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# **MAKING SCOTLAND'S EXISTING HOMES MORE ENERGY EFFICIENT – THE ROLE OF REGULATORY STANDARDS FOR HOUSING**

## **PARTIAL REGULATORY IMPACT ASSESSMENTS**

**PROPOSALS FOR IMPROVING THE ENERGY PERFORMANCE OF EXISTING  
DOMESTIC BUILDINGS**

**PROPOSALS FOR EXTENDING THE REPAIRING STANDARD IN THE PRIVATE  
RENTED SECTOR TO COVER ENERGY EFFICIENCY STANDARDS**

These partial Regulatory Impact Assessments link to options considered within Chapter 7 of the Scottish Government's Consultation on the Energy Efficiency Action Plan. The two Regulatory Impact Assessments adopt different methods and modelling sources. Each Assessment is therefore internally consistent but the two Assessments are not directly comparable.

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## PARTIAL REGULATORY IMPACT ASSESSMENT

### PROPOSALS FOR IMPROVING THE ENERGY PERFORMANCE OF EXISTING DOMESTIC BUILDINGS

#### PURPOSE AND INTENDED EFFECT OF PROPOSALS

##### Objective

1. The objective is to improve the energy performance of existing buildings as part of the Scottish Government's commitment to achieve an 80% reduction in Scotland's carbon dioxide (CO<sub>2</sub>) emissions by 2050.

##### Background – The need for Government intervention

2. As part of its contribution to the international effort required on climate change, the Scottish Government aims to achieve an 80% reduction in Scotland's emissions by 2050<sup>1</sup>. Allied to this, it is consulting on proposed changes to the energy standards in the building regulations that will come into effect in October 2010, including a 30% reduction in CO<sub>2</sub> emissions for new buildings which equates to around a 70% reduction compared to the standards that were in place in 1990<sup>2</sup>. However, given that existing buildings will make up the majority of the building stock in 2050 these require further specific measures.
3. The Scottish Government wishes to consult on issues relating to the reduction of carbon dioxide emissions from existing domestic buildings using enabling powers now available in the Climate Change (Scotland) Act.
4. Requirements to reduce CO<sub>2</sub> emissions and optimise the energy performance of new buildings and new building work are included in Scottish building regulations, but no legislation is currently in force to require the improvement of existing buildings. Accordingly, the Sullivan Report made a number of recommendations concerning existing buildings and energy performance certificates (EPCs) and enabling powers are now available in the Climate Change (Scotland) Act.
4. Certification of the energy performance of buildings (both domestic and non-domestic buildings) based on Asset Ratings (ARs)<sup>3</sup> has been introduced under the Building (Scotland) Act 2003 and the Energy Performance of Buildings (Scotland) Regulations 2008. This is to meet the EU Directive on the Energy Performance of Buildings (EPBD). The EPBD does not require that action is taken to improve energy performance, but relies solely on market forces and societal behaviour to promote

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<sup>1</sup> The Climate Change (Scotland) Act 2009 received Royal Assent on August 5, 2009 <http://www.scotland.gov.uk/Topics/Environment/climatechange/scotlands-action/ScottishBill>

<sup>2</sup> A copy of the Sullivan Report can be found on the Scottish Building Standards website at: <http://www.sbsa.gov.uk/sullivanreport.htm>

<sup>3</sup> An Asset Rating is a calculated rating based on standard weather data and building use. It is similar in principle to "typical use" consumption figures for cars and is useful when comparing two buildings with different users, i.e. provides like-for-like figures. This is not only useful for potential owners and occupiers of buildings, but also has the ability to drive those who invest in buildings, the building owners, to spend money on carbon reducing fabric and services.

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improvements. Certification is only required for new buildings, at the points of sale or rental, and for public buildings with a floor area over 1,000m<sup>2</sup>. The EPBD requires that energy performance certificates (EPCs) be produced based on a defined methodology and that their lifespan must not exceed 10 years<sup>4</sup>.

5. This RIA considers extending the scope of EPCs through increasing the implementation of cost-effective energy efficiency measures in existing domestic buildings. This is discussed further in the Options section.

## **CONSULTATION**

### **Within Government**

6. There has already been discussion and review of the proposals by relevant parts of the Scottish Government.

### **Public consultation**

7. Consultation is taking place through the consultation on the Energy Efficiency Action Plan. Initial discussions on these proposals have taken place with COSLA. Further consultation with COSLA and other stakeholders will be ongoing as the proposals develop.

## **OPTIONS**

### **Overview**

#### a) Non domestic buildings

8. The Sullivan Report includes a recommendation for “the introduction of legislation to require all owners of non-domestic buildings to conduct a carbon and energy assessment and produce a programme for upgrading.” Enabling powers are included in Section 63 of the Climate Change (Scotland) Act 2009, as passed, to require building owners or persons delegated by the owners to obtain an Assessment of the Carbon and Energy Performance (ACEP) of their building. Following such an assessment, they would be required to take steps to improve the energy performance of such buildings and reduce emissions.
9. Improvement measures might include insulation, equipment efficiency and equipment controls, low energy lighting, as they are generally cost-effective at present. However as new technologies become cost-effective, other measures could be adopted as part of a programme. Such a programme of improvements would be specific to each building and there would need to be sufficient flexibility to ensure that historic buildings are treated with the respect they deserve so their character and structure are not compromised. Issues pertinent to historic and traditionally constructed buildings are discussed further elsewhere in the consultation documentation.

#### b) Domestic buildings

10. The proposals within this partial RIA consider domestic buildings. The Sullivan report recommended that consideration be given to measures and targets for reducing carbon emissions from the existing stock and incentives to encourage home owners to undertake improvements. Ultimately, owners could be obliged to make improvements to energy performance following an assessment.

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<sup>4</sup> Further details on EPCs can be found on the Scottish Buildings Standards website at: <http://www.sbsa.gov.uk/epc.htm>.

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11. However, there is need to consider interactions with other legislation in this area. For example, there is currently housing legislation that seeks to make improvements to the part of the stock that suffers from extremely poor performance (the Tolerable Standard). There is also a need to ensure that legislation in this area does not jeopardise Scotland's share of UK wide schemes such as the Carbon Emissions Reduction Target (CERT). As well as historic dwellings, allowances need to be made for so called hard to treat (HTT) homes, for example those with solid walls, where the scope for installing energy efficiency measures is more limited. Ultimately though, certificates could apply to all existing dwellings.
  12. There is already extensive support available both in the form of finance and guidance in all sectors that would be affected by these proposals which are described in the main consultation document. These can be used to help implement energy efficiency measures. In the domestic sector for example there are advice centres and financial support available through CERT and Scottish fuel poverty programmes.
  13. A range of options considered for the domestic sector have been outlined in the main consultation document. Some of these options are presented in more detail below. They extend from the 'do nothing new' baseline (i.e. implementation of EPCs as required through the EPBD) to five options of increasing scope with respect to the number of buildings addressed as well as their approach (i.e. from voluntary to mandatory). The impacts of each option are presented.
  14. This section outlines some options for extending requirements for existing buildings beyond the minimum level required to meet the Energy Performance of Buildings Directive (EPBD) for Scotland. It also describes the assumptions made and the data sources used in assessing the costs and benefits. The approach adopted uses existing domestic stock models with broad corrections made to allow for the proportion of hard to treat dwellings (as obtained from Scottish House Condition Survey, SHCS) and historic buildings (estimated using data from Historic Scotland). The approach and assumptions were also checked for consistency with previous RIAs in support of the implementation of the certification requirements (Article 7) of the EPBD in both Scotland and England & Wales.
  15. As this is a strategic assessment exercise it considers a significant number of different options using a simplified modelling procedure which may not fully reflect the way in which the options might be implemented in practice. Therefore, more detailed regulatory impact assessment of individual options which are to be taken forward for further consideration will need to be undertaken. It is important at this stage to consider these as scenarios.

## **Options for the domestic sector**

### Option 0 - Base case

#### EPC on sale or rent

16. For the base case it is assumed that EPCs based on asset rating calculations will be required for all homes on sale or rent, and that EPC shall be no more than 10 years old. Further that these will be accompanied by a list of recommendations relating to cost effective improvements<sup>5,6</sup> to the building envelope and services, and that this will lead

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<sup>5</sup> Cost effectiveness in this RIA has been defined in terms of simple payback; a typical payback period of 4 years has been applied to this option. It should be noted that this method is different to the current measure of cost effectiveness used in domestic EPCs.

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to a typical potential reduction in annual energy consumption of 10% if they were implemented<sup>7</sup>. For historic buildings some cost effective measures may not be feasible, so here it is assumed that the recommendations will identify measures that would lead to a 5% reduction in energy consumption.

17. As uptake of these measures is voluntary it is assumed that only 10%<sup>8</sup> of these savings will be realised by occupiers acting on the recommendations and that the typical payback period for measures implemented will be 4 years, and that the savings will persist for 10 years.

#### Option 1

##### Domestic – EPC on sale or rent with additional guidance to promote uptake of recommendations for all homes

18. Here in addition to Option 0 additional guidance material is provided to promote the uptake of recommendations
19. The additional one off and on going costs to the government for providing additional guidance are estimated at £500k per year for the provision of additional guidance for the domestic sector. This is a nominal figure and it is envisaged that this guidance will supplement existing sources perhaps by providing a coherent framework through which to channel advice and plug gaps in the existing guidance.
20. It is assumed that the additional guidance will lead to a doubling in the rate of uptake of recommendations compared to Option 0, to 20%. As for Option 0 it has been assumed that the average payback period will be 4 years across the measures implemented.

#### Option 2

##### EPC on sale or rent with additional guidance to promote uptake of recommendations for “hard to treat” homes with requirement to meet minimum energy performance standards for other homes

21. Here the requirement for the domestic sector is the same as Option 1 for “hard to treat” (HTT) homes, but for others it is anticipated that improvements will be required to be implemented which would result in an average 10% reduction in energy use. Here it has been assumed that this might potentially require some non-cost effective measures to be implemented in some instances, but that overall the measures required would be cost effective with a typical payback period of 10 years. It is assumed that since the SAP rating would form the basis for defining the minimum standard, no additional costs would normally be associated with this process.
22. The minimum standard is assumed to be a mandatory approach and so the government would incur additional enforcement costs estimated at £550k in the first year to publicise the requirement. Enforcement costs to the government associated with policing minimum standards are assumed to be 5% of the costs associated with carrying out asset ratings for these homes. Additional cost and carbon savings would arise from increased uptake of measures.

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<sup>6</sup> “Reducing carbon emissions from commercial and public sector buildings in the UK”. BRE Report for Defra, ref CR 211 104, 2005.

<sup>7</sup> These energy savings are based on the known potential for energy savings across the UK stock of existing buildings which relates to improvement to the building envelope and to the heating, lighting and cooling systems, i.e. the aspects of energy consumption that are addressed by EPCs.

<sup>8</sup> This is in line with the RIA in support of implementing EPCs in England & Wales.

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### Option 3

#### EPC on sale or rent with requirement to meet minimum energy performance standards for **all homes**

23. For the domestic sector this option extends minimum standards to cover all homes on sale or rent. This will require an increase in the enforcements costs for the government arising from the larger number of homes which the minimum standard applies to, with increased costs to the householder for implementing measures and an increase in the cost and carbon savings.
24. Additional costs to the government associated with enforcement are estimated at 5% of the cost of generating an energy performance certificate for each home. And, although it is assumed that the savings required are still cost effective we have assumed that the average payback for these measures is 7 years<sup>9</sup>. As well as additional costs for the government there will be additional costs to the building owner to implement the measures and additional carbon and cost savings arising from reduced energy consumption<sup>10</sup>.

### Option 4

#### Domestic – EPC on sale or rent with requirement to meet minimum energy performance standards for “**hard to treat**” homes and extension to existing buildings for other homes

25. For “hard to treat” homes this option is the same as for Option 3, but for other homes the requirement to provide an EPC and reach minimum standards is extended across the existing building stock whether or not it is presented for sale or rent. This will increase the number of certificates required for the domestic sector and the associated costs and savings, particularly in earlier years. It is assumed for now that there are no additional costs in progressing this option.

### Option 5

#### EPC with requirement to meet minimum energy performance standards for **all existing homes**

26. For the domestic sector this extends the requirement to provide an EPC and to reach minimum standards to cover “hard to treat” homes. This will increase the number of certificates required for the domestic sector and the associated costs and savings, particularly in earlier years.

### Options 1a to 5a

#### **Phased introduction** of Options 1 to 5 on an area basis

27. A second set of options were also considered where the Options 1 to 5 are rolled out on an area basis so that 5% of the housing stock in the first year, and an additional 5% in subsequent years to 2020.

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<sup>9</sup> The typical payback time is likely to be longer as it will require measures which are close to the cost effective limit in addition to measures which have shorter payback periods and which are more likely to be taken up voluntarily.

<sup>10</sup> These include costs associated with sourcing and contracting work and the disruption to the household. Further information is provided in the Energy Efficiency Action Plan.

## Summary of domestic options

28. The Options that have been considered here are summarised in the following table.

Option	EPC				Additional guidance		Required to meet minimum energy performance stds	
	On sale or rent		Existing buildings					
	"Hard to treat" homes	Other homes	"Hard to treat" homes	Other homes	"Hard to treat" homes	Other homes	"Hard to treat" homes	Other homes
0	✓	✓						
1	✓	✓			✓	✓		
2	✓	✓			✓	✓		✓
3	✓	✓			✓	✓	✓	✓
4	✓	✓		✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓	✓	✓

## COSTS AND BENEFITS

### Sectors and groups affected

29. The sectors and groups affected by the proposals are government, building owners, and local authorities as discussed in the Options section<sup>11</sup>. The analysis assumes that costs are borne by building owners.

### Results

30. The costs and benefits associated with each of the options described above have been calculated assuming that the policy is put in place in 2010 and remains until 2020 and include costs incurred by Government and building owners over those years<sup>12</sup>. However savings arising from additional energy saving actions taken within that time period will persist beyond 2020 and these have been taken into account by assuming that energy savings will typically persist for 10 years<sup>13</sup>. All cash costs and benefits have been discounted at 3.5% in order to calculate the Net Present Value (NPV) of each of the options.

<sup>11</sup> Additional groups affected include building surveyors and SMEs providing insulation and other measures

<sup>12</sup> In the cost benefit analysis a policy lifetime of 10 years is used such that lifetime costs will be the additional costs incurred over 10 years. Benefits arising from the policy that extend beyond the 10 year period are included.

<sup>13</sup> In practice the persistence will vary depending on the mix of measures implemented, but such detailed analysis is beyond the scope of this strategic study and so this figure has been chosen to represent a mix of long term measures (e.g. fabric insulation) and more short term measures (e.g. more efficient lamps).

Option 0		voluntary - no additional guidance/sale and rent		
Domestic				
		Government	Building Owner	Total
Costs	One off Costs - £M	£ 0.6	£ -	£ 0.6
	Average Annual Cost - £M pa	£ 0.7	£ 23.7	£ 24.4
	Lifetime Costs - £M	£ 6.6	£ 284.3	£ 290.9
	Present Value of Costs - £M	-£ 5.5	-£ 239.5	-£ 244.9
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 1.2	-£ 1.2
	Lifetime Energy Savings - £M	£ -	-£ 25.9	-£ 25.9
	Present Value of Energy Savings - £M	£ -	-£ 10.0	-£ 10.0
	Average Annual CO2 saved - MTCO2 pa	-	0.04	0.04
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.07	0.07
	Lifetime annual CO2 saved - MTCO2	-	0.89	0.89
Cost Effectiveness	Net Present Value of Package - £M	-£ 5.5	-£ 249.5	-£ 255.0
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 279.7	-£ 285.8
	Present Value of benefits from CO2 saved - £M	£ -	£ 31.3	£ 31.3

Option 1		voluntary - additional guidance/sale and rent		
Domestic				
		Government	Building Owner	Total
Costs	One off Costs - £M	£ 1.1	£ -	£ 1.1
	Average Annual Cost - £M pa	£ 1.2	£ 27.7	£ 28.8
	Lifetime Costs - £M	£ 12.6	£ 331.9	£ 344.5
	Present Value of Costs - £M	-£ 10.4	-£ 279.5	-£ 289.9
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 2.4	-£ 2.4
	Lifetime Energy Savings - £M	£ -	-£ 51.9	-£ 51.9
	Present Value of Energy Savings - £M	£ -	-£ 20.1	-£ 20.1
	Average Annual CO2 saved - MTCO2 pa	-	0.08	0.08
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.15	0.15
	Lifetime annual CO2 saved - MTCO2	-	1.78	1.78
Cost Effectiveness	Net Present Value of Package - £M	-£ 10.4	-£ 299.6	-£ 310.0
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 167.9	-£ 173.8
	Present Value of benefits from CO2 saved - £M	£ -	£ 62.6	£ 62.6

Option 2		voluntary - additional guidance for hard to treat/sale and rent+minimum standards for others/sale or ren		
Domestic				
		Government	Building Owner	Total
Costs	One off Costs - £M	£ 1.6	£ -	£ 1.6
	Average Annual Cost - £M pa	£ 1.8	£ 62.9	£ 64.7
	Lifetime Costs - £M	£ 19.2	£ 754.9	£ 774.1
	Present Value of Costs - £M	-£ 15.9	-£ 635.7	-£ 651.6
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 7.1	-£ 7.1
	Lifetime Energy Savings - £M	£ -	-£ 155.4	-£ 155.4
	Present Value of Energy Savings - £M	£ -	-£ 60.2	-£ 60.2
	Average Annual CO2 saved - MTCO2 pa	-	0.24	0.24
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.45	0.45
	Lifetime annual CO2 saved - MTCO2	-	5.35	5.35
Cost Effectiveness	Net Present Value of Package - £M	-£ 15.9	-£ 695.9	-£ 711.8
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 130.2	-£ 133.1
	Present Value of benefits from CO2 saved - £M	£ -	£ 138.1	£ 138.1

Option 3	minimum standards for all/sale or rent			
Domestic				
	Government	Building Owner	Total	
Costs	One off Costs - £M	£ 1.6	£ -	£ 1.6
	Average Annual Cost - £M pa	£ 3.3	£ 75.5	£ 78.8
	Lifetime Costs - £M	£ 19.2	£ 905.4	£ 924.6
	Present Value of Costs - £M	-£ 15.9	-£ 762.5	-£ 778.4
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 8.8	-£ 8.8
	Lifetime Energy Savings - £M	£ -	-£ 194.5	-£ 194.5
	Present Value of Energy Savings - £M	£ -	-£ 75.3	-£ 75.3
	Average Annual CO2 saved - MTCO2 pa	-	0.30	0.30
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.56	0.56
	Lifetime annual CO2 saved - MTCO2	-	6.69	6.69
Cost Effectiveness	Net Present Value of Package - £M	-£ 15.9	-£ 837.8	-£ 853.7
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 125.2	-£ 127.6
	Present Value of benefits from CO2 saved - £M	£ -	£ 290.5	£ 290.5

Option 4	minimum standards for hard to treat/sale or rent+minimum standards for others/existing stock			
Domestic				
	Government	Building Owner	Total	
Costs	One off Costs - £M	£ 1.6	£ -	£ 1.6
	Average Annual Cost - £M pa	£ 25.6	£ 88.4	£ 113.9
	Lifetime Costs - £M	£ 19.2	£ 1,060.5	£ 1,079.7
	Present Value of Costs - £M	-£ 15.9	-£ 893.1	-£ 909.0
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 10.4	-£ 10.4
	Lifetime Energy Savings - £M	£ -	-£ 229.8	-£ 229.8
	Present Value of Energy Savings - £M	£ -	-£ 89.0	-£ 89.0
	Average Annual CO2 saved - MTCO2 pa	-	0.34	0.34
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.62	0.62
	Lifetime annual CO2 saved - MTCO2	-	7.40	7.40
Cost Effectiveness	Net Present Value of Package - £M	-£ 15.9	-£ 982.1	-£ 998.0
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 132.8	-£ 135.0
	Present Value of benefits from CO2 saved - £M	£ -	£ 359.3	£ 359.3

Option 5	minimum standards for all buidings/existing stock			
Domestic				
	Government	Building Owner	Total	
Costs	One off Costs - £M	£ 1.6	£ -	£ 1.6
	Average Annual Cost - £M pa	£ 55.0	£ 94.3	£ 149.3
	Lifetime Costs - £M	£ 19.2	£ 1,131.8	£ 1,151.0
	Present Value of Costs - £M	-£ 15.9	-£ 953.1	-£ 969.0
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 11.1	-£ 11.1
	Lifetime Energy Savings - £M	£ -	-£ 243.1	-£ 243.1
	Present Value of Energy Savings - £M	£ -	-£ 94.1	-£ 94.1
	Average Annual CO2 saved - MTCO2 pa	-	0.35	0.35
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.64	0.64
	Lifetime annual CO2 saved - MTCO2	-	7.66	7.66
Cost Effectiveness	Net Present Value of Package - £M	-£ 15.9	-£ 1,047.3	-£ 1,063.2
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 136.7	-£ 138.8
	Present Value of benefits from CO2 saved - £M	£ -	£ 366.1	£ 366.1

Option 1a	voluntary - additional guidance/sale and rent - phased implementation			
Domestic				
	Government	Building Owner	Total	
Costs	One off Costs - £M	£ 0.8	£ -	£ 0.80
	Average Annual Cost - £M pa	£ 0.9	£ 26.7	£ 27.59
	Lifetime Costs - £M	£ 9.9	£ 320.0	£ 329.89
	Present Value of Costs - £M	-£ 8.2	-£ 269.5	-£ 277.72
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 2.1	-£ 2.06
	Lifetime Energy Savings - £M	£ -	-£ 45.4	-£ 45.40
	Present Value of Energy Savings - £M	£ -	-£ 17.6	-£ 17.58
	Average Annual CO2 saved - MTCO2 pa	£ -	£ 0.1	£ 0.08
	Annual CO2 saved in 2020 - MTCO2 pa	£ -	£ 0.1	£ 0.14
	Lifetime annual CO2 saved - MTCO2	£ -	£ 1.7	£ 1.69
Cost Effectiveness	Net Present Value of Package - £M	-£ 8.2	-£ 287.1	-£ 295.30
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 252.2	-£ 258.27
	Present Value of benefits from CO2 saved - £M	£ -	£ 46.2	£ 46.16

Option 2a	voluntary - additional guidance for hard to treat/sale and rent+minimum standards for others/sale or rent - phased implementation			
Domestic				
	Government	Building Owner	Total	
Costs	One off Costs - £M	£ 0.8	£ -	£ 0.8
	Average Annual Cost - £M pa	£ 0.9	£ 29.0	£ 29.9
	Lifetime Costs - £M	£ 9.9	£ 347.8	£ 357.6
	Present Value of Costs - £M	-£ 8.2	-£ 292.9	-£ 301.1
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 2.6	-£ 2.6
	Lifetime Energy Savings - £M	£ -	-£ 57.4	-£ 57.4
	Present Value of Energy Savings - £M	£ -	-£ 22.2	-£ 22.2
	Average Annual CO2 saved - MTCO2 pa	£ -	£ 0.1	£ 0.1
	Annual CO2 saved in 2020 - MTCO2 pa	£ -	£ 0.2	£ 0.2
	Lifetime annual CO2 saved - MTCO2	£ -	£ 2.2	£ 2.2
Cost Effectiveness	Net Present Value of Package - £M	-£ 8.2	-£ 315.1	-£ 323.3
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 247.0	-£ 252.3
	Present Value of benefits from CO2 saved - £M	£ -	£ 55.9	£ 55.9

Option 3a	minimum standards for all/sale or rent - phased implementation			
Domestic				
	Government	Building Owner	Total	
Costs	One off Costs - £M	£ 0.9	£ -	£ 0.9
	Average Annual Cost - £M pa	£ 0.9	£ 51.4	£ 52.3
	Lifetime Costs - £M	£ 7.4	£ 617.3	£ 624.8
	Present Value of Costs - £M	-£ 6.2	-£ 519.9	-£ 526.1
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 6.5	-£ 6.5
	Lifetime Energy Savings - £M	£ -	-£ 142.4	-£ 142.4
	Present Value of Energy Savings - £M	£ -	-£ 55.1	-£ 55.1
	Average Annual CO2 saved - MTCO2 pa	£ -	£ 0.3	£ 0.3
	Annual CO2 saved in 2020 - MTCO2 pa	£ -	£ 0.5	£ 0.5
	Lifetime CO2 saved - MTCO2	£ -	£ 5.7	£ 5.7
Cost Effectiveness	Net Present Value of Package - £M	-£ 6.2	-£ 575.0	-£ 581.3
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 100.6	-£ 101.7
	Present Value of benefits from CO2 saved - £M	£ -	£ 183.5	£ 183.5

Option 4a		minimum standards for hard to treat/sale or rent+minimum standards for others/existing stock - phased implementation		
Domestic		Government	Building Owner	Total
Costs	One off Costs - £M	£ 0.9	£ -	£ 0.9
	Average Annual Cost - £M pa	£ 1.5	£ 57.9	£ 59.4
	Lifetime Costs - £M	£ 7.5	£ 695.3	£ 702.8
	Present Value of Costs - £M	-£ 6.4	-£ 585.5	-£ 591.9
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 7.7	-£ 7.7
	Lifetime Energy Savings - £M	£ -	-£ 169.4	-£ 169.4
	Present Value of Energy Savings - £M	£ -	-£ 65.6	-£ 65.6
	Average Annual CO2 saved - MTCO2 pa	£ -	£ 0.3	£ 0.3
	Annual CO2 saved in 2020 - MTCO2 pa	£ -	£ 0.6	£ 0.6
	Lifetime annual CO2 saved - MTCO2	£ -	£ 6.9	£ 6.9
Cost Effectiveness	Net Present Value of Package - £M	-£ 6.4	-£ 651.1	-£ 657.5
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 94.1	-£ 95.0
	Present Value of benefits from CO2 saved - £M	£ -	£ 238.1	£ 238.1

Option 5a		minimum standards for all buidings/existing stock		
Domestic		Government	Building Owner	Total
Costs	One off Costs - £M	£ 0.9	£ -	£ 0.9
	Average Annual Cost - £M pa	£ 7.4	£ 58.4	£ 65.8
	Lifetime Costs - £M	£ 13.4	£ 701.3	£ 714.7
	Present Value of Costs - £M	-£ 12.3	-£ 590.6	-£ 602.9
Benefits	Average Annual Energy Savings - £M pa	£ -	-£ 7.8	-£ 7.8
	Lifetime Energy Savings - £M	£ -	-£ 171.0	-£ 171.0
	Present Value of Energy Savings - £M	£ -	-£ 66.2	-£ 66.2
	Average Annual CO2 saved - MTCO2 pa	-	0.32	0.32
	Annual CO2 saved in 2020 - MTCO2 pa	-	0.58	0.58
	Lifetime annual CO2 saved - MTCO2	-	6.96	6.96
Cost Effectiveness	Net Present Value of Package - £M	-£ 13.9	-£ 743.1	-£ 757.0
	Net Present Value per tonne CO2 saved - £/tCO2	£ -	-£ 106.8	-£ 108.8
	Present Value of benefits from CO2 saved - £M	£ -	£ 239.4	£ 239.4

31. The fuel prices and carbon emission factors used to generate the cash and carbon savings are in the following table.

£/kWh elec	£ 0.10
£/kWh fossil	£ 0.03
kgCO2/kWh elec	0.43
kgCO2/kWh fossil	0.21

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## **SMALL/MICRO FIRMS' IMPACT TEST**

32. A Small Firms' Impact Test (SFIT) has not been undertaken at this stage given that this is a partial RIA and proposals are still subject to further development. However, as the proposals are firmed up they will be subject to a SFIT with a focus on SMEs representative of the affected sectors and groups.

## **LEGAL AID IMPACT TEST**

33. It is too early at this stage to undertake the legal aid impact test. This will be undertaken should the proposals be further developed.

## **“TEST RUN” OF BUSINESS FORMS**

34. This will be brought forward as part of subsequent RIAs, if proposals are further developed.

## **COMPETITION ASSESSMENT**

35. The impact of these proposals on competition has been reviewed using Office Fair Trading guidance and it is felt that it would not have any adverse impact on the relevant markets in terms of limiting the number of suppliers, limiting the ability of suppliers to compete and reducing incentives for suppliers to compete vigorously.

## **ENFORCEMENT, SANCTIONS AND MONITORING**

36. Enforcement is discussed in the main consultation document which considers a range of options for the lead body on enforcement. Options include local authorities as they also have an enforcement role regarding provision of EPCs in terms of the EPBD. Contraventions should be dealt with in the first instance through the service of an enforcement notice (failure to comply with such a notice being an offence).
37. Monitoring will depend ultimately on the arrangements for enforcing legislation.

## **IMPLEMENTATION AND DELIVERY PLAN**

38. This will be identified in subsequent RIAs as proposals develop.

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## SUMMARY

39. The total carbon savings as well as the overall cost-effectiveness of each of the Options in the two sectors considered are summarised in the table below.

Option	NPV	CO2 saved in 2020	Lifetime CO2 saved
	(£M)	MT CO2 pa	MT CO2 pa
Option 0	-£ 255.0	0.07	0.89
Option 1	-£ 310.0	0.15	1.78
Option 2	-£ 711.8	0.45	5.35
Option 3	-£ 853.7	0.56	6.69
Option 4	-£ 998.0	0.62	7.40
Option 5	-£ 1,063.2	0.64	7.66
Option 1a	-£ 295.3	0.14	1.69
Option 2a	-£ 323.3	0.18	2.21
Option 3a	-£ 581.3	0.48	5.72
Option 4a	-£ 657.5	0.58	6.92
Option 5a	-£ 757.0	0.58	6.96

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## PARTIAL REGULATORY IMPACT ASSESSMENT

### PROPOSALS FOR EXTENDING THE REPAIRING STANDARD IN THE PRIVATE RENTED SECTOR TO COVER ENERGY EFFICIENCY STANDARDS

#### PURPOSE AND INTENDED EFFECT OF PROPOSALS

##### Objectives

- 1 The proposal is to consider the impact of amending the repairing standard to include the energy efficiency criteria of the Scottish Housing Quality Standard (SHQS) or the Scottish Core Standards for Accredited Landlords.

##### Background

- 2 During consideration of the Climate Change Bill, the Scottish Government undertook to consult on a proposal that the Repairing Standard, which relates mainly to privately rented housing, should be amended to incorporate the energy efficiency requirements of the Scottish Housing Quality Standard (SHQS). This undertaking included the publication of a partial Regulatory Impact Assessment.
- 3 The Repairing Standard was introduced by the Housing (Scotland) Act 2006. It brought together and extended the previous statutory and contractual repairing obligations of private landlords. A landlord has a duty to ensure that a house meets the Standard at the start of, and at all times during, a tenancy. The latter duty applies only where the tenant notifies the landlord of work that needs to be done or the landlord becomes aware of such work in some other way. However if the landlord does not meet the duty only a tenant can enforce work through complaining to the landlord and, if necessary, to the Private Rented Housing Panel (PRHP).
- 4 The proposal is to add a thermal standard to the Repairing Standard based on either the current standard in the SHQS or the standard set out in the Scottish Core Standard for Accredited Landlords (stated here as published by Communities Scotland in 2006)

##### Rationale for government intervention

- 5 The Scottish Government is concerned to increase energy efficiency in all housing, including the private rented sector (PRS). Housing in the PRS is much more likely to be rated "poor" on the NHER<sup>14</sup> scale than either social rented or owner-occupied properties, with around one in six PRS properties rated poor. The Review of the PRS recently examined disrepair in the private rented sector and suggested that it may not

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<sup>14</sup> Energy Efficiency is measured using two main methodologies: the National Home Energy Rating (NHER) and the UK Government's Standard Assessment Procedure for the Energy Rating of Dwellings (SAP). SAP is used for all compliance measures in Scotland. The SAP (2005) considers energy used by heating, hot water and lighting and ventilation, with standardised assumptions for occupancy and climate. Energy Performance Certificates for existing homes are based on a reduced data version of the SAP calculation methodology and allow comparison of the performance of similar dwellings. NHER is used by the Scottish House Condition Survey for descriptive purposes because it considers total energy use (including data on lights and appliances) and allows for regional and geographical climatic variations across Scotland.

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be the tenure that is itself to blame so much as the types of properties prevalent in the PRS.

- 6 However this does not appear to be the case with energy efficiency and there is evidence that energy efficiency is worse in the PRS than in other tenures for the same building types. For example pre-1919 detached homes in the PRS have an NHER of 2 whilst in the owner occupied sector they have an NHER of 3.5<sup>15</sup>. Likewise pre-1919 tenements have an NHER of 5.5 in the PRS compared to 6 for owner occupiers. Only in post-1982 tenement flats are PRS properties of a higher standard to other sectors (8.6 compared to 8.4). Of particular concern is the fact that around 1 in 10 PRS tenant households have no central heating with a further 1 in 10 only having partial heating (SHCS 2007).
- 7 The SHCS was also used to emulate<sup>16</sup> Energy Performance Certificates showing that 45% of the PRS properties are rated poorly as an E,F,G. Those PRS properties most likely to have poor energy efficiency are detached homes (90% are E,F,G rated), dwellings in rural areas (93% are E.F.G rated) and dwellings without mains gas (90% are E,F,G rated). The most common house type in the PRS are tenement flats (101,000) of which around 30% are E,F,G rated.
- 8 Tenants in the PRS are also more likely to be in fuel poverty than residents in other tenures with 53,000 fuel poor.
- 9 The rationale for intervention relates to four factors:
  - Improved energy efficiency assists in meeting Climate Change targets by reducing carbon emissions
  - Improved energy efficiency assists in meeting the 2016 target to eradicate, as far as possible, fuel poverty.
  - Market forces will not necessarily lead to energy efficiency improvements because whilst the landlord would bear the capital cost of any upgrades, the tenant would gain the benefit of a warmer home and reduced fuel bills.
  - The SHQS sets a standard to encourage landlords in the social rented sector to improve thermal efficiency amongst other aspects of a dwelling by 2015 but no equivalent exists in the PRS.
- 10 Although there is a rationale for intervention, there are different ways in which energy efficiency standards can be applied to the housing sector as a whole or the PRS itself.
- 11 The Climate Change (Scotland) Act 2009 sets out a framework for the introduction of regulation of energy efficiency measures across the whole housing stock. Proposals for regulation are detailed in the consultation on the Energy Efficiency Action Plan and the partial Regulation Impact Assessment includes a range of costed options.
- 12 Hence even if it were considered appropriate to address the PRS first, it might be better to use the broad enabling powers in the Climate Change (Scotland) Act rather than the Repairing Standard. If the PRS were to be addressed specifically, these broad enabling powers could be used in a different way for this sector, such as addressing the PRS earlier, requiring work to be done on the first change of tenancy

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<sup>15</sup> Data source SHCS (combined years 2004/5, 5/6 and 2007).

<sup>16</sup> SHCS can only emulate not replicate EPCs. This is therefore only a broad indication of EPCs in Scotland. In time the HEED database of EPCs will be able to provide profile information.

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or by a certain date, or having specific rules (such as a need to obtain the tenant's consent). There could also be a more effective method of enforcement and the ability to target measures at the houses with the worst energy performance

## **CONSULTATION**

- 13 The proposals and partial RIA have been developed for consultation in the Energy Efficiency Action Plan.

## **OPTIONS**

### **Option 1 – Do nothing**

- 14 Under the “do nothing” option, the Repairing Standard would continue to be used to set a minimum standard within the PRS, enforced through the Private Rented Housing Panel. Although the Repairing Standard does not explicitly address energy efficiency as such, the addition of "satisfactory thermal insulation" to the criteria of the Tolerable Standard, which applies to all houses, will have an effect on some of the least energy efficient properties in the PRS, although it will require only a fairly basic level of insulation. Tenants may be able to enforce the Tolerable Standard criteria through the Repairing Standard, with its "reasonably fit for human habitation" requirement.
- 15 In addition, there are some recent developments which should lead to improvements in the sector, including landlord accreditation and the introduction of the Energy Performance Certificate (EPC). An EPC showing the energy efficiency of the property must be provided to prospective tenants before a house is let. EPCs should raise awareness of energy efficiency among tenants as well as giving them more information, including an energy efficiency rating between A and G and an indication of lower cost measures that could be taken to improve the energy performance. Landlords should be encouraged by this to upgrade their properties to make them more marketable, especially in areas of high supply.
- 16 There are also a number of financial incentives available to encourage landlords to undertake work. The Landlord's Energy Saving Allowance (LESA) allows private landlords to claim an allowance against income tax or corporation tax of up to £1,500 per property when they install energy efficiency measures. The eligible installations are loft, cavity wall, solid wall, hot water system and floor insulation, and draught proofing. Using LESA means that a private landlord can improve a property (and its EPC) at a reduced cost. In addition, the Scottish Government allows private landlords to access Energy Saving Scotland - Small Business Loans, which provides small and medium-sized businesses with interest-free loans from £1,000 to £100,000 to help finance a wide range of energy-saving measures. Also, private tenants may be eligible for assistance in installing energy efficiency measures under the new Energy Assistance Package, including accessing energy efficiency improvements through the energy companies' insulation programmes, and, for the most fuel poor, additional help from the Scottish Government for insulation and heating measures. Obviously, landlords cannot make tenants apply for assistance.
- 17 Based on existing programmes we can expect some minimal improvement in the stock. The average NHER of the PRS rose from 3.5 in 1996 to 5.5 in 2007. We can expect some continued improvement under a business as usual scenario, but

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probably at a lower rate as the easier measures will in many cases have already been installed<sup>17</sup>.

18 **Benefits**

- Without additional PRS specific regulation existing incentives, support and promotion are allowed to improve energy efficiency through voluntary means as markets support the financial outlay.
- No confusion in the sector as landlords do not need to come to terms with a changed and very different repairing standard.

19 **Costs**

- Without regulation there will be slow uptake of energy efficiency measures across the sector
- Without regulation it will not be possible to target uptake to worst properties
- Households continue to live in fuel poverty

**Option 2 – Adopt the proposals for amending the Repairing Standard to include the energy efficiency standard of the SHQS**

20 The Scottish Housing Quality Standard (SHQS), which was published in 2004, is a quality standard which covers many aspects of a house, including energy efficiency. It is not a legal requirement but is subject to regulation. Social housing providers are aiming to meet the SHQS by 2015. The energy efficiency criteria are listed in Figure 1.

21 Data from the Scottish House Condition Survey estimates that of the 194,000 dwellings in the PRS in Scotland in 2007 56% or 108,000 fail the SHQS on thermal efficiency grounds compared to 52% of all dwellings (data from 2007 SHCS). Of those properties that fail the SHQS 39,000 have occupants who are living in fuel poverty and the remainder do not. Figure 2 shows the number of measures required in PRS properties to meet the SHQS<sup>18</sup>.

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<sup>17</sup> In the future as noted above, improvement in the sector may result from the implementation of the regulations required by the Climate Change (Scotland) Act 2009.

<sup>18</sup> There may be some properties that are upgraded with all these measures but still cannot meet the SAP/NHER requirement of (60)50/5. These will require additional measures such as solid wall insulation or low carbon equipment.

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## Fig 1 Criteria of the SHQS Energy Efficiency Standard

### **Effective Insulation:**

Cavity insulation where technically feasible and appropriate<sup>19</sup>; 100mm loft insulation where appropriate<sup>20</sup>; and insulation of hot water tanks and pipes (and cold water tanks as an ancillary measure).

### **Efficient Heating:**

A full house central heating system<sup>21</sup> that has an acceptable efficiency rating<sup>22</sup> or similarly efficient heating system that is developed in the future. Portable heating is not taken into account.

### **Additional energy efficiency measures:**

Additional energy efficiency measures, where technically feasible<sup>23</sup> necessary to achieving a minimum NHER rating of 5 or SAP rating of 50 for mains gas central heating systems and 60 for all other heating systems.

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<sup>19</sup> In some types of housing, it is not possible to install cavity wall insulation; in other cases installation may be inappropriate because cavity wall insulation would lead to other problems such as water penetration and dampness.

<sup>20</sup> 100mm is the minimum existing insulation which will meet the standard, but where insulation is being installed it must meet any other relevant standard.

<sup>21</sup> Full central heating relates to whole dwelling or rooms representing 50% of the floor area of the dwelling

<sup>22</sup> An inefficient central heating system is defined here as being:

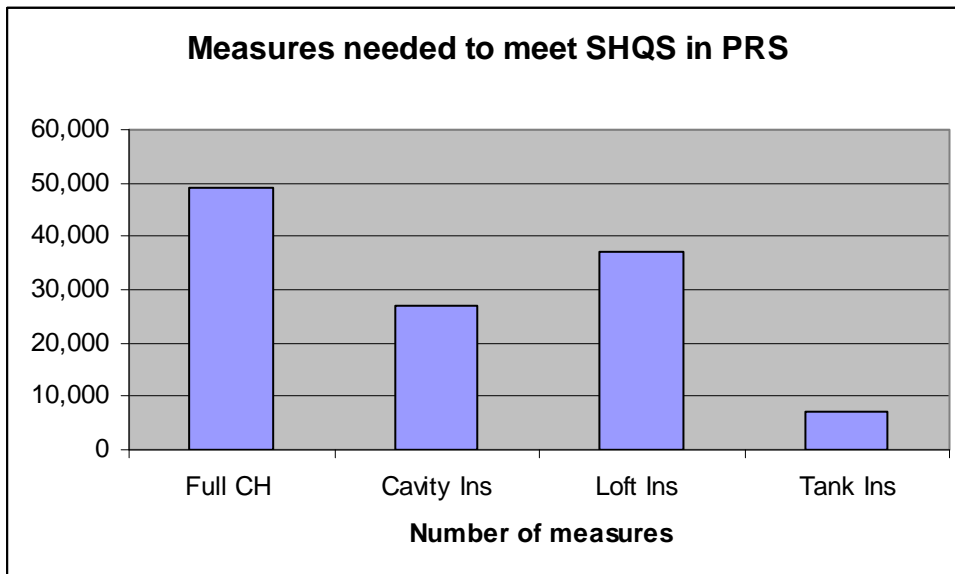
- a solid fuel boiler with an annual seasonal efficiency of 55% or less
- a natural gas boiler with an annual seasonal efficiency of 55% or less
- an oil-fired boiler with an annual seasonal efficiency of 65% or less
- a gravity or semi-gravity heating system more than 20 years old.

An inefficient electric storage heating system is defined here as being:

- free-standing large volume storage heaters more than 20 years old
- free standing compact storage heaters more than 20 years old
- electric fan-assisted storage warm air heating more than 20 years old
- electric wired under-floor heating, set in solid floors, more than 20 years old
- electric ceiling heating more than 20 years old.

<sup>23</sup> Such measures might include coated double or even triple glazing. It is recognised that it will not always be technically feasible, without disproportionate cost, to bring certain houses up to the minimum thermal efficiency standard. Building Standards may be relaxed if it is not reasonably practical to meet the minimum standards.

**Figure 2 Measures needed to meet SHQS criteria (excluding NHER criteria) in the PRS**



- 22 Using the Scottish Government's DEMScot<sup>24</sup> model, and the above estimates of measures, scenarios have been developed to examine the financial cost and carbon impact of upgrading homes by 2015. This scenario assumes that when homes are upgraded they are upgraded to a current standard rather than to the minimum standard. If all PRS homes were improved such that they would pass SHQS on central heating and insulation categories then this could cost around £161 million, around £1,500 per sub-standard dwelling. It would save 0.03Mt CO<sub>2</sub>.
- 23 Using the Repairing Standard to enforce change will mean that homes will only be improved if tenants ask for it and if necessary complain to the Private Rented Housing Panel (PRHP). It is difficult to judge how often tenants are likely to ask for energy efficiency improvements<sup>25</sup>. It is also difficult to estimate turnover rates<sup>26</sup>, especially of those properties failing the SHQS where the landlord may undertake improvements before re-letting. However if we assume that landlords improve properties on re-letting then a take-up rate of 50% by 2015 may be achievable which would deliver 13,500 cavity wall insulations, 18,000 loft insulations, 4,000 short term upgrade packages including tank and pipe insulation and 24,500 energy efficient boilers at a total cost of £80million and a carbon saving from direct emissions of 0.023MtCO<sub>2</sub><sup>27</sup>, overall a carbon saving of 0.049MtCO<sub>2</sub>.

<sup>24</sup> Modelling Greenhouse Gas Emissions from Scottish Housing, Cambridge Architectural Research Ltd, Cambridge Econometrics, Roger Talbot Associates Ltd, Alembic Research (forthcoming)

<sup>25</sup> Only 115 cases have been taken to the Private Rented Housing Panel but there may have been many more occasions where tenants have made landlords aware of repairs which landlords subsequently undertake.

<sup>26</sup> There is a high level of churn in the PRS. The 2009 Review of the PRS showed that only 20% of tenants had lived in their home for more than 5 years. However households on housing benefit and households in rural areas who may be living in poorer quality or energy inefficient dwellings tend to live in their homes for longer than other tenants.

<sup>27</sup> Note this is not a straight 50% of the total cost and carbon emissions because of the order in which measures are calculated in the building physics model and the type of housing the measures are added to

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## 24 Benefits

- Set standards of energy efficiency for a sector that has a relatively high proportion of houses with poor performance in this regard.
- Give private tenants the power to address problems of fuel poverty.
- Empower tenants to be able to take action to improve the energy efficiency of their house.
- Establish a degree of equality between conditions in the PRS and social housing (although social housing providers have already had 5 years to prepare to meet the SHQS in 2015 and meeting it is not a legal requirement<sup>28</sup> for them).
- Save tenants money on energy bills.

## 25 Costs

- The prescriptive and technical nature of the SHQS criteria would make it difficult for a landlord to know if a property met the standard without buying expert opinion.
- Relying on tenants to enforce energy efficiency requirements is likely to mean that progress towards bringing all privately rented houses up to the SHQS standards would be slow. Current evidence suggests only 115 cases were heard by the Private Rented Housing Panel (PRHP) in 2008, although many more tenants and landlords may resolve an issue without the PRHP.
- The technical nature of the criteria may also prevent tenants asking the landlord to carry out necessary work. In the case of the existing Repairing Standard criteria, it is obvious to a tenant if the heating is not working properly; it might not be so clear that the house failed to meet the detailed requirements of the SHQS.
- The majority of privately rented dwellings (around 70%) are flats, where the action that can be taken by an individual owner (landlord) is limited.
- Not all homes can meet the SHQS thermal efficiency standard and private landlords, unlike social landlords, are not in a position to be able to demolish and rebuild houses that do not meet the standard.
- The number of properties in the PRS failing the SHQS on thermal efficiency ground is around 100,000; this measure is therefore only relevant for 4% of the total housing stock in Scotland.
- Despite sources of support listed above, the vast majority of private landlords are individuals with one or two properties and limited resources who may find it difficult to finance major energy efficiency works. There would thus be concerns that adding the SHQS energy criteria requirements to the Repairing Standard could lead to a reduction in accommodation available in the sector. The PRS is a critical part of the housing market especially during the current economic recession.
- Rents may rise to cover the landlord's costs in making energy efficiency improvements.

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<sup>28</sup> Although not a legal requirement, the regulator can and does measure the performance of social landlords in terms of being able to assess SHQS progress and if sufficiently worried can take necessary action

**Option 3 – Adopt proposals for amending the Repairing Standard to include the energy efficiency standards as set out in the Scottish Core Standard for Accredited Landlords** (as published by Communities Scotland in 2006)

26 In 2006 Communities Scotland published core standards for accredited landlords. SHQS and these core standards are similar in spirit but while SHQS aims at a technical definition measured by experts, the core standards definition aims at a practical definition which can be applied by landlords. The differences between the SHQS and the core standard are detailed in Figure 3. In general insulation requirements are very similar with core standards requiring slightly more in terms of draught-proofing windows and doors. The heating system aims are similar in spirit but while the SHQS offers a technical definition (which landlords would be unable to gauge), core standards adopt a more practical definition. Core standards also requires heating in each apartment in the home unlike the SHQS.

**Fig 3 Comparison of the landlord’s core standards and the SHQS:**

	<b>SHQS</b>	<b>Core standards</b>
Cavity insulation	Where technically feasible and appropriate.	Where necessary and practical
Loft Insulation	100mm is the minimum required to meet the standard but when insulation is being installed it must meet current building regulations.	Loft insulation to a depth of 250 mm
Other insulation measures	Insulation of hot water tanks and pipes.	Draught insulation of doors and windows (or secondary or double glazing); Lagging of immersion heaters and hot water pipes;
Efficient heating	A full house central heating system that has an acceptable efficiency rating (solid fuel more than 55%, natural gas more than 55%, oil fired more than 65% and system including electric that is less than 20 years old.  Portable heaters do not count.  Full house must cover rooms counting for more than 50% of dwelling but does not need to be in all rooms.	The landlord should provide an efficient, safely designed and economical-to-run central heating system or an open fire with back boiler feeding room radiators or a space-heating appliance <u>in each apartment</u> in the accommodation and in the bath or shower room(s).  Landlords should not provide portable bottled gas heaters, paraffin heaters or the like as a source of heating.
Additional measures	Additional measures where technically feasible to achieve a minimum NHER rating of 5.	The accommodation should be provided with an energy efficient hot water supply.  The landlord should advise tenants to replace conventional light bulbs with low energy bulbs
Ease of Use	Requires technical	Can be assessed by landlord

	measurement by trained assessors most, but not all, of which would be available through an EPC. Reasonably accurate and difficult to refute.	and would be available from EPC.  Rather subjective.
Applicability	All stock lacking appropriate insulation and full central heating or stock with the above measures but still not meeting a minimum NHER of 5.	Nearly all stock in the sector has potential for some upgrades because standards of efficiency and economy will change with time.
<i>Since January 2009 there is a legal requirement for landlords to provide an Energy Performance Certificate (EPC) to a tenant when a dwelling is let. This document will list the energy rating for the property and the indicative fuel costs associated with this as well as suitable improvement measures.</i>		

28 As noted above using the Repairing Standard to enforce change will mean that homes will only be improved if tenants ask for it, but take-up may be higher given that tenants and landlords may find the standard easier to interpret. If we again assume that landlords improve properties on re-letting then a take-up rate of 60% by 2015 may be achievable which could deliver 21,600 cavity wall insulations, 55,200 loft insulations, 102,000 short term upgrade packages including tank and pipe insulation and 58,000 energy efficient boilers and 7,000 biomass boilers at a cost of £309million and a carbon saving of 0.101MtCO<sub>2</sub> from direct emissions and 0.149MtCO<sub>2</sub> from all emissions.

## 29 **Benefits**

- Set high standards of energy efficiency for a sector that has a relatively high proportion of houses with poor performance in this regard.
- Give private tenants the power to address problems of fuel poverty.
- Empower tenants to be able to take action to improve the energy efficiency of their house.
- Standard that is reasonably easy to interpret for landlord and tenant
- Standard that is already part of code of practice for accredited landlords in the PRS
- All homes can meet the Scottish Core Standard definition.
- Relevant to a greater number of homes.

## 30 **Costs**

- Relying on tenants to enforce energy efficiency requirements is likely to mean that progress towards bringing all privately rented houses up to the Scottish Core Standard would be slow although the more user-friendly nature of the standard might mean tenants were more likely to act.
- Many PRS properties are flats where some of the measures will require agreement by a number of owners.
- Despite sources of support listed above, the vast majority of private landlords are individuals with one or two properties and limited resources who may find it difficult to finance major energy efficiency works. There would thus be concerns that adding a thermal standard to the Repairing Standard could lead to a reduction in accommodation available in the sector. The PRS is a critical part of the housing market during the current economic recession.

- The standard without specific measurement on heating could lead to relatively inefficient and uneconomical systems being considered to pass.

### COSTS AND BENEFITS –Summary Table

	Option 1 – Do nothing	Option 2 –Amend Repairing Standard to include SHQS. Based on 50% take-up	Option 3 – Amend Repairing Standard to include Scottish Core Standard definition Based on 60% take-up
Financial Cost	No additional cost from this proposal	£80Million	£309Million
Cost per dwelling (averaged across all PRS stock)	No additional cost from this proposal	£412	£1,592
Cost per dwelling for relevant dwellings	No additional cost from this proposal	£740	£1,807
Carbon Impact MtCO2 and (£/t)	No additional from this proposal	0.049 (1630 £/t saved)	0.149 (2073 £/t saved)
Impact on fuel poverty	Some properties will be improved as landlords take up financial incentives.  May attract business landlords more than individuals with one or two properties.	Improve energy efficiency of worst dwellings.  Gives occupants ground to require energy efficiency measures to be installed.  Additional charges may be added to rent.	Improve energy efficiency across PRS stock.  Gives occupants ground to require energy efficiency measures to be installed.  Additional charges may be added to rent.
Impact on fuel bills	None specifically from this policy.	Will reduce where measures are installed assuming no increase in thermal comfort.	Will have greater reduction than SHQS where measures are installed assuming no increase in thermal comfort. .
Practicality	Current measures rely on voluntary take-up and good information exchange.	Requires technical expertise to interpret which is likely to disadvantage both tenant and landlord.	Landlord and tenant can interpret standard, especially with assistance of an EPC, but heating definition rather subjective.
Number of potential dwellings	All PRS stock (170-190,000)	100,000 dwellings fail SHQS on thermal grounds. 50,000 if assume 50% take-up.	All PRS stock (170-190,000). If assume 60% take-up then around 110,000
Issues for tenants	No basis for them to	Basis to challenge	Basis to challenge but

	challenge landlords to improve energy efficiency	but only if can interpret standard. May decrease supply in sector.	heating criteria may be too loose to give good results. May decrease supply in sector.
Issues for landlords	No requirement to improve energy efficiency.  Financial incentives not significant enough to motivate work.  Potential lack of awareness of need to undertake work although this should decrease as EPCs come into effect.	Lack of awareness and understanding of criteria.  Lack of finance to carry out measures.  Treatment not equal to either social sector where SHQS is not a legal requirement, nor the rest of the private sector where there are no current thermal standards other than the tolerable standard.	Lack of awareness and understanding of criteria although less significant than SHQS because LAS code of practice is known in the sector.  Lack of finance to carry out measures.  Treatment not equal to other tenures.
Longevity		The SHQS is a minimum standard so time limited and difficult to enforce. May be superceded by regulations brought in under the Climate Change Act.	Standard that will move with current industry standards on economy and efficiency, but difficult to enforce. May be superceded by regulations brought in under the Climate Change Act.

- 31 Option 1, the do nothing option is the lowest cost but also has the lowest impact on carbon emissions.**
- 32 Both Option 2 and Option 3 treat the PRS differently to other sectors. Option 3 is the highest cost to landlords but also has the highest impact on carbon emissions. The cost per tonne of carbon is also higher than in Option 2 because of the higher standards being reached and the incorporation of higher cost technologies such as biomass boilers. Option 3 is more practical than Option 2 in terms of interpreting the standard. Option 2 provides some comparability between standards in social rented and privately rented housing.**
- 33 The Climate Change Act (Scotland), 2009 requires the introduction of a regulatory framework for housing across all tenures. This may offer a more suitable and effective vehicle for improvements to the PRS stock**

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## **SMALL /MICRO FIRMS IMPACT TEST**

- 33 Most landlords (95%) are individuals or couples owning one or two properties and operating on a part-time basis. The proposal may have a negative impact:
- Many landlords may not be aware of the standards set by a repairing standard. In the recent Scottish Government review of the PRS 40% of landlords did not know whether the current standards of the Repairing Standard were reasonable or not.
  - The costs involved may be prohibitive and may impact on the supply of property to the sector as well as rent levels. In the recent Scottish Government review of the PRS only half of sampled landlords felt that rents were sufficient to cover their costs and give a reasonable return<sup>29</sup>.

## **LEGAL AID IMPACT TEST**

- 34 There should be no impact on legal aid issues under these proposals.

## **“TEST RUN” OF BUSINESS FORMS**

- 35 Any final standards would be discussed and agreed with landlord organisations or their representative bodies.

## **COMPETITION ASSESSMENT**

- 36 As these proposals will impact on all private landlords, there should be no advantage to any particular group within the PRS. However there will be some inequity with the social sector where standards are aspirational not legally binding, and with the owner occupied sector where such standards do not currently exist. The only standard which has equal enforcement across all tenures is the tolerable standard.

## **ENFORCEMENT, SANCTIONS AND MONITORING.**

- 37 The current statutory intervention powers of the Repairing Standard were introduced in September 2007. The proposal is a graduated change from current regulation.

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<sup>29</sup> <http://www.scotland.gov.uk/Topics/Built-Environment/Housing/PrivateRenting/prsreview>