

**energy
saving
trust**

Qualitative research into domestic property owners' attitudes to net zero heating and energy efficiency standards

Phases 3&4

November 2023

Final report



Contents

1. Executive summary	3
2. Introduction and objectives	5
3. Methodology	7
4. Results	10
5. Conclusions	30
Appendix A Phase 3 focus group recruitment structure	33
Appendix B Phase 4 focus group recruitment structure	34
Appendix C Phase 3 discussion guide	35
Appendix D Phase 4 discussion guide	39

1. Executive summary

The Scottish Government commissioned Energy Saving Trust and Taylor McKenzie to undertake research to explore attitudes of homeowners in Scotland to the potential regulatory standards proposed to be implemented over 2025 – 2045, dependent on further consultation, for both zero emissions heating and energy efficiency in domestic properties. The qualitative research was conducted in four phases and this report outlines the findings from phases three and four. A total of 12 focus groups were conducted during the last two phases, with homeowners from a range of socio-economic backgrounds, locations and housing types. The research explored participants' views on: (i) the concept of net zero, (ii) three proposed scenarios for introducing new regulations, (iii) the support needed to comply with any new regulations, (iv) the fairest way to introduce these regulations in a phased approach and (v) the different ways in which the public can be educated on the proposed regulations and home upgrades that will be required to reach the net zero targets.

Overall, there were similar views on the topics discussed across all types of participants. Energy Saving Trust's analysis highlights two areas that need to be considered before any regulations come into force:

- **clear advice on what is required of homeowners and why through an engagement/awareness campaign.** Participants are looking mainly to the Scottish Government to provide advice and clear information on the regulations and what is needed to meet the standards. The information must be easily accessible and simple to understand, and the Scottish Government should also signpost people to other trusted sources which might offer advice and explanations.
- **Financial support.** Due to the current cost of living crisis, all participants requested significant financial support available to everyone who asks for it, not only the most vulnerable. Many mentioned that there is an assumption that people who own their own homes have disposable income and money to spend on home improvements, however, given the current climate, many people who would be considered financially stable are struggling. Support might be in the form of grants, interest-free loans, equity loans, arrangements through mortgages or other incentives i.e. reduced electricity bills, tax relief etc. All financial support must be signposted with clear information on eligibility and must be easily accessible.

Three scenarios of how potential new regulations could be introduced were presented to participants. The most salient views on these included:



Any home changing ownership would be required to meet a minimum energy efficiency standard and have a zero-emissions heating system installed – The overall reaction to this scenario was negative, specifically for the new or soon-to-be buyers. According to the participants, this scenario would harm the housing market and people's ability to buy properties.



The regulations would set deadlines for property owners to carry out certain energy efficiency improvements (2033) and zero emissions heating system installations (2045) – this was seen as the

fairest and most achievable scenario out of the three. It gives people time to prepare and know what they need to do.



The regulations would apply at the point of boiler breakdown – this was considered the least wasteful way to implement changes as it does not enforce the replacement of heating systems that still work well. Questions were raised about the practicality of making these changes in an emergency because participants were aware that more work needs to be done in a house before a heat pump is installed.

There needs to be a **large-scale campaign** to engage with the public about all required changes and the reasoning behind them. The campaign needs to be widely distributed and target all aspects of the population; it needs to start with an upfront ‘education’ piece to help people understand why the changes are required, what net zero means and the impact it will have on people and their properties. The information needs to be distributed as soon as possible, to give people enough time to understand what is going to change and the impact this will have on them.

2. Introduction and objectives

The Scottish Government published the Heat in Buildings Strategy in October 2021, setting out their vision for the future of heat in buildings in Scotland together with the actions they are taking in this sector to deliver their climate change commitments, maximise economic opportunities and ensure a just transition which includes addressing fuel poverty. The Strategy includes enhanced proposals for regulatory standards that will, dependent on further consultation, introduce energy performance standards for homes in Scotland, including targets for improved energy efficiency and zero emissions heating to come into force from 2025.

The Scottish Government's regulatory approach is still under development and consideration is being given to the relative merits of different trigger points. These standards will need to be developed in line with the principles set out by the Just Transition Commission¹ and be fair to all. The success of the Heat in Buildings Strategy will also be reliant on widespread understanding and accepting new regulatory interventions.

It is vital that the Scottish Government when introducing future policy, takes account of people's attitudes to installing zero direct emissions heating and energy efficiency measures in their homes and ensures that all potential barriers are identified and mitigated as appropriate. The aim of this qualitative research, undertaken by Energy Saving Trust and Taylor McKenzie, was to develop detailed insight into householders' attitudes toward these issues, helping shape appropriate policy and ensuring that the Scottish Government can successfully achieve the goals set out in the Heat in Buildings Strategy.

2.1. Aim of the research

The overarching aim of this research was to explore the attitudes of domestic property owners to the proposed regulatory standards for zero direct emissions heating and energy efficiency in domestic properties in Scotland. The research explored the attitudes of owners of different housing types and across a range of different sociodemographic groups, including geographic location, as well as gender, age, ethnicity, and socio-economic status.

During phase three and phase four, the research built on findings from phases one and two to collect insights and analyse further the following questions:

- What are domestic property owners' views on the imposition of regulatory standards for both zero emissions heating and energy efficiency in domestic properties over the time period out to 2045?
- What are domestic property owners' views on net zero and the Scottish Government's aspiration to reach net zero by 2045?
- What are domestic property owners' views on specific potential models for standards and how would those apply across society?
- What barriers might domestic property owners face in meeting any standards set?
- What do domestic property owners believe may help them meet any standards, and who should provide this help?
- What level and type of information do domestic property owners require, and from whom, to instruct them on how to meet any standards?

¹ [Just Transition Commission](#)

- How do domestic property owners perceive the interrelationship between any standards and climate change, and to what extent does the role of standards in tackling climate change affect their attitudes towards it?
- What do domestic property owners feel would be the 'fairest' approach to implementing these regulations and who should be first to 'lead'/ start these changes?

During phase three and phase four, the research addressed the following new questions:

- Which one of the specific potential models for standards is considered the fairest according to domestic property owners, based on their personal circumstances and for society overall?
- What are domestic property owners' views on the help and support already being provided by the Scottish Government?
- What are domestic property owners' views on how best to raise awareness and educate people on the proposed regulations and which should the role of the Scottish Government be in this transition?

3. Methodology

The research was conducted in four phases. This report outlines the results of phase three and phase four.

3.1. Recruitment

The methodology was developed to collect qualitative data on participants' perspectives on the prospective legislation. Six 90-minute-long focus groups were held between 29 November and 1 December 2022 in the third phase of the research and a further six were held between 28 February and 2 March 2023 in the fourth phase. In each phase, two focus groups were held in Glasgow and four were held remotely through Teams. All twelve focus groups involved semi-structured discussions and were moderated by a Taylor McKenzie researcher. Each focus group consisted of between four and seven homeowners (typically six) from different demographic, geographic and house type categories:

- geographic location (urban, suburban, rural small town or village, remote rural)
- participants from a range of housing types (detached house, semi-detached, bungalow, tenement etc)
- participants from a range of ages of buildings including at least one property less than 10 years old and one 100 years or older
- age grouping: 18-45, 45-75, 18-75
- socio-economic status: ABC1², C2DE³
- ethnic minority participants
- financially vulnerable participants
- participants with different accessibility needs
- properties that are off the gas grid

These participant categories helped secure representation from key types of owner-occupier households in Scotland. An effort was made in both phases to ensure that the more vulnerable categories of homeowners – for example, those likely to be disproportionately affected due to disability, economic status and age – were well-represented. It was also important to represent homeowners who may face unique challenges in improving energy efficiency, such as those living in multi-occupancy, older and listed buildings. During both phases of research, one of the groups focussed on digitally excluded participants, one on financially vulnerable participants and two groups focussed on first-time buyers, new buyers (those who bought a property in the last two years) and prospective buyers⁴.

The composition of each focus group for both phases is included in Appendix A and B.

² ABC1 grade represents the middle class.

³ C2DE grade represents the working class.

⁴ Comparison with the previous round of research: during phase one, one of the groups focussed on landlords rather than owner-occupiers, whereas in phase two, two groups focussed on first-time buyers, new buyers and prospective buyers.

3.2. Data collection

The focus group content and discussion guides were developed by Energy Saving Trust and Taylor McKenzie in consultation with the Scottish Government. The discussion guides for phase three and phase four covered the following topics collectively:

- Participants' understanding and attitudes towards net zero – discussed in detail in phases one and two; only discussed at an overview level in this round.
- Participants' feedback on three scenarios where regulations could be brought in:
 - change of occupancy⁵
 - backstop dates⁶
 - boiler breakdown⁷

For each scenario, feedback was sought on the following:

- participants' views on the scenario
- the scenario's overall fairness

All scenarios were discussed in detail in phases one and two. Scenarios one and three only discussed at an overview level in this round; scenario two was covered in detail in this round as it was considered the fairest among the three scenarios according to the participants.

- Participants' reactions and opinions on the different potential phasing approaches to implement the proposed regulations - discussed in detail in phases one and two; phasing for scenario 2 – backstop dates covered in detail in this round.
- Participants' suggestions on the support required to meet the proposed regulations – covered in detail in all rounds of research.
- Participants' views on how best to raise awareness and educate people on the proposed regulations i.e. through which channels, tactics, target audiences etc., and what should the role of the Scottish Government be – not discussed in phases one and two; covered in detail in this round.

Participants were encouraged to remain open to different ideas and allow their stances to fluctuate throughout the discussions. Their comments were not treated as 'right' or 'wrong' (other than the moderator offering technical corrections) but received neutrally by the research team. The focus of the discussion (and moderation) was overwhelmingly geared towards encouraging participants' free critique of the scenarios. This involved encouraging any disagreement or agreement with scenarios and with others in the room, followed by heavy stress on constructive feedback.

Copies of the discussion guides used in phases three and four are included in Appendix C and D.

⁵ See [Section 4.2.2](#)

⁶ See [Section 4.2.3](#)

⁷ See [Section 4.2.4](#)

3.3. Data capture and analysis

For both phase three and phase four, after the completion of focus groups, the following steps were taken to analyse the information collated:

- A transcription of each focus group was produced.
- The moderator read through the transcripts of the sessions to remind herself of all the relevant discussions and compiled a list of the emerging themes.
- A data merger session was held between the moderator and the Energy Saving Trust team to identify any similarities and differences in themes across the groups and between different types of participants. This allowed a list of the main themes resulting from the discussions to be compiled.
- The transcripts were reviewed again using the main themes as a framework for analysis to ensure all information was captured within the themes and to identify useful quotes for illustration of the themes.

4. Results

This section outlines the key findings from the twelve focus groups. The results have been broken down into five sections:

- **Awareness of, and attitudes towards, net zero** – the section presents the participants' views on:
 - Net zero concept
 - Homeowners' concerns about how the net zero targets will be achieved
- **Scenario specific learnings** – the section presents the participants' attitudes towards:
 - Scenario 1 – change of occupancy
 - Scenario 2 – backstop dates
 - Scenario 3 – Boiler breakdown
- **Phasing** – the section summarises the potential phasing approaches to implement the proposed regulations.
- **Support needed** – the section outlines the support required to meet the proposed regulations.
- **Public engagement** – the section summarises the participants' views on how best to raise awareness and educate people on the proposed regulation and the heat transition.

Many views were unanimous among participants regardless of their income, property type and other demographic characteristics. Where there are differences, these are discussed within each section.

4.1. Awareness of, and attitudes toward net zero⁸

4.1.1. Net zero concept

Phase three and phase four resulted in very consistent findings with phases one and two of research. Across all participants within the focus groups, net zero was a term most were aware of but there was limited understanding of what this means for them at an individual level. Many said that the information they know about net zero came off the back of COP26 but after this, they did not hear much about it anymore. COP26 was seen as a beneficial way to raise awareness, although many said that this should have continued.

“I think it’s because of COP26. Because it was in Glasgow, and it was on the news every night I heard a lot about it. But I never gave it much interest, to be honest. Because I don’t see how a country like Scotland can affect a global problem. By us doing our recycling and whatever, how will we ever know if we reach zero? What’s the mechanism to measure it?” [Phase 4, Group 1, male, 46 – 75, Glasgow, four-in-a-block flat, digitally excluded]

According to the participants, if the targets are to be achieved, then more needs to be done to raise public awareness. This lack of information left many homeowners

⁸ The participants' attitudes towards the concept of net zero were discussed in detail during phase one and phase two of research. For more details, see: “Qualitative research into domestic property owners' attitudes to net zero heating and energy efficiency standards”, Phases 1&2, December 2022.

questioning what impact they can have on the bigger picture and many questioned why they, small homeowners, should be penalised when big businesses and other countries are more problematic; they were frustrated that the onus is put on the 'everyday', ordinary people.

"I think of myself as a little person [...]. I don't think that you know, my small little contribution [is important] in comparison to these big businesses [the participant is referring to Amazon]. So, all these institutions, you know, they should be leading the change in my view as well as government and then we should be the last and that's the kind of approach that I take" [Phase 3, Group 4, male, 18 – 45, Edinburgh, flat]

Amongst the **older participants**, there was a general lack of knowledge, and many said that net zero is only a buzzword that does not mean much to them. This group also highlighted that changes are needed not just for environmental reasons but for health concerns: due to the increasing energy prices many of them and people they know are not using their heating as they previously would have and therefore this is impacting their health. If new systems can reduce running costs, there is expected to be a broader societal health benefit.

"I've heard of [net zero] through the media and the television and things, but I could never understand what the net zero was or what the plan is. To have it reduced by net zero and how we're going to achieve it is kind of a mystery to me [...] It's an incentive to be comfortable and cost-effective. Cost-effectiveness would have to be the incentive for me, for people on pensions and lower incomes. [...] Heat is an important factor, as important as food. That's the comfort zone you're in. Everything else isn't as important. As long as you're well fed and comfortable, you got the criteria to live healthily. That is a healthy living. Over and above that it's just fabricated luxuries. And I think part of the government, part of the welfare system, part of the interest in the general health of everybody should [give] an incentive to do these things as well as for the planet and the future" [Phase 4, Group 1, female, 76+, Renfrewshire, end terrace house, digitally excluded]

Similarly to the first two phases of research, there was a lot of cynicism and scepticism around the government's ability to meet the net zero target, a fact that might be heightened during the last two phases due to the increased cost of living during the cold winter. Many added that there is a lot of 'talk' but very little action going on to meet the targets.

"I don't want to get maybe too political but banging the drums for years and years that we can survive off our oil and our gas; that would have been absolutely fantastic, and they should have made a lot of money from it but to me they are trying to do away with that" [Phase 3, Group 1, male, 46 – 75, East Dunbartonshire, detached house, digitally excluded]

As with the first two phases, there was a perceived positivity around the environmental motivations to reach the net zero targets and the government's aims were seen to be a good thing even though they were also characterised as ambitious. The term 'ambitious' was meant in both a positive and negative way because some participants said that ambitious means unattainable whereas others said that this is the level of motivation we need to aim for in order to actually have an impact. However, many participants questioned the reality of these targets as they do not feel that within the timeframe this is achievable for all households, due to the current cost of living crisis.

“It is very ambitious; I think because it seems such a short time scale. You know, it's quite frightening because you think that [it] can't possibly be attainable. And I think the example is like the electric cars, you know, people are wanting to buy electric cars but aren't convinced that the infrastructure is there to support what's needed, to have confidence that you can operate them” [Phase 3, Group 4, female, 46 – 75, Stirling, detached bungalow]

4.1.2. Concerns about how the targets will be achieved

Similarly to the first two phases of research, there were concerns amongst the participants about how the net zero targets are going to be met and what the impact will be on themselves. Immediate concerns for all groups were around the cost of making improvements to their houses and the impact this will have on them. The current cost of living crisis resulted in many participants, specifically those who were financially vulnerable, feeling angry and frustrated with the government. The idea of potential regulations being imposed, which were expected to be expensive, was not perceived positively by the participants.

“I found it quite hard to understand it [the participant is referring to heat pumps], and I think that is one of the reasons why I was happy to be coming tonight and find out more, to perhaps get my point across about the cost; how quickly it could be done was another concern. I was thinking how is that possible to be done? And who pays for it and everything? I am not quite sure what the net-zero meant” [Phase 3, Group 1, female, 46 – 75, Renfrewshire, flat, digitally excluded]

The middle class (ABC1) audience appeared angry as they often feel like the ‘middleman’ and therefore are not able to access support or funding even though they think that they are not in a financial situation to pay for changes to their homes themselves.

“I feel like there's a real gap and ignored part of like the middle earner, the kind of man who's not doing really well or maybe not doing really poor. And I think it's really important that that's maybe prioritised actually ahead of the lower income earners because there's already financial support in them, whether it be council housing or whatever it might be, and actually maybe this is the time for the middle man to get their break [...] That's not constantly just helping the lower, that has to be fair across all levels of income, all levels of wealth” [Phase 4, Group 6, male, 18 – 45, currently looking to buy]

A lot of clarification questions were asked at this stage:

- How much will this cost me?
- With every household making these changes, will they be subsidised by the government?
- What changes are needed in my home?
- How do I find out what is needed?
- Why do I need to make these changes in the first place?

In a nutshell

- Net zero was a term most participants were aware of but there was **limited understanding** of what this means for them at an individual level.
- Participants were **sceptical about the government's ability to take action**, even though they were generally positive about the environmental motivations to reach the net zero targets.
- However, the **reality of meeting these targets was uncertain** as the timeframe did not seem achievable due to the current cost of living crisis.
- Participants said that **the government should be leading from the front** in meeting the net zero targets as well as **industry and big business**.

4.2. Scenario specific learnings

Three possible scenarios of how new regulations could come into force were presented to each group:

- scenario 1 – change of occupancy
- scenario 2 – backstop dates
- scenario 3 – heating system breakdown

This section outlines the key points raised by participants when discussing scenarios one and three in phase three of research. It also outlines the insights collected on scenario 2 – backstop dates, which was explored more thoroughly in phase four as it was considered the fairest scenario of the three according to the participants. For more details on scenarios 1 and 3, see: [“Qualitative research into domestic property owners’ attitudes to net zero heating and energy efficiency standards”](#), Phases 1&2, December 2022.

4.2.1. Scenario overview

Building on the findings from phases one and two, we explored the perceived fairness of the three scenarios in phase three and we focused on scenario two in phase four; as the fairness of the scenarios has been explored in detail in the previous phases, it was discussed at an overview level in this round.

Overall, there was positivity towards the scenarios, with all participants understanding that regulations must be in place to encourage change; however, there are concerns about the reality of implementing these regulations. As we have seen in the previous phases of research, there is a lot of anxiety around enforcing change and imposing laws and this is concerning for all audiences, specifically given the current economic climate and the increasing cost of living. Most understand the importance of environmental improvements; however, the financial impact of these changes is of higher importance to the audience.

“It is a little bit worrying as a homeowner, but it is also quite reassuring in the sense that stuff is going ahead and is going to happen. Everyone is talking and is worried about global warming etc, so it is good to see that there is an active push to try and get it sorted. But again, any positivity you get out of that is sort of headed by a bit of worry” [Phase 3, Group 2, male, 18 – 45, West Dunbartonshire, terraced house, financially vulnerable]

Many questioned the fairness of the regulations, with some asking ‘why should we’ when considering the small impact of households in Scotland compared to businesses and the rest of the world. Questions were raised about how the changes will be paid, with many assuming that if the government proposes the regulations, they have to support the households financially.

“It would also be good to acknowledge the fact that Britain is a small drop in the ocean compared to the rest of the world [...] so whatever Scotland does, will make zero difference to the world” [Phase 3, Group 4, female, 18 – 45, Aberdeen, semi-detached house]

4.2.2. Scenario 1 – change of occupancy



In the first scenario, any home changing ownership would be required to meet a minimum energy efficiency standard and have a zero-emissions heating system installed. This would mean that, when a home is sold, the buyer of the property would be required to carry out the necessary energy efficiency improvements and zero-emissions heating installation within two years of the property being sold.

The overall reaction to this scenario was negative, specifically for the new or soon-to-be buyers. According to the participants, this scenario would harm the housing market and people's ability to buy properties.

“This seems very heavy-handed, very prescribed way of doing it. In this scenario, a lot of properties will just simply never get sold. They won't find buyers for them.”
[Phase 3, Group 3, male, 18 – 45, Dumfries & Galloway, detached house]

New buyers, prospective buyers, and older audience members who had children buying their first properties were particularly negative towards this scenario, as they were concerned about young people's ability to make these changes after paying a large deposit. Some participants commented that people often mortgage all they can, so they do not have savings left to make large-scale changes to their new property.

“I think this would put a lot of buyers off buying a home, knowing that I am going to have to replace this boiler with a heat pump.” [Phase 3, Group 5, female, 18 – 45, Glasgow, flat, first-time buyer]

4.2.3. Scenario 2 – backstop dates



In this scenario, the regulations would set the following deadlines for property owners to carry out certain energy efficiency improvements and zero emissions heating system installations.

- a) By the end of 2033, all properties should meet a certain level of energy efficiency, including a good level of insulation and draught-proofing.
- b) By the end of 2045, all properties should be using a zero-emission heating system.

This scenario was seen to be **one of the fairest ways** to ensure that home improvements happen by specific dates since a backstop date can encourage people to move towards upgrading their homes.

“I think across the board, scenario two gives people the options to choose when they want to do something and they're not forced to do it at a particular point and so they can decide themselves at what point to make those changes. Obviously, with an ultimate deadline. [...] So I think broadly that's the more fair option” [Phase 3, Group 3, male, 18 – 45, Dumfries & Galloway, detached house]

4.2.3.1. Fairness

Overall, the scenario was seen as fair in principle, however, the reality of implementing it and the financial impact it may have on the homeowners seemed unfair to the majority, even if they agreed that changes need to happen. The burden this scenario may impose on them outweighs the positive motivation for environmental change.

4.2.3.2. Concerns

Initial reactions across the groups were fear and anxiety. Participants across all groups – not just those who are financially vulnerable – have **concerns about their ability to pay** for these changes.

Some participants questioned what the **penalties** will be for not complying. Some others said that this is a **wasteful way of imposing changes**. If someone has a boiler that works well, why should they have to change it? In addition, participants were concerned about the **potential increase in cost for the materials and labour** if everyone must do the upgrades simultaneously – they mentioned that some installers might start charging increased prices for their services due to the urgency of the work.

“You do hear a lot of stories about cowboy guys that are doing it and getting money from the government and things like that” [Phase 3, Group 5, female, 18 – 45, Glasgow, flat, first-time buyer]

Those in **vulnerable financial circumstances** were concerned about getting through the next few months and could not think ahead to the future and what their situation might be by then.

The **first-time buyers** were anxious about this scenario; many had spent most of their funds on their deposit, and what was left was earmarked for renovations or buying new furniture etc. The idea of having to spend significant amounts of money on home improvements imposed by the government was a big concern for this group.

“It's another sort of like financial thing you have to think about and with everything else, cost of living, etc [...] that's another thing you have to consider financially” [Phase 4, Group 6, female, 18 – 45, currently in the process of buying]

The **middle class (ABC1)** audience was concerned that even if they have the funds for some of the work, it will significantly impact their life as the money they would need to spend has been saved for other needs.

“There are also people with average income [in] need; not just low income [people]. I know we say [these] people [...] they're rich, they have everything, but there are also people that still need help not that too high up in the rich” [Phase 4, Group 6, female, 18 – 45, currently in the process of buying]

4.2.4. Scenario 3 – Boiler breakdown



The third scenario is for the regulations to apply at the point of boiler breakdown. In this scenario, the regulations would state that, when an existing boiler breaks down beyond repair, the property owners would be required to replace it with a zero-emissions heating system, like an air source heat pump. They would not be permitted to install another gas boiler.

Some participants considered this scenario as the least wasteful way to implement changes. The younger audiences were more influenced by the lack of wastage and said there is no need to replace a product if it still works well; more harm is done to the environment by changing earlier.

Questions were raised about the practicality of making these changes in an emergency because participants were aware that there is more that needs to be changed in a house for a heat pump to be installed.

Differences were seen across age groups, with the older audience having a more pragmatic view of this as a bad scenario due to previous experience with boiler breakdowns.

“If you're thrown in a situation like a boiler breakdown, as if the situation is not bad enough, you've lost your boiler, your house is freezing, you know you need to put a whole new system in and you might not be able to afford it” [Phase 3, Group 5, male, 18 – 45, North Lanarkshire, flat, first-time buyer]

In a nutshell

- There was **positivity towards the scenarios**, with all participants understanding that regulations must be in place to encourage change; however, there were concerns about the reality of implementing these regulations given the increasing cost of living.
- **Scenario two** (backstop dates) was seen as one of the **fairest ways** to ensure that home improvements happen by specific dates and encourage people to move towards upgrading their homes.
 - All participants – not just those who are financially vulnerable – had **concerns about their ability to pay for these changes**.
- The overall reaction to **scenario one** (change of occupancy) was **negative**, as it would harm the housing market and people's ability to buy properties.
- **Scenario three** (boiler breakdown) was considered the **least wasteful way to implement changes** as there is no need to replace a product if it still works well.

4.3. Phasing across the scenarios⁹

In the third phase of research, we explored how the proposed regulations could be brought in through a phased approach rather than all households being required to comply at the same time. Participants were asked for their thoughts on what would be the fairest way of doing this and who should go first. It was a challenging topic causing a lot of debate in the groups with interesting insights around the 'fairest route' forward and who should be the 'first' to be enforced to change.

Similarly to phases one and two, all participants agreed that a phased approach is the best way to move forward, with **council housing** and **new build developments** being required to make the upgrades first.

"Local authorities are the best bet for getting the ball rolling. Certainty they are doing that in Annorkar now: people I know have had their conversion to their air thing" [Phase 3, Group 1, female, 46 – 75, West Dunbartonshire, semi-detached house, digitally excluded]

There was debate as to who follows, with some supporting that those with the **highest incomes/tax brackets** should go after and others saying that the **houses with the most significant improvements required** should go after.

4.3.1. Phasing for scenario 2 – backstop dates

Because scenario two was considered the fairest among the three scenarios, in phase four we looked at phasing specifically for backstop dates and how this could be implemented more successfully. Participants suggested that phasing the implementation of the upgrades further would be even more helpful for them, i.e. introducing specific dates by which all insulation upgrades must be completed, or all double-glazed windows installations should be finished etc and added that a phasing approach would reduce the 'all at once' rush to meet a 'one and only' final deadline.

Phasing by council tax

The concept used to introduce the idea of phasing the implementation of this scenario was to phase homeowners by their council tax bands. Council tax bands were selected as an approximation of a property's emissions because data on council tax banding is widely available as opposed to EPC ratings which are not available for every property.

Phasing by council tax band proved to be a significant point of contention for the participants. Many felt that even though this was a logical way to implement change and split the population, there was an assumption made that those with higher council tax bands can afford to make these changes earlier than others which is not always the case. In addition, some participants mentioned that phasing the higher council tax properties first might not be useful, as they believe that these properties tend to be more energy efficient already¹⁰ – properties in lower council tax bands should be the ones being prioritised.

⁹ Phasing across the scenarios was discussed in detail during phase one and phase two of research. For more details, see: "Qualitative research into domestic property owners' attitudes to net zero heating and energy efficiency standards", Phases 1&2, December 2022.

¹⁰ This reflects only the participants' opinion as there is no clear link between council tax banding and energy efficiency.

“I think it sounds logical. I think it does sound really logical. You know, the people with the higher council tax bands submit higher emissions. So yeah, why? Why wouldn't you? Why would you start with the smaller ones dealing with the problem? Yeah, I think that's a really logical way of doing that” [Phase 4, Group 6, female, 46 – 75, currently looking to buy]

EPC ratings

Some first-time buyers suggested EPC ratings as a fairer way of phasing homes, with the lower EPCs going first to reduce their environmental impact and more energy efficient properties with higher EPCs following.

- Those who are first-time buyers or looking to buy their first property were much more aware of EPC ratings, as they had seen them on home reports recently whereas those who have owned their properties for a while had much less awareness of what an EPC rating is and what their own rating is.

Alternative suggestions

The participants said that they expect home improvements to result in reduced bills, so those who are struggling the most should be phased in first to make changes ahead of those in more energy-efficient homes. Generally, the fairest way to make the changes was considered to be phasing those who will be benefited the most first.

In a nutshell

- Participants agreed that **a phased approach is the best way to move forward** as it would reduce the ‘all at once’ rush to meet a ‘one and only’ final deadline.
- **Council houses** and **new build developments** should be the first to make the upgrades required.
- There was debate as to who follows, with some participants supporting that those with the **highest incomes/tax brackets** should go after and others saying that the **houses with the most significant improvements required** should go after.

Phasing by council tax

- Even though phasing homeowners by their council tax bands was considered a logical way to implement change, there was an assumption made that those with higher council tax bands would afford to make these changes earlier than others, which is not always the case.
- Properties in **lower council tax bands** should be the ones being prioritised as they tend to be less energy efficient.
- Participants required **five to ten years’ notice** before the final deadline of any proposed regulation.

4.4. Support

4.4.1. Support overview

In order to understand what support mechanisms (financial and/or non-financial) might be helpful for the general public when the proposed regulations come into force, the participants were asked to share their views and opinions on the design of potential future support that will be necessary to help them make the transition and upgrade their homes.

All participants expected that the Scottish government will implement **large scale support**, both **financial** and **advice** to help them upgrade their homes and hence contribute towards reaching the net zero target. The participants expected that the Scottish Government will provide them with a significant amount of support, both to help them understand why the changes need to happen and what the impact of them will be on the population, as well as financial support to allow people to make changes.

When asked what support means to the audience in relation to these targets, the majority mentioned that practical advice and funding are the two main areas in which they need support. The current lack of understanding surrounding the targets and net zero in general, means that the audience is looking for information specific to their needs but also at a more general level; they want to know the whys and the hows of what needs to be done.

4.4.2. Advice

The participants had many questions about the regulations and what they will mean for them. They were looking mainly to the Scottish Government to provide (or at the least, signpost them towards) advice and clear information – this is best suited coming from government sources, or trusted bodies such as Home Energy Scotland.

“I think support doesn't necessarily only mean financial support. You would need support in terms of education, knowledge and telling people what's out there, what they can do to start things and start that process and who to speak to, and how to get more information or to look into what options they have.” [Phase 3, Group 5, male, 18 – 45, South Lanarkshire, semi-detached house, first-time buyer]

During all phases of research, there was a general expectation that the Scottish government will offer practical advice if these changes are implemented. All mentioned that if the government are implementing regulations, they should be the ones responsible for providing support. Some of the participants' immediate questions are the following:

- Why do I need to make these changes?
- What impact will my contribution have on the bigger picture?
- How do these new heating systems work? Are they fit for purpose?
- Where is the new heating system¹¹ installed and will this work in a flat or shared block?

It is expected that there should be **accessible information available online**, however, participants don't want to have to hunt for information or feel they are going 'round in

¹¹ Participants here referred to heat pumps.

circles' to find what they are looking for and they suggested that the Scottish government should **set up support services** to help answer these questions.

"Maybe a chat like those on websites and then there's a person that you could speak to 24/7" [Phase 4, Group 5, female, 18 – 45, Glasgow, flat, first-time buyer]

The advice should be available through the Scottish Government and other trusted bodies – although the participants had limited awareness of other bodies who would be suited to provide this advice – and did not expect the only source of information to be someone who could profit from the changes i.e. suppliers, engineers, salespeople etc.

"Give us all the advice, but how do we know it's not from somebody that's actually going to financially benefit out of it?" [Phase 4, Group 3, female, 46 – 75, Perth and Kinross, bungalow]

Due to previous experience – participants mentioned Covid regulations– most expected that the Scottish government website will be confusing in providing information and do not think it can give a clear answer to their questions. They suggested that all information must be easily accessible and simple to understand, and that the government website should also signpost people to other trusted sources and videos which might offer clearer explanations.

Prior to the introduction of the regulations, there needs to be increased education around what is required of homeowners and why. All are looking for practical advice to help guide them through the regulations and what they will have to do:

- There is an expectation that older and less efficient homes would be eligible for a **free home consultation/survey** which will detail the changes required in that particular property. This can be conducted face-to-face or via video call. If a home survey is not feasible, there should be significant advice and support provided, detailing the current situation of a house and what is required for it to meet the standards.
- For newer builds, an online comparison/tick box exercise similar to those in comparison websites for insurance would be suitable to guide homeowners through the requirements for their homes.

Homeowners wanted an element of 'hand holding' through the changes; there was a lot of anxiety and concern among the audience and the more information they can be provided with earlier the more informed/at ease they will feel. They expected to receive information that will give them the answers to their questions and not make them more unsure.

Participants recommended:

- Practical guidance on what the regulations will mean for them and their homes.
- Information on grants and further available support.
- Helplines for those who struggle with online information.
- Clear education on why this is needed.
- Demonstrations of new systems in practice/demo houses.
- Personalised advice and guidance for more complex properties.

4.4.3. Financial

Financial support and the information around this were vital to all audiences. Due to the current cost of living crisis, the participants said that the government need to step in with significant grants and information about accessing those grants.

“I'm going to sound like a broken record here, but, money, cash, I think that is what I expect if Scottish Government wants me to meet a certain standard or they need me to meet certain standards to meet the targets that they have set.” [Phase 3, Group 3, male, 18 – 45, Dumfries & Galloway, detached house]

There is a general feeling among the middle-class (ABC1) audience members that they would not be eligible for support. They felt victimised and emphasised that they would be financially unable to make the improvements without financial support from the government. This had a big impact surrounding the idea of fairness, as most of the participants felt that the whole idea of government regulations is unfair. They said that they are seen as the ‘middlemen’ and are left to fend for themselves.

Due to increasing concerns surrounding finances driven by the cost of living crisis, all participants requested significant financial support available to everyone who asks for it, not only the most financially vulnerable. Many mentioned that there is an assumption that people who own their own homes have disposable income and money to spend on home improvements, however, given the current climate, many people who would be considered financially stable are struggling.

- Many of the **middle-class** participants (ABC1) we spoke to are currently struggling, even with two incomes in the household, because the increasing cost of living is significantly impacting their financial situation more than they ever previously would have. Therefore, they expected to receive grant funding in some capacity even though they said that they are often ineligible for funding and are therefore left without support. Many are not currently in the financial situation to be able to afford the changes required without funding of some sort.
- Those who are **financially vulnerable** were worried about their potential ability to pay because they currently have bigger concerns that they are struggling to have the capacity to pay for.
- **Older** and retired participants had serious concerns about how someone in their retirement would be able to pay for these changes; many said this would cause undue stress on this cohort and support needs to focus on people who are retired and may have limited funds.
- **First-time buyers** and **soon-to-be buyers** were very concerned about their ability to pay, as many do not have surplus savings. They said that this would become a deciding factor when looking at new properties as they may have to choose homes with changes already made or reduce their deposit in order to cover improvements.
“I think the government should also have support for people searching, for first-time buyers [...] [These] people have things that they're thinking over trying to survive, trying to pay their mortgages. So having that support should be something in place as well” [Phase 4, Group 6, female, 18 – 45, currently in the process of buying]

For all participants, information and time to prepare are key to reducing the anxiety that surrounds their ability to pay.

There is a lot of scepticism around financial support because many said that often support can be advertised as available, but the small print means they are not eligible. It is key that all communication on support is explicit as to who is eligible, as many of the participants had previously tried to apply for support only to find out down the line that they are not eligible and this was very frustrating for them. Therefore, all financial support must be signposted with clear information on eligibility and must be easily accessible.

- Previous experience of applying for grants/loans was a point of contention as those who had been through this process said that it is often very complex and can take a significant amount of time and effort and described it as a 'minefield' to get the answers they are looking for.
- One person in the rural group had previously received a £10,000 loan from Home Energy Scotland to help with the £20,000 cost of a new system. She found out just two months later that people applying would be offered a 75% grant for the same technology. This angered her significantly and she (and the rest of the group) said that there needs to be consistency in the support available.
 - Support that is available must be clearly signposted by all Scottish government communications and this must remain consistent; any deadlines for applications of support must be heavily advertised to ensure that people know what is available and when this support will be reduced or changed.

"What is your criteria for the grants? That's the first question. Then the loans. How many years is this? Do you have to pay back this loan or like what's the minimum or maximum loan you can kind of borrow?"
[Phase 4, Group 6, female, 18 – 45, currently in the process of buying]

There was an understanding that those in more vulnerable situations will be eligible for more support (grants etc.) however, the middle socio-economic class participants (ABC1) often mentioned that they are left behind when it comes to support, with most agreeing that to make these changes they would have to make significant cutbacks, use savings or dip into retirement funds. While they accepted that they might not receive full funding for these changes, some funding/incentives should be available.

The audience mentioned that 0% loans would be a beneficial option and suggested that the loans could be paid back in a similar way to the bike-to-work scheme – taken off before tax directly from their pay slips.

"I just think it's a significant amount of money by the looks of things to be given as a grant. And then if the rest is an interest-free loan, then I can see that being quite attractive, yeah" [Phase 4, Group 5, female, 18 – 45, Glasgow, flat, first-time buyer]

All agreed that there should be more incentives offered i.e. reduced electricity bills, tax relief etc because according to them, there are currently not enough motivations for change.

Many said that due to the current economic crisis, they are unable to plan for the future; this is concerning for almost everyone we spoke to.

In a nutshell

Participants suggested:

- **Clear advice on what they need to do through an engagement/ awareness campaign.** This is best suited coming from the Scottish Government or other trusted and impartial bodies so that they know that they are being told what is best for their situation as opposed to just being sold to by someone with a commercial interest.
- **Financial support** from the Scottish government to help them upgrade their homes.
 - Due to the current cost of living crisis, financial support should be **available to everyone** who asks for it, not only the most vulnerable.
 - Support might be in the form of grants, interest-free loans, equity loans, arrangements through mortgages or other incentives i.e. reduced electric bills, tax relief etc.
 - All financial support must be signposted with clear information on **eligibility** and must be easily accessible.

4.5. Public engagement

In the third and fourth phase of research, we explored the participants' views on how the public can be educated on the proposed regulations and how the Scottish Government can raise awareness of the home upgrades that will be required. All groups agreed that there needs to be a large-scale campaign to engage with the public about all required changes and the reasoning behind them. The campaign needs to be widely distributed and target all aspects of the population; it needs to start with an upfront 'education' piece to help people understand why the changes are required, what net zero means and the impact it will have on people and their properties.

Different communication channels were suggested by the participants:

- Schools: all ages need to be educated about why reaching the net zero target is essential.
- Party political broadcast style mini videos between TV shows. These can cover different topics, for example: why the home upgrades are needed, the upgrades themselves in detail and what they mean for a property, the regulations in detail, the positive impact reaching net zero will have and signposting to sources of further support of advice.
- Websites with easy-to-read information.
- Quick TV adverts signposting to advise sources.

“Maybe like a television advertisement or even just say, go to this website to see how it would be or like a YouTube video or something like that or kind of view people’s imagination as to, you know, what to expect. So if it's eventually fixed in their house and it doesn't look like that, they would be able to ask the right questions like, so why does this look like it's this way and doesn't look like this in my own house, that sort of thing” [Phase 4, Group 4, female, 18 – 45, East Ayrshire, detached house]

- Online adverts.
- Social media posts, linking to further information.
- Using trusted public figures (example of Martin Lewis given in each group) to discuss the issues more broadly will also help with increased communication around the topic.
- Older participants proposed receiving information by post – this was not wanted by everyone though, so it may be an opt-in option to reduce wastage. They suggested that a letter is the first way that communication should happen because having information in their hands will help solidify the importance of the heat transition.

“A letter with an enclosed leaflet giving further details and explaining” [Phase 4, Group 3, male, 46 – 75, Highlands, detached bungalow]

“Maybe they could have some sort of informative advisors that you could actually contact if you weren't sure what the leaflet was actually saying or needed more explanation [...] because sometimes it's better to speak to somebody face to face. Maybe they're in the Council offices or they could do a home visit for people who are vulnerable and can't get to the council offices

so that you could actually ask the questions that you might have, that you're unsure about what the leaflet actually explains. And sometimes it's better on a face to face with somebody" [Phase 4, Group 3, female, 46 – 75, Highlands, semi-detached house]

- They said that this should be prefaced with communication via the news, which would inform the public that a letter is coming; this would help people to notice it when it arrives. The letter should include key information and links/phone numbers to find more information.

All participants highlighted that they want to feel informed about the proposed regulations and shared their anxiety about what the regulations might mean for their circumstances.

Similarly to phases one and two, references were made to the smoke alarm regulations in all groups; the smoke alarm regulations were given as an example of how not to communicate a new piece of legislation to the public. Many felt that they were never sure what the regulation was requesting, and due to the wide misunderstanding among the population, many needed further clarification about the penalties for not making the requested changes to their fire alarms. Therefore, it is vital that all regulations surrounding net zero need to be clearly communicated to the public with all incentives and penalties signposted to all.

Finally, the participants suggested that the information needs to be distributed as soon as possible, to give people enough time to understand what is going to change and the impact this will have on them. Participants mentioned that they would require a minimum of five years notice before the final deadline of a proposed regulation, while some others felt that ten years would be most suited, as they were concerned that they will not have enough time to save up for the changes required.

"Ten years seems like a reasonable amount, doesn't it? Because it's probably not going to be one thing that you do. It's probably going to be a few things that you do" [Phase 4, Group 5, female, 46 – 75, Falkirk, semi-detached house, first-time buyer]

- In the majority of the groups, the fire alarm regulations were mentioned at this point as well, as many felt that there was not enough notice for this regulation.
"Not so long ago there were there regulations brought about smoke alarms. And that seemed like really, really short notice because it was like February [...] it was absolute panic stations. A lot of people were really worried about that whole situation and that was something that was a relatively small cost to actually resolve" [Phase 4, Group 4, male, 18 – 45, Edinburgh, terraced house]

4.5.1. Frequently asked questions

In phase four of research, the participants were asked to share their questions and concerns in the focus groups, with the aim to understand better the queries that the public might have when the proposed regulations come into effect. The questions that the participants had are shown in the following list:

General questions:

- What are the penalties for not adhering?
- How do we get clear and impartial advice?

- What is in it for us/what are the benefits?
- Why is this happening now?
- What support will we receive?
- What is a heat pump?

New heating system questions

- Is this technology viable for all property types?
- How easy are the new systems to use?
- Are the new systems heavily tested and backed by substantial evidence?
- If the system breaks down what is the impact, and can it be fixed?
- What are the alternatives if I can't have a heat pump?
- Are they noisy?
- What is the lifespan of one of these systems? Will it need replacing every ten years?
- How durable are the new systems? (e.g. in rough conditions on rural islands)

Grants and funding

- What happens to us if we cannot afford this?
- Will there be credit checks for funding?
- How long do I have to repay loans?
- Can I control the payments/amount?
- Will these loans be paid back pre-tax like a student loan?
- What are the criteria for grants?
- How will loans be monitored and by whom?

In a nutshell

- There needs to be a **large-scale campaign** to engage with the public about all required changes and the reasoning behind them. The campaign needs to be widely distributed and target all aspects of the population.
- The campaign needs to start with an **upfront 'education' piece** to help people understand why the changes are required, what net zero means and the impact it will have on people and their properties.
- The information needs to be **distributed as soon as possible**, to give people enough time to understand what is going to change and the impact this will have on them.

5. Conclusions

This section outlines the key findings against the research questions posed:

What are domestic property owners' views on the imposition of regulatory standards for both zero emissions heating and energy efficiency in domestic properties over the time period out to 2045?

- Net zero was a term most participants were aware of but there was **limited understanding** of what this means for them at an individual level. According to the participants, if the net zero targets are to be achieved then more needs to be done to raise public awareness.
- Participants were **sceptical about the government's ability to take action**, even though they were generally positive about the environmental motivations to reach the net zero targets. However, the reality of meeting these targets was uncertain as the timeframe did not seem achievable for all households, due to the current cost of living crisis.
- Whilst most participants agreed that something needs to be done to reduce emissions and help Scotland reach net zero, there was a disconnect between agreeing with this and taking responsibility themselves to take action. **Many stated the cost of complying and not seeing a clear, personal financial benefit from upgrading their properties as the main barriers.**
- Whilst participants are not against the imposition of standards in domestic properties, they said that the government should be leading from the front as well as industry and big business. Participants said that their impact as individuals was much smaller in comparison to big businesses and the industry and that they want to see these organisations taking action too.
- Middle-income participants were concerned that they will not be eligible for financial support to upgrade their homes even though they think that they are not in a financial situation to pay for changes to their homes themselves.

What are domestic property owners' views on specific potential models for standards and how would those apply across society?

Overall, there was positivity towards the scenarios, with all participants understanding that regulations must be in place to encourage change; however, there were concerns about the reality of implementing these regulations. There was a lot of anxiety around enforcing change and imposing laws and this was concerning for the participants, specifically given the current economic climate and the increasing cost of living. Most understood the importance of environmental improvements; however, the financial impact of these changes was of higher importance to the audience.

Scenario 2 (backstop dates) was seen as one of the fairest ways to ensure that home improvements happen by specific dates and encourage people to move towards upgrading their homes.

- All participants– not just those who are financially vulnerable – had **concerns about their ability to pay for these changes.**
- Some participants said that this is a **wasteful way of imposing changes.** If someone has a boiler that works well, why should they have to change it?

Participants attitudes towards scenarios one and three were mostly negative:

- The overall reaction to scenario one was negative, specifically for the new or soon-to-be buyers. According to the participants, this scenario would harm the housing market and people's ability to buy properties.
- Some participants considered scenario three as the least wasteful way to implement changes as there is no need to replace a product if it still works well. All participants agreed that if their heating system broke, they would need to replace it as soon as possible, without the time to research a technology that they do not know much about let alone the time to raise any additional funds.

How should the proposed regulation be implemented in a phased approach and what is the fairest way of doing this?

All participants agreed that **a phased approach is the best way to move forward** as it would reduce the 'all at once' rush to meet a 'one and only' final deadline; participants suggested council housing and new build developments to be the first to make the upgrades required. There was debate as to who follows, with **SOME** supporting that those with the highest incomes/tax brackets should go after and others saying that the houses with the most significant improvements required should go after.

- The concept used to introduce the idea of phasing the implementation of this scenario was to phase homeowners by their **council tax bands**. Participants said that even though this was a logical way to implement change, there was an assumption made that those with higher council tax bands would afford to make these changes earlier than others, which is not always the case. In addition, some participants mentioned that phasing the higher council tax properties first might not be useful, as according to them these properties tend to be more energy efficient already – properties in lower council tax bands should be the ones being prioritised.
- Participants mentioned that they would require a minimum of five years' notice before the final deadline of a proposed regulation, while some others felt that ten years would be most suited, as they are concerned that they will not have enough time to save up for the changes required.

What do domestic property owners believe may help them meet any standards, and who should provide this help?

There are two main areas that participants said would help them to meet any new standards:

- **clear advice on what they need to do through an engagement/awareness campaign.** The participants had a large number of questions about the regulations and what they will mean for them personally. They were looking mainly to the Scottish Government to provide (or at least, signpost them towards) advice and clear information. This is best suited coming from government sources or trusted and impartial bodies so that they know that they are being told what is best for their situation as opposed to just being sold to by someone with a commercial interest.
- there was an expectation from all participants that **the Scottish government will implement large-scale support, both financial and advice related** to help them upgrade their homes and hence contribute towards reaching the net zero target. Due to the current cost of living crisis, all participants requested the financial support to be available to everyone who asks for it, not only the most vulnerable. Support might be in the form of grants, interest-free loans, equity loans, arrangements through mortgages

or other incentives i.e. reduced electric bills, tax relief etc. All financial support must be signposted with clear information on eligibility and must be easily accessible.

How do domestic property owners perceive the interrelationship between any standards and climate change, and to what extent does the role of standards in tackling climate change affect their attitudes towards it?

- Participants did see the link between any new standards and climate change, but the link isn't tangible enough for them. Most participants don't understand what will happen if it's not done and they don't see the impact or benefit to them personally.
- Some participants said there is too much of a gloomy outlook on climate change and a feeling that it is too late to do anything whilst others feel there needs to more scaremongering to encourage people to take action.
- Participants said that the personal impact that they can have is very minimal when compared to big businesses, industry and other countries.
- Participants said that they would need to understand the impact and benefits more clearly before investing into these changes.

In which ways can the public be informed and educated on the proposed regulations and the home upgrades that will be required to meet net zero?

There needs to be a **large-scale campaign** to engage with the public about all required changes and the reasoning behind them. The campaign needs to be widely distributed and target all aspects of the population; it needs to start with an **upfront 'education' piece** to help people understand why the changes are required, what net zero means and the impact it will have on people and their properties. The participants suggested that the information needs to be distributed as soon as possible, to give people enough time to understand what is going to change and the impact this will have on them.

Appendix A Phase 3 focus group recruitment structure

Format / Venue	Quota
F2F Glasgow	Group 1 – Glasgow / 1x Urban / 6x Suburban / Digitally excluded / B, C1, C2, D / 45-75 / inc 1 x BAME participant / inc 1 participant not connected to the gas grid / inc 1 participant with accessibility needs / 7 participants in total
	Group 2 – Glasgow / 4x Suburban / Financially vulnerable / C2, D / 18-75 / inc 1 x BAME participant / all participants connected to the gas grid / no participants with accessibility needs / 4 participants in total
Remote	Group 3 – Highlands & Islands, Grampian & Scottish Borders / 5x Rural / B, C1 / 18-75 / no BAME participants / no participants on the gas grid / 5 participants in total
Remote	Group 4 – Edinburgh, Dundee, Stirling, Aberdeen, Glasgow / 4x Urban/Suburban / 1x Rural / B, C1 / 18-75 / inc 1 x BAME participant / all participants connected to the gas grid / 5 participants in total
Remote	Group 5 – All over Scotland / 3x Urban / 2x Suburban / First-time buyers / B, C1 / 18-45 / no BAME participants / all participants connected to the gas grid / no participants with accessibility needs / 5 participants in total
Remote	Group 6 – All over Scotland / 2x Urban / 1x Suburban / 3x Rural / Prospective buyers / C1, C2, D / 18-45 / inc no BAME participant / inc 2 participants not connected to the gas grid / no participants with accessibility needs / 6 participants in total

Appendix B Phase 4 focus group recruitment structure

Format / Venue	Quota
F2F Glasgow	Group 1 – Glasgow / 6x Suburban / Digitally excluded / B, C1, C2, D / 45-75 / no BAME participants / all participants connected to the gas grid / inc 2 participants with accessibility needs / 6 participants in total
	Group 2 – Glasgow / 2x Urban / 4x Suburban / Financially vulnerable / C2, D, E / 18-75 / inc 1 x participant from ethnic minority group / all participants connected to the gas grid / inc 1 participant with accessibility needs / 6 participants in total
Remote	Group 3 – Highlands & Islands, Grampian & Scottish Borders / 7x Rural / B, C1 / 18-75 / inc 1 x BAME participant / 4 participants not connected to the gas grid / inc 1 participant with accessibility needs / 7 participants in total
Remote	Group 4 – Edinburgh, Dundee, Stirling, Aberdeen, Glasgow / 1x Urban / 3x Suburban / B, C1 / 18-75 / inc 1 x BAME participant / all participants connected to the gas grid / no participants with accessibility needs / 4 participants in total
Remote	Group 5 – All over Scotland / 2x Urban / 3x Suburban / 1x Rural / First-time buyers / B, C1, C2 / 18-45 / inc 1 x BAME participant / inc 1 participant not connected to the gas grid / no participants with accessibility needs / 6 participants in total
Remote	Group 6 – All over Scotland / 1x Urban / 3x Suburban / Prospective buyers / B, C1 / 18-45 / inc 1 x BAME participant / all participants connected to the gas grid / no participants with accessibility needs / 4 participants in total

Appendix C Phase 3 discussion guide

1. Introduction (0 - 10 mins) (10 mins)

Welcome and thank you for agreeing to participate — [moderator introduction, housekeeping: WC, fire alarm and finishing time].

As we explained in the pre-task information, we are working with the Energy Saving Trust to undertake some research for the Scottish Government on homeowners' attitudes to net zero heating and energy efficiency standards.

This stage of research with homeowners consists of four phases; the first two were completed between June and September 2022, and we are currently in the third phase. This phase aims to build on and challenge some of the themes developed in the first two phases while exploring some new ideas with you.

Explain teams group/viewing facility set up - recorded, confidentiality, honest feedback, no right or wrong answers – interested in your personal opinion and what's really important to you as a homeowner.

Introductions: To get the ball rolling, we would like to have a round of introductions – please can you tell me your name, the type of property you currently own and perhaps one thing you've done or thought about doing to become more 'energy efficient' at home?

2. Net Zero & The Customer Journey (10 – 20 mins) (10 mins)

Objective: To explore homeowners' understanding of net zero and their willingness to play a role in meeting Scottish Government's net zero commitments. (option: to explore where homeowners feel they are on their personal journey to net zero and how manageable/feasible this journey feels).

Net Zero

Before this session, we shared with you a brief description of the Scottish Government's aims and two videos explaining what 'net zero' means, how we can get there and information about air source heat pumps as an example of a technology that can help in this transition.

1. Is net zero a concept you were familiar with before watching the video?
2. How do you feel about the **government's commitment** to net zero and in particular the ambition to reach EPC C in all houses by 2033 and to have zero direct emissions heating installed by 2045?
3. How involved/interested would you say you are in **personally helping to support these aims** with things you can do in your life? (e.g. adopting technologies like air source heat pumps)
4. How realistic does this feel to you just now?

3. Introducing the scenarios (20 mins – 35 mins) (15 mins)

Objective: To consolidate and build on learnings from phase 1 and 2. Scenarios to be presented together to give the audience an overview of each scenario.

In order to deliver the net zero target, the Scottish Government is considering bringing in new regulations that require homeowners to improve the energy efficiency levels of their homes and replace their gas boilers or other fossil-fuel heating systems with zero emissions heating systems like heat pumps.

As part of the process of developing the new regulations, the Scottish Government is considering lots of different options. In the first two phases of this research we have looked in detail into these three scenarios, so for this phase we will briefly talk over them before moving on to the next section.

Introduce 3 scenarios:

How do you feel about the scenarios overall?

- probe understanding & relative appeal
- 1. Which scenario do you feel would be the fairest approach? Why?

Moderators: is it 'fairest' because it aligns with their own interests/circumstances or 'fairest' for society overall?

Moderators: Rotate order for concept review within groups (not always leading with strongest first).

Are there any other scenarios or ways of phasing the introduction of the requirements you think could be considered or would be a 'fairer' option? Fairer for whom, and in what way?

4. Potential future support (35 mins – 1h 10 mins) (35 mins)

Objective: Provide initial insights regarding domestic property owners' views on the design of potential future support (financial and/or non-financial) that will be necessary to help them make the changes required by the new proposed standards.

Moderator to say: We are keen to explore your attitudes, expectations and needs in relation to making the transition and what support might be needed for this.

1. What does the term 'support' mean to you when you think about these changes?
2. Given everything we have discussed today, who you would go to in the first instance to find out more and seek advice/support to undertake the changes stipulated by the proposed regulations?
 - Why? Probe on why for each response given

- Is there anyone you would not go to/would not trust? Why?
3. What type of help/support do you expect you would need to meet the proposed standards?
 - Probe on knowledge/understanding of changes to be made and the financial, or other types of implication of the regulations (e.g. home disruption, journey and steps to take from EE retrofit through to HP installation etc.).
 - Probe on what people think might concern them most when it came to undertaking the changes required in their own situation – explore, understanding why and what they think could help them a) prepare in advance, and b) take action when the time comes.
 4. What would you consider to be ‘fair and just’ in terms of support provision? And how best this might be targeted?
 - Probe on different vulnerabilities, those aged 75+, disabled, financially vulnerable etc.
 - Probe on how people conceive of “(in)ability to pay” in the context of heat transition and changes required
 5. What, if any, support do you think you will need once you have undertaken the necessary retrofit works?
 - Probe on how this should be delivered and by who
 6. Do any of you have any previous experience receiving or looking into the support available through Home Energy Scotland?

Given everything we’ve just discussed, I am now going to show you what the current offer of Scottish Government support looks like for people to undertake these changes.

SHOW CURRENT SUPPORT AVAILABLE from Home Energy Scotland

Reflecting on what we have talked about already today:

7. What are your views on the support available currently from Home Energy Scotland?

5. Public engagement (1h 10 mins – 1h 30 mins) (20 mins)

Objectives: To understand the public's views on how best they can raise awareness and educate on the heat transition (through which channels, tactics, target audiences etc.)

1. In this section we are going to use our imagination...I want you to imagine these regulations are taking place in the next few years and you need to start making changes to your homes, how would you expect the Scottish government to raise awareness of these regulations?
 - Probe channels used? Social media platforms, news, press etc.
 - Probe on tactics – what is the best method of communicating these changes?
 - Probe target audience – who needs to be targeted in which way?
 - i. Probe on different methods for different people/audience groups
2. How do you think the Scottish government, and partners, can best educate people on the heat transition?
 - Is the Scottish government best suited to educate people on this?
 - i. If no, who?
3. What role do you see the Scottish Government having in increasing awareness and understanding of the changes that a move to renewables heating will involve for property owners?
 - i. Who else do you think should play an active role in awareness raising, and why?
 - ii. Moderators note: SG are keen to find balance in discussion so not all geared towards what should (only) SG be doing in this space.

Thank you and close

Appendix D Phase 4 discussion guide

1. Introduction (0 - 10 mins) (10 mins)

Welcome and thank you for agreeing to participate — [moderator introduction, housekeeping: WC, fire alarm and finishing time].

As we explained in the pre-task information, we are working with the Energy Saving Trust to undertake some research for the Scottish Government on homeowners' attitudes to net zero heating and energy efficiency standards.

This stage of research with homeowners consists of four phases; the first three were completed between June and December 2022, and we are currently in the final phase phase. This phase aims to build on and challenge some of the themes developed in the first three phases while exploring some new ideas with you.

Explain teams group/viewing facility set up - recorded, confidentiality, honest feedback, no right or wrong answers – interested in your personal opinion and what's really important to you as a homeowner.

Introductions: To get the ball rolling, we would like to have a round of introductions – please can you tell me your name, the type of property you currently own and perhaps one thing you've done or thought about doing to become more 'energy efficient' at home?

2. Net Zero & The Customer Journey (10 – 15 mins) (5 mins)

Objective: To explore homeowners' understanding of net zero and their willingness to play a role in meeting Scottish Government's net zero commitments. (option: to explore where homeowners feel they are on their personal journey to net zero and how manageable/feasible this journey feels).

Net Zero

Before this session, we shared with you a brief description of the Scottish Government's aims and two videos explaining what 'net zero' means, how we can get there and information about air source heat pumps as an example of a technology that can help in this transition.

5. Is net zero a concept you were familiar with before watching the video?
6. How realistic does Net Zero this feel to you just now?

7. Introducing the scenarios (15 mins – 35 mins) (20 mins)

Objective: To consolidate and build on learnings from phase 1, 2 and 3. Scenarios to be presented together to give the audience an overview of each scenario.

To deliver the net zero target, the Scottish Government is considering bringing in new regulations that require homeowners to improve the energy efficiency levels of their homes and replace their gas boilers or other fossil-fuel heating systems with zero emissions heating systems like heat pumps.

As part of the process of developing the new regulations, the Scottish Government is considering lots of different options. In the first three phases of this research we have looked in detail at three scenarios, however, for this phase we only look at one of the scenarios.

Introduce scenario (Scot Gov to provide examples of potential backstop dates)

One of the ways this could be achieved is by phasing in backstop dates. A backstop date is a date by which the homeowner would need to have upgraded their home. Groups of homeowners could be grouped together to take action by a set date.

1. How do you feel about the scenario overall?
 - Probe understanding & relative appeal.
2. Do you think this scenario would be a fair approach?
 - Probe is it 'fairest' because it aligns with their own interests/circumstances or 'fairest' for society overall?
3. How would you feel if this scenario came in to place tomorrow?
 - Explore ability to pay and how this makes them feel

Introduce phasing (Scot Gov to provide information on phasing options council tax etc.)

One option is to group homeowners by council tax banding. This would mean that, for example, homes in council tax band H could have an earlier backstop date to homes in council tax band A. We know that typically homes in higher council tax bandings emit more emissions.

1. How do you feel about the idea of phasing the scenarios with council tax bands?
 - Probe on how this would affect them and how they see this working.
2. Are there any other scenarios or ways of phasing the introduction of the requirements you think could be considered or would be a 'fairer' option? Fairer for whom, and in what way?

{Moderator note: for this phase SG are keen to hear about the fairness in detail – please probe around this if time allows}

Thinking about the idea of a backstop date. How much advance notice would you expect to get regarding the date?

4. Potential future support (35 mins – 1h 10 mins) (35 mins)

Objective: Provide initial insights regarding domestic property owners' views on the design of potential future support (financial and/or non-financial) that will be necessary to help them make the changes required by the new proposed standards.

Moderator to say: We are keen to explore your attitudes, expectations and needs in relation to making the transition and what support might be needed for this.

8. What does the term 'support' mean to you when you think about these changes?
 - Probe on emotional, financial and practical support
9. What type of help/support do you expect you would need to meet the proposed standards?
 - Probe on knowledge/understanding of changes to be made and the financial, or other types of implication of the regulations (e.g. home disruption, journey and steps to take from EE retrofit through to HP installation etc.).
 - Probe on what people think might concern them most when it came to undertaking the changes required in their own situation – explore, understanding why and what they think could help them a) prepare in advance, and b) take action when the time comes.
10. What would you consider to be 'fair and just' in terms of support provision? And how best this might be targeted?
 - Probe on different vulnerabilities
 - Probe on how people conceive of "(in)ability to pay" in the context of heat transition and changes required.

We would now like to consider the journey you would go on if you had to now go and make these changed to your home.

1. Firstly, where do you imagine you would find out about these regulations?
 - Where would you expect information to come from?
 - Where would you not expect to be told about it?
2. Now, given everything we have discussed today, where would you look in the first instance after finding out about these regulations?
 - How do you think you would find out about what needs done in your home? And how would you explore the possible measures?
 - Where would you look to seek advice/support to undertake the changes?
 - Why? Probe on why for each response given.
 - Is there anyone you would not go to/would not trust? Why?

3. Finally, now that you know more about the regulations and what you will need to do in your home, where would you go in order to activate this and make the changes?
 - What, if any, support do you think you will need once you have undertaken the necessary retrofit works?
 - i. Probe on how this should be delivered and by who.

Given everything we've just discussed, I am now going to show you what the current offer of Scottish Government support looks like for people to undertake these changes.

Show available support from Home Energy Scotland (clarify this is the current support and this may change over time)

Reflecting on what we have talked about already today:

4. What are your views on the support available currently from Home Energy Scotland?
 - Do you think this support is enough?
 - What more support would you expect?
 - Is this who you would expect to see support from?

5. Public engagement (1h 10 mins – 1h 25 mins) (15 mins)

Objectives: To understand the public views on how best they can raise awareness and educate on the heat transition (through which channels, tactics, target audiences etc,)

4. In this section we are going to use our imagination...I want you to imagine these regulations are taking place in the next few years and you need to start making changes to your homes, how would you expect the Scottish government to raise awareness of these regulations?
 - Probe channels used. Social media platforms, news, press etc.
 - Probe on tactics – what is the best method of communicating these changes?
 - Probe target audience – who needs to be targeted in which way?
 - i. Probe on different methods for different people/audience groups
5. How do you think the Scottish government, and partners, can best educate people on the heat transition?
 - Is the Scottish government best suited to educate people on this?
 - i. If no, who?
6. What role do you see the Scottish Government having in increasing awareness and understanding of the changes that a move to renewable heating will involve for property owners?
 - i. Who else do you think should play an active role in awareness raising, and why?
 - ii. Moderators note: SG are keen to find balance in discussion so not all geared towards what should (only) SG be doing in this space.

6. FAQ section (1h 25 mins – 1h 30 mins) (5 mins)

Objectives: To understand the initial questions that the audience have at this stage, this will help to build out a FAQ section and allow for 'real' questions to be answered

In this section I want you to imagine you have just heard about these regulations, either through word of mouth or the news etc. I want you to put yourself in this mindset and tell me your immediate questions, what is top of mind and worrying you?

Allow the respondents to quick fire questions, these can be things which have been discussed already within the group. Remind them that there are no silly questions!

Thank you and close



© Crown copyright 2023

OGL

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at www.gov.scot

Any enquiries regarding this publication should be sent to us at

The Scottish Government
St Andrew's House
Edinburgh
EH1 3DG

ISBN: 978-1-83521-051-2 (web only)

Published by The Scottish Government, November 2023

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA
PPDAS1312943 (11/23)

W W W . g o v . s c o t