

**4. Please indicate which category best describes your organisation, if appropriate.**

**(Tick one only)**

<b>Executive Agencies and NDPBs</b>	<input type="checkbox"/>
<b>Local authority</b>	<input type="checkbox"/>
<b>Other statutory organisation</b>	<input type="checkbox"/>
<b>Registered Social Landlord</b>	<input type="checkbox"/>
<b>Representative body for private sector organisations</b>	<input type="checkbox"/>
<b>Representative body for third sector/equality organisations</b>	<input type="checkbox"/>
<b>Representative body for community organisations</b>	<input type="checkbox"/>
<b>Representative body for professionals</b>	<input type="checkbox"/>
<b>Private sector organisation</b>	<input type="checkbox"/>
<b>Third sector/equality organisation</b>	<input checked="" type="checkbox"/>
<b>Community group</b>	<input type="checkbox"/>
<b>Academic</b>	<input type="checkbox"/>
<b>Individual</b>	<input type="checkbox"/>
<b>Other – please state...</b>	<input type="checkbox"/>

## Response to Scottish Government Consultation: Developing an Energy Efficiency Standard for Social Housing



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### Introduction

Energy Action Scotland (EAS) is the Scottish charity with the remit of ending fuel poverty. EAS has been working with this remit since its inception in 1983 and has campaigned on the issue of fuel poverty and delivered many practical and research projects to tackle the problems of cold, damp homes. EAS works with both the Scottish and the UK Governments on energy efficiency programme design and implementation.

### Fuel Poverty in Scotland

The Scottish Government is required by the Housing (Scotland) Act 2001 to end fuel poverty, as far as is practicable, by 2016 and plans to do this are set out in the Scottish Fuel Poverty Statement. The number of Scottish households living in fuel poverty dropped from 756,000 (35.6%) in 1996 to 293,000 (13.4%) in 2002. Half the reduction was due to increases in household income, 35% to reduced fuel prices and 15% to improved energy efficiency of housing<sup>1</sup>. The most recent figures<sup>2</sup> from the Scottish House Condition Survey Key Findings Report show that there were 658,000 households living in fuel poverty in Scotland mid-2010, representing 30% of total households.

According to figures produced by the Scottish Government<sup>3</sup>, for every 5% rise in fuel prices an estimated 46,000 more households would go into fuel poverty. Based on these figures EAS estimates that there are currently almost 900,000 households, four in ten, in fuel poverty in Scotland. This significant increase in fuel poverty is widely accepted to be due to the dramatic increases in domestic fuel prices and EAS is very concerned about the impact on vulnerable customers.

### General

EAS welcomes the opportunity to respond to this consultation. We have confined our responses to those areas we feel we are best placed to answer.

Some of the narrative throughout the consultation document gave rise to a number of issues. EAS did not feel that it was appropriate to incorporate these in our responses to the specific consultation questions. Accordingly our queries, general comments, observations and concerns are listed after these.

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<sup>1</sup> Fuel Poverty in Scotland: Further Analysis of the Scottish Housing Condition survey 2002

<sup>2</sup> Scottish House Condition Scotland Key Findings 2010

<sup>3</sup> Estimate of Fuel Poverty Households in Scotland: Scottish House Condition Survey March 2009

## **Specific Consultation Questions**

**Question 1: Do you have experience, or know of, social landlords acting as 'pioneers' in addressing energy efficiency?**

**Question 1(a): If 'yes', please provide details, including any web links/contact details you may have.**

**Question 2: For landlords, what is the greatest cause of SHQS abeyances in your stock? Is there anything that the Scottish Government could do to assist in reducing abeyances?**

In no particular order, the following offer useful learning opportunities:

- Aberdeen City Council for district heating and CHP.
- DGHP - very low carbon refurbishment and off-gas improvement strategy
- Edinburgh City Council - tenement improvements including solar thermal hot water systems and dealing with planning issues.
- Falkirk Council or Cube HA for refurbishment of multi-story properties
- West Lothian Council development of Air Source Heat Pump technology.

The ubiquitous question is how pilot or demonstration action can be converted to mainstream practice.

With regard to Q2, EAS is not a landlord and we have no direct response to this. However in our experience of working with social landlords the most common issues are mixed tenure, trying to improve blocks etc. and access to properties to make improvements.

**Question 3: What has been your experience in improving properties in mixed tenure estates?**

**Question 3(a): If you have developed solutions to work with owners and/or private sector tenants, please provide details.**

Again, no direct experience, however EAS is aware that our members both RSLs and Local Authorities have had to develop strategies to engage with the private sector. Many of these strategies were employed throughout the period covered by the HECA 1997-2012.

Engagement with trusted intermediaries and smaller community based organisations has helped to promote improvements across all tenures.

**Question 4: The Energy Efficiency Standard for Social Housing will directly affect a diverse group of social sector tenants who have individual needs and experiences. In your view, is improving the energy efficiency of social rented housing a priority for tenants? Yes/No**

**Question 4(a): If 'yes', are the suggested 'potential benefits' broadly the right ones? Are there any others you would suggest?**

**Question 4(b): If no, why is this? How would you suggest we increase tenant awareness of the importance of energy efficiency?**

EAS is in broad agreement with the 'potential benefits'. In addition, consideration should be given to the inclusion of specific health-related benefits as well as the potential for a reduction in fuel poverty levels.

Tenants would firstly have to understand what it is that they are not currently achieving in terms of the potential to improve the property that they live in. Tenants will understand what it is that they pay for rent, council tax (CT) and fuel bills. It will not be automatically understood why it is that a two bedroom flat in the same area paying the same CT as another two bedroom flat built recently may be paying significantly more on their fuel bills.

EAS believes that energy efficiency advice and information must form an integral part of a tenant information pack. The information must be clear and understandable, and must include information on expected running costs. Although rented properties should have an Energy Performance Certificate (EPC), at present this does not provide a tenant with any useful information on running costs. Before tenants can be expected to support and value energy efficiency, they need to understand the impact of changes. To that end the information on the EPC is not helpful as it doesn't show the tenant what the impact of measures has been. It reports the current and potential position of the property, but not what the currently installed measures have done. Perhaps tenants need to also see how their property performs against the 1990 baseline for their type of dwelling?

EAS believes that RSLs should be responsible for providing an 'operations' manual (specific to the heating system/water heating/appliances in the property being let) as part of a tenant information pack. Tenants need access to face to face advice, to ensure that they make the best possible use of their homes. Accordingly, RSLs should ensure that all frontline staff are trained in energy awareness and/or are able to signpost tenants effectively.

**Question 5: Do you consider any particular equality groups will be at significant risk as a result of this new policy? If so, please outline what measures you consider appropriate to minimise risk.**

**Question 6: Do you think the implementation of the Standard will cause an undue financial burden on any particular equality group? If so, we would welcome your views on what action could be taken to minimise that burden.**

**Question 7: What else would you suggest to help tenants better manage their energy consumption?**

Foreign language groups pose a specific challenge to engage with. Alongside this, religion and culture can provide additional challenges to engagement. This is where community leaders and other trusted intermediaries can play a vital role.

Smart meters are one way of achieving a better understanding of how energy is used in the home. However they are only good if the level of understanding of the occupant means that they can interpret the information on the meter to something that make sense to them in monetary terms and that they can identify where and when energy is being used in the home.

See also response to Q 4, above.

**Question 8: Do you think that example case studies will be helpful or unhelpful in taking forward the Standard? If you think they are helpful:**

**Question 8 (a): Are these the right range of dwelling types to be represented as case studies?**

**Question 8 (b): Are there any other types (including hard to treat) that you would like to be included as a case study? Yes/No**

**Question 8 (c): If yes please state type and say why you think they should be included?**

EAS believes that the setting of the standards should be carried out by each housing provider based upon their own knowledge of the stock and using agreed default values based on the age and the built form of the property type. Whilst it is useful in terms of setting the overall policy at the right level, it is our view that this approach is far too general for a standard which will be imposed on a property by property basis.

The standard should be set as an agreed percentage improvement to the 1990 baseline condition. Where that target threshold sits should be calculated by each housing provider specific to that type of property. This will ensure a much more open and accountable process. Whilst this may be more challenging to administrate, the onus will be on the landlord to demonstrate compliance on a property by property basis in any case, as such modelling this with the previously agreed 1990 defaults should not be too much of an added burden.

If a property type fails, then they all fail regardless of the architectural differences within that built form classification. Government should set the savings target and agree the 1990 defaults and leave the assessing against the baseline to the housing providers.

**Question 9: What are your views on using the SAP/RdSAP methodology for regulating energy performance in the social rented sector?**

EAS has no specific issue with the use of RdSAP in assessing the energy performance of a dwelling. Allowing the use of a full SAP calculation will also help with the situations where the geometry or installed equipment cannot be adequately modelled using the reduced data conventions. The 9.91 improvements to version 9.90 have addressed many of the issues that we have had with previous versions of the RdSAP methodology.

EAS would however prefer to see a climate base for Scotland being used as the nominal region for the calculation of the energy efficiency and environmental impact rating rather than the current SAP "East Pennines" region. Whilst this would have no real impact on the achievement of targets, as the thresholds would be based on the same climate base it would result in a bigger impact on the rating from the installation of measures, i.e. that the positive shift in either rating scale would be greater in magnitude as there would be a greater amount of energy to save due to the colder Scottish climate.

**Question 10: Do the 'Baseline: 1990 Measures' accurately reflect the energy efficiency performance of dwellings at that time? Yes/No**  
**If not, please provide details.**

The picture of improvements already installed across the social rented stock in Scotland in 1990 was modelled for the default baseline that all local authorities were provided with in order to measure performance on if they did not have better information themselves. The "HECA Spreadsheet" which was based on 1991 Scottish House Condition Survey data we would suggest would be a better starting point. Programmes such as the "Homes Insulation Scheme" and the "Energy Grant" had already been in operation for over 10 years by 1990 therefore a level of loft insulation for a significant number of properties would be expected to at least be at 100mm.

**Question 11: Are the suggested improvements in the 'Further Measures' and 'Advanced Measures' columns of the case studies realistic and feasible?**  
**Yes/No**

**Question 11 (a): Please provide further explanation of any measures that you think should not be included within the modelled case studies.**

**Question 11 (b): Please provide further explanation of any measures not currently included in the case study modelling that you would like to see included?**

All the measures proposed are certainly realistic. Floor insulation and internal wall insulation may pose some logistical challenges for social landlords possibly requiring decanting of tenants during the refurbishment.

All glazing installed for 2020 and 2050 should at least meet the minimum refurbishment standard currently in force. Under standard 6.2.11 which refers to the values in the table under 6.2.9. This gives an area weighted U-value of 1.6 W/m<sup>2</sup>K for replacement glazing with no individual unit being worse than 3.3 W/m<sup>2</sup>K.

There is no alternative heating proposed for electrically heated homes other than storage heating we would like to see a heat pump system modelled and also some biomass community systems for 2020 and 2050.

EAS believes that this standard should not be limited to only those things expected to be found in the social rented sector. This standard may well become the basis for future private sector regulation and it would be poor policy development to set a social standard now as a sub set of a much greater picture.

**Question 12: Taking into account the reasons above, do you agree that establishing a minimum Environmental Impact Rating for the main dwelling types is the most practicable format for the standard? Yes/No.**  
**If not, please explain why.**

**Question 13: If you think that the standard should be a minimum Environmental Impact rating, do you think that there should also be a safeguard that the dwelling's current Energy Efficiency rating should not reduce?**

**Question 14: In assessing your stock against the proposal for a new standard for social housing, do you foresee any significant challenges in obtaining individual property details across your stock? Yes /No**  
**If yes, please explain why.**

Clearly the reliance on an environmental carbon dioxide based standard directly aligns with the targets set under the RPP (and subsequent revisions). However it is less aligned with targets to eradicate fuel poverty and we have some concerns over the reliance on carbon dioxide alone as a measure of energy efficiency as we move forward into the low carbon economy. **Low carbon is not necessarily low cost.**

The target should not only be based upon carbon dioxide emissions. This is a short sighted policy. There needs to be some recognition of escalating costs in the energy markets and also the inherent risks of relying on low and zero carbon technologies (LZCT) to achieve greater carbon savings when these appliances themselves may have an operational lifespan shorter than the lifetime of the building and which are not expected to last till 2030 or 2050.

For most RSL and local authorities with housing stock, property details relevant for RdSAP can and have already been obtained. The issue is whether or not this now needs to be updated to take advantage of the additional features of the new version 9.91.

With regard to proposed ratings, there can be quite significant differences between the performance of a gable end flat and that of a mid-block flat.

Other than the fact that many four in a block style flats will not have an unheated corridor, why should this building type be tackled any differently from flats?

Bungalows and dwellings over more than one storey have a significantly different energy profile. A two story house of the same floor area as a bungalow will perform much better as it will effectively have half of the exposed floor area and half of the exposed roof area for the same floor area. If the standards are to be based upon these model 1990 baselines, there will have to be models created for each built form for 1, 2 and 3 storeys. Alternatively the responsibility for setting the baseline could be left with the housing provider to establish for each of their archetypes.

**Question 15: Do you think that the ratings above are suitably challenging?**  
**Yes/No**

**If not, please give explanations why not and suggest more suitable ratings.**

**Question 16: Do you think the suggested energy efficiency rating for electrically heated detached homes and bungalows undermines the SHQS?**  
**Yes/No. Please explain your choice.**

This question entirely depends upon the ambition for the housing sector to achieve its contribution to the overall Climate Change target. It should be easier and more sustainable from a strategic point of view to implement greater than 42% carbon savings in the domestic sector than in other housing tenures and other emissions sectors. However EAS recognises that the burden of cost associated with such a

rigorous over-performance may be difficult to achieve over a short 8 year timescale for social landlords.

In addition, exceeding 42% emissions savings will undoubtedly require considerable investment in LZCT equipment to achieve. This equipment is very likely to have an operational lifespan that is much lower than the buildings that it is installed in. Protection in this respect exists with the regulations which control the replacement of space and water heating systems in Scotland, e.g. all new gas boilers must be condensing boilers (88% [SAP09] – Technical Handbook – Standard 6.3.13). However this regulation only extends to equipment supplying space and water heating. Thus there needs to be some recognition that LZCT equipment installed to reduce carbon emissions in the home must be sustained for the lifetime of the building.

The carbon emissions of grid supplied electrical energy are not fixed over time. As such the carbon emissions attributed to this fuel should be lower in 2020 than they are today because of the actions of the strategic ambition to de-carbonise the grid. Thus while it may appear expedient now to reduce a carbon based target in relation to electrically heated homes, it will not be so necessary in the future. This is of course no guarantee that the unit cost of electricity in the future will remain relative to its ratio of cost to carbon today.

Lowering the emissions of grid supplied energy will not result in a lowering of the cost. This is of considerable concern in terms of fuel poverty, and for that reason we do not believe that fuel type should be a factor in relation to meeting a social housing target. Tenants of social housing should expect that detached homes will be more expensive to run than mid terrace homes of the same size, this as a consequence of the built form. However the heating and hot water systems can be changed and we should not be offering concession in this area whilst changing the heating system remains a viable option.

**Question 17: What are your views on whether all social rented dwellings should be heated by gas, electricity or renewable heat sources by 2030?**

All socially rented homes should be able to achieve a reasonable level of thermal comfort and adequate hot water supply for a reasonable cost. Homes are for living in and social equity should be the cornerstone of the provision of social housing. It is probably not helpful to that policy aim for this to be tied to any specific fuel type. Whilst renewable heat sources offer a means of decoupling the cost of energy provision from the amenity of energy. Fossil fuel prices remain volatile due to global supply and demand issues and as such there can be no guarantee that gas in the future will be the cheapest low carbon fuel type. The same applies to using electricity for domestic fuel.

**Question 18: Do you think that either of the options above should be reconsidered? Yes/No.**

**If yes, please explain which option you prefer and why.**

See comments under 6.10.2 above.

**Question 19: Do you agree that the standard should apply to all individual homes and not be aggregated across a landlord's stock? Is this practicable?**



From a running cost perspective, the fact that a neighbouring property is so very energy efficient that it can provide for space and water heating for only a few hundred pounds per year does not mitigate the experience in other properties managed by the housing provider. EAS does not agree that in the case of a social housing standard, that aggregation should be allowable. This does not advance the ambition of social equity for tenants.

**Question 20: Do you agree that the approach to unusual dwellings outlined above could offer a reasonable way forward for applying a standard to these dwellings?**

**Question 20(a): Do you agree that the percentage reduction should correspond to Climate Change targets and be set at 42%? Yes/No. If not, at what level do you think the reduction should be set that will be achievable but provide a meaningful contribution to the improved energy efficiency of social rented housing?**

The methodology proposed under 6.14 would appear robust in as much as it follows the same generous 1990 assumptions for building fabric and services. However as stated under our response to 6.10.2, we believe that the baselines should be calculated by the landlord for the entire stock in this way. This will allow the baseline calculation to account for architectural variance within built form types.

The baseline is from an assumed energy performance for the building type as was in 1990. As these have been set at very generously low levels, we cannot see any reason that 42% would not be achievable given the low baseline set.

**Question 21: Do you think that there should be exceptions to the proposed energy efficiency standard? If so, how should they be treated?**

Exceptions should by their very nature be in exceptional circumstances. It should be expected that all social housing would reach the calculated standard. The reasons for extensions will over time become more recognisable for certain circumstances. Once this is understood, the regulator can look at ways of addressing this or promoting this type of exception as a more generally accepted exclusion.

**Question 22: Are there any other relevant sources of funding that can help social landlords improve the energy efficiency of their stock?**

**Question 23: Given the range of financial assistance available to landlords, do you agree that the standard can be achieved without disproportionate cost? If not, please explain why.**

Funding via the RHI for social landlords is not immediately favourable under the proposals in the RHI consultation. Para 173 states - "Our current position is that registered social landlords installing individual renewable heat installations into each flat or house would not be eligible for the domestic RHI."

This would certainly appear to constrain the impact that this incentive could have within the social rented sector.

EAS believes that the Scottish Government must provide support to Scottish Local Authorities by way of ensuring that ECO spend in Scotland is made as easy as possible and that every effort is made to level the playing field between easily accessed dense urban areas and more sparsely populated rural communities.

Clearly certain property types will require greater investment; however we expect that the bulk of the properties (mains gas, cavity construction) will easily meet the target, if not already meeting the 42% standard as this has been derived from a very generous assumed 1990 property condition. Thus the issue will be about how quickly the harder to treat properties can be dealt with and whether any particular social landlord has a disproportionate quantity of this type of housing to improve. If a landlord's stock is predominantly hard to treat, then they will have no way to offset the burden of costs by making gains in easier to treat parts of the stock.

**Question 24: We see an opportunity to advance gender equality in the creation of jobs to undertake the retrofitting works in industries that have traditionally been male-dominated. Your views on how we can maximise gender equality in job creation would be welcome**

This is a wider issue for employer, further education and the Scottish Government to address. Existing legislation prohibits the selection of employees by gender, however the issue is more about making these career choices attractive to all school leavers irrespective of gender. There is a clear opportunity to improve career paths for school leavers and the unemployed within the property retrofit marketplace. The issue of gender equality is a much wider concern than just this specific area.

**Question 25: Are there any other data sources you could suggest to monitor the proposed energy efficiency standard?**

**Question 26: Would you welcome the SHR monitoring the proposed standard both in the interim period and longer-term or would you prefer an alternative body to carry out this role? If so, who and how?**

Once the national register for EPCs becomes available publicly and as this will be the repository for all property energy data, there does not appear to be the need for additional data monitoring. However not all properties have an EPC and we would support the need to continue with the strategic SHCS approach for the national statistics.

It would appear prudent that SHR be placed as the regulatory body for this standard.

**Question 27: Are there any other costs associated with monitoring landlords' progress towards the energy efficiency standard?**

Monitoring progress is not in itself an end point. Once a property meets the standard, there needs to be a robust system that feeds back any changes to the fabric or the installed equipment in that property. Thus monitoring also needs to be fully integrated into the repairs and maintenance process.

**Question 28: Should there be regular milestones to measure progress towards 2050? If so, what dates would you suggest?**

**Question 29: Do you agree that setting the longer-term milestones should be deferred until progress towards 2020 can be reviewed?**

Some parts of the calculation methodology are likely to be reviewed every three years and the basis of the cost and carbon calculations is not fixed between 2012 and 2050. We should therefore have a progress report every three years at the very least to look at the impact of wider grid de-carbonisation.

We should have at least one review period between 2012 and 2020. This will provide an opportunity to look at the progress towards the 2020 target in light of the development of the zero carbon building agenda post 2016.

**Question 30: Do you consider there to be any further opportunities within the Energy Efficiency Standard for Social Housing to promote equality issues. If so, please outline what action you would like us to take.**

We have no further comment on this issue.

## Questions, comments and observations

Ministerial Foreword

### General Comments

EAS believes that the reference should be to "carbon efficiency" rather than energy efficiency as the indicator proposed is carbon emissions. Consumption of fossil fuels releases energy and greenhouse gases. The EESSH should concern itself with the efficient use of that energy. Carbon emissions are directly related to the consumption of fossil fuels and so therefore are not always directly related to the efficient use of the energy nor the price of that energy.

*"This standard is part of our wider Sustainable Housing Strategy (SHS) which aims to provide for warm, high quality, low carbon homes"*

The SHS actually says "warm, high quality, affordable, low carbon homes". Whilst this may relate more to the capital cost of housing, we should not ignore the on-going costs of living in the properties.

The climate change target is drawn directly from the Climate Change (Scotland) Act 2009, which is 42% by 2020 and 80% by 2050. We are not aware of any specific existing housing "energy efficiency" targets. HECA has been dropped as a duty for local authorities and this was arguably the only real energy efficiency target placed on the domestic sector.

The LHS does not contain any specific housing energy efficiency targets. However there is the overall target to reduce end-use Scottish final energy consumption by 12% by 2020. This is not specifically a housing duty and as such no primary performance indicators are applied to LAs or RSLs to meet this target directly. A carbon emissions standard will in some cases make progress towards this, but only where measures installed reduce actual energy demand, displacement of fossil fuel energy with low or zero carbon energy does not in itself reduce energy demand.

Introduction

### General Comments

*"ensure that no-one in Scotland has to live in fuel poverty, as far as practicable, by 2016"*

The Progress Report on the Scottish Fuel Poverty Statement 2002 reiterates that –

*"The Scottish Government remains committed to the eradication of fuel poverty by 2016, as far as is reasonably practicable."*

Will the proposed energy efficiency standard require social landlords to produce EPCs for every property? Some have already produced these in response to the Energy Performance in Buildings Directive (EPBD), however these could have been calculated in a range of RdSAP versions from RdSAP 2005 (ver. 9.80) through to RdSAP 2009 (ver. 9.90). Each revision of RdSAP has brought into the model

changes in the calculation methodology and assumptions on carbon emissions for fossil fuels e.g. the carbon emission associated with use of grid electricity increased from 0.422 kg CO<sub>2</sub> per kWh to 0.522 kg, CO<sub>2</sub> per kWh an increase of 24%.

Thus EI ratings between properties assessed under RdSAP 9.83 and the current methodology 9.90 will show a significantly different carbon rating. This is not the same issue for the energy efficiency rating as the methodology for this has an energy cost deflator applied to it to ensure that cost fluctuations in fuel prices do not adversely affect the rating between revisions.

There are many factors that can produce different results between SAP revisions, but the main issue is whether housing providers will still be able to use existing EPCs in 2020, assuming that the EPC itself is not any more than 10 years old? Setting a standard using carbon emissions assumed under version 9.83 could make it very difficult for electrically heated properties under version 9.90, 9.91 or later to meet the standards.

EAS agrees that there should be variable thresholds for different built forms.

**1.4** - Will this cover all fuel types, not just mains gas and electricity? What about community heating, which model baseline should these properties meet?

By the time this standard is applicable Scotland will be using at least version 9.91 and perhaps an RdSAP version of the current SAP 2012 proposals. Even assuming that version 9.91 remains in use, there are significant differences between the calculation methodologies used by versions 9.90 and 9.91 and even more considerable differences between versions 9.83 and 9.91. There is very little point in looking at the potential impact of this standard unless the baseline is being calculated using version 9.91 at the very least.

**1.5** - The impact of measures under version 9.91 can in some cases be very different from the case as modelled under 9.83.

Why is a new standard necessary?

### **General Comments**

*“The high incidence of low income households in the social housing sector means that continuing to increase energy efficiency standards can also contribute to the alleviation of fuel poverty.”*

EAS would prefer that this contribution was to the eradication of fuel poverty.

Measures to reduce carbon emissions must offer a reduction in the cost to supply the energy demand, e.g. fabric improvement measures reduce space heating demand, better heating controls improve system efficiency and switching to mains gas from electricity provides a lower carbon and cost alternative to the same energy demand. However a Photovoltaic (PV) system only provides a cost benefit to a tenant if they can use the energy when it is generated, they don't receive the Feed-in Tariff (FIT).

The carbon benefit of PV could be considered to be systemic i.e. that somewhere in the local distribution network, the PV generated zero carbon energy will be used by someone. However strictly speaking this benefit would not directly reduce the carbon emissions of the home it is attached to. If electrical energy demand in the home could match the generation then there would be cost benefits for tenants and carbon benefits for the dwelling, otherwise it is just zero carbon generation for the grid. Currently grid displaced energy is assumed to be 50% of the potential generation.

**4.12** – EAS does not agree with the way that this is presented. We should be encouraging people to reduce energy wastage. A level of energy consumption is required in order to maintain a healthy living environment - EAS would not want to support a policy of energy rationing in order to meet energy reduction targets. EAS agrees with the principle that energy efficiency advice should be part of the social contract with the provision of housing under the secure tenancy agreement. All tenants should be educated in how to 'operate' the home they live in most efficiently and reduce energy wastage.

Developing the standard

### **General Comments**

**5.17** - There are some quite significant differences between how version 9.90 and version 9.91 determine space heating requirements. Peer review **must** be carried out using 9.91. There are also some very significant differences in the way that fabric improvements can be modelled between 9.90 and 9.91.

With regard to modelling dwelling types, why has no double glazing been specified for the SHQS 2015? EAS would suggest that the majority of homes in the social rented sector have this measure installed.

Why has the SHQS 2015 not been modelled with a condensing boiler? Since 2007 all new and replacement boilers must be condensing boilers.

Proposed energy efficiency standard for social housing

### **General Comments**

**6.1** – This should reflect upon the affordability in terms of running costs for the tenants.

#### Proposed energy efficiency standard

Whilst the baseline for a proposed energy efficiency standard can be fixed at 1990 levels, the impact of improvements should be remodelled at each revision of SAP (Table 12) which will change the projected saving each time that this is done. Carbon emissions from fossil fuels are not fixed to 2020 or 2050. It has changed from 1990 and will continue to change through to 2030 where it is expected that a decarbonised grid supply will be in effect.

NB - the embodied carbon in the biomass supply chain is also likely to vary upwards as more and more systems in the country rely on this finite resource, thus processing

and distribution energy will become a greater factor in a more saturated biomass supply chain.

**6.3** – Biomass is not the only fuel choice where the cost and carbon impacts can be different, B30K (a 30% mix of kerosene and bio-diesel), switching from LPG to mains gas. Leaving storage heating as is and watching as the carbon emissions associated with using electricity drop between now and 2030.

**6.4** – If this means that other measures (fabric) must accompany low/zero carbon fuel switching measures, then this is a reasonable safeguard.

**6.10.1** – “Landlords are restricted in how they meet the standard.”

EAS agrees with this in relation to the proposal at 6.10.1, and for the same reason this is why we are opposed to the proposal in Q17.

“Would require substantial detailed development of the technical specification of a standard and equivalent guidance for each dwelling type.”

EAS proposes in the Sustainable Housing Strategy that - "Cavity constructions have a well understood and frequently applied improvement measure. Other types of home need to be catalogued and ways of improving these types of property devised. A national register of property types and improvements needs to be created and widely distributed. Work was completed before on describing the range of non-traditional properties in Scotland, this work needs to be taken further and standardised improvements to the most popular property types devised by a national technical panel."

For that reason EAS very much sees the establishment of a national refurbishment standard for known non-traditional properties as a key element of a strategy to realise a step change in our approach to improving the energy efficiency of the build environment.

**6.10.2** - This approach would preclude the need to constantly re-evaluate the threshold each time there is a change in the assessment procedure. It will also allow a robust method for applying better adaptation to the methodology in subsequent revisions. It is not acceptable to dismiss this under the premise that the method would be too complex or that it would somehow be highly complex to regulate. By its very nature it should be no more complex to regulate than the existing SHQS in that the onus is on the landlord to maintain records of achievement towards a wide range of housing quality standards, not just energy efficiency.

The process of providing EPCs for social housing is well understood and many organisations that manage housing have their own in-house expertise in this area. It should not be considered out with the scope of housing bodies to be able to set thresholds based upon a universally understood percentage reduction. There is a large repetition in social housing stock which would serve to make the process easier to manage and reduce the number of model thresholds required to cover the stock. This also makes the process of meeting that standard transparent and open to scrutiny.

Financial implications –costs and funding sources

## **General Comments**

None

Measuring and monitoring progress of the energy efficiency standard

## **General Comments**

**8.10** - This does not account for any on-going annual protocol scheme registration fees, administration fees, CPD costs and specific indemnity fees.

**8.11** - As an organisation providing training support to a wide range of social landlords we can confirm that even RSLs with only a few hundred properties consider in-house expertise to be of value. In other cases a larger RSL may provide technical support to other associated RSLs through partnership agreements.

Timescales for the Energy Efficiency Standard

## **General Comments**

None