## **Scottish Housing Day report**



# Housing and the **Climate Emergency**

15 September 2021



#### Introduction

Scottish Housing Day is an annual event bringing together housing and third sector organisations, tenants and communities to focus on issues of concern. This year, the focus has been on the role of housing in tackling the climate emergency. Scottish Housing Day is an opportunity to encourage people to talk about the scale of the climate emergency and the solutions required. Organisations, tenants and residents have taken part through social media, online debates and events.

The climate emergency affects everyone and the Scottish Government has committed to reach net-zero carbon emissions by 2045, with interim targets to reduce emissions by 75 percent by 2030 and 90 percent by 2040. Our homes currently generate about 13 percent of all emissions in Scotland. This means that homes across all tenures, old and new, must be more energy efficient and begin to move away from using fossil fuel heating systems like gas boilers. The majority of homes will need to use low or zero emissions heating systems such as air or ground source heat pumps by 2045 if targets are to be met.

New homes in Scotland are built to some of the highest technical standards in Europe, with the introduction of new Scottish Government Building Standards in October 2015 resulting in a 75 percent reduction in carbon emissions compared to 1990 levels. Minimum standards for energy efficiency already apply to homes in the social rented sector and the Scottish Government is currently finalising plans to introduce minimum standards for home owners. New regulations for the private rented sector (PRS) have been delayed due to the pandemic but are expected to be introduced as soon as conditions allow.

While Scottish Housing Day partners fully support the need to improve our homes, particularly the existing housing stock, some climate change solutions can be expensive to install and electric heating can cost more, especially if the home is not energy efficient or the household does not know how to use the system effectively. There are also issues surrounding supply chain capacity and the suitability of new technologies for different house types. It is therefore essential that people are aware of the significant changes that are on the horizon and how they will be expected to contribute so that they can research the right solutions for them, access support and plan ahead.

In order to better understand how aware tenants and homeowners are of how their homes contribute to carbon emissions and how they will be expected to change their energy use in future, we commissioned a public poll with support from Aico. The results are summarised in section 3. We hope that this new research will help to inform the discussion about how the housing sector can rise to the challenge of net-zero emissions across all tenures by 2045 without passing on the costs to those who can least afford it.

Scottish Housing Day is delivered by a group of partners: CIH Scotland, Association of Local Authority Chief Housing Officers (ALACHO), Scottish Federation of Housing Associations (SFHA), TPAS Scotland, Scottish Association of Landlords (SAL), Homes for Scotland (HFS), Under one Roof, Wheatley Group, Existing Homes Alliance Scotland (EHA), the Aberdeen City Multi Storey Group, Scottish Government and Citizens Advice Scotland (CAS).

The research outlined in this report was supported by Aico, the European market leader in domestic Fire and Carbon Monoxide (CO) protection, pioneering new technologies and offering high quality alarms. In 2020, Aico expanded its Connected Home offering with the acquisition of leading Internet of Things (IoT) solutions provider, HomeLINK - a multi-award-winning high-tech business that leverages cutting edge smart home integration and analytics technologies to help social landlords reduce operating costs and carbon emissions whilst improving their residents' wellbeing and safety.

#### 1. The scale of the net-zero challenge for the housing sector

#### **Statutory targets in Scotland**

The <u>Climate Change Act 2019</u> includes a commitment for Scotland to reach net-zero carbon emissions by 2045 with statutory interim targets to reduce emissions by 75 percent by 2030 and 90 percent by 2040.

'Net-zero' means the amount of greenhouse gas emissions we put into the atmosphere balances with the amount we take out. For the housing sector, this means that our homes need to be as energy efficient as possible so that we need less energy to heat them and the majority of homes will have to switch to low or zero emissions heating systems before the 2045 deadline.

Advances in technology and building standards mean that new homes are more energy efficient. Significant investment in the energy efficiency of existing homes in the social rented sector has also improved standards. Scotland's greenhouse gas emissions have <u>reduced by 31 percent</u> between 2008 and 2018, largely due to increases in renewable electricity generation. Our homes account for around 13 percent of all greenhouse gas emissions in Scotland.

Every home in Scotland that is built, sold or rented is required to have an <a href="Energy Performance">Energy Performance</a>
Certificate (EPC) which shows the energy efficiency rating and environmental impact of homes using a simple rating system from the lowest score of G up to EPC A. In order to meet net-zero carbon emissions, the vast majority of homes will need to be brought up to at least an energy efficiency rating of EPC C. Scottish Government ambitions for the social rented sector suggest that social landlords should be aiming for EPC B where technically possible and financially viable.

The chart below shows the energy efficiency of homes across different tenures in Scotland. The social rented sector is the best performing in terms of EPC rating with 56 percent of homes achieving an EPC of C or above. This compares to 42 percent of homes in the owner occupied sector (predominantly comprised of older properties) and 40 percent of homes in the PRS.

Around one million homes across all tenures are below EPC band C and will need to be improved.

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
Social rented Owner occupied Private rented All tenures

■F&G ■E □D □C ■B ■A

Chart 1: EPC Band by tenure in 2019

Source: Scottish House Condition Survey 2019 key findings, table 20

#### Requirements for new build homes

Improvements in building standards in recent years mean that new homes are more energy efficient and emit less CO<sub>2</sub> than older homes in other sectors. The chart below shows how emissions have reduced over time in the new build sector compared to existing homes.

9.00 0.09 8.00 0.07 Existing Dwellings (MCO2e) 7.00 New Build Sector (MCO2e 0.06 6.00 0.05 5.00 4.00 0.03 3.00 0.02 2.00 0.01 1.00 0.00 0.00 -0.01 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 Axis Title Existing Dwellings CO2e New Build Sector CO2e ...... Linear (Existing Dwellings CO2e) ...... Linear (New Build Sector CO2e)

Chart 2: Estimate of residential sector CO<sub>2</sub> emissions by subsector

Source: Homes for Scotland analysis of Scottish Government data

The Scottish Government has made a commitment that all new homes in the private sector which are granted consent from 2024 must use heating systems that produce zero direct emissions at the point of use. In the social rented sector, this standard will apply to all homes delivered from 2026 regardless of when consent was issued. This means that new homes will not be able to use fossil fuels such as gas or oil and could involve the installation of low or zero-emissions systems for individual homes or connection to a local heat network. Further details on the proposals are set out in the Scottish Government's New Build Heat consultation.

The Scottish Government is also currently consulting on <u>revised building standards</u> which aim to limit greenhouse gas emissions and energy use, both in new and existing buildings. Revised standards are likely to be introduced in 2022.

#### Minimum standards for existing homes

Homes in the social rented sector were required to comply with <a href="Energy Efficiency Standards for Social Housing">Energy Efficiency Standards for Social Housing</a> (EESSH) by December 2020. The EESSH requirements differ depending on the type of home but generally speaking, a home that meets the standards should achieve an EPC energy efficiency rating of band C or D. A review of EESSH resulted in the adoption of a new EESSH2 milestone:

"All social housing meets, or can be treated as meeting, EPC Band B (Energy Efficiency rating), or is as energy efficient as practically possible, by the end of December 2032 and within the limits of cost, technology and necessary consent."

In addition, no socially rented home below EPC D should be let after December 2025, subject to some temporary exemptions.

The Zero Emission Social Housing Taskforce (ZEST) was established by the Scottish Government in 2020 to make recommendations on how the social housing sector can maximise its contribution to achieving net-zero emissions by 2045. The ZEST report emphasises the need for a fabric first approach (making homes as energy efficient as possible before installing renewable heating systems) and a just transition, ensuring that the sector can continue to reduce fuel poverty and keep rents affordable. It also calls for a further review of EESSH2 to ensure targets for the sector are aligned with the transition to net-zero and result is positive outcomes for tenants.

Following consultation in 2019, the Scottish Government published the <u>draft Energy Efficiency</u> (<u>Private Rented Property</u>) (<u>Scotland</u>) Regulations 2020 which were expected to come into force in the PRS from 1 April 2020. The regulations have since been delayed by the pandemic with a commitment for them to be introduced as soon as conditions allow. Once implemented, the regulations would require:

- All private rented properties to achieve at least EPC band D at point of let from 1 April 2022.
- All remaining private rented properties to achieve at least EPC band D by 31 March 2025.

The Scottish Government has also set out intentions to require all privately rented homes to achieve at least EPC C by 2030 but this is not set out in the current regulations.

Plans to introduce minimum energy efficiency standards for the owner occupied sector are still being finalised but it has previously been stated that they will be expected to achieve EPC C at the point of sale from 2035 with longer timescales for multi-tenure or mixed use buildings where it can be more difficult to arrange work. These plans are set out in more detail in the <a href="Draft Heat in Buildings Strategy">Draft Heat in Buildings Strategy</a>.

The draft Strategy also includes proposals for an All Tenure Zero Emissions Heat Standard. This would require the installation of low or zero emissions heating systems in existing buildings from 2025 with all homes required to meet the standard by 2045.

However, the recent <u>cooperation agreement</u> between the Scottish Government and the Scottish Green Party may see some of these targets amended or brought forward. The <u>Programme for Government</u> published 7 September states:

"All home and building upgrades – at the point of sale, change of tenancy, and refurbishment – will be required to meet at least EPC C standards or equivalent from 2025 onwards. And all homes will need to be upgraded by 2033 to ensure we meet our climate targets."

#### The cost of upgrading our homes

Citizens Advice Scotland <u>estimates that it will cost around £11.2 billion</u> to bring all homes in the PRS and owner occupied sector up to energy performance of EPC band C and social rented homes up to EPC band B (in line with EESSH2 ambitions). This covers improving the energy efficiency of homes but does not include the installation of the low or zero carbon heating systems that will be required to meet the net-zero emissions target.

The Scottish Government's draft <u>Heat in Buildings Strategy</u> estimates that it will cost around £33 billion to transform one million homes and 50,000 non domestic buildings through the installation of low and zero emissions heating systems by 2030.

While the Scottish Government has committed £1.8 billion over the next five years to support energy efficiency measures and new heating systems, it is clear that social and private landlords and home owners of properties that do not meet minimum standards or already use low or zero emission heating systems will be required to contribute to the work.

The <u>Scottish Government estimates</u> that the average cost of bringing a home up to EPC band C is £6,000 with rural homes costing up to £11,000. Replacing heating systems with low carbon systems could add an additional £3,000 - £5,000 per home. It is likely that most home owners and private landlords in Scotland would consider this to be a significant cost and many may not be aware that they will be expected to pay for improvements albeit with access to low cost loans such as those provided through <u>Home Energy Scotland</u>.

In the social rented sector £435 million was spent on EESSH between 2016 and 2019 and 86 percent of this was funded by social landlords, not through grants, which means that the majority of improvements to date have been paid for by tenants through their rents.

Recent <u>research by Changeworks and SFHA</u> on the estimated costs of meeting EESSH2 found that, based on modelled data, upgrading registered social landlord (RSL) housing stock would cost around £2 billion, at an average cost of over £7,000 per property, while the total percentage of households in fuel poverty would be reduced from 38 percent to 29 percent.

The <u>Scottish Government's previous estimates</u> for the social sector as whole (inclusive of local authorities) also suggested costs of between £3.4 and £3.7 billion for EESSH2 and this does not yet account for the need to shift to decarbonised forms of heat. If funding is not made available to support social landlords to meet new EESSH2 standards and make the transition to low and zero carbon heat solutions, further costs will be passed on to tenants increasing the risk of poverty for low income households.

### 2. Are people prepared for the challenges ahead? A summary of existing research

#### **Awareness of climate change**

Figures demonstrate that at least three quarters of the Scottish public agree that climate change action must be taken now. The <u>'Let's do Net Zero'</u> campaign has been launched by the Scottish Government ahead of COP26 in Glasgow this year, to help encourage Scotland to bring people together to tackle climate change, raise greater awareness, and invite global collaboration ahead of the conference.

The Scottish Government has also published a draft public engagement strategy, <u>Net Zero Nation</u>. The strategy sets out how the Scottish Government will communicate with the public, making sure people are aware of climate change policies and what these policies mean for individuals. It also emphasises the need to involve people in policy design to encourage behaviours that will mitigate climate change and to champion and fund community led action.

Generally speaking, concern regarding the climate emergency is at an all-time high across the United Kingdom, as evidenced by the Climate Outreach Survey <u>'Engaging the public on climate risks and adaptation'</u>. Climate change was identified as a priority, second only to Brexit, as an issue of national importance, with 40 percent of respondents stating that they were now 'very or extremely worried'.

The survey also indicated that respondents acknowledge their role in decreasing emissions, with 85 percent agreeing that climate change is primarily driven by human activity.

A recent YouGov <u>poll commissioned by Home Group</u> found that 63 percent of social housing tenants across the United Kingdom were unfamiliar with the term net-zero, compared to an average of 44 percent across all tenures. 69 percent of social housing tenants were not aware of the Government's decarbonisation targets.

#### Willingness to take action

<u>Research</u> commissioned by Citizens Advice Scotland in April 2021 has identified that of 1,000 respondents, 65 percent did not have either energy or water saving efficiency measures or renewable energies installed. However, 68 percent indicated that they do support Scotland's commitment to net zero by 2045.

59 percent stated that making homes more energy efficient should be prioritised in Scotland's response to the climate emergency and working towards becoming a net-zero society, and 39 percent also identified the installation of low carbon heating in homes and buildings as a priority in this regard. For most respondents (56 percent), reducing the impact of climate change has remained a priority throughout the pandemic. For 18 percent of respondents, it became more of a priority.

Overall, the findings highlight that whilst consumers are largely supportive of transitioning to netzero, many are unaware as to what this means in practice. Despite a willingness to take action, respondents indicated concerns pertaining to high up-front costs of low carbon heating, as well as the potential for higher energy bills.

When asked whether they were aware that significant investment in low carbon heating and different measures to reduce our use of natural gas energy would be required, 70 percent indicated that they were not aware of this. Nevertheless, 70 percent of respondents identified that insulating or improving the energy efficiency of their home was a step that they believed individuals could take to reduce their own carbon footprint.

### 3. Understanding attitudes in Scotland – new research commissioned for Scottish Housing Day 2021

#### **Commissioning new research**

While a range of studies have already been published, many of these relate to general attitudes towards climate change across the UK and do not address the specific interchange between the climate emergency and housing in Scotland.

In order to better understand public awareness of and attitudes towards housing and the climate emergency in Scotland, and to build on the publications outlined above, the Scottish Housing Day partners commissioned research from <a href="Progressive Partnership">Progressive Partnership</a> consisting of an online omnibus. The survey of 1,005 people was representative of the adult population in Scotland (aged 18 plus) and weighted to Census and ONS data for age, gender, religion and socio-economic grade (SEG).

The poll also took into account housing tenure, type and age of home in order to ascertain differences in awareness and whether there is a need to target resources in different ways to ensure that the climate crisis is addressed across all housing tenures.

#### **Key findings**

We asked whether people were aware of the Scottish Government's target to reach net-zero emissions by 2045. The majority of respondents across all tenures (69 percent) said that they had heard of plans, with homeowners most likely to respond positively (73 percent compared to 64 percent in the PRS and 62 percent of social rented tenants). 26 percent of people across all tenures said that they were not aware of net-zero plans and a small number (5 percent) were not sure.

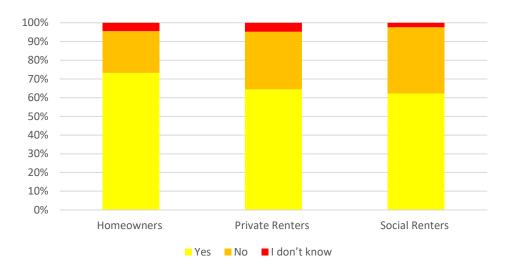


Chart 3: Are you aware of Scottish Government plans to reach net-zero by 2045?

Respondents were asked to estimate the percentage of greenhouse gas emissions produced by homes which is around 13 percent of all emissions in Scotland. Only 13 percent of people selected the correct range 11-20 percent. Around half of people (49 percent) overestimated the proportion of greenhouse gas emissions generated by homes and 32 percent indicated that they did not know.

Private renters were the most likely to select the correct proportion with 20 percent indicating that they thought homes were responsible for 11-20 percent of emissions and social renters were most likely to say that they didn't know (39 percent).

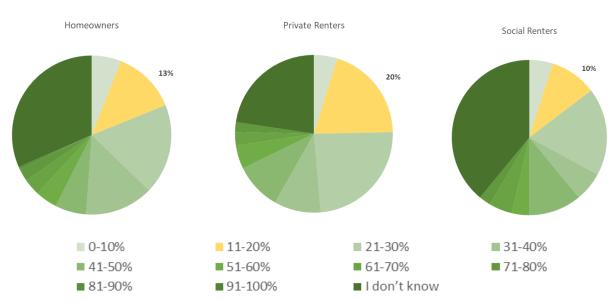


Chart 4: Roughly what proportion of greenhouse gasses are produced by homes in Scotland?

We asked whether people were aware of the current EPC rating of their home or about Scottish Government plans to introduce mandatory minimum standards for energy efficiency in different tenures. While the vast majority of people (81 percent) reported that they had heard of an EPC rating, only 18 percent indicated that they knew what the EPC of their current home was. People living in social housing showed less awareness than average with 39 percent reporting that they have never heard of an EPC rating.

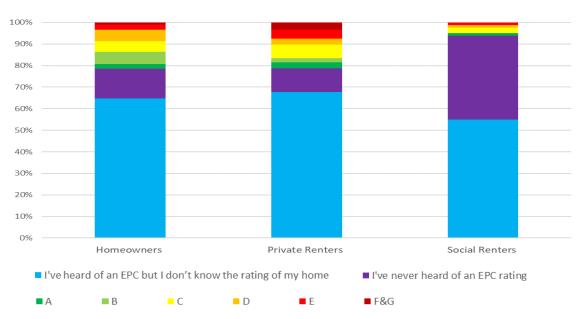
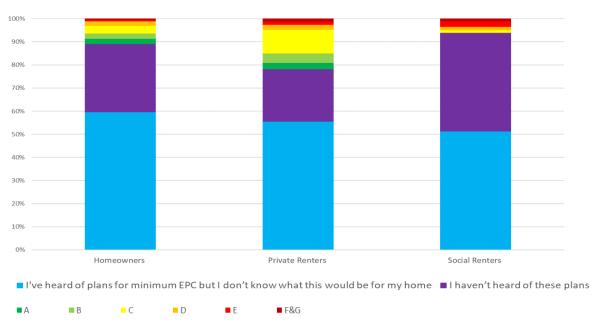


Chart 5: Respondents' awareness of the EPC rating of their home

Most respondents (67 percent) said that they were aware of Scottish Government plans to introduce minimum energy efficiency standards but only 11 percent thought that that knew what the current or proposed EPC rating was for their house type. Over half (56 percent) said that they had heard of plans to introduce minimum energy efficiency standards but they did not know what that would be for their own home and 33 percent said that they had never heard of such plans. Again, social housing tenants showed the least awareness with nearly half (43 percent) saying that they had not heard of Scottish government plans for minimum energy efficiency standards. Compared to 30 percent of home owners and 23 percent of private tenants.





We asked people about the importance of living in an energy efficient home. Half of all respondents (49 percent) disagreed or strongly disagreed with the statement that energy efficiency was an important factor in choosing their current home. Private tenants were the most likely to value energy efficiency when choosing their home with 15 percent agreeing or strongly agreeing that this was an important factor for them. 56 percent of homeowners disagreed or strongly disagreed that energy efficiency was an important factor in choosing their current home.

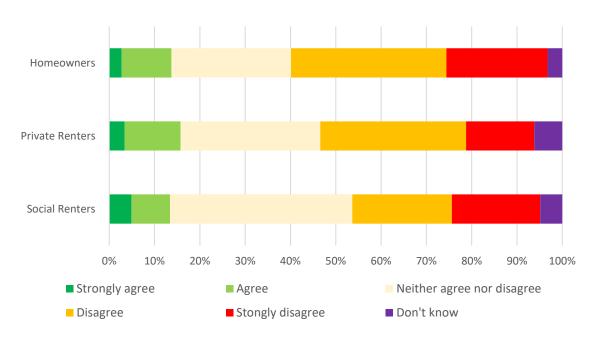


Chart 7: Energy efficiency was an important factor when choosing my current home

More positively, 39 percent of people across all tenures indicated that they would like to move to a more energy efficient home. Private tenants are most likely to say that they would like to move to a more energy efficient home with 66 percent agreeing or strongly agreeing with the statement compared to 37 percent of social housing tenants and 30 percent of homeowners. Owners of flats were more likely to want to move to a more energy efficient home than owners of houses with 34 percent responding positively compared to 28 percent respectively.

Homeowners indicated that there were significant barriers to making improvements to their home to reduce household emissions with 63 percent agreeing that they would like to make improvements to their home but could not afford to. Half of homeowners (48 percent) think it is difficult to access information on how to make improvements and 38 percent indicated that improvements would be too difficult to organise.

Only 22 percent of homeowners said that they do plan to make improvements to ensure that their home meets minimum energy efficiency standards.

Homeowners living in flats were more likely to indicate that it would be too difficult to organise improvements to their home with 41 percent of respondents agreeing or strongly agreeing with that statement compared to 36 percent of owners living in houses.

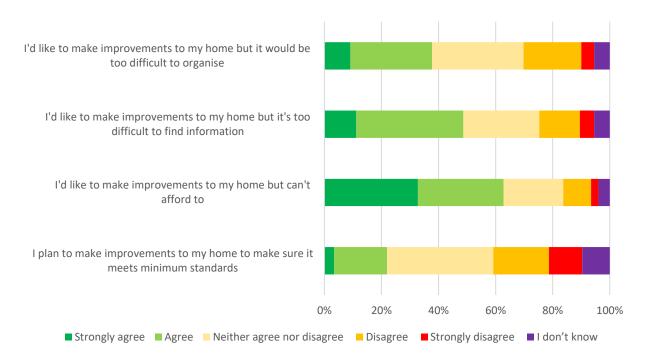


Chart 8: Barriers for homeowners carrying out improvements to their homes (all owners)

When we asked home owners to estimate how much it might cost to bring their home up to the minimum energy efficiency standard, 34 percent were unsure. There was a wide variation of views among those who did make an estimate with 18 percent thinking it might cost up to £5,000, 20 percent thinking it might cost between £5,000 and £10,000 and 20 percent estimating costs of over £10,000. Only 8 percent of homeowners stated that they do not think their home needs to be improved.

Differences between groups of homeowners in relation to expected costs for home improvements tend to reflect the age and type of home, suggesting that homeowners are aware of how these factors influence energy efficiency. For instance, homeowners living in the oldest homes (those built before 1919) are more likely to think it would cost more than £10,000 to meet energy efficiency standards (33 percent compared with an average of 20 percent). Homeowners living in flats are more likely to think it would cost up to £5,000 (25 percent compared to 16 percent living in houses).



Chart 9: Homeowners' estimated cost of improving their home (all owners)

On the question of who should be responsible for covering the cost of improving homes to meet minimum energy efficiency standards, the vast majority of people across all tenures (82 percent) think that the Scottish Government should cover at least some of the costs. Of these people, 34 percent think that the Scottish Government should cover all of the costs and 26 percent think they should cover most of the costs. 6 percent of respondents think that the Scottish Government should allow people to apply for a loan and only 3 percent of people did not think that the Scottish Government should provide any financial support for home owners or landlords.

Homeowners living in houses (rather than flats) are more likely to think the Scottish Government should pay for all costs (38 percent compared to an average of 31 percent). There were also differences by tenure type, with homeowners (36 percent) more likely than renters in the private sector (27 percent) to think the Government should pay for all costs.

'Other' comments included requiring oil and gas companies to contribute to the costs, the Scottish Government providing financial assistance for a person's primary residence but not for second homes, means testing for grant funding and exploring other incentives such as tax reductions for more energy efficient homes.

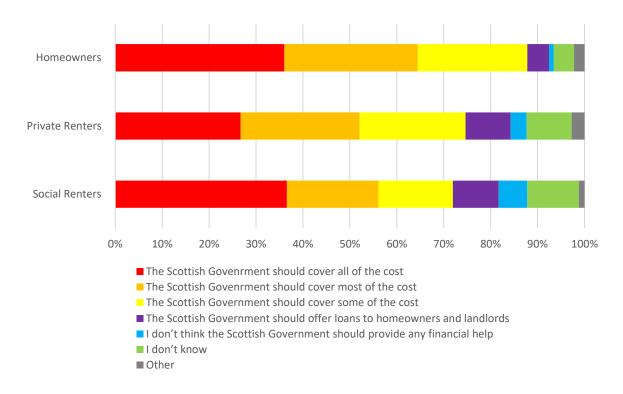


Chart 10: Who should cover the cost of improving homes?

We also asked homeowners whether they plan to replace their existing heating system with a low or zero carbon alternative. The vast majority (69 percent) stated that they had no plans to replace their current heating system. 7 percent are considering replacing their current heating system with a ground or air source heat pump, hydrogen ready boiler, solar or wind power. 16 percent of owners were unsure and only 2 percent said that they already use an alternative heating system.

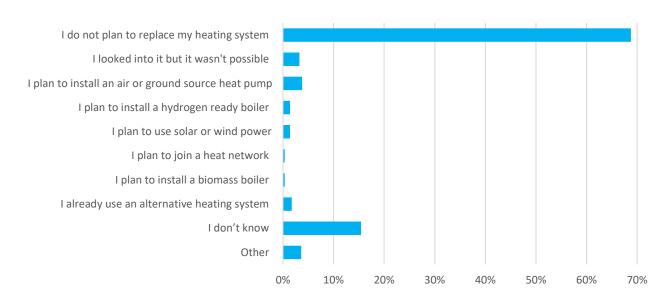


Chart 11: Homeowners' plans to replace current heating system with low or zero carbon alternative

'Other' comments included uncertainty about what to replace existing heating systems with, conflicting priorities as other issues in the home need to be addressed first and already using electric heating or 'green energy' tariffs.

#### 4. Solutions to the climate emergency

#### Recommendations based on our research

We must act now to inform the public about the role of housing in the climate emergency and upcoming policy changes. Our research, and that of others, clearly shows that while the general public are supportive of taking action against climate change, very few people are aware of what net-zero targets mean in relation to their homes and how they might be expected to contribute to meeting the costs of reaching net-zero.

We need to encourage a shift in how people value the energy efficiency of their homes so this becomes a market driver for improvements. Good energy efficiency should be seen as being just as important as a new kitchen or bathroom when buying or renting a home.

The publication of the Scottish Government's draft public engagement strategy for climate change is encouraging but the work must start now. The hosting of COP26 in Glasgow presents a truly unique opportunity to engage with the people of Scotland and we must capitalise on it.

Home owners need better access to information and support to help them carry out improvements to their homes. Our research showed that 48 percent of homeowners would like to carry out improvements to their home but found it difficult to access advice or information and 38 percent think that improvements would be too difficult to organise.

We know that organising repairs and maintenance can be even more complex for owners living in flats if they have to negotiate agreement or payment from multiple owners, sometimes in different tenures. The Scottish Government commitment to progressing recommendations of the <a href="Scottish">Scottish</a> Parliamentary Working Group on Tenement Maintenance as set out in Housing to 2040, is encouraging.

The Scottish Government must provide financial support if our homes are to reach net-zero by 2045. While there are existing cashback and loan schemes available for home owners and private landlords, our research shows that there is a significant gap between what is available and what the general public expect the Scottish Government to fund.

Inadequate financial support from the Scottish Government risks pushing people on low incomes into poverty against the principles of a Just Transition.

We need to ensure that consumer protection measures are in place so that people feel confident investing in their homes. Our research has shown that uncertainty is a barrier to people investing in improving their homes. Holistic and robust consumer protection is essential for empowering consumers to take action. A robust consumer protection framework will help to ensure that homeowners and private landlords are able to identify the right tradespeople, and trust that the any advice they receive is accurate and suitable for their needs.

Consumers must also have a clear route to redress if anything does go wrong with an installation, so that consumers feel confident from beginning to end of their journey. Consumer confidence and demands for better quality, more energy efficient homes will help to drive the changes we need in order to achieve net-zero carbon by 2045.

More detailed recommendations on the creation of a robust consumer protection framework for the energy efficiency and renewables sector is set out in Citizens Advice Scotland's report <u>Fit for the Future – Putting consumers first in the more to net-zero.</u>

#### **Appendix 1: Survey questions**

#### CIH Scotland Omnibus – Final Questions 03.08.21

#### **ASK ALL**

Q1. Do you own or rent the home in which you live?

SINGLE CODE
Own – outright
Own – with a mortgage
Own (part-own) – through shared ownership scheme (i.e. pay part mortgage, part rent)
Rent – from a private landlord
Rent – from my local authority
Rent – from a housing association
Neither – I live with my parents, family or friends but pay some rent to them
Neither – I live rent-free with my parents, family or friends
Other

#### ASK ALL

Q2. How would you describe the type of home where you live? (If you live in more than one home, please think about the one you live in the most.)

SINGLE CODE
A detached house
A semi-detached house
A mid-terrace house
An end terrace house
A four in a block flat
A flat converted from a house
A flat in a low-rise development (four floors or less)
A flat in a high-rise development (five floors or more)
A traditional tenement flat
Don't know

#### **ASK ALL**

Q3. In your best estimation, roughly when was your home built? (If you have more than one home, please think about the about the one you live in the most.)

SINGLE CODE
Before 1919
1919 – 1944
1945 – 1964
1965 – 1982
1983 – 2002
2003 – 2010
After 2010
Don't know

#### ASK ALL

Q4. The Scottish Government plans to reach net zero by 2045, meaning by this date the amount of greenhouse gases produced (through e.g., fossil fuel consumption) will be equal to the amount removed from the atmosphere (through e.g., re-forestation). Before taking this survey, had you heard of these plans?

SINGLE CODE	
Yes	
No	
Don't know	

#### **ASK ALL**

Q5. Greenhouse gases emitted from homes contribute to greenhouse gases in the atmosphere. Heating, cooking and electrical appliances contribute to these emissions. In your best estimation, roughly what proportion of all greenhouse gas emissions in Scotland are produced by homes?

SINGLE CODE
0-10%
11-20%
21-30%
31-40%
41-50%
51-60%
61-70%
71-80%
81-90%
91-100%
Don't know

#### ASK ALL

Q6. The EPC rating of a home includes an Energy Efficiency Rating, alongside a separate Environmental Impact Rating, and is required for every home that is built, bought, rented or sold in Scotland. What is the EPC Energy Efficiency Rating of your current home? (If you have more than one home, please think about the one you live in the most)

SINGLE CODE
EPC A
EPC B
EPC C
EPC D
EPC E
EPC F
EPC G
Don't know – I have heard of an EPC rating, but I don't know the rating of my home
Not applicable – I have never heard of an EPC rating

#### ASK ALL

Q7. The Scottish Government plans to introduce mandatory minimum standards of energy efficiency for all homes in Scotland by 2040. To the best of your knowledge, which minimum rating has the Government proposed for your type of home?

SINGLE CODE	
EPC A	
EPC B	
EPC C	
EPC D	

EPC E
EPC F
EPC G
Don't know – I have heard of the Scottish Government plans, but I don't know what the proposed minimum rating is
Not applicable – I have not heard of these plans

#### **ASK HOMEOWNERS**

Q8. Homes that do not meet the proposed mandatory minimum standards of energy efficiency will need to be improved in order to meet these standards. Ways of improving your home include insulating your home, replacing windows, buying more energy efficient appliances, or installing an alternative to a gas heating system like an air or ground source heat pump in order to reduce emissions. Regardless of your home's current energy efficiency, roughly how much would you expect it would cost to improve your home to meet these standards?

SINGLE CODE
Up to £1,000
£1,001 – £2,500
£2,501 – £5,000
£5,001 – £7,500
£7,501 - £10,000
£10,001 - £15,000
More than £15,000
Don't know
Not applicable – I do not think my home would need improving

#### ASK ALL

Q9. The Scottish Government estimates that the average cost of raising a property to EPC band C is £6,000 in urban areas and £11,000 in rural areas. Replacing a heating system with a low carbon system could cost an additional £3,000 to £5,000. Which ONE, if any, of the following BEST describes the role you think Scottish Government should play in helping homeowners or landlords to meet these standards? I think Scottish Government...

SINGLE CODE
should pay for all costs
should pay for most costs
should pay for at least some costs
should not pay for any costs, but allow homeowners/landlords to apply for a loan if they require financial
support
Other (please specify)
Not applicable – I don't think the Scottish Government should help homeowners or landlords meet these
standards
Don't know

Q10. To what extent do you agree or disagree with the following statements about making improvements to your home to reduce household emissions? (Please select one option on each row.)

ROWS: RANDOMISED / INVERT SCALES / DYNAMIC GRID / SINGLE CODE	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
[IF HOMEOWNER] I plan to make	1	2	3	4	5	6
improvements to my home to make						
sure it meets the minimum standards						
of energy efficiency.						

[IF HOMEOWNER] I would like to make improvements to my home but can't afford it.	1	2	3	4	5	6
[IF HOMEOWNER] I would be interested in making improvements to my home but it's difficult to find information on what to do.	1	2	3	4	5	6
[IF HOMEOWNER] I would be interested in making improvements to my home, but it would be too difficult to organise.	1	2	3	4	5	6
[ASK ALL] Energy efficiency was an important factor when I chose my current home.	1	2	3	4	5	6
[ASK ALL] I would like to move to a more energy efficient home.	1	2	3	4	5	6

#### **ASK HOMEOWNERS**

Q11. The Scottish Government has plans to move away from the use of gas in homes in order to meet the target of net-zero carbon emissions by 2045. Thinking about any plans you might have to replace the current heating system in your home with an alternative heating system...

Which ONE, if any, of the following BEST applies to you?

which one, if any, of the following best applies to you:
SINGLE CODE, RANDOMISE CODES, FIX DK/NO/MY HOME ALREADY USES
I plan to replace my current heating system with an air or ground source heat pump
I plan to replace my current heating system with a biomass boiler
I plan to replace my current heating system with a hydrogen ready boiler
I plan to replace my current heating system with a heat network
I plan to replace my current heating system with solar or wind power
Other (please specify)
My home already uses an alternative heat system
I already looked into or attempted to have renewable heating installed but it was not possible
Not applicable - I do not have any plans to replace my current heating system in my home
Don't know