

**SCOTTISH HOMEOWNERS' VIEWS ON MAKING
DOMESTIC BUILDINGS ENERGY-EFFICIENT:
AWARENESS, CHALLENGES, AND THE WAY FORWARD**



Achieving net-zero by 2030 in Scotland will require an 8% reduction in emissions every year and switching the heating supply away from gas in 1 million households. The need for a scalable route to energy efficiency upgrades has never been more urgent.



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INTRODUCTION

Energy efficiency is going to be one of the main topics of concern for anyone working in the built environment space over the next 20 years.

The Scottish Government has set ambitious emissions reduction targets in its Climate Change (Emissions Reduction Targets) (Scotland) Act 2019. The Act's vision and mission is to ensure all buildings in Scotland are warmer, more efficient and reach zero emissions for all greenhouse gases by 2045. How to meet these targets has been further developed in the Heat in Buildings Strategy published in October 2021.

The Strategy's aim is to rapidly accelerate the deployment of energy efficiency measures and zero emissions heating systems to decarbonise an area which currently is responsible for creating one fifth of Scotland's greenhouse gas emissions each year.

To achieve this, the government's plan includes transforming more than 1 million homes and an estimated 50,000 non-domestic buildings to use low and zero emissions heating systems by 2030. Furthermore, a £1.6 billion investment has been committed over the next five years to help transform the heating and energy efficiency performance of Scotland's buildings. The investment, outlined in the current Programme for Government, is anticipated to support up to 5,000 jobs each year by 2025-26, with further growth beyond that date.

The City of Edinburgh Council, in particular, has set an even more ambitious target: to become a net-zero carbon city by 2030. This will require an 8% yearly reduction in emissions. A huge challenge.

[As Novoville argued at the 2021 United Nations Climate Change Conference \(COP26\)](#), the need for a scalable route to energy efficiency upgrades is urgent. Councils and housing associations have a part to play, but private homeowners do as well.

In the lead-up to COP26, Novoville undertook a large-scale consultation on the issue, gathering responses from 2,000 Scottish homeowners.

Our goal was to better understand private homeowners' needs, challenges,

concerns and level of information in terms of energy efficiency in domestic buildings, so that we can help make purchasing energy-efficiency upgrades in Scotland as simple as possible.

Part of the consultation results were presented at the [Tech for Our Planet](#) showcase during COP26, an initiative run in partnership between the Cabinet Office and PUBLIC to explore how innovative digital solutions can make a major and essential contribution to the global climate effort.

This report presents what we have learned from homeowners

in Scotland. It can benefit anyone working, investing or researching in this space.

If you are a professional in the industry and you share our goals, please get in touch with us to discuss how we can work together to make Scottish buildings energy-efficient.



ABOUT THE SURVEY

This survey was performed between October 7th and October 29th, 2021. It was conducted by disseminating a set of questions using state-of-the-art survey technology, including conversational chatbots and context-aware mobile polls.

Novoville's chatbots performed automatic interviews on popular chat applications. The same set of questions was available as a mobile poll distributed through equally popular mobile apps.

Anonymous responses were collected from 2,000 homeowners across Scotland. Data processing was made possible by advanced text-analytics, followed by quantitative and qualitative analysis.

RESULTS

HOW MUCH DO WE KNOW ABOUT DOMESTIC BUILDINGS' ENERGY EFFICIENCY?

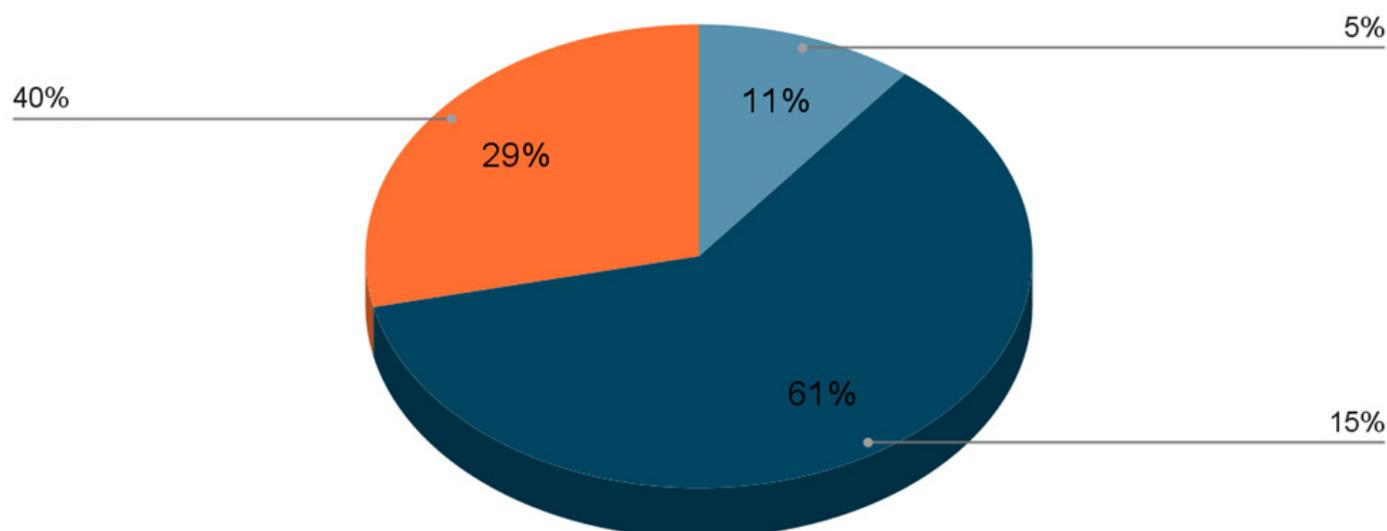
The first step of the survey was to gauge respondents' level of awareness and information regarding emissions from domestic housing – that is, emissions from heating our homes and using electric appliances – by asking them to guess what proportion these represented.

The majority of respondents (61%) knew that domestic housing emissions represent 15% of total emissions in Scotland, which is encouraging.

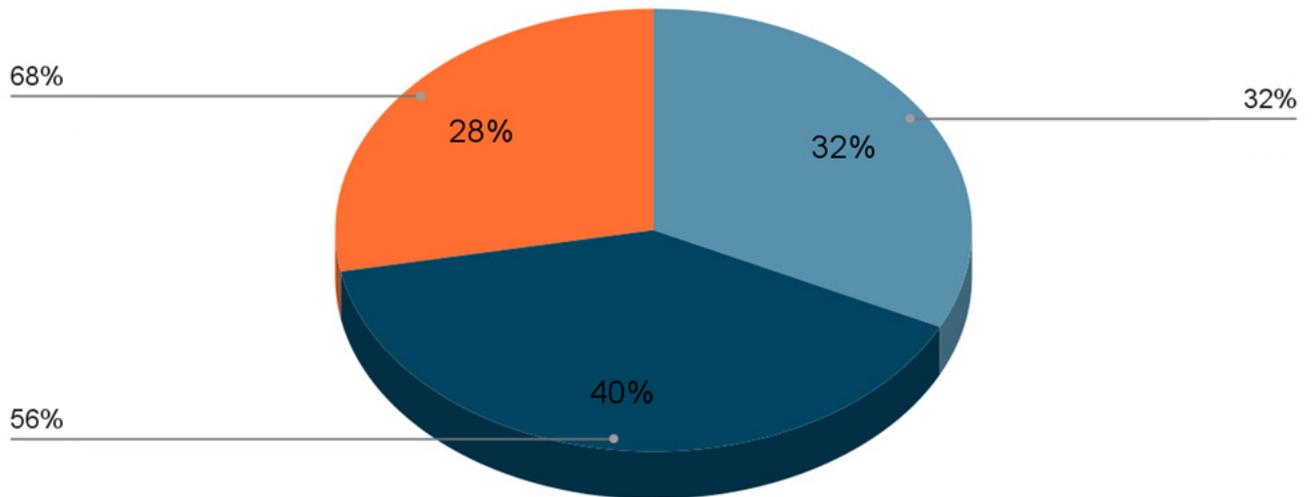
However, a much smaller proportion of the population knew how much emissions need to be reduced in order to meet the country's climate objectives.

Only 28% of participants knew the correct answer (which is as high as 68%), while the vast majority (72%) believed that the reduction in domestic emissions that needs to be achieved is smaller.

What proportion of total Scottish emissions do you think that domestic housing emissions represent?



How much do you think we need to reduce our domestic emissions, by 2030, to meet Scotland's targets for emission reductions?



But how exactly are we going to achieve those targets as homeowners?

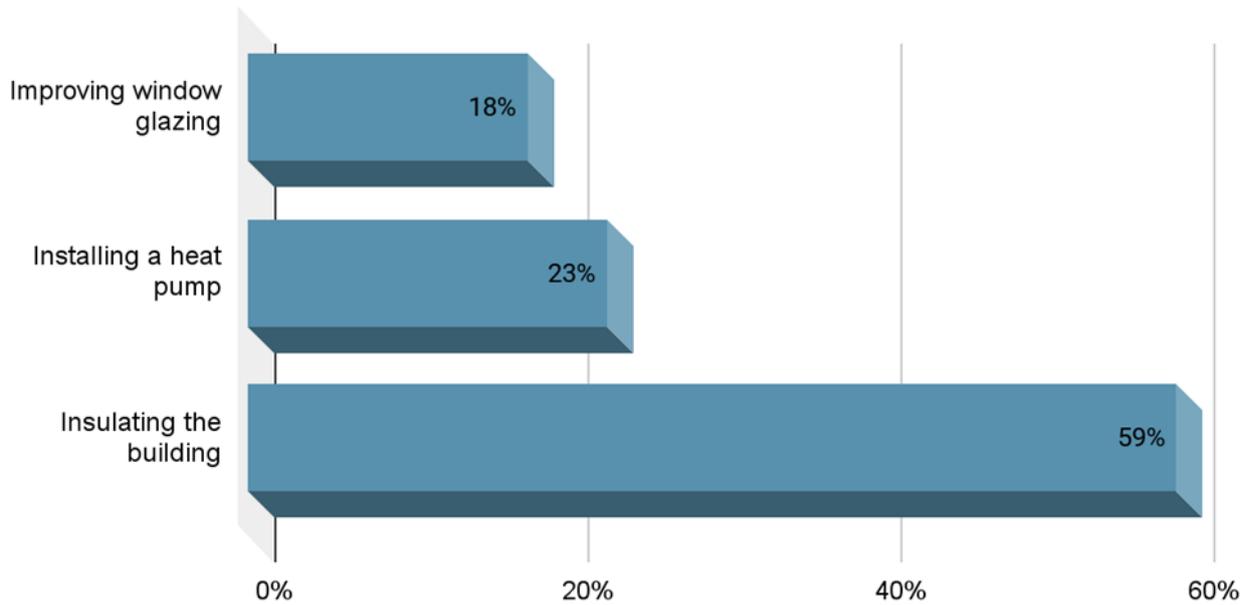
There are a lot of options to reduce carbon emissions from domestic buildings (if you'd like more information on what they are in the context of Edinburgh in particular, take a look at the [Net-Zero Carbon Roadmap for Edinburgh](#) published by the Edinburgh Climate Commission, page 25).

Amongst them, a “fabric first” approach is critical. This includes installing proper insulation in our buildings, whether it is when constructing them, or through a whole house retrofit of existing buildings.

In fact, better insulation in your home is as effective in reducing your carbon footprint as never driving your car again!



Which of the following do you think has the biggest impact overall on reducing carbon emissions from domestic buildings?



The good news: most survey participants recognise the importance of insulating domestic buildings to reduce emissions.

As we know, however, no two buildings are exactly the same, and the correct approach for your building will depend on its type, age, and existing measures. Do Scottish homeowners know what specific actions their own building could benefit from? And how much have they thought about the process and the investment it involves?

These particular questions, along with the challenges that Scottish homeowners face, formed the second part of our survey which follows.



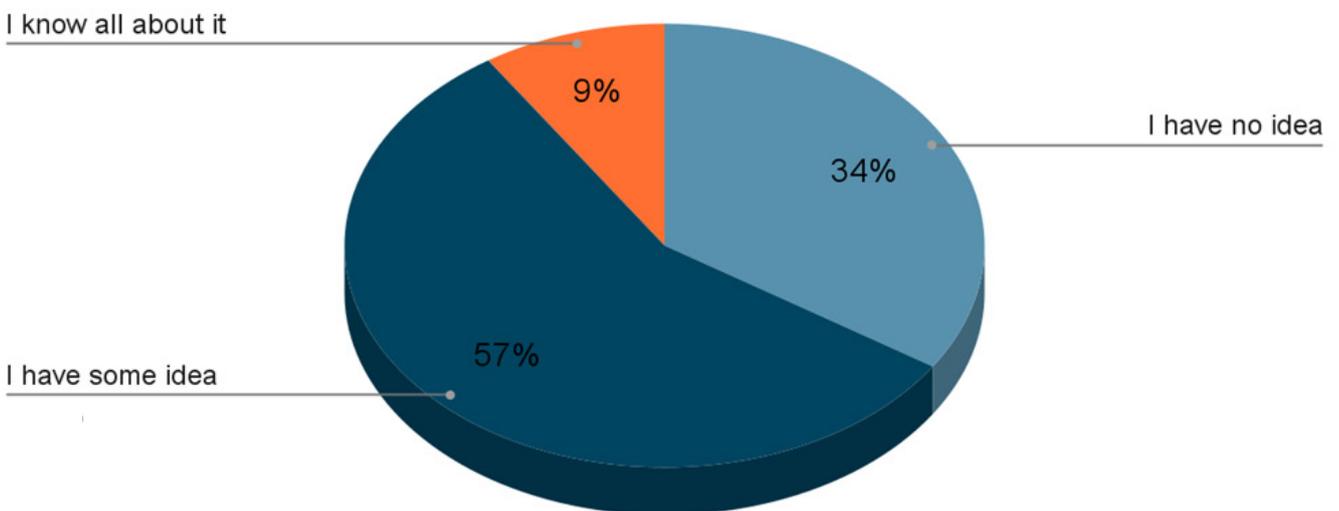
WHAT ARE WE DOING ABOUT INCREASING ENERGY EFFICIENCY IN OUR HOMES?

The Scottish Government's Heat in Buildings Strategy includes plans for "engaging people and businesses to ensure everyone across Scotland has an opportunity to shape the transformation, together with proposals for a new regulatory framework which would require the majority of property owners to take action over time to install energy efficiency measures and zero emission heating systems".

Nevertheless, a whopping 91% of survey respondents said that they do not know with any precision what energy-efficiency measures could mean for their building.

This indicates the need for more information to be provided across Scottish households, by the government, experts and industry professionals alike. Even better, homeowners could benefit from a pathway that does not simply inform them, but streamlines the process and enables them to get the job done (this is what we're about!)

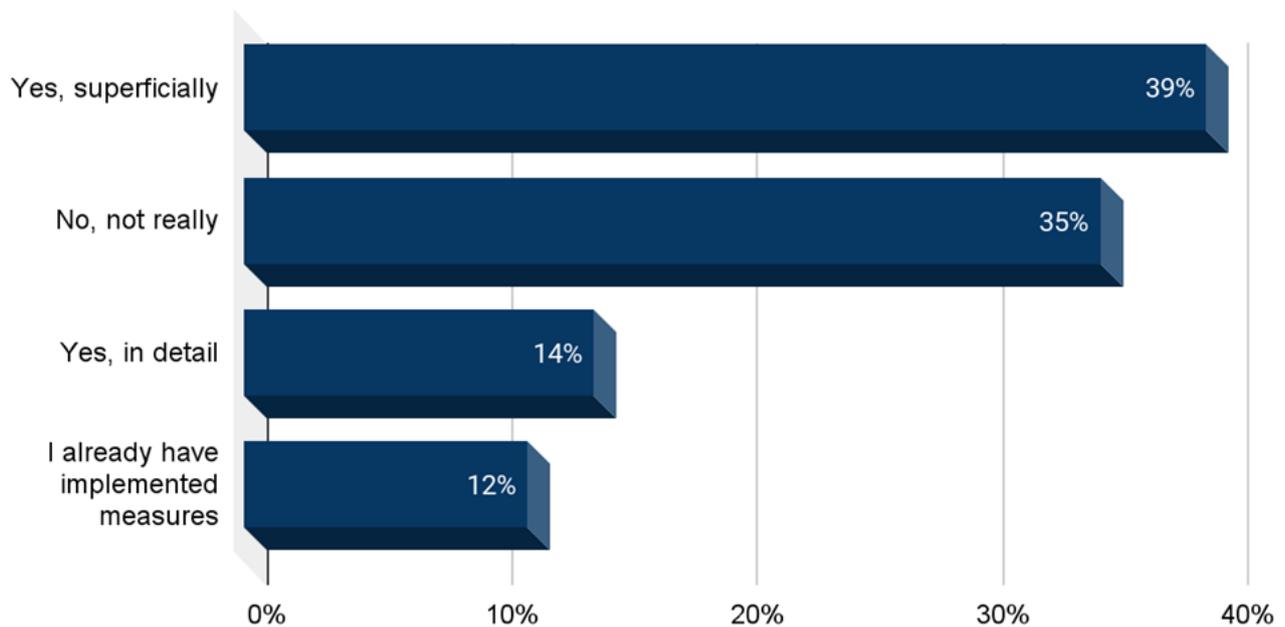
Do you know what kind of energy-efficiency upgrades your building could benefit from?



Energy efficiency can save us money in the long term and massively increase the value of our property. Admittedly, some measures, such as building insulation, require a sizable upfront investment.

In the meantime, other cost-effective measures are worth considering, including appliance upgrades, lighting improvements, electricity demand reduction, glazing improvements, installing heat pumps, etc.

Have you thought about implementing any measures to reduce carbon emissions in your home in the short term?



Out of 2,000 homeowners, only 14% have thought meticulously about installing such measures, and an even smaller percentage have done so already. Over two thirds of the respondents, however, have either not considered these options at all or have thought about them casually.

The reasons for not having considered or implemented energy-efficiency measures in their homes vary. Cost is the biggest concern of all, cited by 54% of respondents.

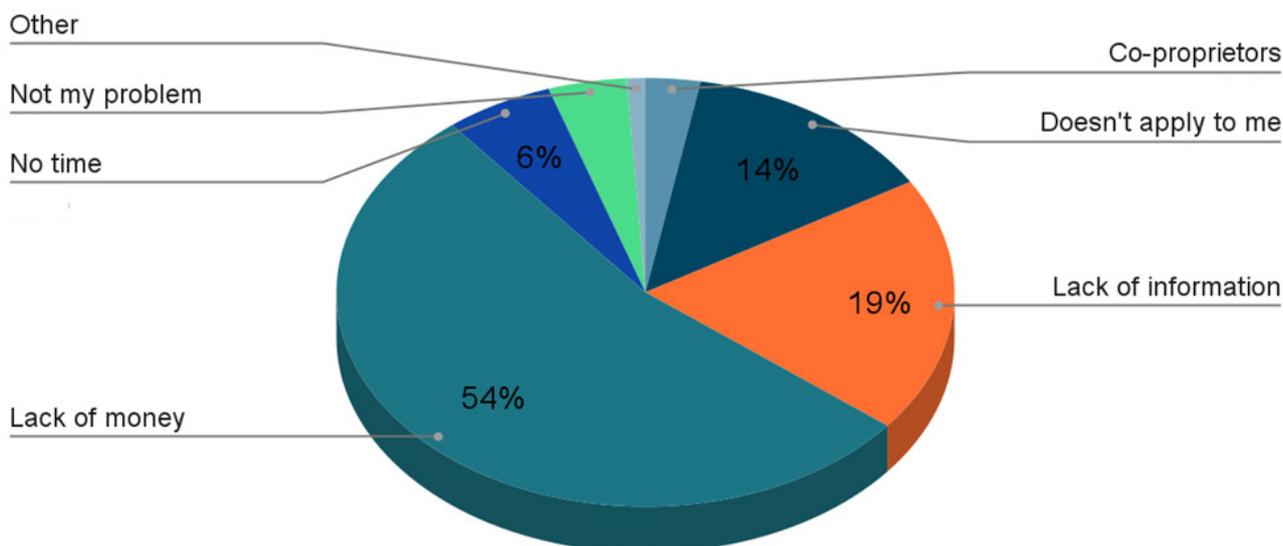
If money is taken out of the equation, though, participants cited obstacles from co-proprietors (3%), lack of personal responsibility in the matter (4%) and lack of time (6%). But, perhaps unsurprisingly, the second most popular factor preventing them from looking into energy-efficiency upgrades, after money constraints, is insufficient information (19%).

Indeed, energy efficiency upgrades is a technical subject that requires some real engagement from parties, including research. [Online guides](#) such as those provided by Home Energy Scotland can help homeowners.

While we expected obstacles from co-proprietors to represent a higher proportion of the issues cited, the relatively low response is probably due to the fact that few would have already started engaging with co-proprietors on the subject. When they eventually do, they might realise that unanimous decisions are currently

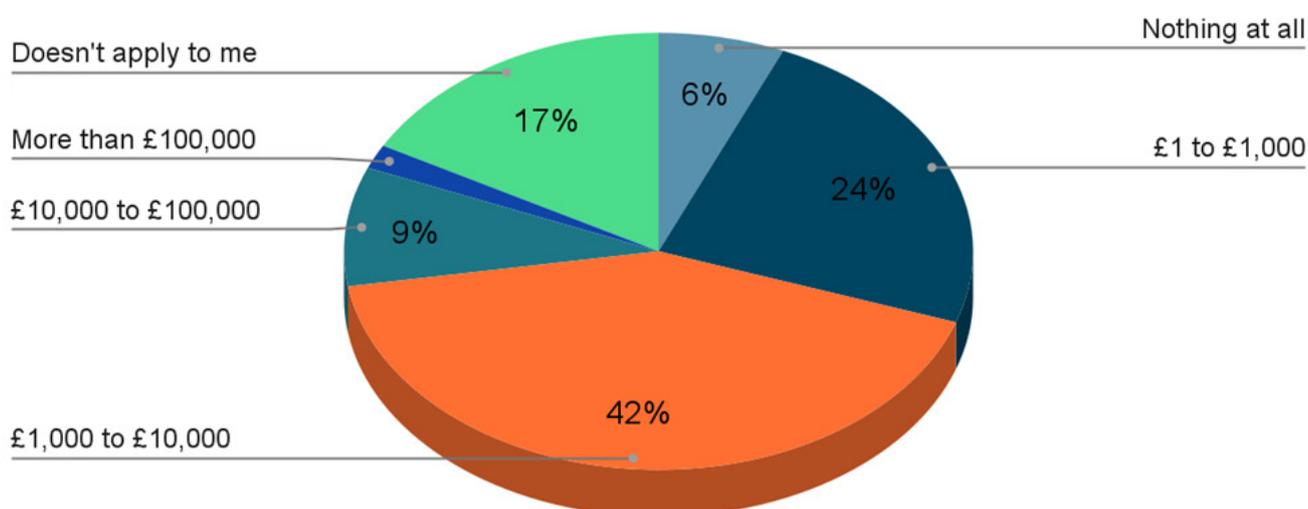
required amongst all for upgrades to the building fabric, leading to difficult conversations among proprietors about the course of action to take.

What is preventing you from looking into energy-efficiency upgrades?



Even so, respondents are willing to invest in energy upgrades for their home in the next 10 years. The majority (42%) stated that they are inclined to invest between £1,000 to £10,000, while 24% are considering investing up to £1,000, and 9% would be willing to invest £10,000 to £100,000. Only 6% said that they do not intend to invest any money at all.

How much would you be willing to invest in energy upgrades for your home in the next 10 years?



WHAT DO WE NEED TO MAKE OUR BUILDINGS GREEN?

The condition of Scotland's existing housing stock means that too many households are effectively locked into fuel poverty, and domestic properties remain a significant source of carbon emissions.

The Scottish Government is committed to removing poor energy efficiency as a driver for fuel poverty and reducing greenhouse gas emissions through more energy-efficient buildings and decarbonising our heat supply.

Retrofitting the housing stock to make it more energy-efficient is a policy priority in Scotland. There are currently an estimated 25% of Scottish households living in fuel poverty, meaning the retrofitting of homes could significantly help these families, in particular, achieve lower energy bills.

A deep retrofit in many buildings can reduce energy demand by as much as 80%.

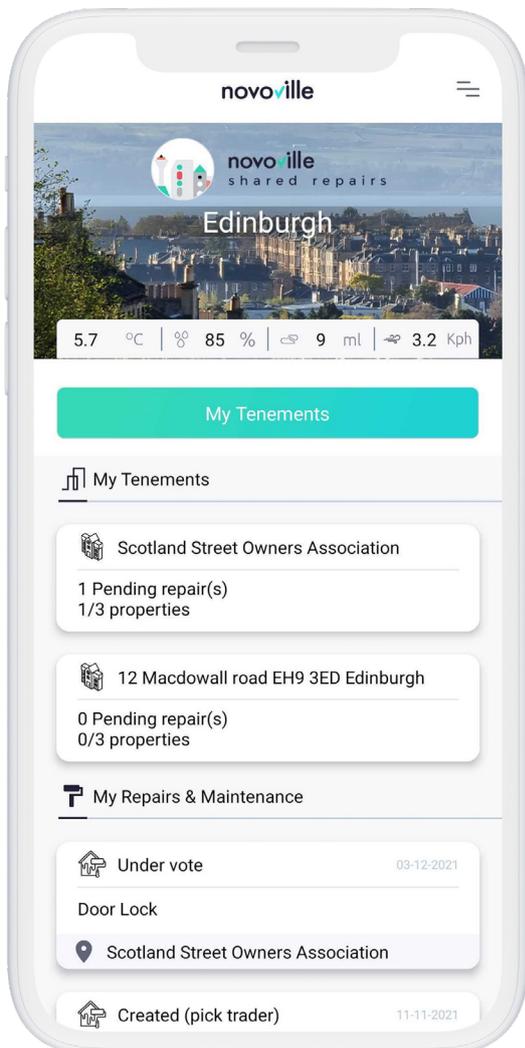
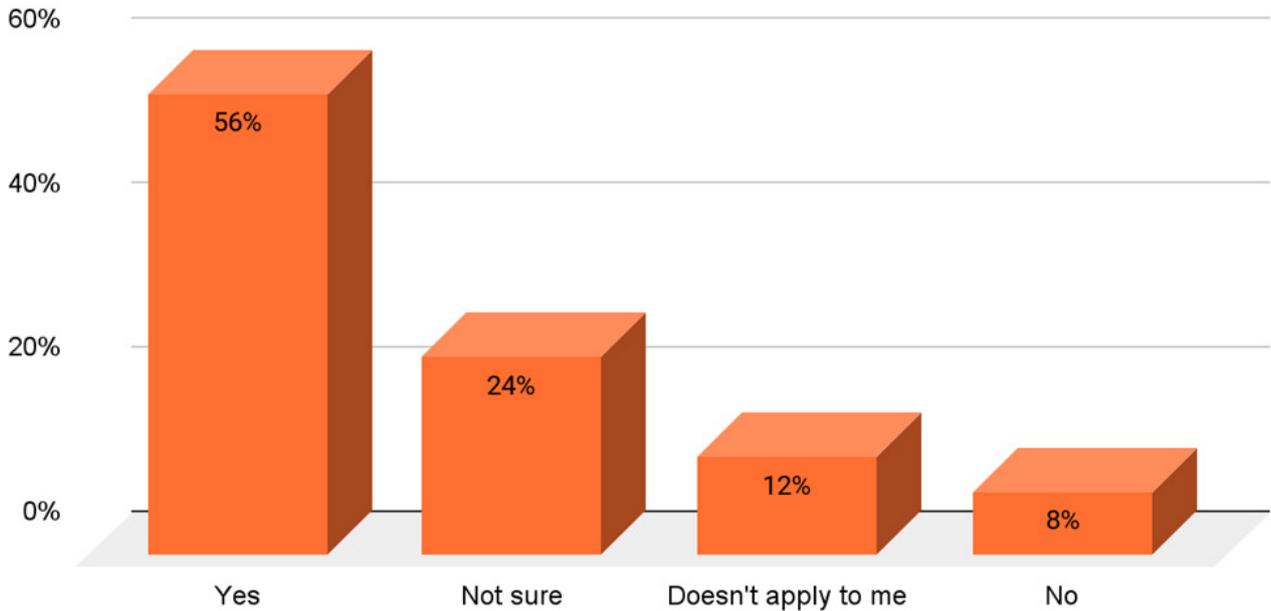
Energy retrofitting can include improvements to the building fabric, for example, through wall, loft and floor insulation, and improved glazing. Retrofitting can also mean installing more efficient and low-carbon technologies, for example, replacing a gas boiler with a heat pump.

In Edinburgh, Glasgow and elsewhere, the local authorities are starting to engage in retrofitting work in buildings where they own one or more of the properties. When they are doing so, economies of scale might be achieved by reaching out to adjacent buildings to see if they might be interested in benefiting from the legwork undertaken as part of those programmes.

When asked about retrofitting, more than half of the respondents said that they would want their local council to reach out to them about available options, schemes, funding, etc. In general, homeowners are in favour of making energy upgrades to their homes, but they also need a simpler, easier way to do it.

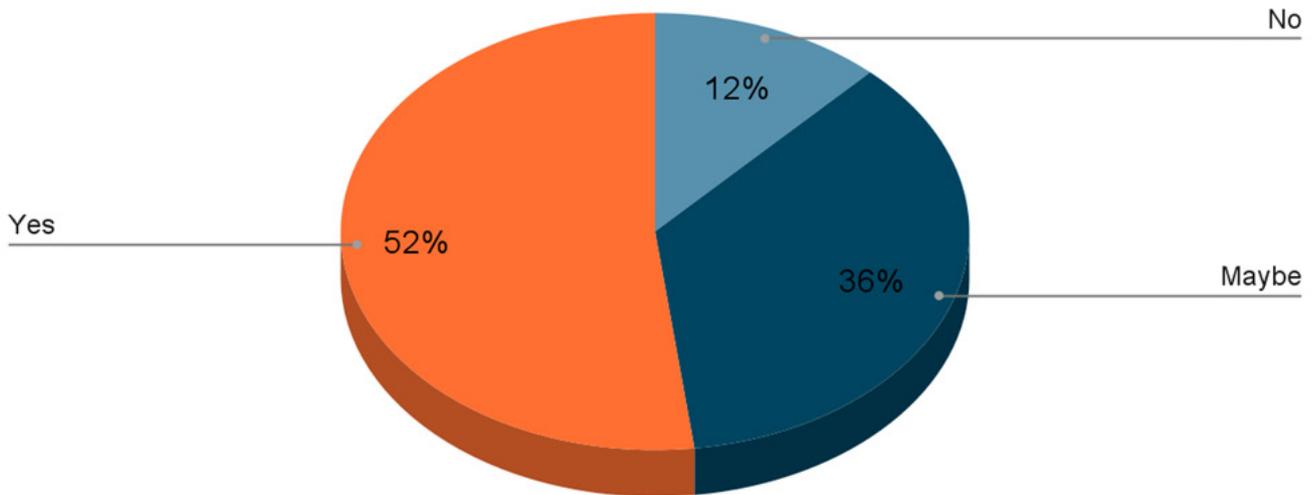


If your local council was engaging in "Retrofit" work in your area, would you like them to reach out to you?



How can retrofitting be made easier? A notable 88% of the people we asked said that they would use a web-based solution for organising domestic building upgrades, a place where they can get advice from professionals tailored for their building, coordinate with other homeowners, procure upgrades, collect money and make payments, get financial support, and minimise the paperwork and overall complexity.

Would you use a web solution for organising your energy-efficiency upgrades?



It is certain that the construction professionals and local authorities will play a major role in reaching Scotland-wide net-zero. But on the other side, homeowners and businesses must also embrace change.

Proprietors need a better understanding of what the decarbonisation of their homes involves, their options for financial aid, as well as the right tools to help them get over the line.

Ultimately, financial support will have to be provided to many, but there are new interesting ways being suggested to pay for those works based on future energy savings, for instance. It is essential that we make it easier for homeowners to identify what money is available, make it simpler to apply for, and provide them with a streamlined way of making contributions in shared payment accounts.

KEY INSIGHTS



Education must improve

91% of respondents do not know a lot about energy-efficiency upgrades.

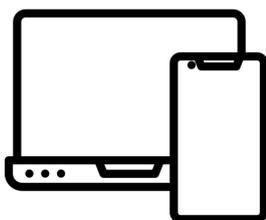
Homeowners need a better understanding of what options exist to reduce their building's emissions.



Money is a main concern

54% of respondents cite it as a key obstacle to a more energy-efficient building.

Loans and grants are currently available, but many professionals agree they are not enough, and accessing them is still too complex.



Technology can help

88% of respondents would welcome a web-based solution to help purchase upgrades.

Private homeowners embarking on their upgrade journey have to consult many websites, cross-check information, hire experts and coordinate with their neighbours. They need something better than phone or email.

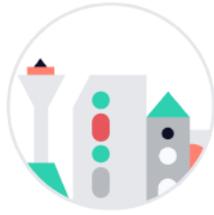


People care

66% of respondents have looked into energy efficiency to some degree.

Awareness is good, and improving. But transforming awareness into actions will require a concerted effort from Government and the private sector.





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