



# Consumer Voices: Energy efficiency, climate change, and low carbon heating.



## Introduction

In April 2021, Citizens Advice Scotland commissioned a survey of 1000 adults from YouGov. The survey was designed as a temperature taking exercise aimed at gauging consumer knowledge of, and engagement with the subjects of energy and water efficiency, climate change, and low carbon heating.

## Key Findings

- > **65%** of respondents did not have any water/energy efficiency measures installed in their homes<sup>1</sup>
- > **68%** support net zero by 2045
- > **18%** see climate change as more of a priority for them since COVID-19
- > **41%** think reducing the impact of climate change should be more of a priority for SG as the country recovers from COVID
- > When asked, “ In your opinion, which THREE, if any, of the following do you think would have the biggest impact on reducing greenhouse gas emissions overall?” only **13%** selected installing a low carbon heating system in place of gas, oil or LPG-fuelled heating. This is significant because replacing this kind of heating is likely to be one of the first things consumers are required to do to transition to net zero<sup>2</sup>
- > **59%** thought making homes more energy efficient should be prioritised in SG’s climate response (could select multiple options)
- > **90%** were not aware that reduced reliance on ‘blue’ hydrogen would mean most homes and businesses would need to replace their gas heating systems with an alternative source of heating (e.g. a heat pump) as ‘green’ hydrogen would be prioritised for industry and forms of transport that are difficult to electrify

## Conclusions

These findings indicate that while consumers are largely supportive of transitioning to net zero by 2045, many are unaware of what that means in practice. Respondents were willing to take action to reduce their carbon footprint but were concerned about both the high up-front costs of low carbon heating and the possibility of higher energy bills.

Respondents were aware that increasing the energy efficiency of Scotland’s homes would have an impact on reducing carbon emissions, but more felt that it was something the Scottish Government should prioritise rather than an action they should take as individuals.

More research would be beneficial to gain a better understanding of how consumers understand their role in reaching net-zero by 2045.

<sup>1</sup> or what they would identify as a water/energy efficiency measure

<sup>2</sup> Respondents could select up to three answer options

# Consumer Voices

## Energy efficiency, climate change, and low carbon heating



### Awareness

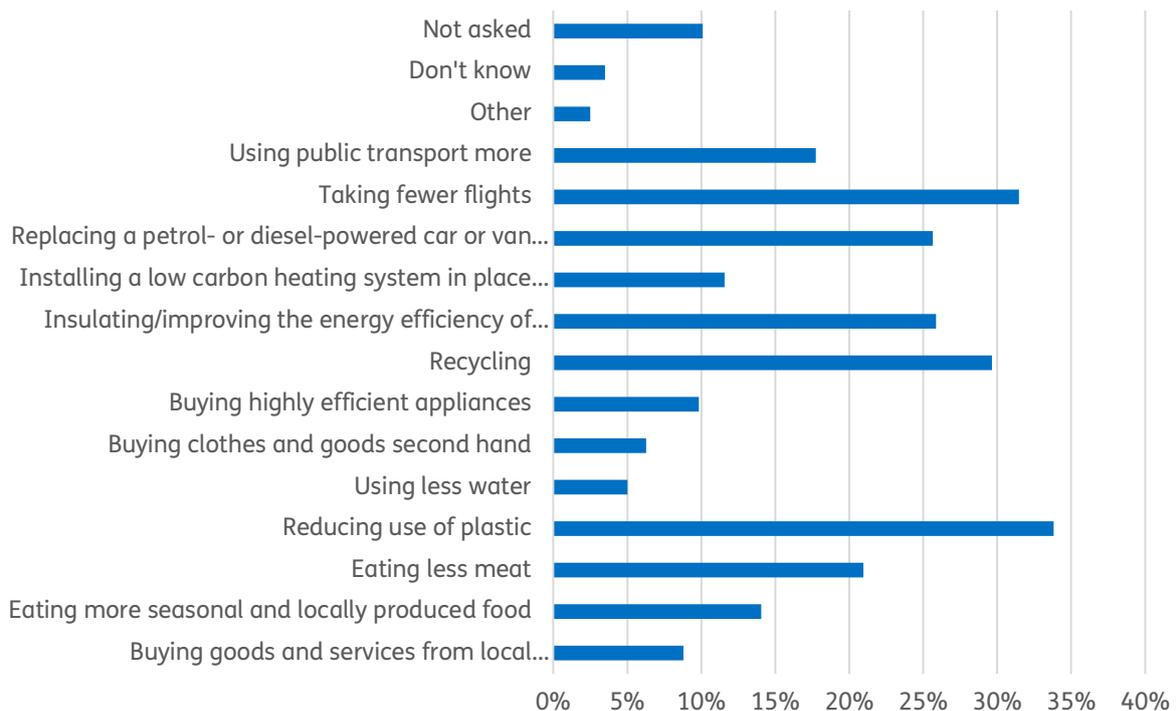
The survey asked consumers several questions to gauge awareness of energy/water efficiency, emerging technologies, and the impact transitioning to net-zero could have on their homes and/or lifestyles.

About half of respondents (48%) admitted to not knowing how much of their heating bill was spent on heating water. While the amount varies depending on heating type, usage, and type of boiler, the average household spends 10-25% of their heating bill on hot water. A third (33%) of respondents estimated that this could be up to 25% of their heating bill.

Most respondents felt that recycling (81%), using less plastic (77%), and insulating homes (70%) were steps someone could take to reduce their carbon footprint (respondents could select as many as they felt were applicable). Other popular options included eating more seasonally and locally produced food (63%), taking fewer flights (60%), and buying goods/services from local shops and tradespeople (58%).

When asked which out of the options presented would have the biggest impact on reducing carbon emissions, reducing use of plastic (34%), taking fewer flights (31%) and recycling (30%) were the most popular options. Few recipients selected using less water (5%), installing a low carbon heating system in place of gas, oil or LPG (12%), or buying highly efficient appliances (10%), indicating that while consumers are aware that heat, water and energy use play a role in determining their carbon footprint, they are not seen as a large part of greenhouse gas emissions.

In your opinion, which THREE, if any, of the following do you think would have the biggest impact on reducing greenhouse gas emissions overall? (Please select up to three answer options)(Base: 1000 Scottish adults)



<sup>3</sup> [Uswitch.com](https://www.uswitch.com)

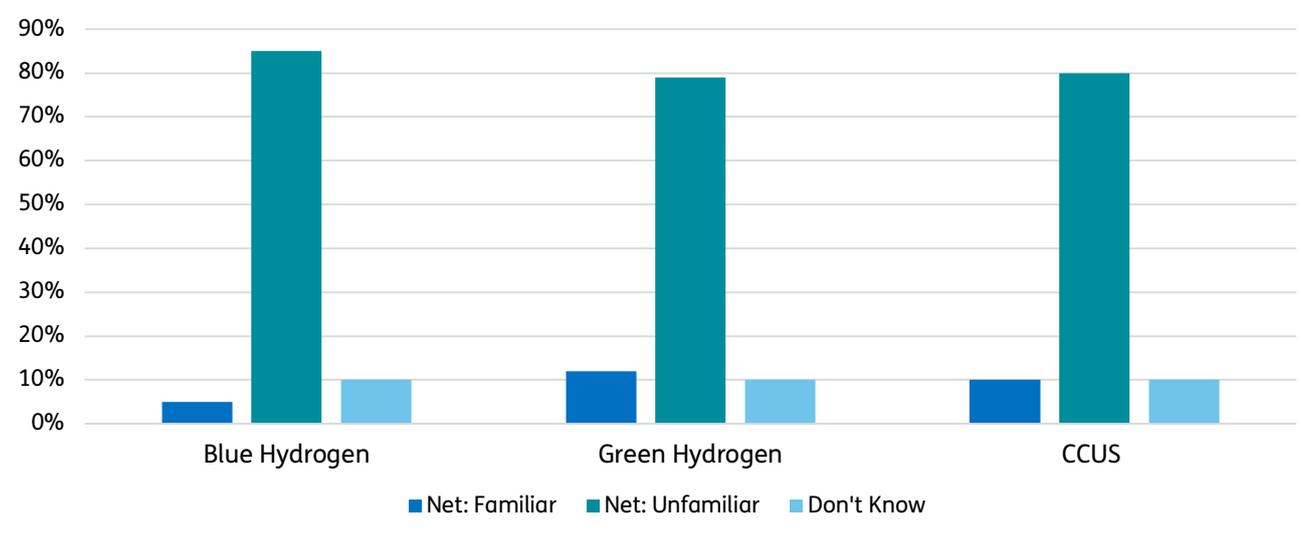


# Consumer Voices

## Energy efficiency, climate change, and low carbon heating

Scotland's climate change commitments mean that unlimited use of natural gas must end by 2045. Most gas central heating will need to be replaced, and gas cookers and water boilers will also need to be phased out. This will require significant investment in low carbon heating and different measures to reduce our use of natural gas energy. 70% of respondents were not aware of this information before the survey. Further information about "blue" and "green" hydrogen and carbon capture utilisation and storage was provided, and respondents were asked to indicate their level of familiarity with each of the terms<sup>4</sup>. The great majority of consumers were unfamiliar with each term. Similarly, 90% of respondents were not aware that hydrogen was likely to be prioritised for industry use over domestic heating.

Before taking this survey, how familiar were you with each of these terms? (Please select one option on each row)(Base: 1000 Scottish Adults)



<sup>4</sup> Information provided: "The use of hydrogen in place of natural gas is one way to decarbonise heat. So-called 'green' hydrogen can be produced with zero greenhouse gas emissions by using renewable electricity and water. In contrast, 'blue' hydrogen exposes natural gas to a chemical process that creates greenhouse gases. These greenhouse gases need to be captured and buried in disused oil wells under the North Sea in a process known as Carbon Capture, Utilisation, and Storage (CCUS)."



# Consumer Voices

## Energy efficiency, climate change, and low carbon heating

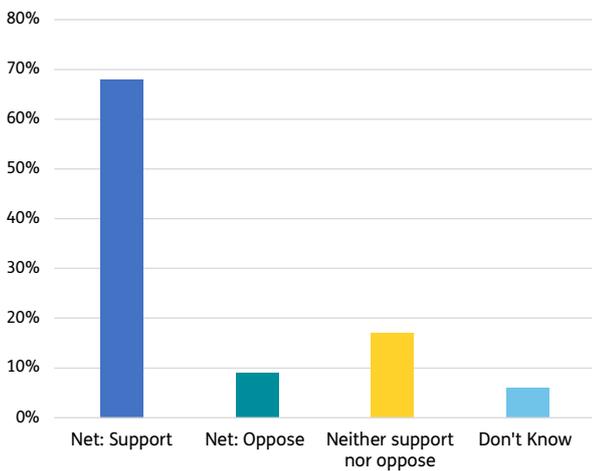


### Priorities

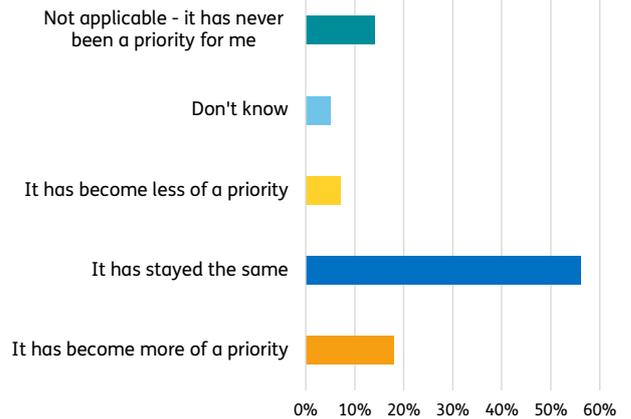
In response to the worsening global climate crisis, Scotland has committed to legally binding targets to become a net zero society by 2045. These are some of the most ambitious climate change targets of any nation and mean that net emissions of all greenhouse gases must be reduced to zero by 2045. Consumers were asked to what extent they supported this commitment. More than two thirds (68%) supported Scotland's net zero commitments, while 17% neither supported nor did not support them, and 9% did not support them.

For most respondents (56%) reducing the impact of climate change has remained a priority throughout the COVID-19 pandemic. For 18% of respondents, it became more of a priority.

To what extent do you support or oppose Scotland's commitment to reach net zero by 2045?  
(Base: 1000 Scottish Adults)



Has reducing the impact of climate change personally become more or less of a priority for you since the start of the COVID-19 pandemic (i.e. since March 2020) or has it stayed the same? (Base: 1000 Scottish Adults)





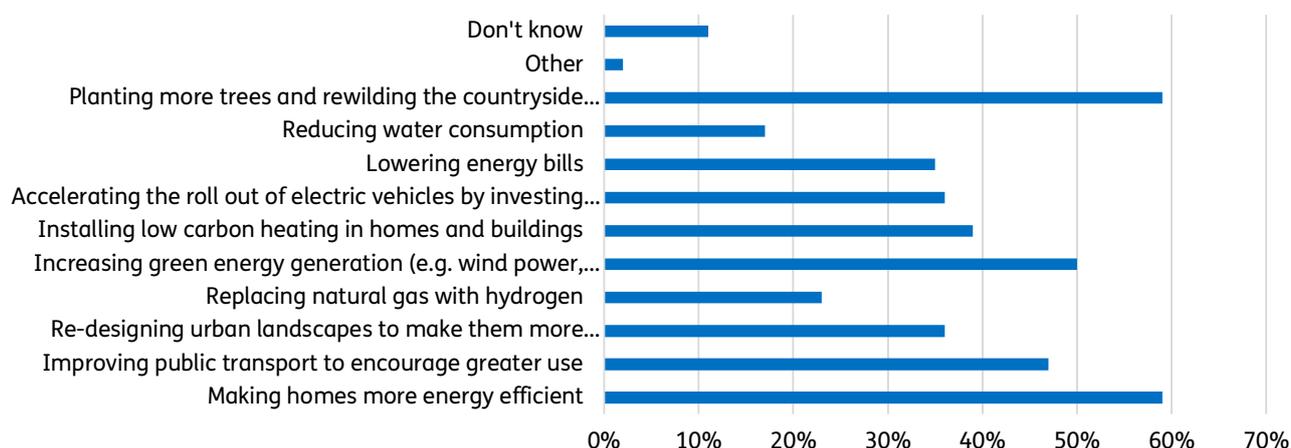
## Consumer Voices

### Energy efficiency, climate change, and low carbon heating

We asked survey respondents which, of the options provided, they felt should be prioritised in Scotland's response to the climate situation and working towards a net zero society by 2045. Respondents could choose as many options as they felt applied.

The two options selected most often were making homes more energy efficient (59%) and planting more trees/rewilding the countryside (59%). 35% of respondents felt lowering energy bills should be prioritised. More than twice as many respondents selected making homes more energy efficient for this question as rated in the top three actions they could personally take to reduce their carbon footprint. This could indicate that consumers see improving energy efficiency as a responsibility for the government rather than individual homeowners to tackle.

Which, if any, of the following do you think should be prioritised in Scotland's response to the climate situation, and working towards becoming a net zero society by 2045?  
(Please select all that apply) (Base 1000 Scottish Adults)



Double or triple glazed windows (28%), solar panels (26%) and underfloor insulation (23%) were the most popular measures respondents would install if cost was not a factor (respondents could choose multiple options)<sup>5</sup>. Least popular were solar batteries (8%), infrared heating (7%) and a heat network (7%). This may be because these are uncommon measures that people are less likely to have heard of or engaged with.

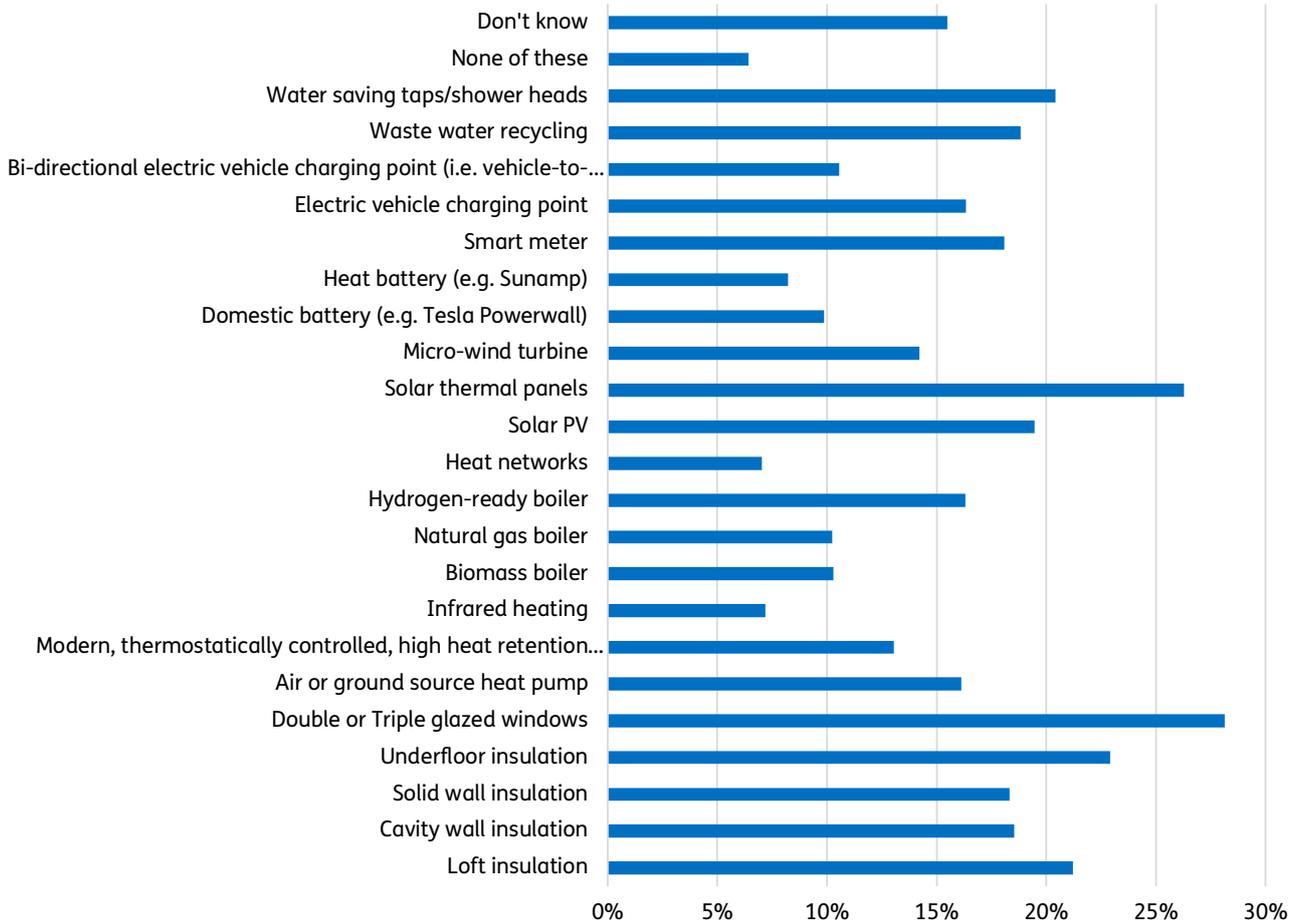
<sup>5</sup> Respondents who did not own their home were asked to answer this question as well, and to imagine they were able to make the improvements

# Consumer Voices

## Energy efficiency, climate change, and low carbon heating



Which, if any, of the following energy/ water saving/ efficiency measures/ technologies would you install in your home, if cost was not a factor? (Please select all that apply) (Base: 1000 Scottish Adults)



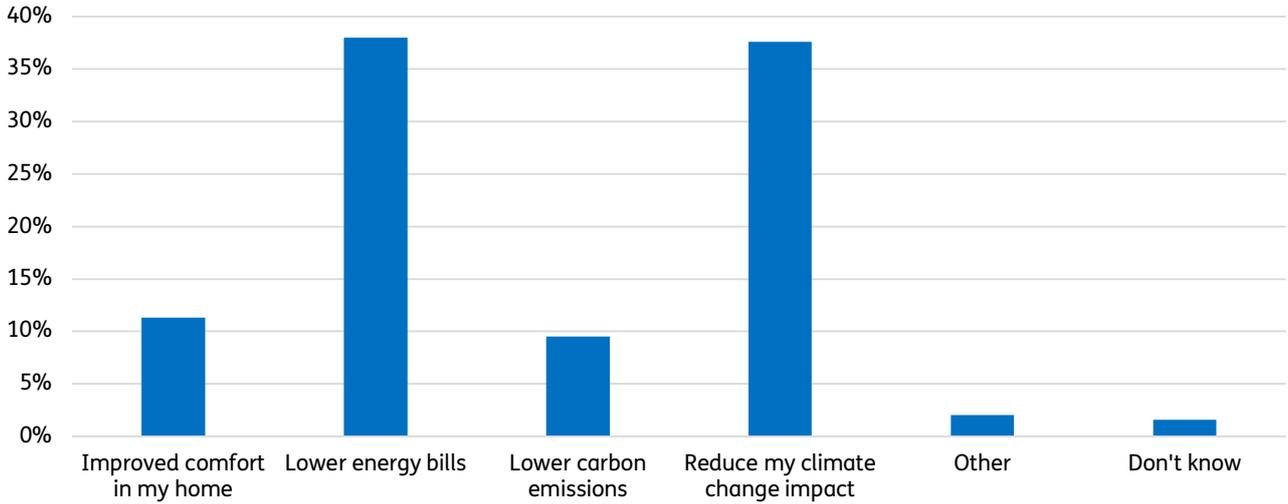
The main reasons respondents were willing to make changes to their homes were to lower energy bills (38%) and reduce their climate change impact (38%). Other reasons included improving comfort in the home (11%) and lowering carbon emissions (10%). Carbon may not be an easily understood or relatable concept for consumers to engage with. More research is needed to understand how consumers distinguish reducing their climate change impact and lowering their carbon emissions, and how messaging about personal actions could be honed to encourage both.

# Consumer Voices

## Energy efficiency, climate change, and low carbon heating



You previously said that you would make at least one change to your home...  
What is the main reason for this?  
(Base: 781 Scotland Adults who would make at least one change to their home)



# Consumer Voices

## Energy efficiency, climate change, and low carbon heating

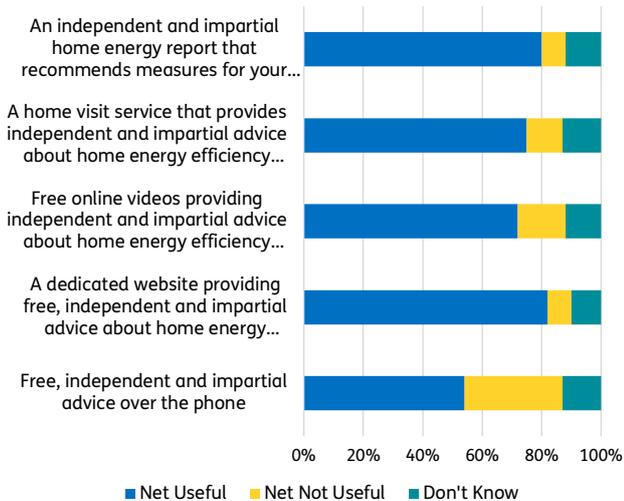


### Advice and Incentives

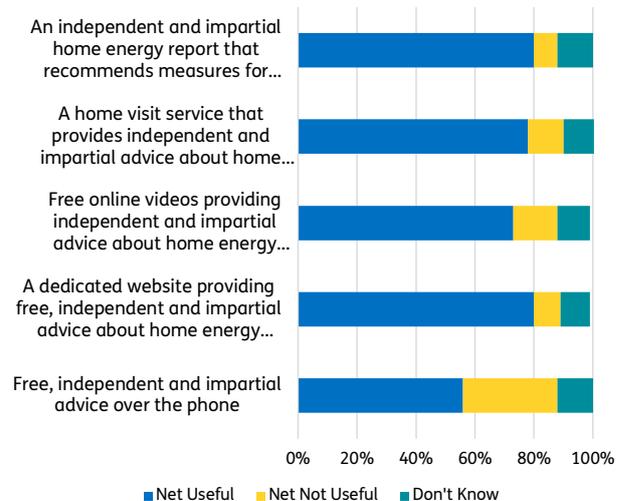
Consumers will eventually need to make changes to the way they power and heat their homes, travel, and live day-to-day if Scotland is going to meet its net-zero targets. For consumers to be brought along on the journey, it is essential that they have access to accurate and impartial advice in an accessible format, and are incentivised to adopt the changes they'll have to make.

Respondents were asked to rank how useful different types of advice would be if they were seeking to install energy efficiency measures or low carbon heating. A dedicated website providing free, independent and impartial advice about home energy efficiency or low carbon heating was considered the most useful option. Respondents reacted positively to the idea of an independent and impartial home energy report that recommends measures for your property for both energy efficiency and low carbon heating measures, despite previous research indicating that consumers do not engage with or trust energy performance certificates (EPCs).

Please imagine you were considering energy efficiency measures such as solid wall or underfloor insulation for your home...How useful do you think the following types of advice and support would be to you?  
(Base: 1000 Scottish Adults)



Please imagine you were considering a low carbon heating system such as a heat pump for your home...How useful do you think the following types of advice and support would be?  
(Base: 1000 Scottish Adults)



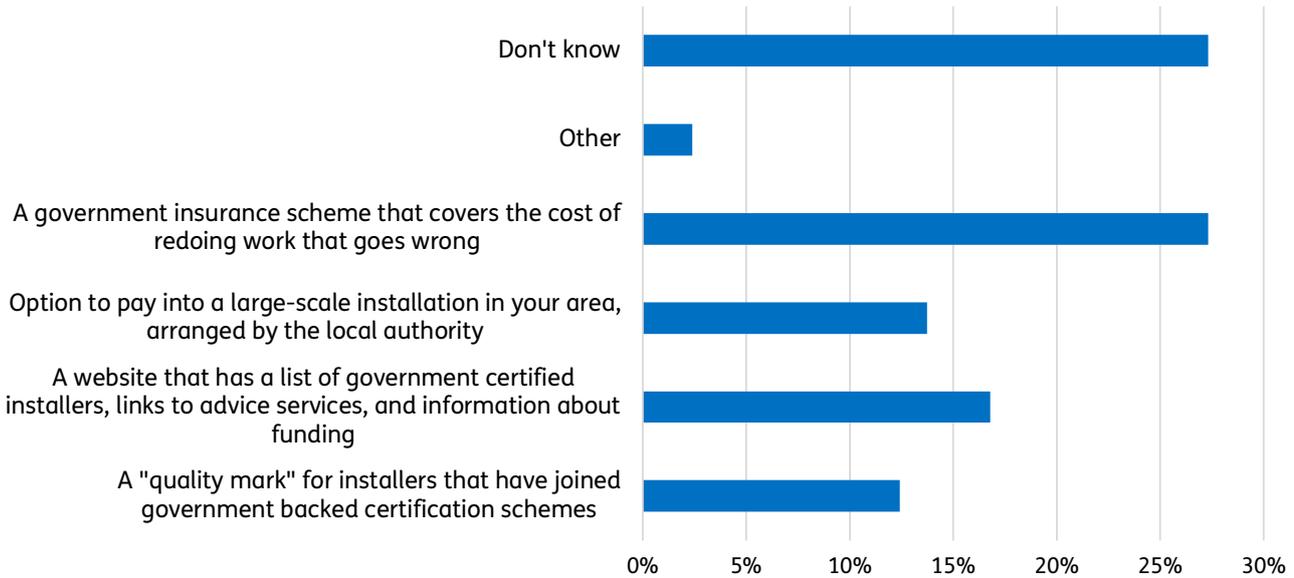
Consumers need strong protections to ensure rogue traders do not take advantage of them in the transition to net zero. There are many different ways the Scottish and UK governments can act to protect consumers and increase consumer confidence in the energy efficiency and low carbon heating markets. Just over a quarter of respondents (27%) felt that a government insurance scheme that covers the cost of redoing work that goes wrong would make them the most confident in installing low carbon heating or energy efficiency. An equal number of respondents did not know what would make them the most confident. Only 12% of respondents felt that a “quality mark” for installers would make them the most confident.

# Consumer Voices

## Energy efficiency, climate change, and low carbon heating

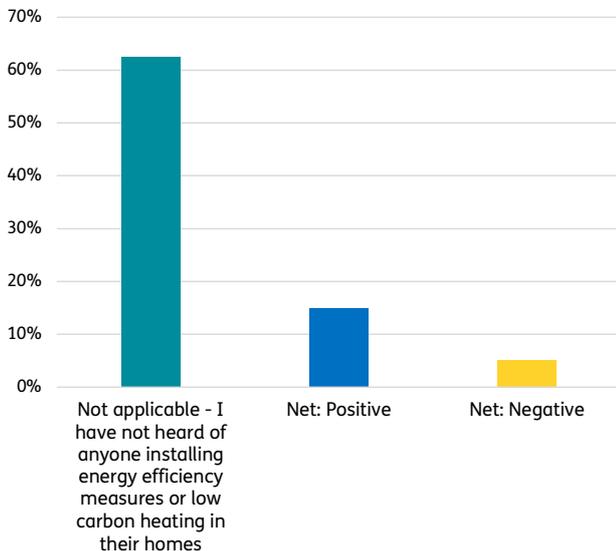


Which ONE, if any, of the following would make you the MOST confident in installing energy saving/ efficiency measures or low carbon heating in your home?  
(Base: 1000 Scottish Adults)

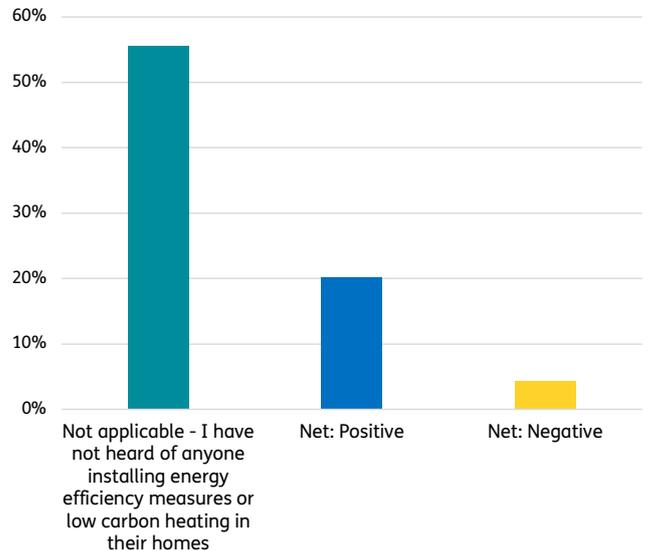


Consumer confidence can also be influenced by the experiences of their friends, neighbours, and acquaintances, especially with high cost or highly disruptive work in the home. The majority of respondents (63%) had no experience installing energy efficiency or low carbon measures in their home, but of those who had the experience was mostly positive (15%). Most respondents also did not know anyone who had installed energy efficiency or low carbon heating (56%) but similarly, those who had had heard mostly positive things (20%).

To what extent has your overall experience of installing energy saving/ efficiency measures or low carbon heating in your home been positive or negative? (If you have not installed any energy efficiency measures or low carbon heating in your home, please



Thinking about any energy efficiency saving/ improvements and low carbon heating systems that you have heard of people putting into their homes, either through word of mouth, online or through the media/ social media... To what extent do you think their e



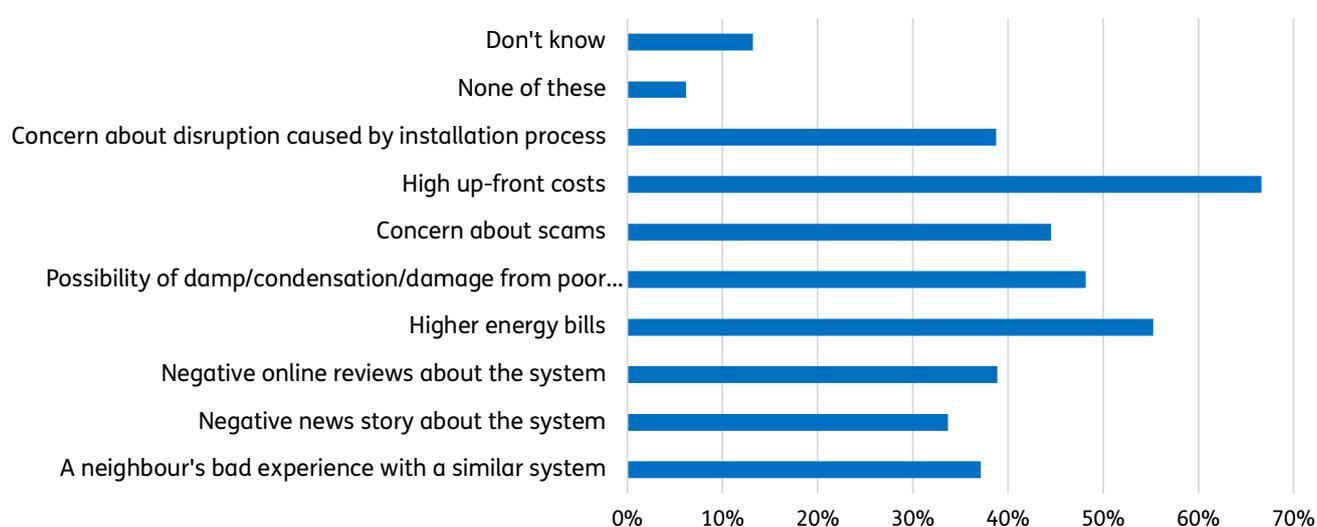


## Consumer Voices

### Energy efficiency, climate change, and low carbon heating

Respondents were asked what might concern them if they were considering installing a low carbon heating system. Cost was the biggest concern, with 67% concerned about high up-front costs and 55% concerned about high energy bills. This supports other research which has found that cost is the biggest barrier to installing energy efficiency or low carbon heating measures<sup>6 7</sup>. However, costs are likely to increase if no action is taken<sup>8</sup>. More research is needed to clarify to what extent consumers understand the cost of inaction.

Which, if any, of the following would concern you, if you were thinking about installing a low carbon heating system? (Please select all that apply) (Base: 1000 Scottish Adults)



When considering whether or not to install low carbon heating, most respondents would take a promise of lower energy bills (60%) and financial incentives from the government (59%) into account. Respondents would also consider the promise of a warmer home (41%), a promise of reduced greenhouse gas emissions (37%), and regulation requiring homeowners to install low or no carbon heating (32%). While more research is needed, this suggests consumers may respond better to carrots encouraging low carbon heating than sticks that penalise non-adoption when it comes to regulation.

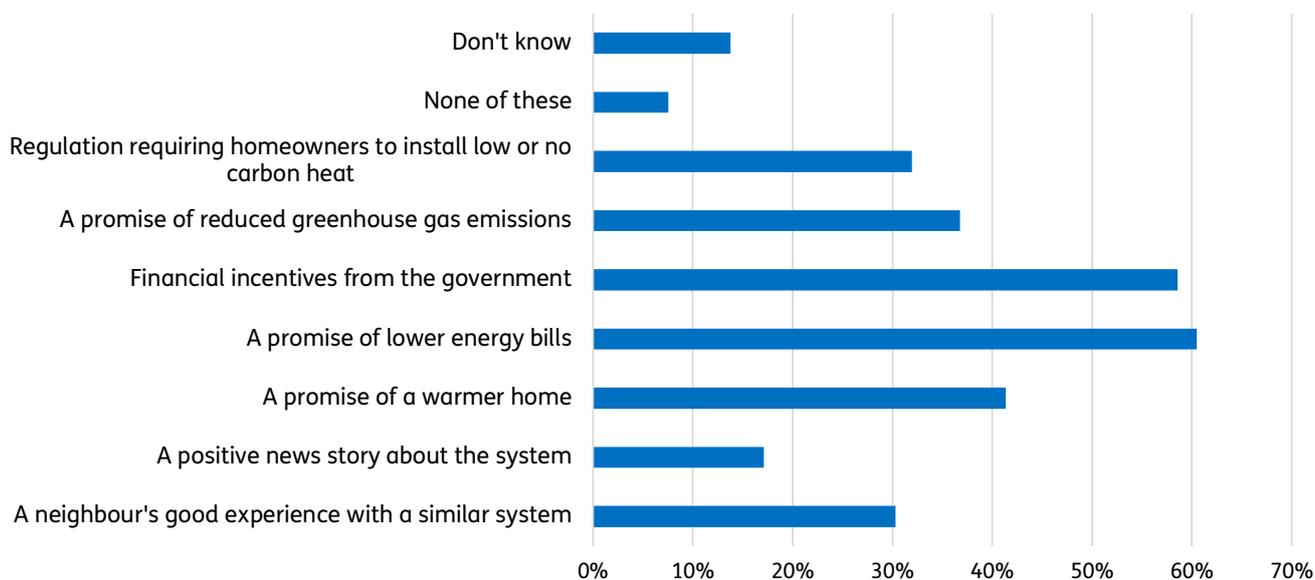
<sup>6</sup> Climate Exchange (2020) Attitudes and Awareness to Low Carbon Heating. Available at: <https://www.climateexchange.org.uk/media/4515/cxc-attitudes-and-awareness-low-carbon-heating-july-2020.pdf>

<sup>7</sup> UK Green Building Council (2020) Unlocking the barriers to low carbon heat: an industry view. Available at: <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewj3yZmz8M7xAhWXXVRUIHYKWC5sQFjAAegQIAhAD&url=https%3A%2F%2Fwww.ukgbc.org%2Fwp-content%2Fuploads%2F2020%2F09%2FUKGBC-Industry-Paper-on-Low-Carbon-Heat-FINAL.docx&usq=AOvVaw2927M0rzA-0vIV-5qjchVD>

<sup>8</sup> CCC. 2021. An Independent Assessment of UK Climate Risk. Available at: <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>

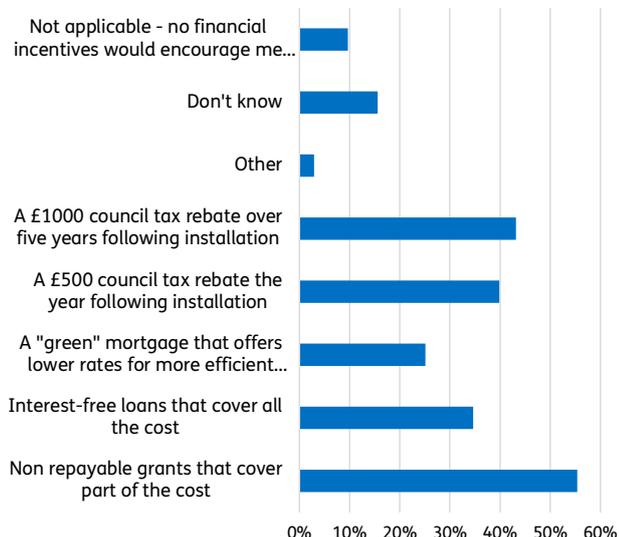


Which, if any, of the following might you take into account if you were considering installing a low carbon heating system in your home? (Please select all that apply)  
(Base: 1000 Scottish Adults)



There are similar findings about financial incentives that encourage adopting low carbon heating. Respondents indicated that they would be encouraged to install low carbon heating if they were offered non-repayable grants that covered all or part of the cost (55%), a £1000 council tax rebate over five years following installation (43%), a £500 council tax rebate the year following installation (40%). Grants were slightly more popular as an incentive for installing energy efficiency measures (62%). This reinforces the idea that respondents see energy efficiency as something the Scottish Government should oversee and prioritise.

Which, if any, of the following financial incentives would encourage you to install low carbon heating in your home? (Please select all that apply.) (Base: 1000 Scottish Adults)



Which, if any, of the following financial incentives would encourage you to fit energy efficiency measures in your home? (Please select all that apply.) (Base: 1000 Scottish Adults)

