impact Assessments will also be available on the Sustainable Housing pages of the website.

24 We will also publish an updated Greener Homes Prospectus alongside this strategy. The Prospectus provides guidance and case studies and updated information on sustainable housing developments in Scotland, costs and payback on technologies and methods of construction.

¹² <http://www.scotland.gov.uk/Topics/Environment/environmental-assessment/sea/SEAG>

Chapter 1: A National Retrofit Programme

The outcome we want to see:

An end to fuel poverty, with lower fuel bills and increased comfort for all households, lower emissions and strong economic growth with Scotland the most attractive place in Great Britain for energy companies to invest in energy efficiency .

Why is this important?

- 1.1** More than four out of five homes in Scotland today are likely to still be in use in 2050. So in order to tackle fuel poverty and meet our energy and emission reduction targets a primary focus of our strategy must be on improving the energy efficiency of Scotland's existing homes by "retrofitting" our housing stock. The step change in provision of energy efficient homes called for in the Infrastructure and Investment Plan will not happen without action on a national scale. A National Retrofit Programme will help to maximise the measures and funding opportunities available to households across Scotland.
- 1.2** At the core of our National Retrofit Programme will be area-based schemes focussed on tackling fuel poverty with a leading role for local councils, using Scottish Government funding to bring together a range of funding streams and lever maximum investment by the energy companies into Scotland. We have been working with the Fuel Poverty Forum to develop the principles for such schemes. The Forum believes that area-based action offers the most effective and efficient delivery method. This programme will focus on fuel poor areas first, and work alongside the Warm Homes Fund. Our expectation is that these area-based schemes will cover the whole of Scotland in around 10 years, which is consistent with the rate of progress we have achieved with our current area-based programmes.
- 1.3** Alongside these area-based initiatives, we want to ensure that over time some kind of help or incentive is available to every house in Scotland with the precise offer depending on household circumstances, income and geography. We want therefore to encourage local councils to work with other partners to go beyond action to tackle fuel poverty, by drawing in investment from Green Deal, European Investment Bank and other sources to encourage householders to take-up energy efficiency measures, in line with their local housing strategies. This will benefit local communities through savings on fuel bills, generate local economic activity and contribute to emission reduction.
- 1.4** We also need to consider the role for the appropriate use of minimum standards for energy efficiency of existing housing should these incentives fail to deliver the scale of action needed. (The role of standards is considered further in chapter 2.)
- 1.5** By 'retrofit' we mean refurbishing or re-fitting existing homes to make them more energy efficient, for example by insulating walls, doors or windows to keep heat in. It can also involve installing new technology such as 'smart meters' that monitor energy use, a new boiler or renewable heat or hot water systems. The measures fitted will vary from house to house as they will depend on what is appropriate and cost-effective in each case. Retrofit can also integrate sustainability and energy

efficiency with routine repair, maintenance and improvement work. Examples of such an approach would include using environmentally sustainable materials for all work carried out, and making energy efficiency improvements at the same time as a roof repair or while fitting a new kitchen or bathroom. The [Sustainable Housing Design Guide](#)¹³ includes advice on sustainable maintenance and refurbishment.

Progress so far

- 1.6 We are already making good progress on energy efficiency in Scotland, as highlighted in the introduction to this document. Figures from the Carbon Emission Reduction Target (CERT) scheme show that Scottish households received over 327,400 free or subsidised, professionally-installed, cavity wall or loft insulation measures between April 2008 and September 2011, with more than one in every ten homes receiving support. The Scottish Government funds local councils to deliver a Universal Home Insulation Scheme (UHIS) offering free insulation to households in their area which has played an important role in driving this uptake.
- 1.7 Alongside this, our four-stage Energy Assistance Package is designed to tackle fuel poverty as well as emissions and was supported by a budget of £37.7 million in 2011-12. Working together, these schemes have made a real difference to individuals and communities across Scotland as the case study in box 2 shows.
- 1.8 But there is still considerable potential for further action all across Scotland. For example, there are up to 544,000 homes still needing cavity wall insulation and as many as 611,000 homes with solid walls¹⁴. There is a great opportunity for Scottish businesses to act to tackle fuel poverty and reduce emissions. That is why we are proposing that a national retrofit programme should be part of the strategy to improve Scotland's homes.

Box 2: Case study – Dundee Energy Saving Scotland Advice Centre

Ms P, who lives in Dundee, received a letter from her local Save Cash and Reduce Fuel (SCARF) service about the Universal Home Insulation Scheme run by Dundee City Council. She completed the home energy check and sent it back to SCARF. Ms P was referred to Everwarm for insulation. She was also referred to the Energy Saving Scotland Advice Centre (ESSac) as a potential Energy Assistance Package client. The ESSac adviser referred Ms P for a benefit check and also for new heating as the system she had was inefficient.

Ms P later contacted the ESSac to say the advice was a great help and that she now receives Disability Living Allowance. She is also entitled to have central heating installed under Stage 4 of the Energy Assistance Package. Ms P can now look forward to a warmer home that she can afford to heat – all thanks to the Scottish Government's Universal Home Insulation Scheme, Dundee City Council, SCARF, Everwarm and the staff at the ESSac.

¹³ Communities Scotland (2007), [Sustainable Housing Design Guide](#)

¹⁴ Scottish Government (2011), [Scottish House Condition Survey: Key Findings 2010](#) (The figure for solid walls also includes 'other walls' (for example, steel-framed and pre-fabricated concrete walls))

Learning from the past

- 1.9** In devising a new programme it will be important to learn from and build on lessons from past experience. The report Environmentally Sustainable Maintenance and Housing Associations¹⁵ includes 40 case studies on projects from the late 1990s - early 2000s that attracted additional funding for sustainable innovation and explores why these projects did not lead to mainstreaming of new ideas. The wrong measures in the wrong place, or incorrectly fitted, will fail to achieve the desired result and, of even greater concern, could even be detrimental to the building fabric and occupants' health. For example, inappropriate installation of insulation can exacerbate condensation problems.
- 1.10** With these kind of issues in mind, the Scottish Government has published a guide to insulating cavity walls correctly¹⁶. The Built Environment Sub-Group of the 2020 Climate Group has been working with Architecture and Design Scotland and others to develop a database of case studies and guidance to support development of a retrofit strategy based on house construction type.
- 1.11** As important as getting the right measures correctly fitted is how people actually live and behave in their homes. Carbon and energy bill savings achieved by a family living and possibly working in an energy efficient home will not necessarily match those modelled in an empty property.
- 1.12** Heriot-Watt University is developing the Riccarton Eco-village and Living Laboratory (REALL) facility which will provide a ground breaking research and test facility for the integration of buildings, technologies and behaviours for housing design. The aim is to deliver world-class research on sustainable and low carbon housing that will provide a step-change in future housing development, technology and policy that takes into account how people behave in their homes. A report¹⁷ by the Scottish Government Building Standards Division has also been prepared providing guidance on how to live in a low carbon house

Our specific objectives for a National Retrofit Programme

- 1.13** Our action to tackle fuel poverty through the National Retrofit Programme will also drive our commitment to reducing emissions and energy use. The report on proposals and policies (the RPP) sets out the action needed by government, business, individuals and communities to meet the targets in the Climate Change (Scotland) Act (see Box 1 on page 9). The report includes three 'milestones' for housing to help meet the overall target of a 42 per cent reduction in emissions by 2020 across all sectors. The National Retrofit Programme, and other actions in this strategy, will help to make sure we reach these milestones. Table 1 shows where we are now.

¹⁵ <http://www.ads.org.uk/sust/training-support/sdoy-maintenance-study>

¹⁶ Scottish Government (2012), [A Home Owner's Guide to Cavity Wall Insulation](#)

¹⁷ <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubresearch/researchsustainability>

Table 1 – RPP1 milestones and progress

Milestone	Measures needed by 2020	Progress to 2010
1. Every home to have loft and cavity wall insulation (where cost effective/ technically feasible) and draught proofing measures such as pipe lagging.	Every home to have loft insulation of at least 100 mm by 2020. Every home to have cavity walls insulated, where appropriate and technically feasible.	Latest figures from the Scottish House Condition Survey show that by the end of 2010 around 82% of lofts had at least 100 mm insulation and 36% had 200 mm or more. Nearly two-thirds (62%) of cavity walls had been insulated.
2. Every home heated with gas central heating to have a highly efficient boiler with appropriate controls,	The RPP assumes over 1,000,000 boiler replacements over the period from 2008-2020.	The Energy Saving Trust estimates that more than 128,000 new gas boilers were installed in Scottish homes between April 2010-March 2011 and around 120,000 between April 2011-March 2012 ¹⁸ . If this replacement rate continues until 2020 well over a million homes will have highly efficient new boilers.
3. At least 100,000 homes to have adopted some form of individual or community renewable heat technology for space and/or water heating.	The RPP assumes large scale uptake of solar thermal panels; biomass boilers; and heat pumps by 2020.	Around 13,000 homes had some form of renewable heat by the end of 2010 (Scottish House Condition Survey).

1.14 A second RPP will be published at the end of 2012 with proposals to meet a new set of annual targets up to 2027. Members of the Sustainable Housing Strategy Group took part in a seminar to consider the findings of the “Housing Futures” research¹⁹ by Glasgow Caledonian University to assist in identifying the priorities for the next decade. Building on that seminar, we are developing proposals for RPP2 consistent with this strategy and will set new milestones to be met by 2027.

Main challenges to address

1.15 Schemes such as the Energy Assistance Package and UHIS have been successful in installing many insulation measures and heating systems at a free or discounted cost. However, there are still many homeowners who have not engaged with such schemes. This may be because of the perceived “hassle” of installation, or apathy. But it can also be very difficult for consumers to engage with the complex range of schemes and programmes available when each household has its own individual needs and circumstances and each house is unique in its construction and the kind of measures that are suitable.

1.16 Much of the more straightforward and cost-effective work has been done and the more expensive measures and hard-to-treat properties remain. We will need to establish a compelling incentive structure to support and encourage people to have this work done. We will also have to communicate a potentially complex

¹⁸ Based on UK figures, pro rata for Scotland

¹⁹ Glasgow Caledonian University for Scottish Government (2011), [Housing Futures Report](#)

message about the balance between financial incentives and home-owners' responsibilities. This balance might vary depending on house type, household income and geography.

Q2: What do you think are the main barriers that prevent home owners and landlords from installing energy efficiency measures ?

Q3: Please explain any practical solutions and/or incentives to overcome any barriers you have identified?

- 1.17** Scotland has a wide range of house types. In line with the rest of the UK, the majority (1,494,000) of homes in Scotland are houses rather than flats (864,000). However, in Scotland a much greater proportion of the stock is flatted properties - 37 per cent compared to only 19 per cent in England – although there are significant differences between Scottish urban and rural housing, as described below.
- 1.18** Almost three-quarters of Scottish houses are of cavity wall construction and nearly a quarter (24 per cent) have solid walls. The remainder use other types of construction such as non-traditional and system build. The Scottish House Condition Survey estimates that nearly a third (approximately 30 per cent) of Scotland's housing is 'hard to treat'. Most of these are solid walled dwellings.
- 1.19** Nearly a fifth of Scotland's homes are in rural areas where 46 per cent of homes are off the gas grid. Fuel poverty in rural areas is higher at 38 per cent of households compared to 26 per cent in urban areas²⁰. This reflects the very different nature of rural housing. For example, a third of homes in rural areas were built before 1919 compared to 17 per cent in urban areas. More than nine out of ten rural dwellings are houses, with a high proportion being detached rather than terraced or semi-detached. Solid walls and other types of hard-to-treat wall are much more prevalent in rural than in urban areas.

Box 3: Retrofitting Scotland's traditional homes

Traditional buildings should not be seen as inevitably "hard to treat" buildings, although they may need a distinct approach to adaptation. Historic Scotland is carrying out a number of refurbishment pilots to test the effectiveness of different interventions in traditional buildings and to develop cost effective improvements in thermal performance that respect their fabric and the appearance. A variety of dwelling types have been chosen, including small detached rural properties, a village hall and 19th and 20th century tenements in Edinburgh and Glasgow. The buildings are currently being monitored and more information can be found here: <http://www.historic-scotland.gov.uk/index/heritage/conservation/conservation-research.htm>

²⁰ Scottish Government (2011), [Scottish House Condition Survey: Key Findings 2010](#)

Q4: Given Scotland's diverse range of housing, what support is needed to enable people to get energy efficiency measures installed?

Q5: (a) What specific issues need to be addressed in respect of improving energy efficiency in rural areas, particularly more remote or island areas?

(b) How should these be addressed?

Action to address these challenges

Getting the best deal for Scotland from UK programmes

- 1.20** Scottish Government schemes to insulate homes have been particularly successful because we have integrated (and actively promoted) Scottish Government, UK and EU programmes to maximise their benefits to our communities. We will build on this success in the National Retrofit Programme.
- 1.21** We have worked with the UK Government as they have developed proposals for a new Energy Company Obligation (ECO) and Green Deal, to be in place at the end of 2012 (see box 4). The aim of these new policies is to drive improvements to the energy efficiency of housing and other buildings. The ECO will replace the existing energy company obligations, the Carbon Emission Reduction Target (CERT) and Community Energy Saving Programme (CESP). Both the affordable warmth element of ECO (targeted at low-income households in fuel poverty) and the carbon saving element, which will be focused on insulating solid walls, will be particularly important for rural Scotland. We have helped to secure important changes to these proposals compared with the original plans. These have included a stronger focus on fuel poverty in low income areas, support for a wider range of measures such as hard to treat cavities and funding for highly cost-effective loft and cavity wall insulation in specific areas, which will deliver emission savings and assist the installation industry in the transition to the new arrangements.
- 1.22** We want to make Scotland the most attractive place in Great Britain for energy companies to invest to meet their obligations and to ensure that the benefits extend to all parts of the country, particularly remote rural areas with high levels of fuel poverty. Given that the UK Government estimates ECO investment to be worth around £1.3 billion each year across Great Britain, this opens up the prospect of a combined energy efficiency funding pot, including Scottish Government funding of at least £200m per annum. We are working with the UK Government on the £200m incentive fund allocated by the Treasury for an early adopters scheme for Green Deal uptake. We are working to ensure that we can develop a fund that will be attractive and easy to access for Scotland. This would be in addition to other sources of investment, such as European funding and contributions from householders themselves. This level of spending would be in line with the recommendations of the report on fuel poverty, by the Energy, Enterprise and Tourism Committee, published on 22 February 2012, which

recommended a budget of at least £200 million a year to combat fuel poverty from both Government and energy company obligations.²¹

Box 4 – The Green Deal and Energy Company Obligation

The Green Deal is a completely new finance mechanism funded by private capital. It will enable households to have energy efficiency improvements installed at no upfront capital cost and to pay for them, over a period of years, through a charge on their energy bill. At the heart of this arrangement is the ‘golden rule’: that the estimated savings on bills should equal or exceed the cost of the work.

The ECO will work alongside the Green Deal. It will involve three obligations for energy companies, relating to Affordable Warmth, Carbon Saving and an area-based Carbon Saving Communities obligation supporting a range of measures in low income areas. The UK Government hopes to drive the market in solid wall insulation through the carbon saving target while the affordable warmth obligation will be directed towards vulnerable low-income households in the private sector with entitlement to defined benefits.

1.23 With the Fuel Poverty Forum, we have reviewed Scottish Government energy efficiency and fuel poverty schemes to make sure they fit well with these new UK policies and with our plans for a National Retrofit Programme. Our programmes will be supported by £250 million of Scottish Government funding over the three years from 2012-13 to 2014-15. We have also introduced a new Warm Homes Fund to support community renewable and district heating projects in the areas worst affected by fuel poverty, which could particularly benefit communities in rural areas off the gas grid. This fund will amount to £50 million between 2012 and 2016. In addition, we are providing £5m in loans to extend the gas grid to communities within a reasonable distance of the mains gas grid²².

1.24 These are significant levels of funding and will make an important contribution to the low carbon economy in Scotland. While it is not straightforward to quantify the benefits in terms of job creation, the French Ministry for Ecology, Energy, Sustainable Development and Spatial Planning has estimated that ‘for every 1 million Euros of investment in property-related thermal renovation, 14.2 jobs are created or maintained in the field of energy performance-related work.’²³ The National Retrofit Programme will provide opportunities for businesses across Scotland. The skills requirements for this are considered in chapter 5.

Other sources of funding for retrofit

1.25 Through the Energy Saving Trust the Scottish Government also provides a range of funding and advice and assistance for energy efficiency measures, including the Energy Saving Scotland Advice Centres. These include working with private sector landlords to provide information and assistance, support to local authorities

²¹ Scottish Parliament Economy, Energy and Tourism Committee, [1st Report, 2012 \(Session 4\): Fuel Poverty](#)

²² Gas heating has the benefit of both reducing carbon emissions compared to other non renewable fuels, and of lower heating costs to support the fuel poverty agenda.

²³ Cited in European Commission consultation paper, Financial support for energy efficiency in buildings, Brussels, February 2012

on the uptake of CERT and CESP and pilot hard to treat loan schemes. The Scottish Government funded the Energy Saving Trust to carry out a 'water efficiency' pilot which has led to water efficiency becoming part of the package of energy saving advice provided through the 'one stop shop' network of advice centres.

- 1.26** Social landlords have the opportunity to access European Funds to support work on energy efficiency including the currently available £15 million SPRUCE fund for energy efficiency which is available in 13 local council areas. Restructuring of European funds in 2014 could provide further opportunities for landlords to improve the energy efficiency of properties using specific grant or loan funds.
- 1.27** Microgeneration and district heating will also have an important role in retrofitting Scotland's homes. Support for this is considered below.
- 1.28** Homes for Scotland has put forward proposals for a further potential source of additional funding for retrofit (see box 5). Such an approach would need careful consideration to determine whether or not it was desirable and workable, its relationship to other sources of funding for retrofit and the wider context of our emissions reduction targets to 2050. We know that new homes built today will be with us for the foreseeable future, well beyond the lifespan of this strategy, so these are important considerations. The Scottish Government will consider the findings of Homes for Scotland's research when it is published.

Box 5: Homes for Scotland proposal to improve existing homes

Homes for Scotland, the organisation that represents the Scottish building industry, has argued that Scotland already has the highest building standards in Europe and that further improvements in energy efficiency standards for new homes will come at a high cost for the amount of carbon saved. It argues that as an alternative to introducing what it considers would be excessive changes to the Building Standards, the new homes industry is open to the possibility of contributing a cash amount for every home built, creating a fund that could be used to insulate or improve the energy performance of the existing housing stock. Their view is that this approach would be far more effective in achieving overall emission reductions, alleviating fuel poverty and creating employment opportunities. Homes for Scotland has commissioned research to provide evidence of the benefits that might be achieved by such a fund.

Support for microgeneration and district heating

- 1.29** The main financial incentives for microgeneration are the Feed in Tariff (FIT), Renewable Heat Incentive (RHI) and Renewable Heat Premium Payment, which are reserved to the UK Government with the agreement of the Scottish Government. We work closely with the UK Government to ensure Scottish issues in particular are taken in to consideration.
- 1.30** We want to see the market for microgeneration continue to grow, as set out in our route-map²⁴ for microgeneration in the Renewables Routemap published in June

²⁴ Scottish Government (2011), [2020 Routemap for Renewable Energy in Scotland](#)

2011. The Route-map set out our intention to publish a Microgeneration Strategy to support the sector move from a niche market to the mainstream. We have been working with a Stakeholder Group to provide input on key actions to ensure Scotland maximises the benefits of UK Government funding mechanisms such as FIT and RHI. The Strategy will be available on the Scottish Government website and takes into account the results of the consultations on the Comprehensive Review of the FIT.

- 1.31** Microgeneration is integrally linked to energy efficiency as part of our overall policy to move towards a low carbon economy. Microgeneration technologies are most effective in terms of cost effectiveness, and in reducing emissions and energy bills only when combined with energy efficiency measures, such as insulation. Uptake of microgeneration will be strongly linked to our targets to reduce Scottish final energy consumption by 2020.
- 1.32** District heating is now central to Scottish Government's strategy for deploying heat (both renewable and non renewable) and the newly established Expert Commission on the Delivery of District Heating will work with us, providing recommendations to ensure a major shift to district heating in Scotland. This will include identifying key opportunities and appropriate financial mechanisms. Our District Heating Loan Scheme has been operating since 2011 and is expected to be self financing in the medium term, providing some confidence of finance opportunities for developers of these schemes. In order to achieve the scale of ambition we have for district heating, we have also made provision for funding district heating within the recently announced £103 million Renewable Energy Investment Fund and the £50 million Warm Homes Fund.

Delivery models for the National Retrofit Programme

- 1.33** The Fuel Poverty Forum has suggested that local councils should play a central role in delivery of the new programme because of their strong interest in tackling fuel poverty and cutting carbon emissions and in the jobs and business opportunities associated with investment in the green economy. We agree with this. Councils have the trust of consumers, a local understanding of housing quality issues and a strategic role in improving housing in their areas. Locally derived and delivered schemes also offer greater potential to deliver wider community benefits, such as the involvement of local companies in their delivery, including supported businesses²⁵. So we propose that they should play a critical part in driving up energy efficiency work across Scotland. While councils already have arrangements in place to deliver UHIS, these will need to cover a wider range of work from April 2013 and take account of the potential of the Green Deal and Energy Company Obligation (ECO).
- 1.34** The Fuel Poverty Forum has agreed a set of principles that should guide local councils' activity regardless of the delivery model they choose. These include:
- Scottish Government funding should be used to help maximise the leverage of ECO funding into the country by making Scotland the easiest and most cost-effective part of Britain in which to discharge the obligation.

²⁵ http://www.gha.org.uk/content/default.asp?page=s43_11

- Area-based programmes should provide an offer of assistance to all households within the locality and customers should continue to have a single point of access for all support and advice including on tariffs and income maximisation.
- Procurement of Scottish Government programmes should balance achieving economies of scale and administrative simplicity with the ability to take account of local issues and knowledge.
- Measures in the Scottish Government programmes should also support, wherever possible, commitments to reduce carbon emissions from housing.

1.35 We are also exploring possible new funding options to help support the necessary change in the scale of energy efficiency and renewables activity across Scotland.

These are outlined below.

a) Local councils bid into Scottish Government funding programmes

Essentially ‘challenge funding’, this would involve a central Scottish Government funding pot into which local councils bid against fixed criteria, including carbon saving and a needs-based assessment. Local authorities would be required to work with energy companies to develop programmes that would draw in additional funding through energy company obligations. Households not eligible for free or discounted measures would be offered Green Deal or other options under a one-stop-shop approach. Interest-free or low-cost loans may also be offered to such households.

b) A Scottish facilitated funding model

This option would expand the Scottish Government funded pot in option (a) by supplementing its funding with that from energy companies in response to their obligations (worth around £120 million a year in Scotland). This might encourage councils to develop more ambitious programmes to compete with the larger-scale programmes we expect to see developed in urban areas elsewhere in Britain. These would be attractive to energy companies in terms of meeting their obligations efficiently. The fund could be managed by a company or the Scottish Government. Local councils would be able to draw down resources from the fund on the basis of an agreed programme, on a “first come, first served” basis. Again, as in option (a), households ineligible for free or discounted measures would be offered Green Deal or other options under a one-stop-shop approach.

c) A formula-based model

Under this option the Scottish Government would allocate funding to local councils on the basis of an agreed formula. The funds would need to be spent in accordance with the principles agreed by the Fuel Poverty Forum, summarised at the beginning of this section. It would be a condition of

grant that the maximum additional funding is drawn down from the energy company obligation.

Going beyond fuel poverty – Green Deal delivery mechanisms

1.36 Stepping up the level of energy efficiency work across Scotland will involve councils in developing delivery models that go beyond fuel poverty work to take advantage of the opportunities associated with the Green Deal and ECO and secure economic benefits for people in their area. To help with this, the Scottish Futures Trust²⁶ looked at emerging Green Deal delivery models. Their work has highlighted five main options:

- **Limited promotion** – where the local council’s role is limited to promoting energy efficiency works, for example through a portal of local, accredited Green Deal suppliers. This model will benefit the local area by limited increases in activity, but potential risks are that there will be the opportunity cost of lost investment in comparison to authorities who take a more proactive approach to the Green Deal. This will impact on opportunities for jobs, fuel poverty, housing quality and carbon reductions.
- **Green Deal Community Interest Company** - where a consortium of local councils form a dedicated social enterprise in the form of a Community Interest Company (CIC) to provide a regional green deal offer. The CIC would promote the Green Deal to suppliers and also market it to local residents. This model can be flexible in the range of activities it could engage in. There are, however, a range of risks depending on the activities it undertakes, including initial set up costs and reputational risk. But benefits include facilitating local delivery and promotion and supporting the local supply chain through dissemination of information.
- **Framework of Green Deal providers** – where the local council or a group of councils take an active approach in promoting demand and identifying packages of work and procuring a framework of accredited Green Deal providers. Packages of work using its own assets or on an area basis can then be priced through mini competition with the Green Deal providers. The key cost in this approach is establishing the frameworks, with reputational risk if works are carried out to a poor standard and potentially mis-selling risk if councils are managing demand. However, benefits include the ability of frameworks to cover a number of organisations so RSLs, other councils or community bodies could be covered
- **Green Deal partnership** – where the council (or a group of councils) procures a Green Deal delivery partner who will work exclusively to deliver the Green Deal, with the council providing strategic direction and monitoring agreed outcomes. In this model councils need to consider how the Green Deal package will be funded. Early models have considered using their own resources or PWLB²⁷ funding. More recently an alternative approach being considered is to use the Green Deal Finance Company. This model is similar to the approaches being considered by Newcastle

²⁶ <http://www.scottishfuturestrust.org.uk/>

²⁷ Public Works Loan Board

City Council and Birmingham City Council. The key cost in this model is in the set up costs. Key risks include the scale of works required to justify the set-up costs, implementation takes around 12-18 months and governance arrangements need to be established as it will involve several councils working together to reach the required scale of activity. However, benefits include giving the council more scope to manage and promote demand and bringing in private sector expertise to assist in the process. It can cover a wide range of bodies such as RSLs, other local authorities and community bodies and provide targeted activity to key groups such as the fuel poor and develop schemes for local apprentices.

- **Green Deal provider** – where the local council itself becomes an accredited Green Deal provider. There are significant costs in this approach including staff training, accreditation, sales costs and costs in undertaking Green Deal works. This will in turn maximise operational risks faced by the council around mis-selling, Green Deal Finance organisation, warranties for work and competition in the Green Deal market. This approach provides benefits of being in control of any reputational risk, creating a work stream for its DSO and creating apprentices and providing scale in a local area.

1.37 There are also a number of sources of finance available to support the Green Deal more widely. These include the Public Works Loan Board, the Green Deal Finance Company and bank lending, all of which may be used to help support an expansion in energy efficiency work. We are also talking to energy companies to understand their expectations and requirements for the effective operation of ECO and Green Deal and the basis on which they might deliver these across Scotland.

Q6: Taking into account the models and funding sources outlined in sections 1.20-1.37, what role might local authorities and other agencies play in bringing about a step change in retrofitting Scotland’s housing?

Q7: What role should the Scottish Government play in a National Retrofit programme?

Q8: What role could the devolution of additional powers play in achieving more retrofit?

Q9: What further action is needed to achieve the scale of change required to existing homes?

Q10: How can we make sure a National Retrofit Programme maximises benefits to all consumers (for example, older people, those from ethnic minorities, those with long term illness or disability)?

Chapter 2: The Role of Standards

The outcome we want to see :

People value and take responsibility for the condition and energy efficiency of their homes, with an appropriate role for standards.

Why is this important?

- 2.1** For people to live in warm, high quality, low carbon homes by 2030, we need to consider what action is necessary to improve both the physical condition and the energy efficiency of housing.
- 2.2** Although there is no direct correlation in the Scottish House Condition Survey (SHCS) statistics between disrepair, fuel poverty and energy efficiency across Scottish housing, it stands to reason that a house which is in disrepair may also be less energy efficient. For example, not only will a house with no loft insulation lose heat through a damaged roof, but even one where insulation is present could lose additional energy in heating damp insulation caused by a leaking roof.
- 2.3** It is therefore important that this Sustainable Housing Strategy presents not only a vision for improving the energy efficiency of existing houses, but also considers action to ensure that properties are well maintained to retain the benefit of energy efficiency measures and provide safe, quality homes for people to live in over the longer term.
- 2.4** This chapter seeks views on possible legislative amendments that could help improve private sector house condition and energy efficiency, particularly in tenements. It also highlights work being consulted on concurrently in relation to setting minimum standards for energy efficiency in the social sector. And, it seeks views on issues affecting the potential future use of minimum standards of energy efficiency in the private sector. As such, it will be relevant to a wide audience, including home owners, private rented sector landlords, social landlords and property factors.
- 2.5** Scottish Ministers stated in March 2011 that powers to set minimum standards for the energy efficiency of private sector housing would not be used before 2015, but the date at which they could be applied from is still to be determined. We propose to set up a working group by the end of the year, drawing on interests from a variety of backgrounds, which will fully consider if, how and when we might regulate, to encourage the reduction of greenhouse gas emissions and contribute to achieving climate change targets. The purpose of this consultation is to invite further steers on key issues which the working group will consider.

Work to date

- 2.6 The Sustainable Housing Strategy Group has considered papers²⁸ on a review of private sector house condition, and work to develop proposals for minimum standards for energy efficiency in both social and private sector housing.
- 2.7 Officials have also met with stakeholders on all of these issues and a dedicated working group has developed detailed proposals for an enhanced Energy Efficiency Standard for Social Housing.

Improving house condition

- 2.8 All social housing is required to meet the Scottish Housing Quality Standard (SHQS) by 2015, which includes criteria about the standard and condition of accommodation. The Scottish Government believes that social landlords will be able to meet SHQS provided resources are targeted appropriately.
- 2.9 However, although the SHCS measures the SHQS for all properties in Scotland, there is no requirement that private sector housing meets this standard. The only requirement for owner occupied housing is that it meets the tolerable standard²⁹, which is a minimum condemnatory standard which all housing must meet. Privately rented housing must also meet the repairing standard³⁰.

Q11: Should the Scottish Government consider whether a single mandatory condition standard (beyond the tolerable standard) should apply to all properties, irrespective of tenure? If so, how would that be enforced?

- 2.10 The latest SHCS figures show that 60 per cent of private sector housing currently fails the SHQS, and 35 per cent has urgent disrepair.³¹ Owners are responsible for looking after their properties, as set out in their title deeds, and local authorities have powers to take action where properties aren't being maintained, but the SHCS shows that levels of disrepair have not changed much over time.
- 2.11 In recognition of the importance of good basic house condition to energy efficiency, fuel poverty and general health issues, the Scottish Government carried out a short review of private sector housing, with input from the SHSG and a number of stakeholder groups. A paper summarising this review is available on the [Sustainable Housing](#) section of the Scottish Government website.

²⁸ Available on the [Sustainable Housing](#) pages of the Scottish Government website

²⁹ Scottish Government (2009), [Implementing the Housing \(Scotland\) Act 2006, Parts 1 and 2: Advisory and Statutory Guidance for Local Authorities: Volume 4 Tolerable Standard](#)

³⁰ See the Scottish Government Repairing Standard Advice Pack for Private Landlords www.prhpscotland.gov.uk/prhp/files/Advice%20pack%20for%20Landlords.pdf.

³¹ Scottish Government (2011), [Scottish House Condition Survey: Key Findings 2010](#). Urgent disrepair is any disrepair which, if not rectified, would cause the fabric of the building to deteriorate further and/or place the health and safety of the occupier at risk.

2.12 The review found four key issues, all of which could also apply to energy efficiency works:

- The need for a culture shift for owners to recognise the need to look after the condition of their homes.
- Particular problems of mixed and shared blocks.
- Difficulties faced by low income home owners.
- Levers for enforcement.

These issues informed the development of a draft Private Sector House Condition Action Plan. This is attached at **Annex B**.

2.13 One of the findings of the review was that owners are spending money on their properties, but that there is still significant disrepair. This may be due to cosmetic improvement being prioritised over necessary repair and maintenance work, as well as owners potentially paying less skilled tradespeople to carry out repairs which are in fact substandard repairs and do not sort the problem.

2.14 The Scottish Government will continue to call for a cut in VAT for repair and maintenance work to encourage owners to carry out work and use reputable tradespeople to try to address this issue. We also suggest the following hierarchy to help owners to prioritise how they invest in their properties, and would encourage owners to consider whether cost savings might be made by carrying out any necessary repair work at the same time as retrofit for energy efficiency.

Box 6: Looking after your home - a hierarchy of needs

Looking after your home: What is most important?

1. Make sure that your home is wind and watertight and that it is structurally sound; make sure that it stays that way by carrying out regular maintenance.
2. Make sure that work is done properly because poor quality repairs may be ineffective and can cost more in the long run.
3. Consider retrofitting appropriate insulation.
4. Make sure that your home is properly ventilated because this is essential to keep it healthy.
5. Review your boiler to ensure that it is efficient.
6. Ensure that points 1-5 have been addressed before considering micro-renewable technology.

Q12: (a) In Box 6 we identify a checklist for maintaining a quality home. Do you agree with our proposed hierarchy of needs?

Please answer Yes or No.

(b) If you think anything is missing or in the wrong place please explain your views.

Local authority enforcement powers

2.15 The action plan identifies the need to consider whether the powers available to local authorities under the Housing (Scotland) Act 2006 are sufficient to enable them to encourage owners to take action on their properties. This strategy takes the opportunity to seek views on some possible amendments that could be taken forward as part of the prospective Housing Bill.

Possible amendments to extend powers to require improvements

2.16 Local authorities have powers to provide assistance to repair and improve homes, and can also require that owners take action to repair or maintain their properties. But they cannot require that an owner undertakes only improvement works.

2.17 Improvements may be required to communal areas, for example in mixed tenure blocks where social landlords are required to bring properties up to the Scottish Housing Quality Standard (SHQS) by 2015. If agreement cannot be reached under the title deeds or Tenant Management Scheme (TMS), then landlords may have to apply for abeyances, which means that tenants in those properties are not enjoying housing which meets the full SHQS. This could be in relation to fairly minor works, such as the replacement of a plain front door with one with security door entry, where that is seen as an improvement; or more substantial works relating to energy efficiency, for example where overcladding is required.

2.18 It is important that home owners are able to enjoy their properties, and that the requirements of the ECHR are met, but at the same time we would welcome views on whether it may be appropriate, in certain situations, to allow local authorities to require that owners improve their properties, for example in relation to energy efficiency works or to support the achievement of the SHQS in mixed tenure blocks. This could be implemented by, for example, extending the role of work notices so that specified improvement work could trigger a work notice.

Q13: Should local authorities be able to require that owners improve their properties, in the same way they can require that they repair them? For example, could poor energy efficiency be a trigger for a work notice?

Please answer Yes or No and provide further explanation if you wish, for example on how this might work.

Possible amendments to support decisions by owners in tenements

2.19 Under the TMS, decisions can be taken by a majority of owners in tenements to maintain and repair communal areas. Following an amendment made by section 69 of the Climate Change (Scotland) Act 2009, such decisions can cover the installation of insulation. The TMS is a default scheme which applies where nothing is laid down in the title deeds on how decisions should be taken or the deeds are uncertain. Local authorities have no enforcement role in implementing decisions taken under the TMS or the title deeds.

2.20 The Scottish Government is considering whether local authorities should have powers to enforce majority decisions agreed under title deed conditions or under

the TMS by owners in a block. One option, for example, is the local authority paying any missing share, serving a notice on the owner to recover this money (and the authority's expenses) and, if the owner fails to pay up, registering a repayment charge.

Q14: Should local authorities have a power to enforce decisions taken by owners under the title deeds, Tenement Management Scheme or by unanimity? For example, should they have explicit powers to pay missing shares of owners who are not paying for communal repair work, in the same way they can for agreed maintenance work?

Please answer Yes or No and provide further explanation if you wish,

Possible amendments to existing powers requiring repair

2.21 Existing powers under the 2006 Act allow local authorities to enforce works to carry out repairs and maintenance needed to keep houses in good condition. This is important, both in maintaining the condition of the property itself, but also because the energy efficiency of houses may be reduced if they are in a poor state of repair. The following questions seek views on changes to improve the general effectiveness of the existing powers to enforce repair and maintenance work.

Q15: Should local authorities be able to automatically issue maintenance orders on any property which has had a work notice?

Please answer Yes or No and provide further explanation if you wish

Q16: Should the process for using maintenance orders be streamlined, and if so, how?

Please answer Yes or No and provide further explanation if you wish.

Q17: Should local authorities be able to
a. issue work notices on housing affecting the amenity, and
b. require work such as to improve safety and security on properties which are outwith a Housing Renewal area?

Please answer Yes or No and provide further explanation if you wish.

Q18: Should local authorities be able to issue repayment charges for work done on commercial properties, in the same way they can for residential premises?

Please answer Yes or No and provide further explanation if you wish.

Enforcement powers for empty homes

- 2.22** Currently around 70,000 homes in Scotland are empty. It is likely that many of these homes could be brought back into use as good quality affordable housing, private rented housing or for owner occupation with relatively small amounts of works to improve energy efficiency or carry out other repairs. Local authority enforcement powers can be used to require owners to deal with properties which are below tolerable standard or in serious disrepair. However, while these powers can tackle disrepair, they cannot make the owner bring the home back into use.
- 2.23** The Scottish Empty Homes Partnership works with local authorities to help them support and encourage owners to bring their homes back into use. We also intend to coordinate work on enforcement powers with the work of the Empty Homes Partnership to identify ways to use these powers to help bring more empty homes back into use in cases where the owner will not work with their local authority.

Property factors and switching

- 2.24** Property factors can play a key role in organising and instructing repairs to communal areas. The Property Factors (Scotland) Act 2011, due to come fully into force on 1 October 2012, will establish a registration scheme for factors, a dispute resolution service and a Code of Conduct. The Code of Conduct will increase transparency in relation to the services provided by property factors.
- 2.25** However, the 2011 Act did not increase the capacity of homeowners to switch (ie dismiss and replace) property factors where a majority of homeowners are unhappy with the service provided³².
- 2.26** There is existing provision in the Title Conditions (Scotland) Act 2003. In the absence of any provision in title deeds, a property manager may be dismissed by a majority of the units (section 28(1)(d) of the 2003 Act refers. However, this rule can be altered in the title deeds and a higher threshold imposed.
- 2.27** The Government is aware that modern title deeds for developments often include provisions on the dismissal and replacement of property factors.
- 2.28** Under section 64 of the 2003 Act, where a person is the manager of related properties, the owners of two thirds of those properties may dismiss and replace that person regardless of anything laid down in the title deeds and so long as any manager burden has expired³³. A 'manager burden' is a burden which either appoints a particular party as a manager of related properties or vests in such a party the power to appoint another person to be such manager and dismiss that manager. A power conferred by a manager burden is can be exercised only if

³² The Government consulted last year on the switching of land maintenance companies and will outline the way ahead shortly. (Scottish Government (2011), [Maintenance of land on private housing estates: Consultation](#))

³³ A manager burden is extinguished either on the expiry of a period specified in a manager burden or on "the relevant date". Where the date is "the relevant date", it will expire after 3 years in relation to sheltered or retirement housing; after 5 years generally and after 30 years in right to buy cases. (However, in right to buy cases a manager can be dismissed even if the manager burden is still in place).

the person on whom the power is conferred is the owner of one of the related properties.

2.29 Switching property factors may always be difficult as owners need to work together: the decision is a communal one. Annex B of the Office of Fair Trading Report in 2009 on Property Managers in Scotland indicated that homeowners with an owners' or residents' association are more likely to consider that they receive value for money from their factor.³⁴

2.30 There are a number of possible options for legislative or administrative change related to switching property factors:

- **Option 1** is to take no action, particularly as the industry is undergoing major changes at the moment as the Property Factors (Scotland) Act 2011 is brought into force.
- **Option 2** would be to issue guidance. Such guidance could, perhaps, outline best practice when placing provisions in title deeds on property factors and could offer advice to homeowners on dealing with factors and switching factors
- **Option 3** would be to change the provisions on manager burdens, discussed above, so that they have effect for shorter periods
- **Option 4** would be to amend the Title Conditions (Scotland) Act 2003 so that, for example, a simple majority (rather than two thirds) of residents can always dismiss a property factor, regardless of what the title deeds say, once the manager burden has expired.

Q19: What action, if any, do you think the Government should take to make it easier to dismiss and replace property factors?

Sustainability Standard for new buildings

2.31 On 1 May 2011 sustainability labelling was introduced to the Scottish Building Standards through the Building (Scotland) Act 2003. It applies to all new buildings. The labelling system has been designed to reward the achievement of:

- meeting 2010 building standards; and
- opting to meet higher levels that include energy and carbon emissions targets and also broader issues such as water efficiency and flexibility in design.

2.32 The labelling system rewards new buildings that meet the 2010 building standards with a Bronze level label. Further optional upper levels of sustainability are defined by Silver, Gold and Platinum labels. These have been created through

³⁴ Office of Fair Trading (2009), [Property Managers in Scotland: A Market Study](#) Paragraphs 6.15 and Table 6.2 of Annex B discussion perception of value for money when dealing with property factors.

identifying cost-effective benchmarks verifiable by the building warrant system. Section 7 of the Building (Scotland) Act addresses a variety of aspects of sustainability including :

- Resource use: dealing with energy for space and water heating, CO2 emissions and water use.
- Adaptability: building on the lifetime homes principles by defining a dedicated space for home working and mobility spaces for electric wheelchairs, prams or bicycle(s).
- Occupant well being: seeks to tackle issues such as enhanced noise insulation, increased natural light and improved security provisions.

2.33 The label can be utilised by developers or planners who may wish to demonstrate their environmental commitment by referring to the sustainability labels.

The role of standards in improving energy efficiency and reducing emissions

Why is this important?

2.34 Standards for new housing will help contribute to reducing emissions by ensuring that properties built today are to higher energy efficiency and emissions standards than existing housing. But, with over 85% of current housing in Scotland expected to be in occupation in 2050³⁵, we cannot rely only on new build to deliver savings. We need to consider what action needs to be taken to existing housing to help deliver our targets. We also need to consider how people use their buildings and how we can influence their behaviour to ensure that overall emissions are reduced.

2.35 Our aim is that maximising the incentives and opportunities on offer under a National Retrofit Programme, together with changes in attitudes and systems which provide a premium for sustainable housing, will drive the change in our housing that needs to take place. Minimum standards for existing housing could have a major role in helping to drive the market and in acting as a back-stop if incentives do not provide the scale of activity necessary to achieve our fuel poverty targets and meet the RPP milestones set out in Chapter 1.

Current minimum energy efficiency standards

2.36 There are already standards relating to energy efficiency for new build houses and existing social sector housing in Scotland.

New build

2.37 Any house built in Scotland (irrespective of tenure) must meet energy efficiency criteria set out in building regulations, within [section 6 \(energy\)](#) of the Building Standards Domestic Technical Handbook 2011. Overall building performance is set using a target emissions rate (measuring CO₂ emissions) which must not be

³⁵ **Carbon Countdown for Homes : How to make Scotland's existing homes low carbon**, CAG Consultants and Energy Action Scotland for WWF Scotland

exceeded. The minimum performance of building fabric (insulation) and building services (heating, lighting, ventilation) are also specified. A designer/developer may meet the overall CO₂ target in any way they choose provided these minimum levels of elemental performance are met. Details of meeting CO₂ targets are set out in standard 6.1 with guidance on elemental performance set out in standards 6.2 to 6.6 (insulation, heating, lighting and cooling). Further provisions address the commissioning of building systems, the provision of information to the building owner and production of an Energy Performance Certificate.

Existing social housing

2.38 One of the 5 criteria within the SHQS is that housing must be energy efficient, which means that properties should have:

- 100 mm of roof insulation (minimum);
- Cavity wall (or equivalent) insulation (where technically feasible and appropriate);
- Hot water tank and pipe and cold water tank insulation;
- Full and efficient central heating (“efficient” means broadly equivalent to a G-rated boiler or better); and
- Any other energy efficiency measures that will bring the property up to a minimum energy rating subject to technical feasibility and proportionate cost.

2.39 The most recent Scottish House Condition Survey (SHCS)³⁶ shows that 44% of social sector houses fail SHQS on the energy efficiency criteria. Most failures are for cavity wall insulation.

2.40 The Scottish Government believes the SHQS, including the energy efficiency criteria, can be met if landlords target their resources appropriately. The Scottish Housing Regulator is responsible for monitoring progress towards the SHQS as part of the Social Housing Charter, supported by Scottish Government guidance issued to landlords to encourage them to target resources.

Existing private housing

2.41 There are currently no standards for energy efficiency for owner occupied or privately rented houses. The only requirement for all housing is that it has satisfactory thermal insulation as part of the tolerable standard. This is defined in statutory guidance as having loft insulation (where a house can have it).

2.42 Tenants now have more information on energy efficiency of properties they rent through EPCs which were introduced on 4 January 2009, and with the introduction of the Energy Report within the Home Report from 1 December 2008 prospective buyers (as well as sellers) are more aware of the energy efficiency ratings of properties. This information is an important tool in driving behaviour

³⁶ Scottish Government (2011), [Scottish House Condition Survey: Key Findings 2010](#)

change to recognise the benefits of energy efficiency, but, as noted elsewhere in this strategy, more needs to be done to effect this change. One of the drivers for more energy efficient homes with reduced carbon emissions will be the increasing costs of fuel.

Q20: What action can be taken to raise the importance placed by owners and tenants on the energy efficiency of their properties?

Consideration of future standards

2.43 The current standards are a step in the right direction, but more is needed if housing is to contribute fully to the challenging targets set out above. Exactly how much might need to be done by regulation will depend on the effectiveness of incentives as part of the National Retrofit Programme and behaviour change, but in recognition that these are unlikely to be enough, the Scottish Government has been looking at the potential role of additional standards.

New build

2.44 There is a commitment to review energy standards within building regulations for both 2013 and 2016. This follows recommendations within the Sullivan report on staged improvements to energy standards for new buildings in 2010 and 2013, with the intention of 'net zero carbon' new building by 2016/17, if practical.

2.45 Standards for new homes were last amended in October 2010. The 2010 Technical Handbooks set standards that reduce CO₂ emissions from new homes by 30% compared to the previous 2007 standards.

2.46 The current review of standards for 2013 considers further reductions in emissions from new homes up to, and including, the 60 per cent reduction on 2007 emissions recommended in the Sullivan Report. Research is assessing the implications of a 45 per cent and 60 per cent reduction on 2007 levels. These equate to a further 21 per cent and 43 per cent reduction respectively on the present 2010 standards. Indications from the initial research are that the average increase in capital cost for a new house would be around £5,000 for the 21 per cent emissions reduction and £10,000 for the 43 per cent emissions reduction.

2.47 Consultation on revised standards is proposed for late summer 2012. We will need to balance the increase in cost with our aspiration for emissions reductions. The consultation will be accompanied by research into the costs and benefits of any proposed changes, together with a Business and Regulatory Impact Assessment presenting the context of the review and identifying not only costs and benefits but the context of the review and the wider implications of further changes to standards.

Existing social housing

2.48 The Scottish Government is separately consulting on a proposed Energy Efficiency Standard for Social Housing, building on the energy efficiency element of the Scottish Housing Quality Standard (SHQS). The aim of the proposed standard is to improve the energy efficiency of, and minimise greenhouse gas

emissions from, existing social rented housing. This is important to help landlords provide warmer, more energy efficient homes for their tenants, reduce fuel poverty and to contribute to the Climate Change targets of 2020 and 2050. The initial milestone for the new standard will be 2020, but the ultimate goal is to meet the 2050 target.

2.49 The Energy Efficiency Standard will be based on the energy efficiency and environmental impact scores generated when producing EPCs. Using the Scottish House Condition Survey, the most common building types in the social rented sector were identified. The impact of different energy efficiency measures was then modelled on each building type to establish the improvement in both the energy efficiency rating and the environmental impact rating from the EPC. Using that modelling work, and the views of the stakeholder working group established to steer the development of the new standard, minimum EPC ratings have been set for different building types. There are also different scores to be met depending on the fuel type used to heat the home. The tables below set out the proposed score to be met for each of the house types.

Table 2 – Standard for gas heated homes for 2020

Broad Property Type Heated by Gas	Minimum EPC (Environmental Impact) rating	Minimum EPC (Energy Efficiency) rating
Top floor flats heated by gas	C (70)	C (75)
Mid floor flat heated by gas	C (80)	C (80)
Ground floor flat heated by gas	D (65)	C (70)
Mid-terraced house heated by gas	C (70)	C (75)
End terrace / Semi-detached heated by gas	D (65)	C (70)
Four in a block – Lower heated by gas	D (60)	D (65)
Four in a block – Upper – heated by gas	D (60)	D (65)
Detached / bungalow heated by gas	D (55)	D (60)

Table 3 – Standard for electrically heated homes for 2020

Broad Property Type Heated by Electricity	Minimum EPC (Environmental Impact) rating	Minimum EPC (Energy Efficiency) rating
Top floor flats heated by electricity	D (60)	D (65)
Mid floor flat heated by electricity	C (70)	C (70)
Ground floor flat heated by electricity	E (50)	D (60)

Broad Property Type Heated by Electricity	Minimum EPC (Environmental Impact) rating	Minimum EPC (Energy Efficiency) rating
Mid-terraced house heated by electricity	D (55)	D (60)
End terrace / Semi-detached heated by electricity	E (50)	D (60)
Four in a block – Lower heated by electricity	E(50)	D(60)
Four in a block – Upper – heated by electricity	D (55)	D (60)
Detached / bungalow heated by electricity	E (50)	D (55)

2.50 The modelling work used to determine the proposed energy efficiency standard could also be applied to the owner-occupied and private rented sectors, although there is a greater variety of house types in those sectors.

2.51 More information can be found in the consultation document on the Energy Efficiency Standard for Social Housing, including:

- the background to energy efficiency and social rented housing;
- the work done to date to improve energy efficiency in the social housing sector;
- why the Scottish Government thinks a new energy efficiency standard is necessary;
- the options considered for an energy efficiency standard for social housing;
- the financial implications of introducing a new standard;
- how progress towards any new standard would be measured and monitored; and
- the timetable for implementation.

If you wish to view or comment on the proposed Energy Efficiency Standard for Social Housing, please do so via the parallel consultation process via the Scottish Government website³⁷.

Existing private housing

2.52 Chapter 1 of this strategy sets out our vision for a National Retrofit Programme to improve energy efficiency and reduce carbon emissions of existing housing by maximising the opportunities for incentives available to consumers. But a wide range of stakeholders, including the Existing Homes Alliance Scotland, WWF and the Fuel Poverty Forum, have argued that this on its own may not achieve necessary emissions savings from private sector housing to help meet our emission targets. The Scottish Government has therefore been looking at issues affecting possible future regulation, and proposes to set up a working group by the

³⁷ <http://www.scotland.gov.uk/Topics/Built-Environment/Housing/sustainable>

end of the year to consider if, how and when we might regulate. **The rest of this chapter seeks further views on what might need to be considered ahead of identifying the design and timing of any regulation.**

Q21: Should the Scottish Government introduce minimum energy efficiency standards for private sector housing?

Legislative Framework and policy levers for action

2.53 Scottish Ministers have powers under section 64 of the Climate Change (Scotland) Act 2009 to introduce regulation to require the assessment of energy efficiency and action to reduce the emission of greenhouse gases from existing houses. There are also powers under the Energy Act 2011 to set minimum standards in the private rented sector (PRS) after 2015.

2.54 In March 2011, Scottish Ministers set out their position that we would not regulate before 2015³⁸, and would look to regulate owner occupiers and PRS at the same time.

Assessment of energy efficiency

2.55 Currently, houses which are rented or sold must have an energy efficiency assessment in the form of an EPC as a requirement of the EU Energy Performance of Buildings Directive (EPBD). This is set out within building regulations (for new homes) and in the Energy Performance of Buildings (Scotland) Regulation. Additional provisions are identified in the Home Report regulations for houses being marketed for sale.

2.56 The Scottish Government consulted on proposals to amend the EPC processes to take account of the recast of the EPBD, with the consultation closing in January 2012. As part of this, a revised format for the EPC will be available from October 2012. The main changes relate to processes and ensuring that the recommendations report, which currently is only a requirement for Home Report purposes, must always be provided along with the EPC (which includes the rating for the property). This means that all EPCs generated after September 2012 will have the recommendations report which includes further information on cost effective measures.

2.57 The review focuses on processes which deliver information to building owners. In particular:

- review and implementation of revised practice in the operation of Approved Organisations; amendment to working practice of assessors to improve consistency;
- amendment in the procedure for delivery of newbuild EPCs; and
- introduction of quality assurance measures – sample checking of EPCs.

³⁸ Scottish Government (2011), [Regulation of Energy Efficiency in Housing](#)

2.58 The UK Government's Green Deal programme will also use the EPC as the basis for Green Deal assessments. Assessments will be based on the Reduced Data Standard Assessment Procedure (RdSAP). This has been adapted for the Green Deal. Changes include the use of regional climate data in calculating the cost-benefit of improvement measures and the addition of further improvement measures to the list that RdSAP can recommend (and flagging which measures can be funded under Green Deal). Enhancements that will improve assessment, including under Green Deal, include:

- greater flexibility in the assessor input of dwelling data, including a more detailed definition of building elements where needed (for example, differing areas of construction on the same wall);
- the facility to use fabric U-values other than the RdSAP defaults (based upon age and construction type); and
- recognition of a range of newer building services technologies and types of microgeneration.

2.59 In our March 2011 statement we said that we would consider carrying out further research to see whether the EPC would be an appropriate route to assess energy efficiency for regulation purposes. Feedback from consultation on the Energy Efficiency Action Plan and from discussions with stakeholders suggests that research should look into issues such as the data used to generate the EPC, its predictive accuracy, applicability to all housing types and impact on promoting improvements.

2.60 We also propose that any research should consider how the information presented in an EPC could be amended to help provide useful information and drive behaviour change.

Q22: How could we amend EPCs to make them a more useful tool for influencing behaviour change to improve energy efficiency?

Role of incentives, design and timing of minimum standards

2.61 As set out above, the Scottish Government proposes to draw together a range of stakeholders to form a working group that will consider whether it might be appropriate to introduce minimum energy efficiency standards for private sector housing. In looking at options for possible regulation, our guiding principles will be that:

- a) Any regulation should fit with **incentives**, such as under the National Retrofit Programme, to encourage voluntary action and maximise opportunities to make use of incentives.

- b) The **design of standards** should be clear, understandable and appropriate to Scottish housing types, and regulation should be financially sustainable and equitable.
- c) The **timing** of introducing any regulations should be appropriate - there should be sufficient lead in time to the introduction of regulation to enable owners to prepare for it. Consideration also needs to be given to the rollout of Green Deal and what impact this will have on energy efficiency, and timing should take account of housing market conditions.

These issues are explored in more detail below.

Q23: Are there other key principles that we ought to consider when looking at the possible introduction of regulations?

(a) Role of incentives

- 2.62** Chapter 1 sets out our plans for a National Retrofit Programme which includes the provision of incentives to support householders in improving the energy efficiency of their properties.
- 2.63** The take up of incentives and voluntary action will determine the need for regulation in achieving our emission reduction targets. But the knowledge of forthcoming regulation can itself drive take up of incentives, and so reduce the amount of enforcement needed once standards are in force. It will be important that the take up of incentives and the impact of voluntary action is assessed, and that there is clarity as to when and what standards will apply.
- 2.64** Regulation could require owners to carry out only the work for which incentives are, or have been, available. For example, the current intention in England and Wales is that PRS properties will not be able to be rented out after 2018 if the property has an EPC rating of F or G rating, unless all the Green Deal finance available on the property has been taken out.
- 2.65** Alternatively, regulations could set a higher level which is more easily achievable once incentives have been available for part of that work.
- 2.66** We also need to make sure that regulation does not inadvertently affect eligibility for incentives in Scotland that are available across Great Britain. Given that the Energy Company Obligation (ECO) will be replacing CERT, the Scottish Government is working with the UK Government to understand how regulations might affect eligibility to ECO, to ensure that homeowners in Scotland are no worse off than elsewhere in GB.
- 2.67** The Scottish Government is also looking at whether there are other types of incentives to encourage voluntary improvement, or to support minimum standards. The Climate Change (Scotland) Act 2009 already provides for councils to run schemes to offer council tax discounts for improving the energy efficiency of houses. The new devolved Scottish land and property transaction tax to replace Stamp Duty Land Tax could provide a potential longer term option for promoting energy efficiency.

Q24: How could regulation be used to support the uptake of incentives?

(b) Design of standards

Options for regulation – how

2.68 In March 2011 we also published an analysis report *Impacts of Options for Regulating Energy Efficiency Standards in the Domestic Sector*³⁹ of four broad approaches for regulation. These were:

(1) a measures based approach, where a set of specific energy efficiency measures is required – for example, homes are required to have cavity walls and lofts insulated to a minimum depth, where this is technically feasible.

(2) a measures based approach through applying a simplified version of the Scottish Housing Quality Standard (SHQS) criteria for energy efficiency elements.

(3) Standards based on a recommendation for the property to reach a certain energy efficiency standard, for example by setting an EPC score that must be achieved. A home could have different combinations of energy efficiency measures to reach a given EPC rating, or a specified u value.

(4) requiring that recommendations from the Energy Report (up to a cost limit) are carried out when a house is sold or rented.

Q25: In section 2.68 we identify design options for the standard. Do you have any views on the options set out in that report? Are there other options that we should be considering?

2.69 There is clearly overlap between some of these options modelled for the private sector and the work which is being consulted on as part of the proposed Energy Efficiency Standard for Social Housing (EESH). It may be appropriate for private sector regulation to follow a similar approach by considering whether standards should vary by house type, noting that there are likely to be more house types in the privately owned sector than the social sector. We will take account of feedback to the EESH consultation in taking forward consideration of private sector regulation.

2.70 As highlighted in the material on improving house condition earlier in this chapter, there can also be difficulties in achieving set standards in mixed tenure blocks if private and social housing are obliged to meet different requirements. In order to

³⁹ Impacts of Options for Regulating Energy Efficiency Standards in the Domestic Sector Scottish Government March 2011 - <http://www.scotland.gov.uk/Publications/2011/03/22092740/0>

enable social housing to meet any standards set for that sector, and to ensure that private sector housing contributes fully to meeting our emission targets, we may wish to consider whether, in some circumstances, it would be appropriate to set a minimum standard for a type of housing block which all owners are required to meet, rather than setting standards for different types of ownerships.

Q26: Do you agree that any regulations for private sector housing ought to reflect the energy efficiency capacity of the property and/or location, as is proposed for the social sector?

Q27: If you agree with Q26, should houses of the same type in the social and private sectors be expected to meet the same standard?

Q28: Are there other specific issues we need to consider in introducing regulation on the energy efficiency of the home for particular groups of people, for example older people, those with disabilities, people from minority ethnic communities?

Options for regulation – trigger points

- 2.71** Our current thinking is that regulation, if introduced, should apply at the point of sale or rental, but we want to think about how this might affect the property market and, as a result, what impact this might have on the delivery of emissions reductions. If we only regulate at the point of sale or rental, we will only tackle a proportion of homes that are not energy efficient, and the rate at which these are improved will be affected by the rate of movement in the housing market over the period of this strategy.
- 2.72** If we were to apply any standards only at the point of sale or rental and that did not achieve the necessary progress in improving energy efficiency to meet our 2020 and 2050 targets, we may wish to consider also applying other, additional trigger points. For example, where a property is having major structural repairs, or the local authority is otherwise taking action which is not specifically triggered by energy efficiency, we could regulate to require that energy efficiency standards are also met at that time.
- 2.73** Building regulations currently have a mechanism that applies when any house is extended. It considers the level of fabric insulation to the existing construction. If the standard is poor then the extension has to be built to very high insulation standards. However if the standard of roof and wall insulation is reasonable, the extension can be built to slightly less demanding insulation standards. This gives building owners encouragement to improve the existing stock. A review of these measures is currently underway.

Q29: Should we consider additional trigger points to point of sale or rental? If so, what?

Options for regulation - rollout

2.74 As set out above, we believe that any regulation ought to apply to both owner occupiers and the PRS from the same time. But we are also considering whether the introduction of regulation could be phased in.

2.75 There are different ways that this could be done, including –

- By energy efficiency ratings – targeting properties with the lowest EPC ratings first.
- By location – minimum standards could be introduced in areas which have already had access to area based incentive schemes.
- Varying standards over time – for example, looking at the proposal from the Existing Homes Alliance Scotland, that properties be required to meet a lower EPC rating by a certain date, to be raised to a higher level by a later date; or, at point of sale or rental only, but if looks like this is insufficient to meet our contribution to emission targets, considering a date by which all housing has to meet that standard, irrespective of whether properties have been sold or rented.

Q30: Should rollout of any regulation across the owner occupied and PRS sectors be phased or all at once? If you think that rollout should be phased how do you think this should be done?

Options for regulation – enforcement and sanctions

2.76 Who enforces regulation, and what happens if someone doesn't comply, will be influenced by the way we regulate and the form of regulation introduced.

2.77 For example, if we look at using the point of sale or rental, then regulations may be enforced by the local authority or as part of the conveyancing process at the point of sale by the use of an EPC and/or incorporated into the Home Report.

2.78 The seller could potentially pass the obligation to improve a property to the new owner with a condition to do this within a fixed time, which would need to be checked up on. If the conditions aren't met, enforcement actions (for example by local authorities) could be by way of a fine for non compliance, or an owner not being able to sell or rent their house until it complies with regulations. Local authorities could also be the enforcement authority for the PRS.

2.79 The enforcement mechanism and how sanctions might be designed will vary depending on what approach is taken, but equally it will be important to assess how practical enforcement is when considering the options. We think that the main points to be considered will be around cost; capacity; processes; and suitability of existing structures.

Q31: What other issues around enforcement do we need to think about when considering how different approaches to regulation might work?

Q32: In sections 2.76 - 2.79 we suggest that one way of regulating would be to issue sanctions.

A. Do you think that sanctions on owners should be used to enforce regulations? Yes/No

B. Should owners be able to pass the sanction or obligation on to buyers?

(c) Timing

2.80 The Scottish Government stated in its report of March 2011 that we would not regulate before 2015. We want to ensure that all the issues affecting regulation are fully considered, which includes assessing the rollout of new incentives, such as the National Retrofit Programme working together with Green Deal and ECO. However, we also believe that clarity on when new standards might apply can also drive the take up of incentives, and that it is important to ensure that owners have sufficient time to prepare for them, particularly if there are sanctions for non-compliance.

2.81 We will consider with the working group when any regulations might apply from. This will take account of key dates such as the introduction of Green Deal and ECO from late 2012; the timeframe for research into EPCs set out in sections 2.59 and 2.60 above; regulation of the PRS in England and Wales from 2018; proposed implementation of the Energy Efficiency Standard for Social Housing by 2020; and our climate change targets for 2020 and 2050.

Q33: The Scottish Government does not intend to regulate before 2015. The working group will consider what options for timing of any regulation might be appropriate, but, given all the points set out in sections 2.80-2.81 from when do you think it might be appropriate to apply regulations?

Chapter 3 : Financial Market Transformation

The outcome we want to see:

There is a market premium on warm, high quality, low carbon homes with lower running costs because these attributes are valued by lenders, consumers and surveyors.

Why is this important?

- 3.1** Low carbon, energy efficient homes, including those with micro-generation technology, do not currently attract favourable lending terms or higher property values. In contrast, place-making is valued in the housing market. For example, a home in a well connected neighbourhood will be valued higher than a home with identical energy efficiency and technology but relatively isolated from amenities. Yet energy efficient homes are warmer and cheaper to run than other homes because of lower energy bills, and may even attract tariff income from Government schemes, but this does not affect their value.
- 3.2** This is due to two inter-linked factors –the current systems, practices and regulatory frameworks for valuing properties and advancing loan finance, and the knock-on effects these have on the priority consumers place on having a sustainable, energy-efficient home. Each of these factors influences the other so, without change of some kind, they could be self-perpetuating.
- 3.3** Similar issues affect other aspects of sustainability such as housing quality and maintenance. Surveyors will take account of the condition of a property when valuing it, and potential buyers now have more information upfront about the condition of a house through the Home Report. However, there are still problems of disrepair in private sector housing. Although home owners are spending more than £2 billion each year on their homes the underlying level of disrepair is not improving. There needs to be a greater emphasis on structural work and routine maintenance as opposed to more cosmetic improvements. Action proposed to address this cultural shift is outlined in **Annex B**.
- 3.4** Public funding will continue to be important to support the cost of energy efficiency measures for those on low incomes and others may be motivated to buy or retrofit greener housing because they want to do their bit for the environment. However, many households are more likely to invest in energy efficient housing if there is a clear financial benefit to them. This could be in terms of lower energy bills, higher property re-sale values or tariff income. Less tangible aspects of value such as status and conforming to social norms may also have a part to play.
- 3.5** Ensuring that the market fully reflects the benefits of greener housing is therefore vital in encouraging households to take-up the measures needed to achieve our emission reduction and fuel poverty goals. This is particularly important in the context of the new market-led incentive based approaches, such as the Green Deal (see chapter 1), which are expected to become an important part of the energy efficiency landscape.

The Greener Homes Summit

- 3.6** The importance of these issues came into focus at the Greener Homes Summit chaired by the Cabinet Secretary for Infrastructure and Capital Investment, involving developers, finance and technology experts, in November 2011. This event examined how Scotland could exploit opportunities for investment in sustainable housing.
- 3.7** It was recognised that there are fundamental issues about the acceptance of, standards for, and education about green home products by lenders, developers and consumers. While green mortgage products have a niche position in the market (see box 7), mortgage providers are not currently focussed on developing them for the mass market. One of the main reasons for this is that they do not believe consumer demand for these products is high enough to make them attractive for lenders.
- 3.8** As valuations are one of the key drivers for the lending sector, it was agreed that there was a need to review the valuation process. This could help to create more demand in the market and acceptance from the lenders.

Box 7: Case Study – Green Mortgages - Ecology Building Society

The Ecology Building Society offers a range of mortgage products and lends throughout the UK. It specialises in renovation and new build mortgages on properties and projects that respect the environment. Where possible, mortgage pricing is aligned with the project's positive environmental impacts, in particular energy and carbon reduction, through its series of C-Change mortgage discounts. The society is particularly interested to see derelict and dilapidated property brought back into use. The Society also actively supports the widespread application of Passivhaus building principles in the UK.

Our specific objectives for financial market transformation

- 3.9** We need to transform attitudes to the benefits of sustainable homes. In 20 years time it is reasonable to expect that most individuals will own or rent a home that meets agreed legislative standards of sustainability. It may also be socially unacceptable for home owners or landlords to not meet these standards. In the same way that it has become normal to wear a car seat belt and recycle household waste, it will become the norm to live in a well insulated home with low energy use.
- 3.10** Such a transformation will need to be an incremental process that starts with changing perceptions and behaviour. This would be assisted by:
- Lenders recognising the value of a property's energy rating through preferential mortgage products or 'green' mortgages.
 - Further development and implementation of guidance on taking account of sustainability in valuation practice (see section 3.13).

- Professionals who understand the benefits of sustainability and micro-generation and can influence the general public.
- The availability of a well-understood calculator to measure income from micro-generation (for example, PV Solar and heat pumps) which is used and recognised in the property valuation process.
- Sustainability being seen as a desirable attribute that is recognised and valued by the public.
- Smart meters and better controls on heating and lighting make it easier for consumers to understand and reduce their heating costs.
- Financial incentives being available to improve the energy efficiency of houses.
- Publicity for success stories which helps to enhance the reputation of greener homes, including successful adaptation of traditional buildings.

Box 8: Case Study - Minergie Standards

Minergie Standards is a sustainability labelling system for new and refurbished buildings, systems, components and materials which is used in several European countries. Developed in Switzerland in the 1990s by the Minergie Association, the system has since expanded through franchising to France, Italy, Germany, the USA and the United Arab Emirates.

The Minergie standard has been well marketed and has broad political, business, trade and professional support in Switzerland. Plaques are mounted on buildings which have been certified to indicate the standards. Minergie labelling has a positive influence on the market, with certified buildings being easier to rent, have higher levels of user satisfaction and lower tenancy turnover, which in turn leads to higher income for investors. There are a number of different standards available under the Minergie badge, with increasingly rigorous ecological requirements. Minergie is also able to provide mortgages which have interest rates 0.75% below market rates.

Legislative and policy levers for action

- 3.11** When a property is marketed for sale both sellers and buyers have access to an Energy Report (including an Energy Performance Certificate) as part of the Home Report, which provides information on the energy efficiency of the property and how this could be improved. The Property Questionnaire, also part of the Home Report, contains information such as council tax banding and heating systems. From January 2013, all adverts for properties marketed for sale or rent must display the EPC rating. This will raise the profile of a property's energy efficiency and make it more obvious to consumers.
- 3.12** Chapter 2 on Standards refers to consideration of the potential future role of EPCs in affecting behaviour to improve energy efficiency, and there may be scope to consider whether the Energy Report and property questionnaire could also be

amended to further improve awareness and action. It also considers the potential role of other measures such as council tax and the replacement for stamp duty land tax. In the longer term the adoption of minimum standards for existing homes could help the market to recognise the value of energy efficiency.

3.13 But information through EPCs and providing other incentives on their own may not be enough to bring about change unless the energy efficiency and low carbon qualities of homes are recognised and reflected in professional valuations. While this will take time, the Royal Institution of Chartered Surveyors (RICS) has already made a start by publishing new guidance on valuing sustainability in homes⁴⁰.

Q34: (a) In sections 3.11 – 3.13 we describe the range of legislative and policy levers that we believe are available to help us transform the financial market such that it values warm, high quality, low carbon homes. Do you agree that this is the full range of levers? Answer Yes/No

(b) Can you suggest ways to help transform the market for more energy efficient, sustainable homes?

Main challenges to address

3.14 This chapter has set out how the market does not currently attach any additional value to homes with new technologies or higher standards of energy efficiency. The view of valuation professionals is that the market is not ready to pay a premium for sustainability. We recognise that change will take time and is currently affected by the economy and the cycle of the housing market, but we believe this is the time to start to address these issues.

Q35: What changes would be required to current survey and lending practice to enable mortgage lenders to take account of the income from new technology or savings on energy bills?

3.15 Other challenges could include:

- a risk-averse lending market with assessment based on household income, but taking little account of house condition or energy efficiency.
- lenders who operate across the UK not fully recognising Scottish-specific circumstances.
- uncertainty about how the Green Deal will be received and how it may affect property values.
- lack of information or proven examples of how a clear incentive structure could support behaviour change.
- lack of familiarity about new technology such as heat pumps and Solar PV.

⁴⁰ http://www.rics.org/site/scripts/press_article.aspx?pressreleaseID=632

Q36: Section 3.15 lists a range of challenges that may prevent the benefits of a more sustainable, energy efficient home being fully recognised in its value. What further challenges, if any, need to be addressed?

Action to address these challenges

- 3.16** We will consider the best way to work with key partners including the Council of Mortgage Lenders and RICS to encourage change in perceptions and practice among their members and examine the potential for expansion of the range of 'green mortgages' and other relevant financial products on offer.
- 3.17** For the new-build market, reviews of the energy standards in building regulations and the new system of sustainability labelling described in chapter 2 will help to raise expectations of what should be considered 'normal'
- 3.18** We will work with others to provide better information, evidence and case studies of the benefits of low carbon housing for example through academic research, [Historic Scotland](#) and the [Green Homes Network](#).

Box 9: Green Homes Network

The Green Homes Network, funded by the Scottish Government and managed by the Energy Saving Trust, provides the opportunity for people to visit green homes in their area. This means they can find out at first-hand how different renewable systems technologies actually operate; hear about actual costs and savings; and get tips and advice that could help them to improve the energy efficiency of their own home. The network currently has over 570 homeowners - and the number is growing. In a very practical way, this network is helping to take the mystery out of greener homes and demonstrate their value.

- 3.19** The Scottish Federation of Housing Associations, supported by pilot funding from Scottish Government, has led on the development of the ground-breaking carbon portal project which uses thermal imaging as a highly visual way of identifying the need for, and potential benefits of, insulation measures⁴¹.
- 3.20** The Scottish Government has also been examining how to encourage sustainable behaviours, including in housing, through its 'Climate Change Behaviours Research Programme'⁴². One key finding is that trying to change behaviour simply by targeting individual householders can only have limited success. A broader and more ambitious focus is often needed, and this is particularly true for this strategy with its vision of a major cultural shift in how we think about and live in sustainable homes. The research programme suggests that there are three key 'levels' of

⁴¹ <http://www.carbon-portal.org.uk/>

⁴² <http://www.scotland.gov.uk/Topics/Research/by-topic/environment/social-research/Behaviour-Change-Research>

intervention and that, if these are effectively joined up, significant change can happen. These levels are as follows:

- The **individual level**, making it easy for households to live more sustainably, for example by providing tailored advice and personalised feedback, giving incentives where appropriate, and offering intensive support from start to finish when any energy efficiency measure is being installed.
- The **social level** focuses on establishing new social norms, values and expectations. In other words, the sustainable option needs to become the most obvious and natural choice for everyone, and the importance of sustainability as an idea needs to be widely understood. Action at community level, including area-based schemes, and community engagement and ownership models can be effective.
- The **material level**, which means providing the 'hard' infrastructure of new products, such as better insulation, but also, at a larger-scale, building demonstration homes which show what sustainable housing looks like and how it operates. New technology is also important, improving what we already have (e.g. more efficient boilers) but also providing new services, such as the ability to control domestic heating and lighting systems from outside the home via a computer or smart phone. The 'soft infrastructure' of new standards and regulation, or the provision of smarter services with informed and expert professions, also plays a key role, and these need to be consistent and reliable.

3.21 Research into behaviour change has influenced the development of the Scottish Government's new overarching climate change public information campaign. '*Greener Together*' encourages us to see that all our actions combined can make a big difference, with a strong call to action for us all to work together for a cleaner, greener Scotland. The campaign aims to develop a wider understanding of climate change and to bring the key behaviour areas together, providing the public with information on how they can get involved, encouraging them to do more, more often.

3.22 The supporting website www.greenerscotland.org - a one-stop shop for greener living - combines a wide range of information and resources to help everyone go greener together, with advice on how to save energy, reduce waste, travel smarter and eat greener. The website offers a variety of practical tips and useful tools such as the Greener Plan, the what's-in-season web app, the well-insulated virtual house and a find-your-nearest-recycling facility.

Box 10: Case Study – Building Research Establishment Innovation Park

The BRE Innovation Park @ Ravenscraig follows a 'ground-up' approach to sustainable planning and development. The site features porous road surfaces and paving, a 3-stage Sustainable Urban Drainage System, native planting and landscaping, street furniture and lighting and a natural play area. Nine demonstration buildings will be constructed which will showcase products and technologies which meet the future energy requirements for Scotland. A visitor centre will also be provided which will also operate as a community facility, engaging with local groups such as school children, young adults and FE colleges. The visitors centre will also be a high-performance demonstration building in its own right. The development plots on the Park have been individually themed to promote the demonstration of innovative construction methods which can be utilised to provide a zero carbon performance.

Q37: (a) Section 3.16-3.22 sets out the action that Scottish Government is currently developing to encourage greater recognition of the value of sustainable homes. Do you agree that this action is appropriate? Y/N

(b) What further action is needed to influence consumers and the market?

Chapter 4 : New Build Market Transformation

The outcome we want to see:

Scottish companies maximise the potential of innovative design and construction techniques to deliver more, greener homes as part of sustainable neighbourhoods creating export and other economic opportunities.

Why is this important?

- 4.1** Scotland's house-building industry already makes a significant contribution to Scotland's economic prosperity, creating and supporting jobs and enabling labour market mobility. And, as a consequence of our increasingly ambitious building standards, the energy efficiency of the new homes built today has increased significantly in recent years. However, the Scottish Government believes that more can be done, both to improve yet further the sustainability of new build housing and to forge new economic opportunities from the sector and its supply chain, including the potential for a "first mover" advantage in the export market in Europe and beyond and its supply chain.
- 4.2** According to National Records of Scotland projections, we will need around 450,000 extra homes in Scotland to meet expected demand by 2033. The Scottish Government's ambition for new homes that meet the highest sustainability standards represents a huge opportunity for innovation and investment in the housing sector building on the industry's existing track record. Improvements to energy efficiency standards through the building regulations will play a vital part in transforming the new build market.
- 4.3** The Scottish Government has a key role to play through the way we incentivise energy efficiency in the new homes that we subsidise. We estimate that the £710 million housing investment budget for the three-year period 2012-15 could generate around £3 billion of economic activity and support up to 8,000 jobs each year, directly and indirectly, across the Scottish economy. Through the Affordable Housing Supply Programme (AHSP), we are committed to subsidising 30,000 new affordable homes over the 5 years of this Parliament, mainly through councils and housing associations. The programme includes homes for social rent, intermediate rent and shared equity⁴³. While some of these homes will be delivered through rehabilitation or off-the-shelf purchase, at least 80 percent will be new build, and a coordinated approach to driving energy efficiency through this Programme can spearhead wider reforms in the industry.

This chapter highlights opportunities to modernise the industry, including through procurement and the Government's affordable housing programme.

⁴³ Shared equity is where households buy part-ownership of a property and make an occupancy payment to a social landlord on the remaining share.

Progress so Far

- 4.4** Scotland's building standards have driven significant improvements in the quality and energy efficiency of new homes in Scotland. Homes built to 2010 building standards deliver a 70% reduction in carbon dioxide emissions compared to those built in 1990. (Further information on this, and the complementary sustainability labelling system in contained in chapter 2).
- 4.5** Timber frame construction is a good example of modern approaches to construction, accounting for around 75% of all new housing in Scotland⁴⁴. It is well suited to delivering homes that meet increasingly high building standards. Timber is also a low carbon construction material, storing significant volumes of carbon in buildings and substituting for more energy-intensive materials. Some Scottish companies have already invested in creating factory production bases where houses can be largely constructed in a controlled environment, providing a higher quality, more energy efficient end product. The focus on low carbon construction and energy efficiency also provides opportunities for greater use of timber in construction, building on the rising Scottish timber harvest, the considerable investment in new processing facilities and ongoing research into new timber products and construction systems. There are also economic opportunities in the English market where penetration of timber frame is currently much lower.
- 4.6** The Building Performance Assessment Centre (BPAC), based in Glenrothes, provides a unique testing facility for new and innovative construction materials and building systems, giving firms an opportunity to test their products and solutions in Scotland. The centre, supported by Edinburgh Napier University, provides facilities to test products for full scale assessment in blockwork, precast concrete and timber frame houses and apartments. In addition BPAC provides UKAS accredited testing for all forms of structural timber, as used in new buildings. In addition, there are large prototype test bays which can be leased to allow house builders, designers and product system manufacturers to construct and test new innovative housing build systems. Information is available at www.bpac.co.uk

⁴⁴ Davies, I, Sustainable Construction Timber – Sourcing and Specifying local timber (Forestry Commission Scotland, 2009) <http://www.forestry.gov.uk/forestry/INFD-6B2JFB>

Box 11: Case study – Housing Innovation Showcase: Stewart Milne Group Ltd - Sigma II building system

The Housing Innovation Showcase is a £3.3m project which will test different new construction technologies with a view to using the best methods and systems in mainstream affordable housing programmes. Twenty-seven new homes are under construction on the Housing Innovation Showcase site in Dunfermline, Fife. The showcase is a joint venture between Kingdom Housing Association and Fife Council and enjoys the support of Fife Construction Forum and Green Business Fife. A key element of the development will be a comprehensive monitoring programme of the performance of the different systems, and a comparative analysis of the benefits of different renewable energy options and other enhanced specifications on some of the properties. A link to the Showcase is here: [housing innovation showcase 2012](#)

The Sigma II Building System has been used at the Housing Innovation Showcase development. Stewart Milne Timber Systems is part of the Stewart Milne Group, one of Scotland and the United Kingdom's leading house builders. They have developed their Sigma II Build System to achieve superior levels of fabric performance. The system uses conventional materials and skills with an easy to understand approach. It is a fabric first solution that delivers an affordable, reliable and simple to install Build System, promoting a "Fit and Forget" approach. Their focus is on higher levels of prefabrication, to reduce build process and material waste, and a fabric first approach to carbon compliance.

Links to wider strategy on sustainability

- 4.7** New greener homes need to be part of sustainable neighbourhoods. For example, we can influence the design of new homes in sustainable places and neighbourhoods by ensuring that individual buildings make best use of the positive attributes of the site (such as orientation towards the sun). Equally important however is that the place within which individual buildings are found is well connected and well designed⁴⁵. Where possible, new housing should be located in such a way to reduce the dependence of future occupants on fossil fuelled forms of transport. It should also be designed to accord with the six qualities of successful places that are described in Designing Places⁴⁶ the Scottish Government's policy on place-making. New housing should be developed in the context of the neighbourhood with mixed use developments becoming the norm. Consideration also needs to be given to the development of new housing typologies that meet the demographic challenges we are facing (such as the need to care for an elderly relative at home) and the potential for information and communication technology (ICT) to shape the way we live and work. Opening up opportunities for self build and adaption will make our housing stock better able to cope with these challenges.

⁴⁵ [A policy on Architecture and Place-making for Scotland : public consultation 2012](#)

⁴⁶ <http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/Designing>

4.8 Our policy on street design seeks to prioritise place before movement in residential neighbourhoods. “Designing Streets”⁴⁷ discourages the adoption of site layouts that incorporate distributor roads and cul-de-sac layouts that depend on cars to connect householders to jobs and services. The Scottish Sustainable Communities Initiative is a Scottish Government programme that aims to create sustainable, ambitious and inspiring places. The public and private sector can learn from the experience of the Initiative to inform their own processes and developments. The quality of the place and the environment around new housing could also be assessed by reference to the criteria within ‘Building for Life’ (www.buildingforlife.org).

Q38. What steps can we take to ensure that we design and develop sustainable neighbourhoods?

Our specific objectives for new build transformation

4.9 We want to see a transformed new-build market characterised by:

- The development of building standards that mean all newly built homes are warm and comfortable with the aspiration of net zero carbon new homes, if practical from 2016/17, as recommended by the Sullivan Report.⁴⁸
- Homes constructed using techniques that minimise energy use and waste.
- The public sector leading by example, including through a Scottish Government subsidised house-building programme with a strong focus on energy efficiency.
- A flourishing export market in leading edge energy efficient products developed and manufactured in Scotland.
- New homes are in mixed-use developments that support the long term well-being of communities because they are designed in context of better place-making.

Main challenges to address

4.10 There are a number of barriers to change that need to be addressed which are set out below.

- Current construction methods and technologies are capable of delivering homes to the 2010 building standards or the proposed greener AHSP standard (discussed later in this chapter) in an efficient and effective manner. However, achieving the higher level of emissions reduction being investigated for the future may require significant changes in practice.

⁴⁷ <http://www.scotland.gov.uk/Publications/2010/03/22120652/0>

⁴⁸ Scottish Building Standards Agency (2007), **A Low Carbon Building Standards Strategy for Scotland**: report of a panel appointed by Scottish Ministers

- There is a need for appropriate capacity within Scotland for innovative new components and housing systems to be tested, in isolation and in combination.
- The depressed housing market and constrained availability of finance, limits demand for innovative products and inhibits the capacity of companies to invest in research and new facilities.
- Some consumers may be unwilling to be “early adopters” in respect of new designs and technologies which affects demand for such technologies and innovative housing types.
- The need to develop a multi skilled workforce rather than specialists to avoid the risk that site employment could become short term. This is discussed further in chapter 5 and requires careful consideration.

Q39: Section 4.10 sets out the main challenges to address in taking forward our aim of new build transformation. What further challenges, if any, need to be addressed?

Q40: What action is needed to increase the capacity for developing and bringing to market innovative methods of construction?

Actions to address these challenges

- 4.11** We are working to influence the private sector to further extend the use of modern methods of construction and high quality materials building on last year’s Greener Homes Summit. Our “Greener Homes Prospectus” published alongside this consultation paper highlights examples and case studies to illustrate how this can be done in a cost-effective way.
- 4.12** The Scottish Government has announced its intention to commission a review of construction procurement arrangements in 2012 to support greater consistency of procedures and improve delivery of construction procurement projects across the Scottish Public Sector
- 4.13** The review will include procurement arrangements for affordable housing and will make recommendations to support improvements in efficiency, delivery and sustainability of construction procurement projects across the Scottish public sector to ensure that Scotland’s public sector and affordable housing sectors make best use of both their and the industry’s resources.
- 4.14** The review is expected to identify opportunities and make recommendations to ensure that the construction sector:
- achieves efficiency improvements through opportunities for collaboration where appropriate;
 - raises its performance through improvements to capability, procurement practice and project assurance;

- is able to identify and quickly adopt emerging best practice and that practices are standardised wherever possible;
- adopts good practice in relation to sustainability, including life cycle costing and reduced carbon and energy consumption;
- manages common/major contractors and projects effectively;
- makes best use of available construction procurement/project skills; and
- makes best use of new and emerging innovations in techniques, technology and materials.

4.15 The Scottish Government is taking a lead in promoting high energy efficiency standards, through its subsidy of the Affordable Housing Supply Programme (AHSP). In May 2012 we issued guidance on the AHSP including incentives for councils and housing associations to achieve higher standards. All new build housing supported through the AHSP must meet the current building standards, and an additional £4000 subsidy per unit is available for council and RSL homes which achieve the 'silver' standard in respect of both energy use for space heating and overall carbon emissions (further information on the sustainability labelling system is given in chapter 2). In partnership with housing associations, councils are currently preparing their Strategic Local Programmes within the AHSP. These will set out how many homes they intend to build to the higher standard.

4.16 A further element of the AHSP is the Government's Innovation programme, which was supported through a £10 million fund in 2011. The Government has announced its intention to repeat this initiative, but with a stronger focus on higher building standards and greener technologies. The scheme will be launched later in 2012 after discussion with stakeholders, but it will provide grant and/or loan funding to affordable housing developments which are innovative in terms of construction method and sustainability, as well as meeting local housing needs and demonstrating value for money. Priority will be given to applications which demonstrate methods of construction that could be widely applied, so that the Innovation Fund can lead to positive change across a wide canvas.

4.17 In the future AHSP, the Government may continue to use variations in subsidy rates to incentivise greener homes. However, once the 2013 standards have become the norm for all new homes, it may no longer be necessary to vary subsidy levels according to the building standards achieved.

4.18 In the longer term, the Government will consider with local authorities and housing associations whether a reorganisation of the AHSP would enable the programme to become even more influential in driving change in the industry. This will be considered within the review of construction procurement outlined above. For example, would large scale and forward looking contracts be the key to enabling construction firms to invest in greener technologies with positive results for the Scottish house building industry and for exports? And if so, could a more joined up approach to the AHSP, with opportunities for councils and housing associations to collaborate with each other and across geographical boundaries, achieve a coordinated scale sufficient to unlock transformational change in building methods?

Q41. What further changes to the operation of the Government's Affordable Housing Supply Programme would help to enable it to champion greener construction methods and technologies in the medium term?

Q42. What further action is needed to influence the construction industry to make greater use of innovative methods to deliver more greener new homes?

Chapter 5: Skills and Training

The outcome we want to see:

We want Scottish workers to have the skills and training necessary to enable Scottish companies to take advantage of the opportunities offered in building new sustainable homes, upgrading existing homes, and in developing export markets.

Why is this important?

5.1 Making all Scotland's homes energy efficient has the potential to create many jobs in the years to 2030 - in building new homes, upgrading existing ones, installing domestic renewable technologies and developing export markets for these products. However, we will only be able to take advantage of these opportunities with a skilled and adaptable workforce. There is an emerging low carbon built environment, defined by the Building Research Establishment as 'the range of products and services which have the potential to reduce the carbon emissions from a building during its operational lifetime'. It is estimated that jobs in the low carbon sector in Scotland could grow by 4% a year to 2020, rising from 70,000 to 130,000. This would represent 5% of the Scottish workforce.⁴⁹ Research by the Energy Saving Trust for WWF Scotland estimated that upgrading all homes to a minimum EPC level of D would support around 9,900 jobs⁵⁰. Providing the right training opportunities will be essential to enable Scottish companies to take advantage of the emerging low carbon economy.

5.2 Examples of the opportunities on offer include:

- **New Build** – there will be increased demand for workers with specific skills in modern methods of construction. Both in the manufacturing processes – building and module design, running and maintaining the automated assembly - and in the on-site skills needed to construct dwellings;
- **Retrofitting existing houses** - there will be a requirement for multi-skilling in the medium term to minimise household disruption and costs and link installation of energy efficiency measures with repair work;
- **Working with traditional buildings** - the significant proportion of older buildings in the national housing stock implies a continuing need for specialist skills – the objectives here, which Historic Scotland is supporting, will be to ensure the construction sector has the knowledge to assess the need for specialised skills and that those skills continue to be available and can be accessed swiftly when required;
- **Standards** – trained assessors and inspectors may be required to ensure that any regulatory standards (see chapter 2) are met.

⁴⁹ Source : The Scottish Government - A Low Carbon Economic Strategy for Scotland, 2010

⁵⁰ http://assets.wwf.org.uk/downloads/raising_the_standards.pdf

5.3 As well as the domestic market there is considerable export market potential for products designed, manufactured and assembled in Scotland. In 2008-09 Scotland exported £117 million in building technologies including windows to the value of £44 million and insulation worth £35 million.⁵¹ Significant growth is forecast for this sector, even in recessionary times, from £13,526 million in 2008/09 to £19,234 million in 2015-16, equivalent to an overall compound growth rate of 42 per cent across the UK⁵². This will provide a good baseline for measuring the potential growth of the industry.

Box 12: Case Study – CCG (OSM) Ltd

CCG has established a bespoke, state of the art production line to manufacture closed panel timber frame buildings to a wide variety of designs and specifications. Their 100,000 sq ft manufacturing facility in Glasgow was opened in late 2009 and uses a semi-automated German production line delivered by a team of 30 multi-skilled operatives. The facility is unique within Scotland and only one of a handful within the UK.

The offsite products fall within an 'iQ system' brand, encompassing wall, floor and roof cassette panels, manufactured within a strict quality controlled environment, to consistently achieve high performance buildings. The offsite installation can include: doors and windows; insulation; electrical/plumbing/ventilation services; internal lining boards and external lightweight claddings.

The processes are highly technical and need a skilled workforce to manage them. To ensure all the operatives know exactly what they are doing and to understand the production process, regular "toolbox talks" are given to the operatives. Additional talks are given when new or different materials or fixings are being used or if difficulties or faults have occurred. The CCG group have over 600 directly employed members of staff and currently have 65 apprenticeship training places.

Main challenges to address

5.4 The main challenge to address is to ensure the construction industry and other sectors relevant to this strategy have the confidence to invest fully in training. Recently, sections of the low carbon economy have lost trust in UK Government incentives after the "boom and bust" associated with the Feed-in-Tariff (FIT) for solar PV projects. Companies may be reluctant to engage with other schemes in case they are withdrawn or changed at short notice. Similarly the building industry may be reluctant to train workers when the new build market is stagnant unless they see a clear opportunity for growth. Stable economic and financial conditions are needed to encourage a steady expansion of jobs and the training of workers.

5.5 Other challenges include:

- Some in the industry perceive there is a lack of training provision and of

⁵¹ Scottish Government and Innovas Solutions : 2010

⁵² Scotland's Low Carbon and Environmental goods and Services Sector Study: Innovas Solutions : 2010

training facilities and equipment.

- Training syllabuses need to be designed to address the particular needs of the industry taking account of the latest technologies. Good working relationships must be developed between the training providers, including colleges and industry, to be responsive to current and future industry needs.
- Increasing the rate of retrofit may require an approach that is made more attractive to consumers through multi-skilled operatives who are trained and competent to carry out a range of tasks including electrical, plumbing and mechanical services as well as general building skills. Being multi-skilled ensures this work can be done quickly and efficiently – and therefore at a lower cost – as well as minimising disruption to the occupier. There is also potential to link work to install energy efficiency with repair or improvement works as a package for the consumer. The type of overarching qualification that would support this kind of approach is not currently available.
- There is always the risk that in an upturn there will not be enough people willing to enter the construction industry, due to its instability. At a time of growth there might be difficulties from a lack of skills, or outdated skills or people in the wrong location.
- The industry continues to be seen as less attractive to some groups of people, for example, women - who are currently under-represented in this field.

Actions to address these challenges

- 5.6** The long term nature of Scotland's climate change targets, together with commitments to consider further enhancements to building standards and the development of this Sustainable Housing Strategy looking forward to 2030 are all indications of how the Scottish Government is providing long term leadership on the low carbon agenda. This should help to ensure the construction industry recognises the long term direction of travel and is able to contribute to, and plan for this, including in respect of skills and training provision.
- 5.7** There is a wide range of training currently available from a number of different providers both in the public and private sectors. Skills Development Scotland is the Scottish Government's training agency providing National Training Programmes (Modern Apprenticeships, Get Ready for Work, Training for Work, Flexible Training Opportunities, Low Carbon Skills Fund, Employer Recruitment Incentive). There is also Further and Higher education provision; the Sector Skills Council support; and private sector training provision.
- 5.8** In 2010-11 there were over 2,000 Modern Apprenticeship starts in the construction industry. The Scottish Government's National Training Programmes, delivered by Skills Development Scotland, commits to 25,000 Modern Apprenticeship in each year of this parliamentary term, at least 500 of which will be in Energy and Low Carbon industries. Skills Development Scotland will also deliver at least an additional 1,000 flexible training places in energy and low

carbon in 2012-13. Courses and qualifications are also available through Further and Higher Education provision – currently being reviewed under the programme of Post 16 Reforms.

- 5.9** There are also possible opportunities to ensure that young people, and in particular those who have disengaged or are at risk of disengagement from the labour market, can benefit from the scale of activity that should take place. For example, the WISE Group and Shelter Scotland, and also some housing associations have been providing opportunities for young people in refurbishment. We wish to further examine the potential of this kind of approach.
- 5.10** What kind of skills will we need? Specialist technical skills, for example in the installation of renewable technologies will be required. We will need skills to design, install, certify or accredit, maintain and service equipment. We will require some workers who are multi-skilled, so that household disruption is kept to a minimum. And we need workers who have communication and customer service skills: who can explain and demonstrate how technologies work and influence behaviour so they are used effectively. We will also require workers who maintain traditional skills for work on older buildings. The Scottish Government, with Historic Scotland, will be convening a Summit in September 2012 to consider how best to stimulate the demand for these skills.
- 5.11** The Scottish Government is considering the existing provision and potential relationships between our fuel poverty and energy efficiency programmes and Green Deal delivery models. This will enable us to develop a strategic approach to ensure the delivery of relevant training provision to meet industry needs.
- 5.12** The introduction of the Green Deal will also result in training being required for Green Deal assessors, through upskilling of the workforce who currently produce Energy Performance Certificates, and through training of new assessors, both of who will need to achieve a new qualification to be certified to undertake any Green Deal assessment. In addition the current workforce who will be installing Green Deal measures may also require an element of upskilling. There may also be the need for new recruits or construction industry returners affected by the recent economic downturn who will training at various levels.
- 5.13** A well trained and skilled workforce will allow Scottish companies to expand, but this will not of itself create jobs. However, this Strategy should give businesses and enterprises in the green economy assurance that there is a long term commitment to making Scotland's homes low carbon. The companies that take advantage of this opportunity for growth will be those that have also invested in developing their workforce.

Q43: (a) Has Chapter 5 of this consultation identified the key challenges to ensuring Scottish companies have the skills to take advantage of the opportunities expected to be on offer? Yes/No

(b) If not, What other challenges are there?

Q44. What further action is needed to ensure there is appropriate investment in skills and training to meet these opportunities?

Q45: How can the construction industry be made more aware of the potential funding and support for skills and training development opportunities and engage effectively with those providing training to ensure that it meets their current and future needs?

Q46: How do we ensure that skills and training opportunities are provided on an equitable basis to all groups in society?

Q47: Apart from training and skills opportunities are there any other issues that should be addressed to make employment in construction and other industries becomes more representative?

Q48: Please describe any specific difficulties relating to skills and training that apply to those in remote and island areas and your view on how these may be addressed?

Consultation Questions

The consultation questions are listed here for ease of reference.

Please use the respondent information form and consultation questionnaire for your response. This is published as a separate Word document (under 'Associated downloadable documents'). You can save the form as a file on your computer and return to us at sshs@scotland.gsi.gov.uk. You do not need to answer every question unless you want to. We welcome all responses.

The closing date for responses is Friday 28 September.

	Background	Page No
1.	Are the vision and objectives as set out in sections 19 and 20 appropriate for Scotland's Sustainable Housing Strategy? Please answer Yes or No and provide further explanation if you wish.	13
Chapter 1 – A National Retrofit Programme		
2.	What do you think are the main barriers that prevent home owners and landlords from installing energy efficiency measures?	18
3.	Please explain any practical solutions and/or incentives to overcome any barriers you have identified?	18
4.	Given Scotland's diverse range of housing, what support is needed to enable people to get energy efficiency measures installed?	19
5.	(a) What specific issues need to be addressed in respect of improving energy efficiency in rural areas, particularly more remote or island areas? (b) How should these be addressed?	19
6.	Taking into account the models and funding sources outlined in sections 1.20-1.37, what role might local authorities and other agencies play in bringing about a step change in retrofitting Scotland's housing?	25
7.	What role should the Scottish Government play in a National Retrofit Programme?	25
8.	What role could the devolution of additional powers play in achieving more retrofit?	25
9.	What further action is needed to achieve the scale of change required to existing homes?	25
10.	How can we make sure a National Retrofit Programme maximises benefits to all consumers (for example, older people, those from ethnic minorities, those with long term illness or disability)?	25

	Chapter 2 – The Role of Standards	
11.	(a) Should the Scottish Government consider whether a single mandatory condition standard (beyond the tolerable standard) should apply to all properties, irrespective of tenure? (b) If so, how would that be enforced?	27
12.	(a) In box 6 we identify a checklist for maintaining a quality home. Do you agree with our proposed hierarchy of needs? Please answer Yes or No (b) If you think anything is missing or in the wrong place please explain your views.	28
13.	Should local authorities be able to require that owners improve their properties, in the same way they can require that they repair them? For example, could poor energy efficiency be a trigger for a work notice? Please answer Yes or No and provide further explanation if you wish, for example on how this might work.	29
14.	Should local authorities have a power to enforce decisions taken by owners under the title deeds, tenement management scheme or by unanimity ? For example. Should they have explicit powers to pay missing shares of owners who are not paying for communal repair work, in the same way they can for agreed maintenance work ? Please answer Yes or No and provide further explanation if you wish.	30
15.	Should local authorities be able to automatically issue maintenance orders on any property which has had a work notice? Please answer Yes or No and provide further explanation if you wish	30
16.	Should the process for using maintenance orders be streamlined , and if so, how? Please answer Yes or No and provide further explanation if you wish.	30
17.	Should local authorities be able to a. issue work notices on housing affecting the amenity, and b. require work such as to improve safety and security, on properties which are outwith a Housing Renewal area? Please answer Yes or No and provide further explanation if you wish.	30
18.	Should local authorities be able to issue repayment charges for work done on commercial properties, in the same way they can for	32

	residential premises? Please answer Yes or No and provide further explanation if you wish.	
19.	What action, if any, do you think the Government should take to make it easier to dismiss and replace property factors?	32
20.	What action can be taken to raise the importance placed by owners and tenants on the energy efficiency of their properties?	35
21.	Should the Scottish Government introduce minimum energy efficiency standards for private sector housing?	38
22.	How could we amend EPCs to make them a more useful tool for influencing behaviour change to improve energy efficiency?	39
23.	Are there other key principles that we ought to consider when looking at the possible introduction of regulations?	40
24.	How could regulation be used to support the uptake of incentives?	41
25.	In section 2.68 we identify design options for the standard. Do you have any views on the options set out in that report? Are there other options that we should be considering?	41
26.	Do you agree that any regulations for private sector housing ought to reflect the energy efficiency capacity of the property and/or location, as is proposed for the social sector?	42
27.	If you agree with Q26, should houses of the same type in the social and private sectors be expected to meet the same standard?	42
28.	Are there other specific issues we need to consider in introducing regulation on the energy efficiency of the home for particular groups of people, for example older people, those with disabilities, people from minority ethnic communities?	42
29.	Should we consider additional trigger points to point of sale or rental? If so, what?	42
30.	Should rollout of any regulation across the owner occupied and PRS sectors be phased or all at once? If you think that rollout should be phased how do you think this should be done?	43
31.	What other issues around enforcement do we need to think about when considering how different approaches to regulation might work?	44
32.	In sections 2.76-2.79 we suggest that one way of regulating would be to issue sanctions. (a) Do you think that sanctions on owners should be used to enforce regulations? Yes/No (b) Should owners be able to pass the sanction or obligation on to buyers? Yes/No	44

33.	The Scottish Government does not intend to regulate before 2015. The working group will consider what options for timing of any regulation might be appropriate, but, given all the points set out in sections 2.80-2.81, from when do you think it might be appropriate to apply regulations?	44
Chapter 3: Financial Market Transformation		
34.	(a) In Section 3.4 we describe the range of legislative and policy levers that we believe are available to help us transform the financial market such that it values warm, high quality, low carbon homes. Do you agree that this is the full range of levers? Yes/No (b) Can you suggest any other ways to help transform the market for more energy efficient, sustainable homes?	48
35.	What changes would be required to current survey and lending practice to enable mortgage lenders to take account of the income from new technology or savings on energy bills?	48
36.	Section 3.15 lists a range of challenges that may prevent the benefits of a more sustainable, energy efficient home being fully recognised in its value. What further challenges, if any, need to be addressed?	49
37.	(a) Sections 3.16-3.22 sets out the action that Scottish Government is currently developing to encourage greater recognition of the value of sustainable homes. Do you agree that this action is appropriate? (b) What further action is needed to influence consumers and the market?	51
Chapter 4: New Build Market Transformation		
38.	What steps can we take to ensure that we design and develop sustainable neighbourhoods?	55
39.	Section 4.10 sets out the main challenges to address in taking forward our aim of new build transformation. What further challenges, if any, need to be addressed?	56
40.	What action is needed to increase the capacity for developing and bringing to market innovative methods of construction?	56
41.	What further changes to the operation of the Government's affordable housing supply programme would help to enable it to champion greener construction methods and technologies in the medium term?	58
42.	What further action is needed to influence the construction industry to make greater use of innovative methods to deliver more greener new homes?	58

Chapter 5: Skills and Training		
43.	(a) Has Chapter 5 of this consultation identified the key challenges to ensuring Scottish companies have the skills to take advantage of the opportunities expected to be on offer? Yes/No (b) If not, What other challenges are there?	62
44.	What further action is needed to ensure there is appropriate investment in skills and training to meet these opportunities?	62
45.	How can the construction industry be made more aware of the potential funding and support for skills and training development opportunities and engage effectively with those providing training to ensure that it meets their current and future needs?	63
46.	How do we ensure that skills and training opportunities are provided on an equitable basis to all groups in society?	63
47.	Apart from training and skills opportunities are there any other issues that should be addressed to make employment in construction and other industries becomes more representative?	63
48.	Please describe any specific difficulties relating to skills and training that apply to those in remote and island areas and your view on how these may be addressed ?	63

ANNEX A

MEMBERSHIP OF THE SUSTAINABLE HOUSING STRATEGY GROUP (SHSG)

Chair: Alex Neil, Cabinet Secretary for Infrastructure and Capital Investment

David Sigsworth	Fuel Poverty Forum
Councillor Harry McGuigan	COSLA
Caroline Johnstone, Silke Isbrand	COSLA (officials)
Jim Hayton	Association of Local Authority Chief Housing Officers
Norrie Kerr	Energy Action Scotland
Gavin Corbett	Shelter Scotland
Mary Taylor, David Stewart	Scottish Federation of Housing Associations
Jonathan Fair, Philip Hogg	Homes for Scotland
Dan Barlow	Existing Homes Alliance Scotland
John Sheridan	2020 Climate Group : Built Environment sub-group
Martin Valenti	2020 Climate Group : Built Environment sub-group
Sarah Speirs	Royal Institution of Chartered Surveyors
Trisha McAuley	Consumer Focus Scotland
Lori McElroy	Architecture and Design Scotland
David Melhuish	Scottish Property Federation
John Blackwood	Scottish Association of Landlords

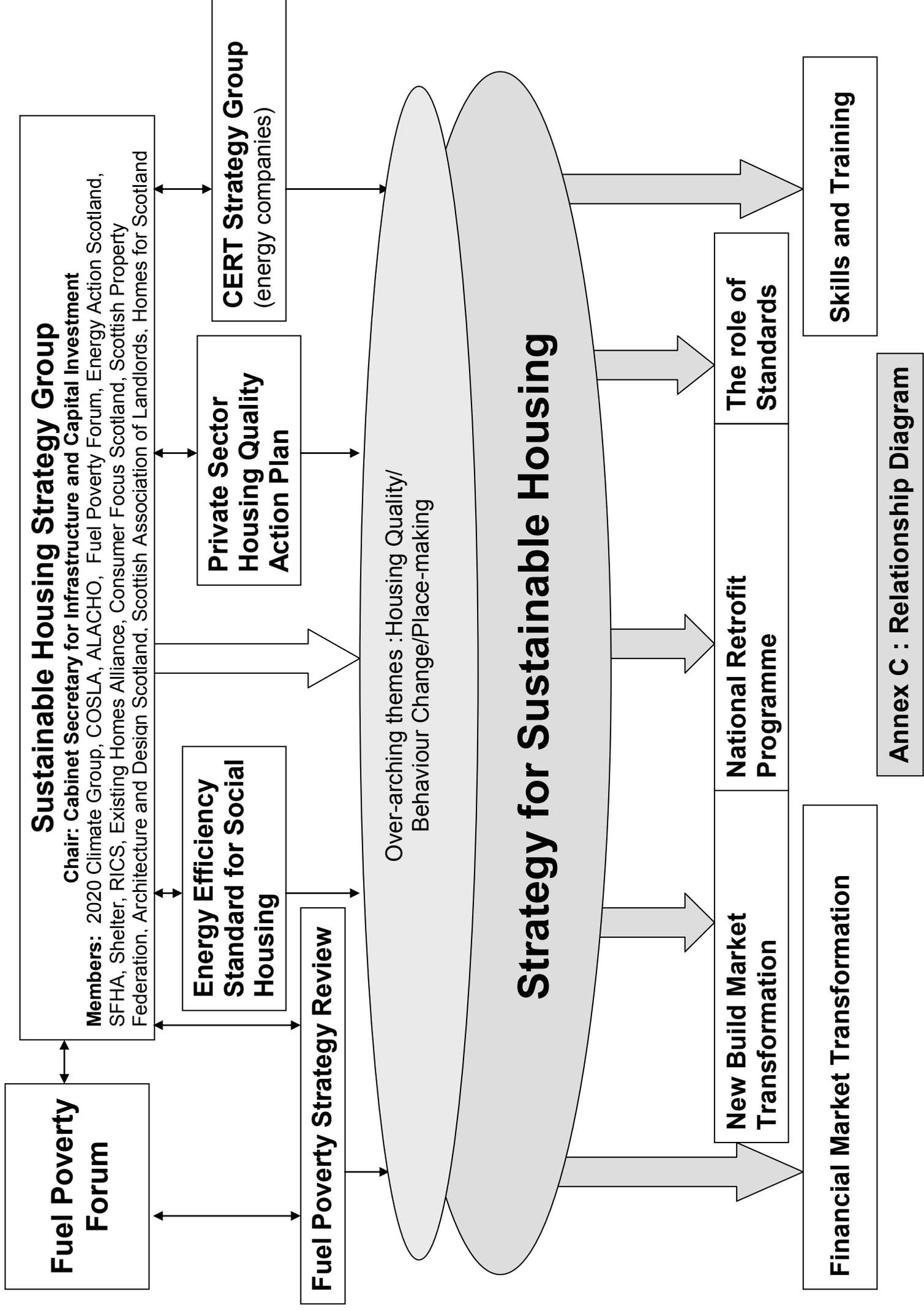
Issue	Possible Activity	Type of Action	Action By	Timescale	Links*
59% of owners not spending on care of their property	Provide better information about maintenance at point of transaction (e.g. home report, input from lenders)	Review and possible change to secondary legislation Coordinate with home report review (scheduled for 2013) Engage with lenders	Scottish Government, Council of Mortgage Lenders, Royal Institution of Chartered Surveyors	2012-2014	Home Report Review (scheduled for 2013)
	Role of lenders – condition reflected in buying behaviours	Engage with lenders	Scottish Government, Council of Mortgage Lenders, Royal Institution of Chartered Surveyors, Consumer Focus Scotland	2012-14	
Identify initiatives which can improve owner awareness (e.g. building MOTs) – what lessons can we learn?	Engagement with owners of initiatives	Scottish Government, construction industry representatives	Scottish Government, construction industry representatives	2012-2014	
Require action for some kinds of work at point of sale			Scottish Government, Council of Mortgage Lenders, Royal Institution of Chartered Surveyors, Consumer Focus Scotland		3
Identify levers needed to improve quality in the private rented sector	Coordinate quality issues with PRS strategy group	Scottish Government and stakeholders	Scottish Government and stakeholders	2012-13	
Link between single survey and Scottish House Condition Survey	Comparison and opportunities for links	Scottish Government	Scottish Government		Home Report
Campaign for reduction in VAT for repairs and maintenance	Liaise with OCEA and Historic Scotland	Scottish Government, UK Government	Scottish Government, UK Government	2012 and ongoing	Office of the Chief Economic Adviser, Historic Scotland

Issue	Possible Activity	Type of Action	Action By	Timescale	Links*
Theme 2: Particular problems of mixed and shared blocks There can be particular obstacles for owners who are motivated to carry out repairs and maintenance on common parts in tenements. This arises from the need to secure consent and payment from owners. There are additional problems in mixed tenure blocks and this is affected by different standards applying in different tenures.	Obtain consent and cooperation (including payment of share) of co-owners for work	Consultation on legislation for any changes	Scottish Government – Input to prospective Housing Bill	Consultation Summer 2012	7
	Review statutory definition of “improvements” - should some types be enforceable/ majority decision	Research	Scottish Government	2012-13 (subject to workplan)	3, 4 Theme 4
Different standards apply to private and social landlords and owner occupiers in the same block	Establish whether suitable maintenance account products currently available	Research	Scottish Government	2012-13 (subject to workplan)	6 New builds
	Consult on mandatory sinking funds for new tenements to reduce problems in future	Consultation on legislation	Scottish Government – Input to prospective Housing Bill	Consultation Summer 2012	6 New builds
	Ability to switch property factors	Consultation to seek views	Scottish Government	Summer 2012	4
	Review standards in different sectors to reduce differences (e.g. apply some elements of SHQS to all properties, or mixed tenures)	Consultation to seek views of stakeholders	Scottish Government	Summer 2012	4
	Research into relation between disrepair and measures needed for energy efficiency	Research – statistical analysis	Scottish Government	2012-13 (subject to workplan)	3, 4

Issue	Possible Activity	Type of Action	Action By	Timescale	Links*
	<p>Coordinate policies for works to whole blocks – e.g. cavity wall insulation or other condition or energy efficiency elements of SHQS to apply more widely.</p>	<p>Consultation to seek views</p>	<p>Scottish Government</p>	<p>Summer 2012</p>	<p>3, 4 Property Factor Switching</p>
	<p>Investigate interdependence of repair and energy efficiency – what kinds of disrepair prevent/inhibit energy efficiency works</p>	<p>Consultation to seek views</p>	<p>Scottish Government</p>	<p>Summer 2012</p>	<p>3 (4)</p>
<p>Theme 3: The difficulties faced by low income home owners Where owners have limited disposable income, for example pensioners on fixed incomes, the need for work may be apparent but the means to carry it out lacking. Local authority grants are now discretionary and may not be available. These owners may have substantial equity in their property, which may be a source for funding repair work. Low incomes also restricts owners' capacity to fund ongoing maintenance, which could prevent more costly repairs.</p>					<p>3, 4</p>
<p>Need for support and advice for low income owners</p>	<p>Include maintenance and repair in equity models to support wider planning for an ageing population</p>	<p>Coordinate with work of the Wider Planning group</p>	<p>Scottish Government and stakeholders</p>	<p>2012-13 and ongoing</p>	
	<p>Consider whether rent control and house condition should be linked, if housing benefit were to be devolved</p>	<p>Policy development</p>	<p>Scottish Government (part of debate on independence)</p>	<p>2012-2016</p>	

Issue	Possible Activity	Type of Action	Action By	Timescale	Links*
Funding models for low income owners	Closer integration of funding programmes linking repairs with other granted works (e.g. UHIS, boiler scrappage scheme)	Internal review of policy areas – cross divisional team/working group	Scottish Government	2012-13 and ongoing	
<p>Theme 4: Levers for enforcement Local authorities have powers to require owners to bring sub-standard houses into a reasonable state of repair and can require owners to prepare maintenance plans. However, because of the scale of the cost of comprehensively addressing disrepair across all private sector stock we believe that these powers are only being used reactively or to target only the most serious cases.</p>					
Improvements to local authority powers – levers to encourage works	Power to enforce improvements	Consult on changes to the Housing (Scotland) Act 2006	Scottish Government – Input to prospective Housing Bill Local authorities – case studies of current powers Registers of Scotland – would have input to ensure registration processes are robust	Consultation Summer 2012	3
	Power to enforce majority decisions under the tenement management scheme Ability to pay missing shares for work notices and/or enforce majority decisions Link work notices and maintenance orders Streamline maintenance orders Housing renewal area type powers for work notices Repayment charges for commercial properties Alternative levers for private landlords: fit and proper person test, restriction on lets				
		Consultation – coordinate with PRS strategy	Scottish Government – Input to prospective Housing Bill	Consultation Summer 2012	PRS Strategy Group

Issue	Possible Activity	Type of Action	Action By	Timescale	Links*
	Third party referrals to the Private Rented Housing Panel (e.g. by local authorities)	Consultation – coordinate with PRS strategy	Scottish Government – Input to prospective Housing Bill	Consultation Summer 2012	PRS Strategy Group
	Should there be targets for particular types of disrepair (e.g. BTS properties – new thermal insulation criteria)	Consultation to seek views of stakeholders	Scottish Government, local authorities	Summer 2012	
	Encourage improvements in non-traditional building types classed as defective	Engage with lenders on results of current research project – possible repeal of part 14 of the Housing (Scotland) Act 1987	Scottish Government, Buildings Research Establishment, Council of Mortgage Lenders	2012-13	
	Enforcement of repairs to empty homes: are additional powers needed?	Coordinate with Empty Homes strategy	Scottish Government	2012-13	Empty homes





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