

Consultation on a Social Housing Net Zero Standard in Scotland

Island Communities Impact Assessment

November 2023

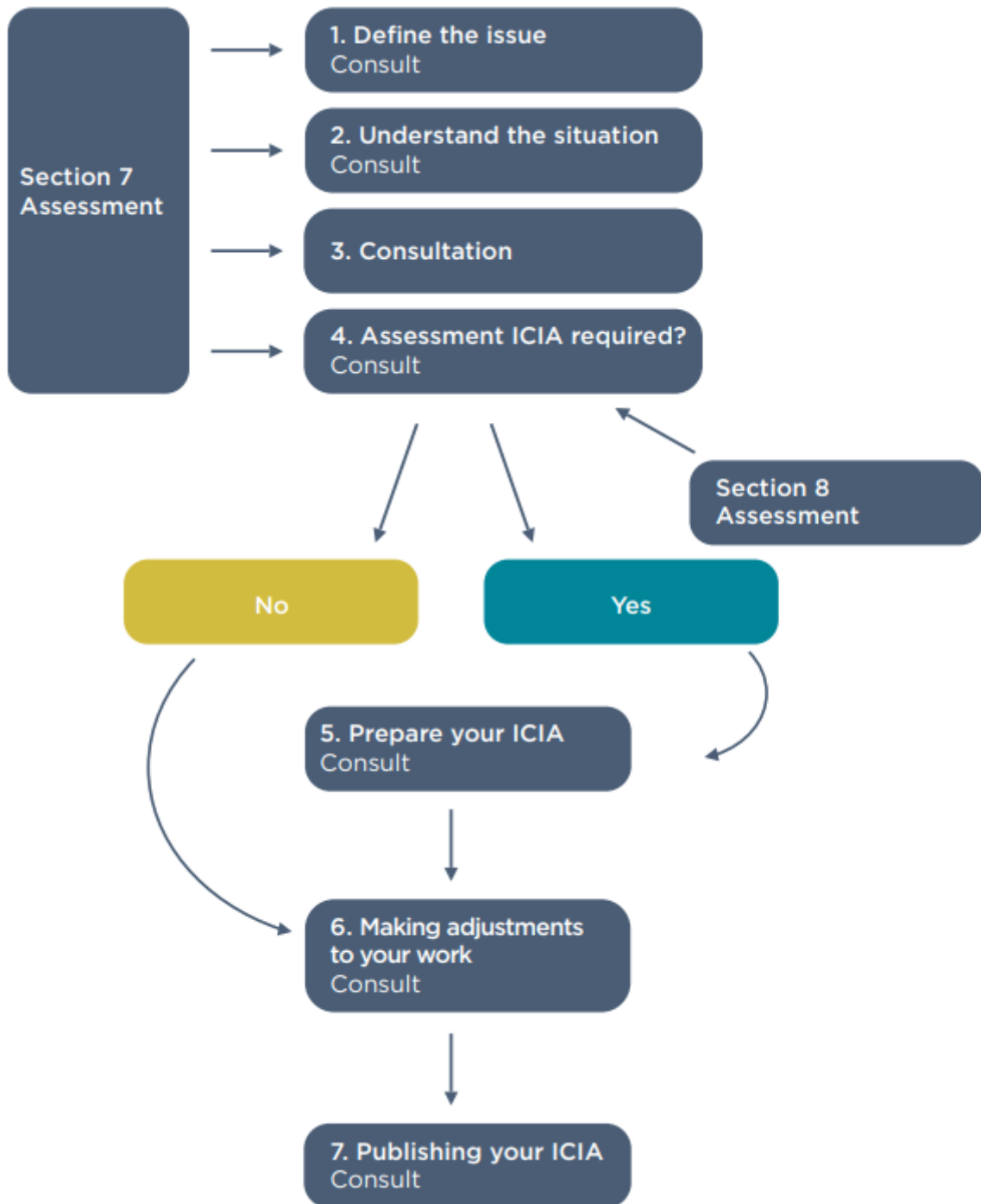
Introduction

1. This is an Islands Communities Impact Assessment for the proposals for a new Social Housing Net Zero Standard in Scotland consultation ('The Consultation').
2. Under the Islands (Scotland) Act 2018¹, Scottish Ministers and other relevant authorities, including a number of public authorities, must complete an Island Communities Impact Assessment (ICIA) and take account of island issues when developing any new policy, strategy or service.
3. Section 13 of the 2018 Act states that an ICIA must:
 - describe the likely significantly different effect of the new standard
 - assess the extent to which the Scottish Ministers consider that the new standard can be developed in such a manner as to improve or mitigate, for island communities, the outcomes resulting from the new standard; and
 - set out the financial implications of steps taken under this subsection to mitigate, for island communities, the outcomes resulting from the new standard.
4. The Islands (Scotland) Act 2018 defines an island community as a community that consists of two or more individuals, all of whom permanently inhabit an island (whether or not the same island), and is based on common interest, identity or geography (including in relation to any uninhabited islands whose natural environment and terrestrial, marine and associated ecosystems contribute to the natural or cultural heritage or economy of an inhabited island).
5. Island rurality can exacerbate inequality already experienced on account of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation. These characteristics are known as "protected characteristics" as defined in the Equality Act 2010. Issues which impact on all islanders to some extent, such as those relating to access to transport or adequate housing for example, may be acutely felt by some groups more than others and require targeted measures in order to redress the inequality experienced. We are publishing a separate Equalities Impact Assessment.
6. The Island Communities Impact Assessments: Guidance And Toolkit² sets out an approach for undertaking an ICIA (see diagram below). There is an initial screening stage ('Section 7 assessment'), followed by an additional impact assessment stage ('Section 8 assessment') if required following screening. The third stage is the publication of relevant documents. This document constitutes the ICIA and incorporates

¹ [Islands \(Scotland\) Act 2018](#), the Scottish Parliament, 30 May 2018.

² [Island Communities Impact Assessments: guidance and toolkit](#), the Scottish Government, 23 December 2020.

screening (A) and impact assessment (B), and it completes the process by being published.



A) Screening (Section 7 Assessment)

Step One – Develop a clear understanding of your objectives

7. Section 7 of the 2018 Act states that a relevant authority must have regard to island communities in carrying out its functions. Guidance states that first step should be to develop a clear understanding of the objectives and intended outcomes of a strategy and then, more specifically, **identify if there are explicit island needs or any potential direct or indirect impacts for island communities.**

Proposals for a new Social Housing Net Zero Standard consultation - Policy Aim

8. The aim of the policy is to review the post-2020 milestones of the Energy Efficiency Standard for Social Housing (EESH2) to ensure they are aligned with statutory net zero targets, and ensure a just transition.³
9. Net zero target: section A1 of the Climate Change (Scotland) Act 2009 requires that the net Scottish emissions account is at least 100% lower than the 1990 baseline by 2045.⁴
10. Just transition: this means, as a minimum, that the costs of working towards meeting climate targets does not fall disproportionately on tenants, through higher rents or fuel costs, but also that we do not accept leaving some people in housing that is hard to heat.

Summary of proposal

11. The proposal seeks to introduce a new Social Housing Net Zero Standard. This will replace the post-2020 Energy Efficiency Standard for Social Housing (EESH2). Current proposals, that have been co-developed with social housing stakeholders involved in the review of EESH2, are as follows:
 - A fabric efficiency rating (which focuses on the amount of energy for heat consumed by a property) measured in kWh/m²/year.
 - A requirement to replace polluting heating systems⁵ with a clean heating system alternative by a backstop date of 2045.
 - Ancillary elements of the proposed standard include measures to ensure air quality, variation of the standard in specific cases, and restrictions on re-letting property that cannot be brought up to standard.

Island needs or potential impacts for island communities

12. The proposals included in this consultation will affect social housing tenants and social landlords in Island Communities. The policy aim is to set a standard which supports net zero in line with the statutory target for 2045, and also to ensure a just transition.

³ [Energy Efficiency Standard for Social Housing Review Group: terms of reference](#)

⁴ [Climate Change \(Scotland\) Act 2009 - Section 1A](#)

⁵ 'Polluting heating systems' refer to heating systems which burn fossil fuels like gas boilers, oil boilers and liquid petroleum gas (LPG) boilers and bioenergy heating systems (e.g. those which use wood chips or other types of biomass or bioliquid (such as hydrotreated vegetable oil) also produce emissions when used to heat our homes – although there will be circumstances where these remain permissible).

13. Our island communities are not connected to the mains gas network. Islands can be connected at the periphery of electricity networks, whilst a small number of our island communities are also not connected to electricity grids and face unique challenges in their efforts to reduce emissions.
14. The potential for reduced supply chain availability, added transport requirements, limited accommodation for contractors and potential weather disruptions means that clean heating systems can cost more to install in our rural and island communities.
15. The National Islands Plan⁶ acknowledges that extreme fuel poverty rates are higher for most of the island authorities. We also know that extreme fuel poverty can be particularly difficult to eliminate in island communities where building types are harder to improve to the required energy efficiency standard and opportunities to reduce fuel costs are more limited. In addition, traditionally constructed buildings and energy efficiency challenges can vary between the islands. Such issues combined with the colder climate in the islands means that some of these homes might have the heating on throughout the whole year. Higher living costs on islands, combined with higher fuel costs, for households on low incomes, can create the conditions for extreme fuel poverty. The substantial increase in energy costs since August 2021 is likely to have exacerbated these issues further.

Beneficial impacts

16. There are, importantly, key benefits that properly installed clean heating systems can bring to island communities. Specifically, these span improved thermal comfort and health benefits and protection of the unique natural environment of Scotland's islands and rural communities through climate change mitigation

Moving Forward

17. As we take forward the development of the new Social Housing Net Zero Standard we will ensure that the issues highlighted here are considered in the design of development of further policy and regulation.

Step Two – Gather your data and identify your stakeholders

18. This impact assessment draws on an evidence-gathering exercise conducted in 2021 for the ICIA for an earlier policy, the Heat in Buildings Strategy. This strategy set out a pathway to zero emissions buildings by 2045 and details a series of near-term actions to put us on a clear path towards this, as well as a range of further, longer-term commitments to accelerate the transformation of the nation's building stock.
19. The proposals being consulted on for the new Social Housing Net Zero Standard follow on from the commitments made in the Heat in Buildings Strategy and as a result, the

⁶ [National Islands Plan](#), the Scottish Government, 27 December 2019.

evidence gathered at that time remains relevant. Furthermore, as this evidence base was informed by a sustained process of engagement with energy consumers, including island residents and stakeholder organisations, the data gathering for the Heat in Buildings Strategy remains an invaluable resource in shedding light on the challenges and opportunities for island communities in regards to these policies.

Step 3 - Data Collection.

20. A full description of this evidence gathering process undertaken is included in annex A, however a summary of the process is included below.
21. The evidence gathering process was undertaken over a number of steps for the Heat in Buildings Strategy and updated where appropriate to ensure applicability to the consultation on proposals for a new Social Housing Net Zero Standard.
- Analysis of pre-existing data sources
 - Early engagement with Highlands and Islands Enterprise
 - A Public consultation on the Heat in Buildings Strategy consisting of
 - Written responses to the consultation
 - Findings from stakeholder-facing workshops
22. To support this data, stakeholder engagement was undertaken as part the design of the new Social Housing Net Zero Standard, with representatives from island communities involved in the discussions to develop the new standard.

Summary of main impacts across data gathering and consultation

23. In summary, the key areas in which possible impacts on island communities have been identified through our data gathering and consultation concern:
- Installation and operational costs for clean heating systems.
 - Higher living costs, heating costs and high levels of fuel poverty:
 - Rural and island households spend statistically significantly more on heating than their urban equivalents (see Annex A).
 - Fuel poverty levels are higher in more rural (43%) and rural small towns (34%) than in urban areas (24%). One reason for this is that the majority (93%) of urban dwellings are within the coverage of the gas grid, whereas almost two-thirds (65%) of those in rural areas are not. Connection to the gas grid allows households to use mains gas for heating and hot water. As mains gas is currently the cheapest of the major commercial fuels, gas grid access can be a significant determinant in the required cost of heating a home to a satisfactory temperature. The majority of households using electricity in Scotland, whether in urban or rural settings, currently rely on traditional emitters such as storage heaters (see Annex).
 - Availability of appropriate finance and funding which takes account of these challenges.

- Ability of traditionally constructed buildings to accommodate standard energy efficiency measures:
 - Islands and rural communities generally have a relatively larger share of stone walled, detached dwellings of a traditional build form. Maintaining an adequate indoor temperature in these types of properties can be challenging and costly due to the rate of heat loss through large, uninsulated external walls.
 - Island and rural local authorities generally had the highest proportion of the least energy efficient dwellings (those rated EPC F or G) on average over 2017-19 (SAP 2012, RdSAP v9.92). Island and rural local authorities tended to have lower than average proportions of B or C rated dwellings with Shetland Islands (8%), Na h-Eileanan Siar (9%) and Orkney Islands (15%) having the lowest⁷.
- Availability of the supply chain for installation, concerns over applicability of PAS 2035, availability of maintenance with reports of long times for maintenance where no local contractors are available:
 - Island and rural communities can face supply and access issues due to the remoteness of their locations. The flow of goods and services may be restricted or impacted, sometimes at short notice. Further, the smaller population of these locations may mean a reduced local skills base, placing greater demand on qualified work such as the installation of clean heating systems. We also recognise the opportunities that employment in low and zero emissions could present on islands, providing essential job opportunities.
- Longer project realisation times recognising constraints on accommodation for incoming workers as well as weather and travel disruption to more rural areas.
- Infrastructure and resilience:
 - Our islands face particular challenges around distance, topography, weather and connectivity. These can lead to infrastructural and logistical challenges and costs (such as in regards to electric grid connectivity and access to rural locations) not encountered by other communities, and require additional support to ensure ongoing resilience.
 - Resilience of electrified heat systems in areas with no national electricity grid connection was raised.
 - Potential for more rural areas to have higher incidences of a single phase electricity distribution network which may impact technology selection in rural areas.
 - Concern over resilience levels of rural areas that are reliant on one fuel for heating – where there has been traditionally a mix of fuels available.
- Ongoing community representation and engagement was considered a key requirement to develop trust and buy in.

⁷ 2021 SHCS statistics were published in May 2023 at [Scottish House Condition Survey: 2021 Key Findings](#), however these results should not be compared with those for previous or future years owing to methodological limitations arising from data collection constraints at the time. The lack of SHCS data for 2020 and the enforced changes for 2021 cause issues with the production of local authority estimates from the SHCS, which requires three consecutive years of survey data to be combined to provide a three-year average.

- Our island communities are unique and face challenges specific to their location. To address specific contextual island issues continuing engagement and reflection is required. Ongoing appropriate representation and engagement is central to ensuring our transition to net zero supports and benefits islands communities by providing a dialogue to shape and direct delivery.

Step Four – Assessment

24. The above evidence gathering constituted a screening exercise to identify if an Island Communities Impact Assessment would be required. As it was found to be the case that there are a number of unique impacts, potential barriers, and wider impacts which would have a direct effect on Island Communities, it was therefore decided **that a full Island Communities Impact Assessment should be undertaken.**

25. The following section assesses the extent to which the proposals for the new Social Housing Net Zero Standard can be delivered in such a manner as to improve or mitigate, for island communities, the outcomes resulting from them.

B) The ICIA (Section 8 Assessment)

26. The Islands (Scotland) Act 2018 requires an ICIA to:

- describe the likely significantly different effect of the new standard;
- assess the extent to which the Scottish Ministers consider that the new standard can be developed in such a manner as to improve or mitigate, for island communities, the outcomes resulting from the new standard; and
- set out the financial implications of steps taken under this subsection to mitigate, for island communities, the outcomes resulting from the new standard.

27. The following table sets out the key issues in this impact assessment and the mitigations in place.

| Issue | Key mitigation |
|---|---|
| Potential for higher installation and operational costs for clean heating systems, recognising the impact of accommodation constraints, weather and travel disruption) and availability of appropriate funding and finance which takes account of these challenges. | <ul style="list-style-type: none"> • The Social Housing Net Zero Heat Fund launched in August 2020 and is making at least £200 million available to social landlords until 2026 for the retrofit of their existing housing stock. • The fund supports both the deployment of clean heating and "fabric first" enhancements, helping landlords deliver warmer and more energy efficient homes. • Projects are eligible for up to 60% of the costs of clean heating systems and 50% of energy efficiency measures. |

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| | <ul style="list-style-type: none"> • Rural and island communities face different challenges when delivering decarbonisation projects in social housing so the fund has introduced uplifts to the average grant cap. For projects in rural areas, the average grant cap per property will be increased by 11% and in remote areas by 22%. Rural and Remote areas can be identified using the 6 Fold Scottish Government classification. • We recognise the additional time taken to develop projects in islands settings and ensure that this is given consideration in project and financial planning. • The Green Heat Finance Taskforce is exploring ways to encourage a greater flow of private finance into the installation of clean heating and to improve the energy efficiency of Scotland’s buildings. Private finance will be required to complement that available through the wider public sector, to ensure property owners can access the necessary finance to install clean heat systems in a form which works best for their individual circumstances and which allows them to spread the upfront costs over time. • The Taskforce has brought social landlords and their representatives together with financial investors to discuss options for financing the transition of the existing social housing stock to net zero. The Taskforce’s final report will be published in 2024 and will include consideration of financing options to enable social housing investment in clean heating solutions. |
| Higher heating costs and high levels of fuel poverty. | <ul style="list-style-type: none"> • The Scottish Government continues to believe that better energy efficiency standards in homes can save energy and reduce bills while making homes warmer and more comfortable. Improving the energy efficiency of our housing stock remains a huge priority for Scottish ministers, which is why our national fuel poverty programmes will continue to support better insulation and other improvements to homes in, or at risk of, fuel poverty. • We have established a statutory Scottish Fuel Poverty Advisory Panel to undertake the statutory duties to monitor, advise on and challenge our progress on ending fuel poverty, and to advise on the impacts of actions by others on fuel poverty and extreme fuel poverty across Scotland. • We will ensure ongoing regard for The National Islands Plan (Objective 5 - to reduce levels of fuel poverty; and Objective 9 - work towards creating net zero emission islands and providing global climate change leadership). |

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| <p>Whole house retrofit and the suitability of standard energy efficiency measures and requirements for traditionally constructed buildings.</p> | <p>We know that these properties will face specific challenges in meeting the new standard, such as the need for specialist building assessment, more specialised installation skills and the use of specific materials. We are proposing to use variations to provide flexibility for traditional and protected domestic buildings. These may include one or a mix of options:</p> <ul style="list-style-type: none"> • Varying the minimum energy efficiency requirement, which would mean that such buildings are not required to install measures that would have a negative effect on the building (or its occupants); • Giving the landlord more time to allow the building to be assessed and necessary works agreed, or to secure suitable installers or products; • Giving the landlord more time where they cannot secure the necessary permissions or consents to carry out the necessary works. |
| <p>Availability of the required level of skilled supply chain for installation, and maintenance for clean heating.</p> | <ul style="list-style-type: none"> • We published a 'Heat in Buildings Supply Chain Delivery Plan' which provides an overview of Scotland's heating and building improvement sector, and provides background to the challenges and opportunities of developing the supply chain for clean heating. |
| <p>Consideration of local infrastructure in the roll out of clean heating including availability of national electricity grid and resilience.</p> | <ul style="list-style-type: none"> • Scottish Government has worked closely with Local Network companies SSEN and SPEN to ensure that their business plans for the next five years reflect the scale and pace of investment needed to meet net zero. • From April 2023 reinforcement costs for demand connections (including heat pumps) will be socialised. A threshold known as the high-cost cap (HCC) will be used to protect customers from excessive costs. • Local Energy Scotland manages the Community and Renewable Energy Scheme (CARES), which helps communities to engage with and benefit from the energy transition to net zero emissions. It provides advice and support – including funding – to communities across Scotland, looking to develop renewable energy, heat decarbonisation and energy efficiency projects. This includes <ul style="list-style-type: none"> – The Off Electricity Grid Communities Fund, which provides a package of support to some of Scotland's more rural off grid communities to help them upgrade their energy systems and |

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| | <p>decarbonise their energy supplies, with the aim of making them more resilient and sustainable.</p> <ul style="list-style-type: none"> – The Community Heat Development Programme, which helps eligible community organisations and groups of householders to develop their ideas for locally-generated, clean heating project ideas. |
| Ongoing community engagement. | <ul style="list-style-type: none"> • As part of the consultation process we will work with stakeholders in island communities to ensure that feed in is as widespread as possible. The findings from this will then be fed into the design process for the final standard. |

Supporting positive impacts

28. The mitigating actions outlined above will not only help address identified issues and challenges, but enhance the positive impacts heat decarbonisation will bring to islands communities including the following:

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| <ul style="list-style-type: none"> • Opportunities for more niche technologies. | <ul style="list-style-type: none"> • Overall we recognise some properties may be more constrained in terms of technology options available, limited by location and property type, proximity to the gas network, impact on the fabric of historic buildings, space constraints, and capacity of the electricity grid. Such considerations may be factored into variances within the new standard. |
| <ul style="list-style-type: none"> • Opportunities for the local supply chain, • Harness the opportunity for development of skills and jobs within island communities to deliver change. | <ul style="list-style-type: none"> • In 2022 we published a Heat in Buildings Supply Chain Delivery Plan which provides an overview of Scotland’s heating and building improvement sector, and provides background to the challenges and opportunities of developing the supply chain for clean heating. |
| <ul style="list-style-type: none"> • Promoting resilience in islands building stock (by improving the fabric) for future generations, • Opportunities for increased thermal comfort and health. | <ul style="list-style-type: none"> • The proposals set out in this consultation to improve the energy efficiency of social housing mean that households will use less energy, potentially reduce their bills, and help to cut greenhouse gas emissions. A good standard of energy efficiency also helps the performance of many clean heating systems, such as heat pumps. |
| <ul style="list-style-type: none"> • Protection of the unique natural environment of | <ul style="list-style-type: none"> • We will feed in the outlook of island communities into the proposals set out in this consultation in |

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| <p>Scotland's islands and rural communities through climate change mitigation.</p> | <p>order to achieve our ambition to remove emissions from the way we heat social housing.</p> |
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Conclusion

29. Prior to publication of the consultation, previous work to assess the impacts of the Heat in Buildings Strategy was reassessed to ensure its continued relevance to these proposals. The material gathered for the Heat in Buildings Strategy include public consultation and continuous engagement with key stakeholders including in the Heat Decarbonisation External Advisory Group.
30. Desktop evidence gathering, consultation with island communities, local authorities and other relevant stakeholders has provided an understanding of the unique island issues in relation to the proposals and potential impact these may have on these communities.
31. Specifically, the Scottish Government will undertake the mitigating actions outlined within this ICIA.

Summary of evidence from data gathering exercise

The cost of remoteness – reflecting higher living costs in rural Scotland when measuring fuel poverty⁸

1. The Fuel Poverty (Targets, Definitions and Strategy) (Scotland Act) 2019 adopted 90% of Minimum Income Standard (MIS), excluding housing, childcare, council tax and domestic fuel costs, as the benchmark for determining whether, a household would have insufficient remaining net income, after deducting these costs and any benefits received for a care need or disability, to maintain an acceptable standard of living. The Act also provided that the remaining net income required would be adjusted in light of additional costs for households in rural areas, rural towns and island areas.
2. Loughborough University was commissioned to calculate these additional costs and to estimate the amount that should be added to the equivalent UK 90% of MIS in rural, rural small town and island areas in Scotland for fuel poverty purposes, with a distinct uplift for island areas.
3. For fuel poverty purposes, additional minimum living costs for households in rural Scotland typically add 15-30% to a household budget, compared to urban areas of the UK. These comparisons are on the basis of MIS with notional costs deducted for housing, council tax and water rates, fuel and childcare since these elements are not required in the fuel poverty definition.
4. Percentage additional MIS costs in rural Scotland, 2021 (Table 16, page 37): note only the highlighted average uplifts will be applied in the calculation of fuel poverty for 3 broad household types, but the table also shows how these averages were derived from single and couple households without children.

| Mainland | Mainland | Island |
|--|------------|------------|
| Couple+2 | 16.2% | 15.5% |
| Family with children, rounded uplift (based on couple+2 case) | 16% | 15% |
| Single working age | 20.0% | 13.6% |
| Couple working age | 20.6% | 13.8% |
| Working age rounded uplift (based on average of single and couple) | 20% | 14% |
| Single pensioner | 30.5% | 37.1% |
| Couple pensioner | 20.7% | 29.1% |
| Pensioner rounded uplift (based on average of single and couple) | 26% | 33% |

5. The report provides details of additional costs by category and for each of the different household types. It also summarises the percentage uplift required for more rural, small town and island areas for fuel poverty purposes.

⁸ [The cost of remoteness - reflecting higher living costs in remote rural Scotland when measuring fuel poverty: research report](#) – Scottish Government, September 2021

6. Significant additional costs have been identified across a range of spending categories, including food, clothing, household goods and holidays. However, most of these are relatively small compared to the dominant extra cost identified, the cost of travel.

A Minimum Income Standard for Rural Scotland: A Policy Update⁹

7. Highland and Islands Enterprise (HIE), along with Scottish Enterprise (SE) and the Rural and Islands Housing Association Forum (RIHAF), commissioned Loughborough University's Centre for Research in Social Policy to update research into a minimum income standard for rural Scotland. The updated report was published in 2016 and some of the key findings were:
 - In 2016 it was estimated a tenth to a third more household spending was required in rural Scotland to achieve a minimum acceptable standard of living, as compared to urban areas in the UK;
 - The 2016 update report showed the gap between rural and urban areas had reduced slightly, from between 10% and 40%, since the previous report in 2013.
 - The cost of heating in rural Scotland was far higher than in other parts of the UK due to restricted fuel choice (i.e. lack of access to mains gas), low thermal efficiency, climate and in some cases tariff levels. For example comparing the least extreme case in rural Scotland – someone living in social housing in a mainland rural town – with the equivalent in England, there is a high premium, with a single person paying £22 rather than £12 a week for domestic fuel;
 - There appeared to be limited competition between energy providers, impacting tariffs. This was partly due to the incidence of metering systems, that cannot necessarily or easily be switched to another company;
 - Furthermore, rural communities were subject to a premium related to additional distribution costs;
 - The climate of rural Scotland adds to heating costs, particularly in the Northern Isles where wind chill and rainfall tend to be greater;
 - Low-cost and standardised methods of improving energy efficiency (such as cavity wall and loft insulation) are often not appropriate for homes in rural Scotland e.g. because they have not been built with cavity walls and roof spaces are often part of the living area;
 - Options for improving such homes (such as external wall cladding) tend to be significantly more expensive;
 - Furthermore, the diversity of construction limits the potential for economies of scale, while there is often a shortage of local suppliers to complete works.

Broad Evidence Review

⁹ [A Minimum Income Standard for Remote Rural Scotland: A Policy Update](#), Loughborough University's Centre for Research in Social Policy and Highland and Islands Enterprise (HIE), October 2016.

8. The Scottish Government commissioned an additional Broad Evidence review on implications of the Heat In Buildings strategy on which this reviews also builds. During the evidence review process some information relevant to this ICIA was found and a summary of these findings are as follows (these may not appear in the final report owing to the broader nature of the final research publication):

- **Heating Costs**

- Rural and island households spend statistically significantly more on heating than their urban equivalents (Baker et al., 2016).

- In a study in the Western Isles, the cost of heating was found to be significantly higher than on the UK mainland, indicating that participants paid a premium for their remoteness (Sherriff et al 2019).

- Baker et al. (2016) report higher than average costs for households in Orkney using solid fuels as their main space heating type, and lower than average costs for those using air and air to water source heat pumps.

- **Fuel Poverty**

- Between 2018 and 2019, rates of fuel poverty increased in remote rural areas (from 33% to 43%), increasing the gap when comparing overall urban (24%) to overall rural areas (29%) (Scottish House Condition Survey 2019).

- In the period 2017-2019 (see table below), the fuel poverty rate varied from 63% in social housing in Na h-Eileanan Siar and Orkney compared to the average in social housing in Scotland of 38%. Seven local authorities had significantly higher fuel poverty rates than the national average, these were: Aberdeen City (46%), Argyll and Bute (54%), Highland (45%), Na h-Eileanan Siar (63%), Orkney Islands (63%), Scottish Borders (51%), and Shetland Islands (53%). Four local authorities had significantly lower fuel poverty rates than the national average, these were: Falkirk (32%), North Lanarkshire (25%), South Ayrshire (33%), and West Lothian (33%) (Scottish House Condition Survey 2019).

- In the same period (see table below), the extreme fuel poverty rate in social housing varied from 7% in West Dunbartonshire to 38% in Shetland Islands compared to the average in social housing in Scotland of 14% . Seven local authorities had significantly higher extreme fuel poverty rates in social housing than the national average, these were: Argyll and Bute (26%), Highland (27%), Moray (21%), Na h-Eileanan Siar (31%), Orkney Islands (31%), Perth and Kinross (25%), Scottish Borders (21%) and Shetland Islands (38%). All of these local authorities also had a greater prevalence than average of lower energy efficient properties. Three local authorities had significantly lower extreme fuel poverty rates in social housing than the national average, these were North Lanarkshire (9%), Stirling (8%) and West Dunbartonshire (7%). (Scottish House Condition Survey 2019).

- In the period 2017-2019, both the median fuel poverty gap and the median gap adjusted for 2015 prices were generally higher in island and rural local authorities:

Table 1: Fuel poverty, extreme fuel poverty and fuel poverty gap data for island local authorities, 2017-19

| | % social | % of social off-gas grid | % of social with EPC C or better | % social fuel poor households | % social extreme fuel poor |
|--------------------|----------|--------------------------|----------------------------------|-------------------------------|----------------------------|
| Argyll and Bute | 23 | 43 | 45 | 54 | 26 |
| Highland | 22 | 50 | 39 | 45 | 27 |
| Na h-Eileanan Siar | 19 | 79 | 24 | 63 | 31 |
| North Ayrshire | 36 | 5 | 55 | 39 | 14 |
| Orkney | 13 | 100 | 42 | 63 | 31 |
| Shetland | 23 | 100 | 12 | 53 | 28 |
| All Scotland | 26 | 10 | 57 | 38 | 14 |

Source: SHCS LA Analysis 2017-19¹⁰

- Households who are not income poor but do experience fuel poverty have a higher likelihood of living in rural areas, living in low energy efficiency properties and use electricity for their heating compared to fuel poor and income poor households and Scotland overall. (Scottish House Condition Survey 2019).

- In fuel poverty study of Skye households, Baker et al. (2016) found anecdotal evidence of households self-limiting their energy use. In Orkney the found that 44% of households reported spending more than 10% of their income on their total energy costs, and 12% spending more than 20%.

- **Weather climate and impact on heating regimes**

- Although research on energy use often focusses on winter as the heating season, one study that focused on households with electric heating in high-rise flats in Edinburgh exposed to severe weather conditions due to proximity to the North Sea, found that keeping warm in a cold home was a problem not just in winter but also in summer (De Haro & Koslowski, 2013). This finding may be relevant for heating requirements in island communities as they are exposed to the Atlantic Ocean and North Sea. Coping with the weather and the impact it has on rural living was mentioned in a fuel poverty study in Golspie by Baker et al. (2016).

- **Energy Performance of Housing Stock**

¹⁰ [Scottish House Condition Survey: Local Authority Analysis 2017-2019](#)

- Island and rural local authorities generally had the highest proportion of the least energy efficient dwellings (those rated EPC F or G) on average over 2017-19 (SAP 2012, RdSAP v9.92). A total of eleven local authorities had rates above the national average (4%), with the highest being Na h-Eileanan Siar (18%), Orkney Islands (17%), Dumfries & Galloway (15%), Shetland Islands (14%), Highland (14%) and Argyll and Bute (13%). These local authorities also had the lowest proportions of properties in the highest efficiency bands. Island and rural local authorities tended to have lower than average proportions of B or C rated dwellings with Shetland Islands (8%), Na h-Eileanan Siar (9%) and Orkney Islands (15%) having the lowest.

- In contrast for urban local authorities, Glasgow City (1%), Aberdeen City (1%), Renfrewshire (2%), South Ayrshire (2%), Edinburgh (3%) and Fife (3%) had the lowest average shares of F or G rated dwellings and were statistically different from the national average. Correspondingly, Glasgow City and Renfrewshire also had higher than average proportions of B or C rated dwellings. West Lothian had the highest proportion of B or C rated dwellings (61%) compared to 45% in Scotland overall (Scottish House Condition Survey 2019).

- Primary heating fuel is a key determinant of the energy efficiency of the dwelling. Properties heated by mains gas have an average SAP rating of 67.5 and 50% are in band C or better. Dwellings heated by other fuels (including electric and oil) have considerably lower ratings. The average SAP rating for oil heated properties is 49.2 (making the average dwelling in this group E rated) and only 8% are in band C or better.

- Proximity to the gas grid has a similar effect on the energy efficiency rating (average SAP rating 66.3 for dwellings near the gas grid, higher than the 58.1 for other dwellings). Rural and Island properties are less likely to be on the gas grid.

- As dwelling characteristics associated with lower energy efficiency are disproportionately represented in rural areas, the average energy efficiency profile of rural properties is lower than that for urban: mean SAP 2012 rating is 66.7 for dwellings in urban areas, higher than the 56.2 for dwellings in rural areas.

- 17% of rural households live in EER Band F or G (Scottish House Condition Survey 2019) compared to 2% of urban households.

- **Community Participation**

- A higher proportion of people who live in more rural areas either feel 'very strongly' that they belong to their immediate neighbourhood than either people in accessible rural areas or the rest of Scotland (Scottish Household Survey 2019).

- In rural Scotland, a higher proportion of people give up their time to help as an organiser or a volunteer than in the rest of Scotland. Around 32% compared to 25% – Scottish Household Survey 2019

- Rates of formal volunteering increase with degree of rurality and there are higher number of registered charities per head in rural areas (cited in Markantoni & Woolvin, 2015).

- **Skills and supply chain**

- As of 28 October 2021 the Scottish Government is aware of four companies based in the Highlands and Islands who are currently approved to carry out insulation work to the BSI retrofit standards.

- These companies are certified to install insulation as per the British Standards Institution (BSI) Publicly Available Specification (PAS) 2030. There are a larger number of companies accredited to BSI standards to install insulation that operate in the Highlands and Islands. For example, our national fuel poverty scheme, Warmer Homes Scotland has 12 approved sub-contractors covering the Highlands and Islands.

Small Islands Energy System Overview¹¹

9. Highlands and Islands Enterprise commissioned research to look at the status of energy systems across 49 of the region's islands. It provides an overview of island energy generation and demand; issues relating to the islanders such as proximity to services, population, security of supply and fuel poverty; insights into the electrical infrastructure; and opportunities to address some of the challenges facing island energy systems.

10. Notable findings include:

- A large proportion of the island properties meet their heat demand via direct electric, electric storage heating or oil which pushes energy costs up.
- The additional electricity demand required for meeting heat loads, at a higher cost in the North of Scotland, than the rest of the UK, increase the likelihood of islanders experience fuel poverty.
- The building stock was found to be generally EPC D or lower, both of which suggests that energy efficiency projects would be beneficial to all island communities.
- Low and zero emission heating projects could help tackle fuel poverty, if they can be achieved at a lower unit cost of heat than the existing higher carbon options (e.g. oil).
- Energy system solutions should be tailored in a way that fits not only with the energy needs of the island but the ability for the community to facilitate, deliver and engage with it.
- A standardised methodology could allow each island/community to establish their own energy system requirements, challenges to be tackled and the steps required to write a development plan.
- Decarbonising heat: High levels of energy demand and fuel poverty across the study islands can be viewed as an opportunity to promote efficiency upgrades as

¹¹ [Small Islands Energy System Overview](#), HIE, April 2020.

a low-cost improvement method. In addition, the energy demand could be supplied more efficiently, at a lower cost and carbon intensity if new, low carbon heating options (such as heat pumps) are promoted.

Annex B

Stakeholder feedback through the EESSH2 review - summary

Representatives from Shetland Islands Council, Hjaltland Housing Association and Hebridean Housing Partnership were members of the EESSH2 review group¹², providing insight into the challenges faced by Local Authorities and Registered Social Landlords on island communities.

1. It was noted that there are challenges faced by landlords in rural locations due to limited workforce and less capacity to carry out work. The EESSH2 target for 2032 would not be achievable as a result.
2. Funding is currently more targeted to clean heating technology than fabric efficiency improvements. In order to prevent tenant's energy bills increasing fabric efficiency improvements are required before the installation of clean heating systems.
3. Funding requiring the use of PAS2035 accredited contractors will impact timescales, especially for rural and island communities as it will be harder to appoint accredited contractors. However, this is not a requirement for the Social Housing Net Zero Heat Fund.
4. There are differences in economies of scale and access to funding for islands and rural areas, so effort is required to ensure they are not disadvantaged.
5. Rural and island communities need to spend more to achieve the same energy efficiency standard as the central belt, due to differences in climate.

¹² [Heat in buildings: Energy Efficiency Standard for Social Housing Review Group](#)

Annex C

List of organisational respondents to the draft Heat in Buildings Strategy consultation Islands question

Aberdeenshire Council
Age Scotland
Architects Climate Action Network (ACAN) Scotland
Argyll and Bute Council
Balcas Timber Limited
Barra and Vatersay Community Ltd
Calor Gas
Changeworks
Citizens Advice Scotland
Comhairle Nan Eilean Siar
Community Energy Scotland
Connected Response Ltd
E.ON UK
East Lothian Council
Energy Action Scotland
Energy Saving Trust
European Marine Energy Centre Ltd (EMEC)
Existing Homes Alliance Scotland
Federation of Small Businesses
Fife Council
Greenspace Scotland
Heat Pump Association
Hebridean Housing Partnership
Highlands and Islands Enterprise
Integrated Environmental Solutions Ltd (IES)
Iona Renewables
Isle of Luing Community Trust
Keep Scotland Beautiful
Kingspan Insulation Ltd
Knoydart Renewables Limited
Link Group
Lochalsh & Skye Housing Association
MCS Charitable Foundation and MCS (Service Company) LTD
National Insulation Association (NIA)
NeoTerra Energy
North Lanarkshire Council
Ombudsman Services
Orkney Renewable Energy Forum
Perth & Kinross Council
Richmonds Plumbing & Heating Merchants Ltd
Royal Town Planning Institute
Rural and Islands Housing Association Forum
Scottish Borders Council

Scottish Enterprise
Scottish Federation of Housing Associations
Scottish Government Regional Network
Scottish Land and Estates
Scottish Power
Scottish Renewables
Shetland Heat Energy and Power Ltd
Shetland Islands Council
SOSE
South Lanarkshire Council
SPEN
Star Renewable Energy
Stirling Tenants Assembly
Sunamp Ltd
The National Trust for Scotland
The Royal Incorporation of Architects in Scotland (RIAS)
Tighean Innse Gall
Troup Bywaters + Anders
TrustMark (2005) Limited
Tweeddale Energy Efficiency Supply Chain Development Project c/o Southern Upland
Partnership (SUP)
Warmworks Scotland
West Dunbartonshire Council
West Lothian Council

Annex D

Stakeholder feedback through draft Heat In Buildings Strategy written responses - summary

1. It was noted that island and other rural communities typically have high levels of **fuel poverty**. A high proportion of homes were reported to be detached and traditionally constructed. Many properties were suggested to be in a poor state of repair, to have minimal insulation, inefficient heating and poor energy efficiency ratings, to be off-gas grid and not likely to participate in heat networks.
2. It was also noted that some clean heating alternatives may only be suited to those homes that have already had fabric repairs and upgrades to insulation, and the importance of adopting a **whole house approach** to improved energy efficiency was highlighted.
3. Higher **construction costs and limited supply chains** in island and rural areas were reported to increase the cost of installing energy efficiency measures and higher costs for repairs and maintenance were also highlighted.
4. The **importance of early engagement and of bottom-up engagement** were highlighted - listening to rural and island communities and engaging in genuine partnership working. In contrast, some recent experience was felt to reflect a more directive, top-down approach. Some respondents expressed a feeling that geographically distant decision makers have a poor understanding of local issues, or that island proofing may be ignored in a centralised policy delivery. Using local advice organisations for tailored engagement with their own communities was proposed. Also in relation to working with communities, continued availability of and work through CARES was requested.

Annex E

List of attendees at the draft Heat in Buildings Strategy consultation Islands workshop

BEIS

Changeworks - Local Energy Scotland

Citizens Advice Scotland

Climate Change Fund

Community Energy Scotland (Orkney)

EMEC Orkney

Energy Mutual Ltd

Energy Saving Trust

Fair Isle Electricity Company

Highlands & Islands Enterprise

Hjatland Housing association

Isle of Skye Advice Service

Isle of Skye Council

Lerwick District Heating Scheme Consultant

Lewis Citizen's Advice Bureau

Local Energy Scotland

Orkney Council - Affordable Warmth

Scotland Excel

Scottish and Southern Electricity Networks

Scottish Energy Consumers Commission

Shapinsay Development Trust

Shetland Heat Energy and Power

Shetland Islands Council

West Highland Housing Association

Annex F

Stakeholder feedback through Heat In Buildings Islands Workshop - summary

1. On-line consultation events on the draft Heat in Buildings Strategy were held with 38 island-specific stakeholders, including representatives from Orkney Council, Local Energy Scotland, Highlands & Islands Enterprise, Lewis Citizen's Advice Bureau, EMEC Orkney, Isle of Skye Advice Service, Fair Isle Electricity Company, Foula Electricity, and West Highland Housing Association.
2. Specific questions asked at the workshop were:
 - Do you agree with the main areas for consideration in regards to potential impact to islands of the heat transition (i.e. electricity grid, buildings type, supply chain availability)?
 - Will the proposed solutions help to mitigate those impacts - are there others that can be taken forwards by us or other parties?
 - Are there any opportunities that the islands can capitalise on from the Heat in Buildings Strategy - how can these opportunities be supported?
 - How can we further engage island communities in the Heat transition?
3. Several **issues** were raised by attendees, broadly these spanned:
 - **Supply chain, skills and cost**
 - Getting skills and materials to the islands for installation and for maintenance (both costs and times due to islands locations and connectivity),
 - Limited accommodation provision for contractors,
 - Islands may not have adequate skills among local contractors (nuanced comments included: most training opportunities are only available on the mainland, local firms have been unable to tender for work as they are too small),
 - Fuel poverty rates on islands,
 - Resource is needed to develop local LHEES.
 - **Building Stock**
 - The diversity of the building stock on islands was presented as a specific challenge
 - SAP ratings were identified as challenging for islands (which in-turn relates to difficulties with EPC ratings and energy efficiency measures.
 - **Electricity Grid**
 - The capacity of island electricity networks could be problematic and not fit for purpose (for example a 1950s oil-fired power station is used on the Western Isles, and the many off-grid microgrids),
 - Seasonal peaks in heat demand (i.e. winter/tourist season).
 - **Consumer protection**
 - Consumer protection and quality assurance may be harder to ensure for island communities.

- **Just Transition**
 - Potential concerns that islands communities may be 'left behind'.
- **Financing**
 - Financial mechanisms can be challenging to navigate, especially if unique island contexts need to be considered.

4. In addition, proposed **solutions** to help mitigate any impacts we also highlighted by attendees:

Supply chain challenges:

- Targeted support for smaller companies/supply chain to access the market through enterprise agencies,
- Ensure that installer accreditation and training is available on the islands (not just mainland),
- Warmer Homes Scotland was highlighted as a key programme to showcase and exemplify good installations and might help others in the supply chain get involved.

Bespoke Islands energy planning

- Islands energy plans provide a clear opportunity for developing and delivering island-based solutions, with an opportunity to draw upon LHEES,
- Islands could have alternative requirements or roll-out compared to the mainland, linked to local plans
- Ensuring that islands are part of the ongoing public engagement
- Potential further exploration of water source heat pumps and connections with existing island renewable energy generation as a way of lowering costs.

Financing

- A previous loan application process for Electric Vehicles was good and could be replicated to support costs of clean heating systems.

Annex G

Guiding principles to ensure alignment with fuel poverty objectives

1. We are committed to ensuring that poor energy efficiency is removed as a driver of fuel poverty. As such, improving the fabric of buildings will be central to how we decarbonise heat.
2. We recognise that heat decarbonisation is essential to address the climate emergency, and that in decarbonising our homes we must not make fuel poverty worse. We commit to delivering measures to help those in fuel poverty to manage their running costs. As such, it is essential that, whenever possible, measures that both promote decarbonisation and lower fuel costs are supported.
3. We will assess our heat in buildings capital delivery programmes for their impact on those households experiencing fuel poverty— both at installation and throughout their lifespan. This assessment should be proportionate to the expected impacts.
4. Where an intervention can lower running costs, fuel poor consumers should be targeted for support as soon as possible, including support for the up-front installation costs of these measures. Factors affecting the ability of consumers experiencing fuel poverty to take up these measures should be considered as part of this process, as should the provision of advice and support to ensure that households in fuel poverty derive the maximum benefit from new measures.
5. We will develop mitigation measures to be deployed across our capital funding programmes where there are demonstrable cost increases on those in or at risk of fuel poverty. Success of these measures should be regularly assessed and, if appropriate, these measures should be adjusted to better meet the needs of these households.
6. In cases when clean heating interventions are assessed as likely to increase energy costs even after mitigation measures are put in place, government supported measures should be focused on consumers who are not at risk of fuel poverty.
7. In some cases, wider change will be needed for decarbonisation measures to become suitable for those in fuel poverty, including areas that are reserved to the UK Government. We will continue to urge the UK Government to take necessary action in reserved areas and will use the research and practical experience gained through our decarbonisation schemes to support us in building appropriate evidence and pushing for systemic improvements.
8. Communications should be presented in formats accessible to a wide range of consumers, taking into account differing circumstances and accessibility needs.



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