



SOCIAL HOUSING NET ZERO STANDARD

Changeworks' Consultation Response to the Scottish Government
March 2024

CHANGEWORKS.

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- Yes
- No

Changeworks

Changeworks has extensive experience in analysis of large housing stock against the EESSH2 standards, proposing measures which comply with the standard and working with clients to deliver these measures as fully realised projects, both helping tenants and working towards decarbonisation of homes. We are currently adapting existing systems to offer the same service with the SHNZS consultation document figures. Changeworks also carries out monitoring and impact evaluation for the Area-Based Schemes and Social Housing Net Zero Heat Fund projects delivered by our Project Management team.

SHNZS

Supporting Householders: Affordability and Capability

Amendments should be made to ensure that Scotland follows an equitable transition to decarbonisation. For targets to be met, both the installations need to comply with the regulations and the end-use costs of fuel must be **affordable for tenants**. To install the appropriate measures to achieve this target, householders must be supported to build **capability**. An enabling support framework will be required, and advice services should offer support with understanding how to use new heating systems and offer handholding where needed.

An Opportunity to Tackle Fuel Poverty

It remains critical that we ensure a just transition and maximise the opportunities for reducing fuel poverty as we collectively tackle the climate emergency. Delivery must be consistent with existing Scottish Government commitments, particularly as set out in the Fuel Poverty Act¹. Scottish homes are some of the least energy efficient in Europe and the high rates of fuel poverty should be considered a crisis.

Fuel poverty reduction and decarbonisation are intrinsically linked. Relying on oil and gas for home heating leads to higher, unaffordable energy bills and produces almost 13% of Scotland's carbon emissions². The end-use fuel costs should be affordable for tenants, and a primary goal of the standard should be delivering the targets set out in the Fuel Poverty Act¹. Fuel poverty levels have risen drastically across Scotland, with the Scottish Government reporting that 48% of social housing tenants were in fuel poverty in 2022³.

Question 1: To what extent do you support the use of a fabric efficiency rating, based on heat demand, in the SHNZS?

¹ [Fuel Poverty \(Targets, Definition and Strategy\) \(Scotland\) Act 2019 \(legislation.gov.uk\)](#)

² [Chapter 2 A 2045 Pathway for Scotland's Homes and Buildings - Heat in Buildings Strategy - achieving net zero emissions in Scotland's buildings - gov.scot \(www.gov.scot\)](#)

³ [Key Findings Summary - Scottish House Condition Survey: 2022 Key Findings - gov.scot \(www.gov.scot\)](#)

Strongly Support

Changeworks welcomes the use of a fabric efficiency rating, based on heat demand, in the SHNZS.

- **This rating has the potential to vastly improve upon the current SAP calculations**, which are largely based upon fuel costs, rather than reduced fuel demand. Previous targets set using Energy Performance Certificate (EPC) calculations and targets have not adequately considered decarbonisation as a goal that can go hand in hand with the energy efficiency of a property, or as a key focus point. The approach taken to calculate EPCs is inconsistent, and too often existing EPC reports are inaccurate. In delivering Area-Based Schemes, this has presented challenges for quality assurance (for example, where a pre-installation assessors 'assume' insulation, there is no recording mechanism for how this conclusion has been arrived at, opening the process to inconsistencies, bias and unintentional manipulation when measuring the impact of installations). Often, inaccuracies lead to discrepancies between the energy efficiency ratings of properties, and the lived experience of tenants.
- This new standard proposed has the potential to **overcome the challenges presented by relying on EPCs**, and to **incentivise reductions in heat loss**, which is a beneficial metric, alongside the proposals to install clean heating in all properties by 2040. We support the proposal, as long as air **quality and ventilation standards and regulatory processes** are also established.
- **The fabric efficiency rating, based on heat demand, is only valuable if the accuracy of calculations is improved.** Presently relied upon SAP calculations produce values with high levels of variance from alternative calculations (which also incorporate detailed modelling and air pressure monitoring in properties). **Clarification is needed on how thermal bridging, ventilation losses, and leakage losses are incorporated into calculations** going forward. This needs to be considered in modelling, as Changeworks has identified that these losses can cause significant increases in the actual heat demand of properties. If calculations adequately incorporate these aspects, the fabric efficiency rating proposed offers an opportunity to reduce the performance gap between calculated values and actual space heating demand.
- A fabric efficiency rating based on heat demand should **take into consideration increased self-rationing behaviours**⁴ which have impacts on health and wellbeing for tenants. While reduced energy consumption and lower bills can be an indicator of space heating demand, consideration needs to be given to the ways in which restricted heating behaviours may impact upon this metric as a measurement / monitoring strategy.
- **A primary goal of the standard should be to reduce fuel poverty levels as social housing tenants are at higher risk of fuel poverty** than any other tenure types, and the Scottish Government reported that 48% of social housing tenants were in fuel poverty in 2022³. When monitoring the impact of projects delivering the standard, self-rationing behaviours need to be considered. Many properties are likely to appear to conform to the standard as a result, regardless of true space heating demand, due to householder behaviours.

⁴ [Housing associations report alarming increase in tenant fuel debt and energy rationing - The Scottish Federation of Housing Associations Limited \(sfha.co.uk\)](https://www.sfnha.co.uk)

Question 2: Of the options presented for the fabric efficiency rating, which one do you support for the new SHNZS?

Option 1

We recommend that Option 1 be followed.

- Whilst we acknowledge the drawback – that all social housing may only aim for the lower end of the rating – the risks presented by Option 2 are greater. **If Option 2 were to be followed, this unintentionally creates a 2-step phased approach**, which does not encourage a ‘whole building’ approach to retrofit⁵ and may unintentionally see the fragmented nature of current Area-Based Schemes repeated. (Instances occur, for example, where external wall insulation is carried out, but urgent repairs, essential window and draft-proofing measures are not installed). It is more costly and disruptive to carry out the same measures in the same properties in 2 steps over a longer period.
- **Option 1 disincentivises staggered installations and promotes a ‘whole building’ approach to retrofit.** This is more cost-efficient, has the potential to reduce adverse impacts on householders, and reduces the risk of fuel poverty after installations.
- Attention needs to be paid to the **wellbeing of tenants** throughout the process. Installing measures can be very disruptive (for example, while internal wall insulation is installed, tenants temporarily move out to alternative accommodation). Disruption should be minimised where possible, as social housing tenants are more likely to be elderly or to experience a range of vulnerabilities, such as mental and physical health challenges and disabilities⁶.

Proposed target heat demand

We support the target range for fabric efficiency proposed (71-120 kWh/m²year). The space heating demand range of 71-120 kWh/m²year is a realistic target across all social housing stock⁷. We recommend that additional options for the fabric efficiency rating should be included, which are set out under Question 3.

Consideration should be given to the complications of adopting a new metric when comparing existing housing stock with the fabric efficiency of buildings after the measures have been installed. The proportion of housing stock that already meet this new fabric efficiency rating is not yet clear through existing housing stock data. Existing EPC Extract data⁸ (which provides measurements for heat and hot water demand for Renewable Heat Incentive calculations) and Home Analytics Data¹⁰ will likely have a key role to play in modelling the present fabric

⁵ [What does Whole House Retrofit mean to me? - The Retrofit Academy](#)

⁶ [Disability and housing, UK - Office for National Statistics \(ons.gov.uk\)](#)

⁷ [A blueprint for retrofitting the UK's homes to meet the climate challenge - A policymaker's summary of the LETI Climate Emergency Retrofit Guide](#)

⁸ [BRE Client Report - Development work relating to a potential new metric for Scottish Energy Performance Certificates \(www.gov.scot\)](#)

⁹ [statistics.gov.scot : Domestic Energy Performance Certificates - Dataset to Q4 2023](#)

¹⁰ [Home Analytics housing stock data - Energy Saving Trust](#)

efficiency of stock, but **methods to align existing data with the heat demand metric** should be explored as a priority to inform planning.

Incorporating hot water demand

We do not recommend including a domestic hot water demand in targets. This may be too complex to standardise effectively. However, social housing providers should ensure that the hot water systems are efficient and that end-use costs are affordable for tenants.

- **Different occupancies and behaviours make any accurate measurement of hot water energy consumption difficult.** Actual measurement and modelling opportunities would be varied, depending on the technologies used to provide hot water in the property. If this hot water demand were to be calculated, individual differences and household size would need to be taken into account.
- **Calculations used to measure or model hot water demand would need to be re-evaluated when hot water systems are replaced due to clean heat installations.** Currently, hot water demand is not used in the calculations of RdSAP (although it is used for new build properties). Whilst there is a heat demand figure and a hot water demand figure included in the EPC itself, we do not know the details of the calculations which have been used to generate this prediction or whether calculations are standardised. Thus, it is unclear whether this would be usable data which can be converted to the calculations used in the SHNZS, which would be essential for monitoring and evaluation purposes⁸.

Question 3: Are there additional options for the fabric efficiency rating that you think should be included? If yes, please describe these here:

There are additional options for the fabric efficiency rating that should be included.

We recognise that under this proposed heat demand target, some properties that are in better condition, have had measures installed and/or are built of more energy efficient constructions, may meet the target already or require minimal measures to do so. For this reason, we recommend that **target space heating demand range should vary by construction type, scaling up ambitions for property types where this is possible.** This is paramount to meeting net zero targets.

We recommend that target ranges should be set, and clear guidance produced for each construction type, and property types with different form factors. (For example, granite bungalows versus cavity flats will have very different fabric efficiency figures and suitable measures). This approach would also be beneficial in potentially mitigating all properties for which the less ambitious target (120kWh/m²/year) is achievable.

EESHS¹¹ categorised properties into four property types (flats with an unheated communal stairway; four-in-a-block flats with exposed sides without common stairwells; detached houses; and houses that are not detached). Different subsets within each category were required for heating

¹¹ Energy Efficiency Standard for Social Housing (EESHS): guidance for social landlords (revised February 2019) - gov.scot (www.gov.scot)

fuel type. A similar approach could be taken by the SHNZS, disregarding heating type due to the clean heating requirement set out in the standard. We recommend that there is potential to vary fabric efficiency targets (and potentially timelines for meeting the standard) by taking into account aforementioned property type and construction type. The Scottish Government should produce clear implementation guidelines to social landlords for each, including a list of appropriate and suitable measures by categorisation.

Question 4: What, if any, are your views on how performance against the fabric efficiency rating should be measured?

Adequate performance monitoring is key to measuring the impacts of the standard and of the delivery projects. Both modelling and 'sample' monitoring should be used, and monitoring should be designed into the standard and the processes followed from the outset. That monitoring is meaningful and designed to facilitate improvement and adaptation is key to consumer protection and quality assurance.

Modelling

- **Using space heating demand (excluding hot water demand) to develop the model used would be an improvement to the previous SAP modelling technique⁸**, which was cost-based. The Scottish Government needs to establish consistent modelling across all projects, including households where sampling monitoring takes place; The model can should be based upon a single heating system (electric) as the fabric efficiency rating is based upon the assumption of electric heating⁸. This promotes consistency, which produces meaningful data and enables more accurate measurements of performance.
- Changeworks urges the Scottish Government to **include supplementary information contributing to heat loss in the modelling**, such as air leakage values, which are not currently incorporated into SAP calculations.
- **Occupancy differences should be incorporated into the model as an additional measurement**, to provide a more complete overview of the household's needs and behaviours and to facilitate trust in the model. Consideration needs to be given to how this would be impacted by tenancy changes, and properties being vacant for periods of time.

Monitoring a sample of properties

- Whilst Changeworks recognises that it isn't feasible to have 'actual' performance monitoring for every property, we strongly urge the Scottish Government to carry out **thorough monitoring and evaluation techniques on a sample of the properties that have both fabric measures and clean heating technologies installed** under the standard. Monitoring should take place either on representative samples of housing stock (across building types, construction technologies, and installations), or by installation project. Of the two options for monitoring and evaluation, we recommend carrying out monitoring on a representative sample of housing stock within each delivery project.
- Whilst modelling is needed and key to a standardised and meaningful measurement, **monitoring and evaluation practices are essential to collecting the data needed for**

continual improvement of the standard, fabric improvements, heating systems, and project delivery. Only through adequate monitoring can the performance gap between predicted performance and actual performance be understood and minimised.

- Monitoring practices should commence at least 6 weeks before the installation of measures to establish a baseline performance of the properties sampled. Monitoring should **incorporate a range of data collecting techniques, such as energy usage, environmental sensors (which measure CO2 levels, humidity, and temperature), and lived experiences**. This can be gathered through pre-installation and post-installation surveys. Lived experience data is key to ensuring that the projects are making a tangible difference to people's lives, reducing fuel poverty, and can supplement the technical data with necessary context for thorough evaluation, such as householder behaviours. Relying on modelling alone cannot adequately inform monitoring as this approach does not take into consideration behaviours that have an effect on energy consumption, such as family size, the amount of time spent in the property, self-rationing of fuel, and additional medical needs that impact consumption.
- Monitoring at this initial stage can be used to **improve the accuracy of current available data captured on existing EPCs, and in lieu of EPC data where absent**. The data should be used to evaluate both the accuracy of the space heat demand modelling and to incorporate embedded improvement into the standard. Key to meeting carbon reduction targets, monitoring practices should be used to assess whether decarbonisation goals are being met, inform targets, and to measure the impact of specific measures over time. Whilst 'actual' monitoring on a sample of properties is a more costly option at the initial stage than relying on modelling, thorough data and evaluation save resources over the longer term due to potential to identify problems early on.
- Actual monitoring also enables the **build-up of detailed housing stock data**, which is currently lacking, which could be used by future policymakers.
- In our experience (delivering impact evaluation projects, services and expertise to local authorities) **consideration needs to be given to who would carry out the monitoring of projects and evaluate impact on a continuous basis**. Housing officers, for example, may not have the expertise and resource to carry out this function, and would require practical support.

Question 5: What are your views, if any, on the proposal for a minimum fabric efficiency standard?

The range proposed previously (space heating demand target of 71-120 kWh/m²year) target should be set for all. However, Changeworks recommends that there should be **varied targets** set out within this range for properties with different characteristics (such as property type, and construction type). If a target range is set for each property and construction style, this should reduce the need for a minimum fabric efficiency standard and ensure that targets are both ambitious and realistic for each property.

- **If possible, all social housing properties should reach the same fabric efficiency goals.** However, we recognise that it is not realistic for every property to meet the standard; Consideration should be given to the fact that some properties and residents face significant **structural problems** (such as severe black mould, or gaps and holes in walls and windows). This needs to be taken into consideration as installing insulation in such

properties would be inadequate, or, in some cases, reduce breathability resulting in worse living conditions for residents. Some social housing stock is close to a state of disrepair.

Adequate support and opportunity needs to be provided for such properties, as the residents should not be 'left behind'.

- Changeworks supports a minimum fabric efficiency standard for properties that are unable to reach the less ambitious 120 kwh/m²year target, but the simplified list is not adequate. **Clear, detailed and digestible guidance should be provided to social landlords by the Scottish Government on which measures are suitable for which property and construction type.** The list provided should align with the (variable) fabric rating and clear, detailed and accessible guidance should be provided on approaches to retrofit. Target U-values for the main fabric measures should be provided and these should in turn be easily simulated through software such as RdSAP. For example, the measures required for the loft/roof insulation required for each property would depend on roof type (pitched roof, flat roof, room in the roof) and property type. The wall insulation required should be dependent on the property construction (such as non-traditional, solid walls, cavity walls). The type of floor insulation required should be dependent on the construction of the floor (timber, solid) and property type. All properties would benefit from adequate ventilation and air circulation, through the installation of trickle vents and mechanical extractor fans. This is essential in properties with a history of mould.
- **Where in-person surveys are necessary (in non-traditional construction properties, or those with multiple constructions) government funding should be provided to cover the costs.** The payment burden should not be left to landlords, and this may reduce compliance with the requirements.
- The simplistic 'list of measures' approach proposed, recommending that measures are installed where feasible and reasonable creates a **risk of landlords taking advantage of loopholes.** By opening up the minimum fabric efficiency requirements to high levels of discretion, the standard will not be followed evenly, which is unfair to those that do meet the standard and will result in missing carbon reduction targets. By factoring in property archetype, the standard is better positioned to establish an appropriate level of ambition, and reduces loopholes.
- **Loopholes to meeting the standard also place residents at risk of (deeper) fuel poverty.** Minimising fuel poverty should be a key goal of the standard, and the legislation poses and opportunity to take meaningful action for residents. If loopholes are presented to landlords through a simplistic 'list of measures' approach, and landlords argue that the fabric measures suggested are not feasible or affordable, the standard will push residents into fuel poverty. This is a significant weakness of the proposals that needs to be addressed. Residents currently using cheaper fossil fuel systems (such as gas and oil) will likely find that their bills are significantly higher and unmanageable when they transition to electric heating unless the fabric efficiency of their homes is improved.
- If landlords can follow loopholes to install minimal (or no) measures or the measures install measures that are not appropriate for the property, **residents may increase self-rationing behaviours, which impact upon comfort, mental and physical health**¹². If tenants were no longer be able to access other government property investment or funding schemes (despite being pushed into fuel poverty) due to the property officially meeting the standard with minimal improvements, this would be an unacceptable outcome. The standard must be

¹² [Health effects of damp and mould - Understanding and addressing the health risks of damp and mould in the home \(gov.co.uk\)](#)

consistent with existing Scottish Government commitments, particularly as set out in the Fuel Poverty Act¹³.

- **Adequate monitoring techniques (including in-person inspections, energy usage, environmental sensors and householder surveys) should be utilised on a sample of properties**, mirroring the approach to area-based scheme monitoring, for quality assurance purposes and householder protection. Properties required to meet the minimum standard only should not be exempt from monitoring, and monitoring and evaluation processes need to be adequate. Monitoring of ventilation and air quality should be undertaken in all properties that experience or with past experience of mould.

Question 6: What, if any, are your views on whether homes should not be relet if they cannot meet a minimum fabric efficiency standard?

We encourage the Scottish Government to adapt the standard where necessary, rather than to either exempt properties or regulate that they cannot be relet. A case-by-case approach should be taken to identify and resolve such instances.

Consideration needs to be given to the fact that there is insufficient social housing. It is likely that a ban on reletting homes that cannot meet the minimum fabric efficiency standard will result in sale, potentially resulting in evictions. Selling the property in the cases where the standard truly cannot be met does not adequately reduce carbon emissions or reduce fuel poverty, as such properties will likely be relet to private tenants. This should not be incentivised. Having said this, properties that are in severe states of disrepair and the living circumstances impact negatively on tenant health, quality of life and/or life expectancy, the property should not be relet anyway or should be renovated to an acceptable standard (in line with the Scottish Housing Quality Standard¹⁴).

Clarity should be provided on how the consultation defines 'cannot' meet a minimum fabric efficiency standard. If a social landlord cannot meet the standard for financial reasons, rather than technical obstacles, **sufficient funding mechanisms need to be put in place** to ensure that this does not result in property not being relet. Funding should be available for measures that are particularly costly, such as insulation for hard-to-treat walls and upgrading glazing on listed buildings.

In some cases, measures require decants or vacant properties, such as internal wall insulation, floor insulation, and mixed tenure properties needing communal measures such as wall insulation and flat roof insulation. **Provisions should be made to ensure that tenants are provided with adequate and suitable accommodation for the duration of the work.**

Question 7: What, if any, are your views on whether ventilation and monitoring strategies should be required where MVHR is not installed?

¹³ [Fuel Poverty \(Targets, Definition and Strategy\) \(Scotland\) Act 2019 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

¹⁴ [Improving housing standards - Social housing - gov.scot \(www.gov.scot\)](https://www.gov.scot)

Monitoring (using environmental sensors producing air quality, humidity and temperature data) should be carried out on a representative sample of property archetypes and measures regardless of whether MVHR has been installed.

- This should be **supplemented by survey data** from a representative proportion of householders (in the same properties) as this can inform analysts of behaviours which impact upon ventilation practices. Energy usage can be explained and accounted for, such as household management behaviours (such as blocking trickle vents to prevent heat loss). This combination of monitoring practices can **establish opportunities for progress**. At the very least, financial support should be in place to ensure monitoring takes place, and that **clear guidance** is followed. Ideally, this should be conducted by an **expert independent body or organisation**, as social landlords may be incentivised to under report problems if this will result in further financial commitments.
- **Properties both with and without MVHR installations require monitoring.** It is essential that adequate data is collected to assess whether any MVHR technologies are working as expected, and to identify other options that are suitable for properties without MVHR or where MVHR is inadequate.
- **It should be noted that MVHR is not the only strategy available.** More detailed guidance should be provided to landlords which reflects the ventilation strategy appropriate to air leakage rates in the property. Social landlords should understand that recovery units only work efficiently if the properties retain heat within the building. Otherwise, there will be no heat to recover and the installation will cost significantly more than dMEV while providing limited additional benefit. If MVHR is installed and does not work, and no monitoring strategies are in place to identify properties where this is a real risk, householders may experience both adverse health and fuel poverty impacts. This would be unacceptable.
- **Consideration needs to be given to how the installation of MVHR or other technologies impact upon fabric efficiency ratings.** Under (current) EPCs, mechanical ventilation significantly impacts upon the energy efficiency rating, as there is an assumption that overall energy usage rises. This needs to be taken into account when designing modelling calculations.

Question 8: To what extent do you support the requirement to install a clean heating system by 2045?

Somewhat Support

Changeworks supports the requirement to install a clean heating system by the end of **2045**, to align with the proposals set out in the Heat in Buildings Bill Consultation¹⁵. However, we recommend that interim targets be proposed to social landlords to relieve pressure on the supply chain.

End-use cost considerations

¹⁵ [Delivering net zero for Scotland's buildings - Heat in Buildings Bill: consultation - gov.scot \(www.gov.scot\)](https://www.gov.scot/consultations/hib/hib_consultation)

Full assessments into capital expenditure and operational expenditure should be carried out to determine install and running costs. There are more variables for capital and operation expenditure when considering electric heating systems than gas boilers, and social landlords should not be incentivised to install cheaper systems (such as panel heaters and inefficient storage heaters) which will drastically increase tenants' bills. **The standard should not push people into fuel poverty, and inefficient heating systems with high running costs will do so.** The most cost effective measures that do not significantly increase costs to tenants can be established using calculations. For example, the Scottish Government should calculate how much does it costs to reduce the fabric efficiency (kwh/m²year) demand by a scale of 10 points, to determine the most cost efficient systems.

Guidance for social landlords

Resources and advice should be provided to social landlords to facilitate informed decision making. The Scottish Government should consider providing a clear list of suitable (and acceptable) heating systems that would meet the standard, incorporating energy efficiency requirements, tailored to specific property and construction types and availability of suitable space (for air source heat pumps, for example).

Question 9: Of the options presented for the interim targets, which one do you support for the SHNZS?

Option 1

We recommend that Option 1 is adopted by the standard. **Option 1 could enable an approach whereby installations are carried out by projects based on construction type and stage of retrofit, as opposed to by current heating system.** We recommend that a list of suitable measures for fabric improvements and 'clean' heating systems be provided to social landlords to ensure that a whole building approach is taken where possible, and to minimise the risk of inappropriate heating systems being installed for the property.

We urge the Scottish Government to stagger the targets more evenly (for example, 20% by 2030, rather than 10%) to ensure that progress isn't unnecessarily delayed and to decrease pressure on the supply chain between 2030 and 2040. We recommend the Scottish Government should legislate that mains gas connections will be cut off at the end of 2045 to incentivise adhering to the staggered targets.

We do not recommend Option 2 as this approach would add unfair pressure to off gas areas and may result in certain landlords perceiving unfair treatment. Social landlords with housing stock in rural areas (which are more likely to be off-gas) would need to adhere to a tighter timeline than urban based housing. Option 1 offers more choice and flexibility to social landlords, which is more likely to ensure compliance. Upgrades could be aligned with planned renovations, scheduled heating replacement (of older gas boilers) or be carried out when a heating system breaks down. Option 1 may also encourage the development of a more structured, long-term planning and investment, and cooperation between neighbouring landlords.

Under Option 2, the consultation acknowledges these properties may need extra time. However, requiring properties that will likely be permitted extra time to decarbonise before a certain date will not take away supply chain pressure from the backstop date if extensions are widespread.

Another risk of having a later target date for on-gas properties is **that social landlords with entirely on-gas should not be incentivised to delay action**. The majority vast majority (80%) of properties in Scotland are on the gas grid, so a focus on off-gas would likely pause the transition for on-gas areas and properties, which is not sufficient for meeting climate mitigation goals. Carbon savings in the interim would be higher for properties that are easier to treat (on-gas properties) if this was done sooner. This would also allow for monitoring and evaluation of the standard to take place while installations take place in properties that do not face additional heating challenges, allowing for the amendments or changes in government support for these properties if necessary.

Furthermore, rural areas and off-gas properties are generally at risk of higher levels of fuel poverty¹⁶. Whilst there is a case that they should be treated as a priority, fuel poverty is largely driven by low levels of energy efficiency in older housing stock. **By prioritising electric heating in these properties, the standard may exacerbate fuel poverty unless fabric improvements have already been successfully installed at the point of clean heating installation**. Whilst we recognise that there may be instances where the heating system is replaced before the fabric efficiency targets are reached, this should not be incentivised.

Regardless of the option followed, **advance notice of possible exemptions where properties sit within a heat network zone should be clearly established at the project planning phase**. Not doing so could result in (more costly) investment in alternative clean heating systems, which would reduce trust between social landlords and Scottish Government, and waste resources.

Question 10: What are your views on whether neighbouring landlords could work together to reach such a target on a regional basis?

Neighbouring landlords certainly can and should work together to reach targets.

Changeworks works alongside a number of social landlords that are already actively communicating about current area-based schemes and other net zero projects, especially in cases where councils have neighbouring boundaries. Local authorities often work with housing associations where government schemes can deliver projects to both types of housing stock within a given region.

- **We recommend that contractors work together to develop a shared procurement strategy.** This has the potential to improve the quality of the fabric efficiency and clean heating installations and to reduce the capital costs. Neighbouring landlords could split both design and associated delivery costs. We urge the Scottish government that procurement strategies should be produced based on property types to reduce the risk of inappropriate installations for certain building types and construction materials.

¹⁶ [A-Perfect-Storm-Fuel-Poverty-in-Rural-Scotland.pdf \(changeworks.org.uk\)](#)

- Consideration should be given by the Scottish Government, however, that **resource and time will be required to achieve coordination and governance structures** across multiple organisations. The Local Heat and Energy Efficiency Strategies provide an opportunity for local authorities to take a leading role in progressing collaboration between social landlords. Additional support would need to be provided to council to enable this at a much larger delivery scale.
- **Consideration should also be given to communicating the benefits of working together to reach targets.** Greater collaboration can be achieved if there is a shared understanding that working together can both accelerate change and reduce prices for social landlords.

Question 11: Are there any additional options for interim targets that you think should be included? If yes, please describe these here.

If the Scottish Government sets milestones to require a proportion of each landlord's housing stock to install clean heating systems installed by target dates, **we recommend that the target should be set at 20% by 2030. This ambition is more likely to encourage immediate action**, which is essential in both meeting carbon reduction targets and to monitor and evaluate delivery projects, enabling continuous improvement.

Interim targets are inbedded in Option 1 presented. **Interim targets for fabric improvements should also be in place**, and compliment the approach taken to clean heating requirements to facilitate a fabric first, 'whole building' approach where possible.

We recommend that the Scottish Government **should accelerate heat network zone identification and development, so that zones can be communicated with certainty** to social landlords as soon as the standard comes into affect. If a heat network is confirmed for a property area, and this is the preferred option for clean heating, social landlords should be exempt from the interim targets. However, whether or not a social landlord connects housing stock to a heat network should be at the discreiton of the landlord. Accelerating the development and confirmation of heat networks is needed to provide landlords with certainty.

Question 12: To what extent do you support the requirement for mandatory connections to heat networks under certain circumstances?

Somewhat Support

Where heat networks are available, mandatory connections would be supported. However, the circumstances for mandatory connection are unclear. Changeworks recommends that mandatory connections should not take place in cases where social landlords have already installed an alternative clean heating system in one or more of the properties. Heat connections should not be mandated if the reason for the mandate is noncompliance due to financial barriers as adequate funding support mechanisms should be in place in such instances. Where heat connections do not result in property damage or high costs than alternative recommended heating systems, mandatory connections could be carried out under certain circumstances.

Generally, the Scottish Government should give the social landlords the ability to install the clean heating system of choice, as long as this meets the recommendations for the property/construction type, and detailed comparisons of capital and expenditure costs have been carried out in line with regulations. **Exceptions should be made for properties identified as key anchor loads.**

Consumer protection

The governance structures, maintenance processes and operation of heat networks in Scotland are not yet established. This would need to be accelerated as there are concerns about how long-term energy costs would be regulated, and the contracts that social landlords could sign up to. The government should carry out a rigorous review process to guarantee consumer protection before any mandatory connections take place, regardless of the circumstances.

Mixed-tenure properties

Consideration should be given to instances where there are mixed tenure properties. If the social landlord was the majority owner of a block of flats, for example, and decided to connect to a heat network but the homeowners objected, mandatory connections could be explored once consumer protection can be guaranteed.

Question 13: To what extent do you support the need for landlords to have an element of discretion to ensure measures are cost effective and in the best interest of tenants?

Somewhat Support

Changeworks agrees that landlords should have an element of discretion to ensure measures are cost effective and in the best interest of tenants, as long as clear regulatory guidance is provided by the governments about the heating systems and fabric measures are available and appropriate for the property (by construction and property type), and this guidance is adhered to.

- **'Clean heating' systems need to be clearly defined.** We recommend that heat network connections, individual/shared heat pumps and modern storage heaters with high energy efficiency ratings are appropriate. Older or inefficient storage heaters and panels heaters are not appropriate, for example.
- Beyond the guidance, and the potential for mandatory heat connections, Changeworks does not recommend that landlords can should have a level of discretion that enables 'opting out' of the requirements due to unwillingness or financial restrictions. **Funding support should be made available where needed for compliance**, and the standard can be adapted when compliance is genuinely not feasible (which can be determined by an in-person survey of the property).

- **Support may also be needed for resource, delivery and upskilling.** However, the support provided should not be an element of discretion if this breaches the guidance. This would be inequitable, unfairly impacting smaller social landlords, and tenants would be more likely to remain in fuel poverty, uncomfortable homes, and 'left behind' from the transition.
- Similarly, if social landlords use an element of discretion to create loopholes, this would be unfair to those which comply. Furthermore, this places tenants at risk of being pushed into **fuel poverty** by the standard if fabric improvements are not adequately carried out (due to inappropriate measures and poor-quality installations) or inefficient heating systems are installed. The possibility of loopholes would likely render the standard redundant, which would result in Scotland missing the net zero target. If loopholes were found in order to 'meet' the standard without carrying out adequate fabric improvements, the grid would not likely be capable of supporting the clean heating transition.

Question 14 - What, if any, are your views on whether targets should be varied by guidance from the Scottish Government in specific circumstances?

The guidance should only be varied by the guidance from the Scottish Government on a case-by-case basis, at the Scottish Government's discretion.

- **Explicit guidance should be provided for mixed-tenure blocks**, where communal measures such as wall insulation, and flat roof insulation may be challenging across several tenures.
- Guidance and processes should be established to support the installation of measures that require decants or the property to be void (such as internal wall insulation and floor insulation).
- If the government adopts varied fabric efficiency targets depending on construction and property type, supplemented with the provision of clear guidance on appropriate fabric measures and heating systems by property and construction type, the need for variance from government guidance will be reduced. In extreme or unusual cases, a case-by-case approach should be taken. However, there should be adequate funding in place to meet the costs if financing the work is a genuine barrier, and variance shouldn't be permitted at the landlord's discretion in lieu of supportive instruments.
- **Consideration should be given to how funding will be provided for measures that are costly**, such as insulating hard-to-treat walls, upgrading glazing on listed buildings, and floor insulation.
- If it can be proven that all key measures have been installed where feasible and the property is in liveable condition, then an adapted standard could be followed, at the Scottish Government's discretion. **Allowances and discretion should not be written into the legislation, to avoid the exploitation of loopholes.**

Question 15 - To what extent do you agree that the new SHNZS should apply to mixed tenure properties?

Strongly Support

It is essential that **people living in mixed tenure buildings (irrespective of tenure) are not left behind in the transition to warm, healthy, clean heat homes**. Where a social housing property is located in a mixed tenure block, this should still be governed by the new SHNZS.

Consideration needs to be given to cases where the social landlord is not the majority owner. It should not be the responsibility of the social landlords to engage with the other property owners and incentivise upgrades. **A separate householder engagement and funding stream for mixed tenure properties** should be considered to ensure a wholistic retrofit approached is achieved in these properties. Carrying out certain measures (such as wall insulation) would be ineffective in a single flat within a building. Adopting a whole building approach will be challenging in some cases, and consideration should be given to how the property owners and private landlords will pay for the measures required. Risks for householders may be present, such as debt, loss of home, property damage, energy bill changes and social impacts upon the neighbourhood.

Extensions may be appropriate in these cases due to the additional complexity to meeting the standard. However, a staggered approach to implementing the measures should not be promoted, and the government should communicate the benefits of a 'whole building' approach for measures such as wall insulation and heating system change (such as increased efficiency, financial savings and reduced levels of disruption). Developing a separate funding stream can better enable and promote a whole building retrofit approach.

The Scottish Government should ensure that local authorities are sufficiently resourced to be able to develop and deliver robust LHEES as these will be key to ensuring delivery of clean heating (via heat networks) to most people in mixed tenure blocks.

In addition, early action on taking forward recommendations from the Tenements Short Life Working Group is essential¹⁷. In particular, the following should be prioritised:

- Amendment of the Tenements Act to support energy efficiency and zero emissions heat commons works;
- The Scottish Law Commission's work on compulsory owners' associations;
- Building on the other recommendations of the Scottish Parliamentary Working Group on Tenement Maintenance in relation to five-yearly inspections and building reserve funds.

¹⁷ [Tenements Short Life Working Group – energy efficiency and zero emissions heating: final report - gov.scot \(www.gov.scot\)](https://www.gov.scot/resources/documents/2023/04/Tenements_Short_Life_Working_Group_-_energy_efficiency_and_zero_emissions_heating_final_report.pdf)

Lessons should be learned from landlords that have experience of delivering mixed tenure projects, such as City of Edinburgh Council's Mixed Tenure Improvement Service¹⁸.

Question 16 - Do you agree that for some blocks where the local authority or RSL is not a sole or majority owner, then a phased approach to retrofit work should be undertaken?

Somewhat Support

A phasing approach will need to be taken in some instances, but Changeworks urges that this is a less than adequate approach.

- **A whole building approach should be taken for the measures to be effective, and represents best value for money to all involved.** This would both save time and resources of delivery organisations, meaning that more projects can be delivered overall, increasing both pace and scale.
- A risk of taking a phased approach to installing measures is that the standard (and associated carbon reductions) will not be met in the interim, only upon completion of all projects.
- **Phasing may make sense in some circumstances**, such as buildings that have recently had EESSH installations, as it may not make financial sense to replace them and would cause high levels of disruption to tenants.

Question 17: To what extent do you agree that the new SHNZS should apply to Gypsy/traveller sites?

Somewhat Support

In principle, **Changeworks agrees that the standard should apply to gypsy/traveller sites**, as everyone should be included for a just transition¹⁹.

However, the construction and conditions of the amenity blocks (which are often unheated at present) would likely need improvements before installing any heating systems. Heat loss can be very high in such blocks and installing electric heating would likely exacerbate risks of fuel poverty. The Scottish government should consider how the standard can be applied, without worsening outcomes for residents.

¹⁸ [Mixed tenure improvement service - Repairing your neighbourhood – The City of Edinburgh Council](#)

¹⁹ [Just transition - Climate change - gov.scot \(www.gov.scot\)](#)

Question 18: What are your views on the timetable for introducing the new SHNZS?

The timetable for introducing the new SHNZS in 2025 is both reasonable and necessary. As with the Heat in Buildings proposals, the earlier homeowners, landlords and supply chains have sight of requirements, the better.

- **Early conclusion of the EPC reform is also critical to providing clarity.**
- **Certainty must be provided early on to allow for adequate investment in the supply chain and the grid.** Heat pump manufacturing needs to accelerate rapidly, and adequate time to plan (both investment and skills) is essential to securing private sector investment. This is essential for the SHNZS and the Heat in Buildings Bill to be delivered successfully. Additional support from government to enable this may be required.
- **Delays on providing certainty to registered social landlords has impacted upon tenants experiencing fuel poverty and inadequate living conditions.** The social housing sector is facing a number of challenges at the moment, with increasing demands on resources. The Scottish Government must consider the impact of different policies on the ability of social landlords to deliver the SHNZS, whilst ensuring rents remain affordable for tenants.

Changeworks has been leading the way in delivering high impact solutions for low-carbon living for over 35 years.

Get in touch with the team to discuss how we can help you.

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