Decarbonising the UK's homes

A housing stocktake, 2023

LLOYDS BANKING GROUP

Contents

Foreword from Charlie Nunn

As the UK's largest retail and commercial financial services provider, we bear significant responsibility in financing the transition to a low carbon economy. Homes comprise 16% of the UK's total carbon emissions, and Lloyds Banking Group is the UK's largest mortgage lender. Greening the built environment is a clear priority, including decarbonisation of the country's 28 million homes.

That is why we have provided billions in funding and investment to improve the energy efficiency of the UK's housing stock – making them warmer, more comfortable and cheaper to run. This is the human impact of a reduction in carbon emissions – providing more people with safe, good-quality homes, which are the foundation for strong social outcomes in health, education and employment.

According to the Centre for Ageing Better, every £1 spent on improving warmth in homes occupied by vulnerable households yields £4 in health benefits.[1] Meanwhile, University of Warwick research has found that more than £10 billion could be saved on energy bills each year across England and Wales, by greening and upgrading homes. For the average household, this would mean an annual yearly saving of £390.[2]

We know the benefits of transforming the UK's housing stock and the necessary steps to get there. However, we are not currently on-track to deliver the substantial change we need. In producing this new housing stocktake, we've consulted homeowners and landlords across the UK in order to identify both the barriers to decarbonisation, and the most effective incentives to increase the pace and scale of progress. We have also looked to international policy and finance models, to assess potential learnings and application in the UK.

In order to provide homeowners and landlords with the policy stability and certainty they require to decarbonise, we need a long-term funding and regulatory framework which is born from Government's consideration of a range of incentives, commitment to ensure EPCs are fit-for-purpose, and support for specialist jobs and skills across the country.

Decarbonising our homes is critical to achieving net zero by 2050, and remaining within the 1.5°C degree threshold. Whilst for individuals and households, it means living somewhere safer, more affordable and, ultimately, more sustainable for people and planet.

Foreword from George Clarke

Ever since I can remember, I've been fascinated by where people live. Even as a young boy, I felt that homes were more than just somewhere you lay your head, but had the power to comfort us, to protect us, to inspire us, to enrich our lives.

Now, as an architect, designer, TV presenter, campaigner and lecturer, I'm even more convinced about the importance of homes. I'm lucky enough to work on all types of them, from transforming a tiny bedroom on an even tinier budget, to managing the large-scale restoration of an historic estate. If you have a warm and comfortable roof over your head, it is a special place indeed.

But, I'm also aware that homes are a massive contributor to carbon emissions, and that we've got to decarbonise them to meet our net zero goals. And with high energy prices set to persist, UK homeowners are becoming more concerned with how their home performs and are increasingly eager to understand more about upgrading their property's heating and insulation.

Although most are aware that insulation will help reduce running costs and make things warmer, when it comes to things like heat pumps and solar panels, the responses vary. What I hear is that most people don't feel they've got enough knowledge to make an informed decision. They're looking for someone they can trust; to point them in the right direction; to explain things in simple terms; to be open about the benefits… and the costs; and being completely honest, help them find a way to fund it!

I really welcome this report by Lloyds Banking Group, taking a look at how we can decarbonise homes and ensure that as many people as possible have a great place to live (whilst also helping the environment, of course).

It's great to see that those with the required expertise, experience and influence are taking the lead on trying to address one of the key challenges of our time. No one person can do this alone, and if the right people work together on developing better support for households, I'm confident we'll start to see the scale of homes retrofitting what we all need.

Executive summary

The UK's 28 million residential homes account for 16% of total UK carbon emissions.[3] It is clear that decarbonising the housing stock is critical to achieving net zero by 2050.

Using new research covering insights from over 2,500 homeowners and landlords across the UK, this report investigates what needs to happen to decarbonise at scale. It focuses on the key barriers to decarbonisation, the incentives needed to accelerate progress, and crucially the experience of those who have already begun to decarbonise their homes. It also looks at international examples around policy and financing models to see how they could apply to the UK, and finishes with case studies on what the financial services sector is already doing to support.

Moving too slow
If decarbonisation of UK homes is the destination, the key driver to getting there is changing how we heat them, by switching to low-carbon heating systems, such as heat pumps. At the same time, we must improve their energy efficiency, by reducing the amount of heat that escapes through the walls, roof, windows and doors. However, with one of the world's oldest and draughtiest housing stocks, many UK homes have traditional fossil fuel-powered heating systems and poor insulation, leading to inefficient energy use. The scale of the challenge is clear.

But things are moving too slowly, and the decarbonisation of UK homes is not advancing at the rate it needs to. The independent Climate Change Committee (CCC) – who advise the UK Government on emissions targets and the progress made towards achieving them – said in its 2023 Progress Report to Parliament that the key indicators for both energy efficiency measures and installation of low-carbon heating systems are "significantly off track".[4]

The report highlights that the UK Government proposes to scale up the market for heat pump installations to 600,000 by 2028, but current rates are around 11% of this and are not increasing fast enough.[5] When ranked against neighbouring countries, the UK came last out of 21 for per-capita installations of heat pumps in 2022, and was only 11th out of 21 for total volume installations.[6] Similarly, installation rates of energy efficiency measures continue to be below necessary levels and fell further in 2022 – with the number of households installing measures via UK Government schemes falling to 94,000 in 2022, compared to 634,000 in 2014 to 268,00 in 2016.[7,8]

In the right direction
Although progress is off track, there are signs things can be shifted in the right direction.

Encouragingly, there is growing awareness among homeowners and landlords about the need to undertake retrofit work to improve energy efficiency and switch to a low carbon heat source. The research conducted for this report shows that when asked about decarbonising their property by 2035, nearly 6 in 10 (57%) homeowners and nearly 7 in 10 (67%) landlords think it's important.

Significantly, when homeowners have undertaken retrofit works, experiences have been overwhelmingly positive. 96% of survey respondents who undertook retrofit activity were pleased with the results, and 81% said they would recommend undertaking work to a friend, family member or work colleague.

However barriers to progress remain. Just over half of homeowners surveyed knew their current EPC rating. And when asked whether their property could achieve EPC rating of C with insulation, double glazing and heating from a low carbon source – what we are defining as 'net zero ready' in this report – by 2035, only 1 in 5 respondents said they had the means to undertake the works.[9]

Providing certainty
Providing homeowners, landlords and the market with certainty through long-term policy direction has already proven itself a powerful catalyst in progressing retrofit, when paired with access to finance. However, the recent announcement by the Government that it will not progress with planned regulation for higher energy efficiency standards for rental properties risks slowing progress. 42% of landlords who are aware of recent Government changes have now cancelled plans to invest in energy efficiency measures, with over half saying they are now less likely to make such investments in the future.

The mandate is clear. Actors across the UK's housing value chain must play their part in decarbonising UK homes. Government and the market need to collaborate at pace to provide the education and incentives that ultimately support homeowners and landlords to retrofit their homes.

"Net zero ready home"
is defined as meeting a minimum level of energy efficiency (EPC C), with appropriate insulation, and double glazing, and uses heating from a low carbon source such as a heat pump (i.e. not from gas or oil)

Four key findings

Through the new research undertaken for this report, we have determined the following key findings:

01

People in the UK are eager to decarbonise their homes, but need greater advice and support

Nearly six in ten (57%) homeowners think it's important to make their property 'net zero ready' by 2035, but few feel confident about how to get there.[10]

69% have not taken any action in the last five years to improve the energy efficiency of their home, and nearly half (46%) do not know their EPC rating.

Just one in five feel they are able to pay for the steps needed to ensure their home is 'net zero ready' by 2035.[11]

Worryingly, one in four homeowners never expect to move away from oil or gas-fired heating.

02

There is consensus among homeowners that retrofitting is worth it, but prohibitive costs threaten progress

Almost all (96%) property owners who have undertaken retrofit works are pleased with their decision to do so, with 81% of respondents recommending them to a friend, family member, or colleague.

Energy efficiency measures, like insulation and double glazing, overwhelmingly make up the most common improvements. Conversely, measures responsible for decarbonising heat sources, such as the installation of heat pumps, lag behind.[12]

73% suggest that their installation has since performed at least as well as expected, while half were pleased to say that it had performed better than expected. 77% of property owners say that their property is warmer as a result of the measures they installed, and 64% say that the running costs are lower as a result of the measures they have installed.

Prohibitive upfront costs present a stubborn barrier to further uptake with half (49%) of UK homeowners put off by the upfront cost, as well as nearly two-thirds (62%) of landlords.

03

Policy and legislation are among the most powerful catalysts to decarbonising homes, but recent changes already risk further progress

Six in ten property owners believe that the primary responsibility for getting homes 'net zero ready' sits with Government.[13]

Due to existing Government EPC requirements for rental properties, landlords demonstrate a much greater awareness of standards and the range of possible measures than homeowners, and are considerably more likely to have installed battery storage, solar panels or heat pumps in the last five years. Existing Government legislation has meant that 84% of landlords have considered or taken action to improve energy efficiency in the last five years, compared with just 65% of homeowners.

The impact of policy change is palpable. Six in ten (57%) landlords knew about the Government's recent scrapping of plans requiring all rental properties to meet a minimum EPC rating of C by 2028. Of these, 42% said that they had since cancelled plans to invest in energy efficiency measures and 53% said that it made them less likely to invest in energy efficiency in the future.

04

There is clear demand for support from the financial sector in managing the transition to net zero homes, but opinion is split on which kind of support is most valuable

Over half of people think banks are doing enough to support homeowners, but there is appetite for more, in terms of both knowledge and finance.

Seven in ten (68%) homeowners and nine in ten (87%) landlords want some form of support from their bank or mortgage provider to get their home 'net zero ready'.[14]

Among older homeowners (age 55+), there is significantly less appetite for financial help, whereas nearly 50% of all other age groups want help with funding. Moreover, a third of young people want advice on carrying out retrofit works.

Section 01

UK housing stocktake

Taking stock of UK housing

Action to date
According to the Climate Change Committee (CCC), territorial emissions from buildings in the UK – including both homes and non-residential buildings – peaked in 1996. By 2008, emissions had fallen by around 15% from this peak.

However, the pace of change has since flatlined, with no further meaningful reductions in built environment emissions since 2010. Carbon emissions related to buildings, the majority of which come from 28 million residential homes, remain stubbornly high.

The CCC state that "the next ten years are the crucial period to decarbonise buildings", and critical steps must be taken urgently now and not be delayed.[15]

This will require the retrofit of homes, to both improve their energy efficiency and to switch to a low carbon source of heating.

Energy Efficiency:
This is about improving the fabric efficiency of buildings to help them retain heat and reduce overall energy demand, via measures such as improved loft and wall insulation.

Cumulatively, the number of homes with insulation does continue to rise. In December 2022, 52.5% (14.7m) of homes had cavity wall insulation, just over 60% (17m) had loft insulation, and around 3% (805,000 homes) had solid wall insulation.[16]

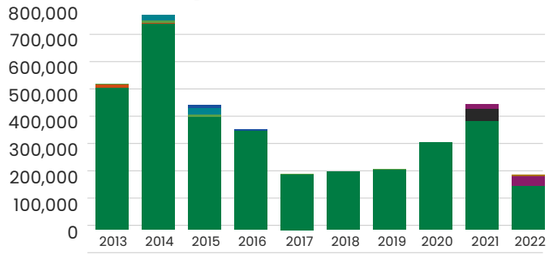
But progress has slowed in recent years.

The total number of energy efficiency measures installed through Government schemes, including the Energy Company Obligation (ECO) scheme that obliged energy providers to better support low income households, decreased significantly from 2021 (453,000) to 2022 (204,000), with 2022 the lowest number of measures installed since 2017.[17]

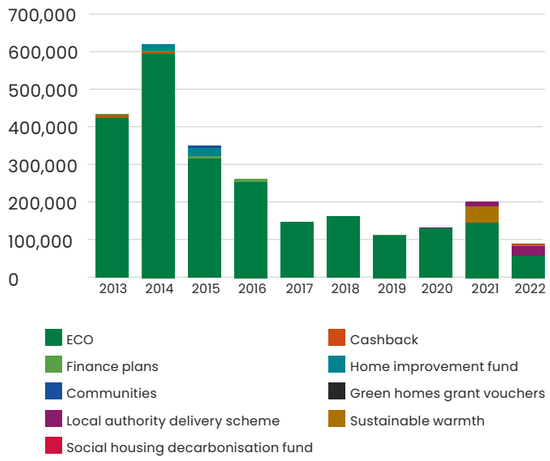
Similarly, the total number of households installing energy efficiency measures through UK Government schemes has also fallen rapidly, from 634,000 in 2014 to 268,000 in 2016 to just 94,000 in 2022.

There are signs this decline is linked to a historic lack of consistency among such schemes. For example, in 2015 the UK Government halted several financial measures within the ECO scheme, including a cashback paid to homeowners for improvements, such as a new boiler or insulation. Many homeowners and landlords cancelled further energy efficiency insulations as a result.[18] In 2021, the UK Government similarly suspended its £1.5 billion 'Green Homes Grant' scheme to support insulation and low-carbon heating, citing low uptake.

Annual number of energy efficiency measures installed through UK Government schemes



Annual number of households installing energy efficiency measures through UK Government schemes



There are, however, some notable points of progress in the UK's housing sector. The energy performance of the social rented sector, for instance, is significantly better than private housing, with 64.3% of housing association homes already bearing an EPC rating of C or above. This is largely due to stricter regulation which has resulted in greater progress among social landlords as compared with the private rented sector.[19]

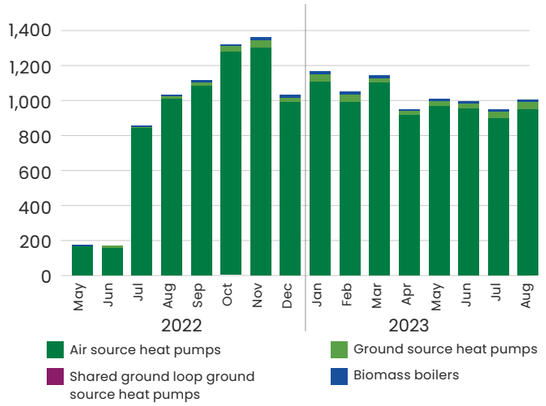
Of the 28 million homes in the UK, around five million are social homes, with 1.8 million currently below EPC C. Bringing the sector to that minimum presents a significant challenge, but also a huge opportunity. Housing associations are well equipped to deliver at a scale that is just not possible in the private rented or owner-occupied sectors, and so supporting them to build more, new quality homes and retrofit existing stock, will further support the UK on its journey to net zero.

Low Carbon Heating:
The move to low carbon heating will have the biggest impact on decarbonising homes, and concerns the switch from fossil fuel-powered heating, like gas and oil. For most people, this will require installation of a heat pump. But change is not happening quickly enough.

The UK did see an increase in heat pump installations in homes in 2022, rising to 69,000 for that year – up from 58,000 installations in 2021. However, this fell below the CCC's projection of 135,000 installations. It is this substantial shortfall that the CCC judge the UK's progress on residential heat pumps as "significantly off track".[20]

One of the UK Government's main mechanisms for increasing heat pump installations is the Boiler Upgrade Scheme (BUS), which helps to fund the retrofitting.[21] The impact of the UK Government's recent boost to the grant value for heat pumps to £7,500 under the BUS remains to be seen.

Boiler Upgrade Scheme:
Redemption applications received



The CCC outlined that there was low consumer awareness and education around the benefits of retrofitting.[22] Polling undertaken by the Department for Business, Energy and Industrial Strategy in 2022 of UK consumers suggests the majority of people have no awareness or knowledge of heat pumps – with 31% having never heard of them, and a quarter of UK respondents (25%) stating they know "hardly anything" about them.[23]

UK residents are markedly less aware of the benefits of heat pumps in comparison to other more established changes, like swapping to an electric vehicle.[24] When asked in a 2022 Department for Transport survey, just 1% of UK respondents had never heard of an electric vehicle, while just 7% claimed to know "hardly anything" about them.[25]

Models from our international peers

Decarbonising homes is a global challenge. Looking beyond the UK, it's helpful to consider other international examples that are yielding significant progress, such as Ireland, Germany, the USA and Canada.

The following case studies underscore the importance of policies that unlock financial incentives, from Ireland providing grants to homeowners for the implementation of energy efficiency measures, to the USA's Property Assessed Clean Energy Model (PACE), which provides finance upfront for improvements that can be paid off over a longer period of time.

Ireland's One Stop Shop

Ireland launched an initiative to promote retrofit in 2022, as part of the National Home Energy Upgrade Scheme. This scheme aims to increase the energy efficiency of properties by providing grants to homeowners and landlords, overseen by the Sustainable Energy Authority of Ireland (SEAI).[26]

Energy efficiency upgrades are carried out by SEAI-approved private companies called 'One Stop Shops'.[27] These companies offer homeowners, private landlords and housing bodies all the services required for 'deep home retrofits' – a building renovation with a focus on reducing energy consumption. Upgrade services include a range of energy efficiency measures, such as insulation, heating systems, renewable energy technologies, and energy-efficient lighting and appliances.[28]

Low-income households don't have to pay towards the upgrades, with other homeowners receiving a grant to cover 40% of the costs.

The scheme's target is to retrofit 500,000 homes by 2030 — or close to 30 per cent of Ireland's housing stock — to a Building Energy Rating of B2, which is roughly equivalent to a UK EPC rating of B.[29] The grants for this scheme are funded through Ireland's carbon tax on fuel including gas, coal, oil, diesel, and peat. 55% of the revenues collected from carbon tax are allocated to the One Stop Shop scheme.[30]

500,000
homes will be retrofitted by 2030 via the scheme — nearly **30%** of Ireland's housing

Retrofit in Germany

Almost a third of Germany's energy is spent on space and water heating, so retrofit is a matter of urgent action.[31]

In 2022, the German Government allocated €177.5bn towards climate action, of which €56bn will go towards supporting "climate-friendly" building renovation. The focus is towards retrofitting buildings in the bottom 25% of energy performance.[32] Furthermore, the European Commission requires all residential buildings to reach an energy rating of D (on a scale of A to G) by 2033.[33] To meet these targets, almost 64% of the entire housing stock needs to be retrofitted in the next decade.[34]

To help achieve this, German states have introduced a range of federal Government schemes that incentivise measures to increase energy efficiency of buildings. Landlords who retrofit their buildings are entitled to raise rents annually by up to 11% of modernisation costs.[35] This is particularly important as, at below 50%, Germany has the lowest rates of homeownership in the Eurozone and this incentivises landlords to carry out much required energy efficiency projects.[36]

The German KfW infrastructure bank has introduced the 'Efficiency House' or BeG scheme. This entails granting low interest loans to homeowners to fund retrofit projects, with the size of the loan depending on the degree of improvement in comparison to a reference standard. Since its implementation, the scheme has provided funding for over 6 million homes and triggered investment worth €480 billion on lending of €180 billion.[37]

€56 billion
has been allocated by Germany to "climate-friendly" building renovation

PACE loans in the USA

The USA's Property Assessed Clean Energy (PACE) model, first introduced in California in 2008, is a mechanism for financing energy efficiency improvements and the use of renewable energy on private property.[38]

PACE is a type of property-linked financing tool to encourage retrofit. It allows a property owner to secure finance for finishing energy efficiency projects upfront. The loan is then paid back over a period of time through a voluntary assessment. There are two types of PACE programs: C-PACE for commercial property and R-PACE for residential property.

The unique benefit of the PACE model is that the assessment is linked to the property and not the owner, and so can be used to finance upgrades where the payback period is longer than likely tenancy. The homeowners who participate in the PACE program can repay the retrofit costs over a set time period, which is usually 10 to 20 years, determined via property assessments. These instalments are paid as a part of the property tax bills.[39]

PACE is typically used by residential property owners to finance clean energy, water and energy efficiency, and resiliency retrofits (Earthquake, Flood, and Grid Resiliency). A key benefit of PACE for homeowners is that it spreads the cost of upgrades over their lifetimes so that they can pay as they save. It also catalyses private capital to scale supply chains and create local jobs.[40]

For R-PACE, as of 2022, the scheme has resulted in $8 billion in total investment and 344,000 home upgrades.[41] Overall, the scheme is less developed than C-PACE for commercial properties, but it's showing great promise.

344,000
home efficiency upgrades between 2008 – 2022 as a result of PACE loans in the US

Canada's Greener Homes Initiative

Canada's Greener Homes Initiative launched in May 2021, and offers grants and loans to support domestic retrofit – including insulation, Solar PV, air sealing, and smart thermostats.

Grants of up to $5,000 are available for eligible retrofits, alongside $4.4 billion in interest free financing, with up to $40,000 available over a ten-year repayment term. The system is designed to complement the complex map of provincial initiatives, with some of these offering grants for solar panels.

Crucially, the initiative offers long-term funding through to 2028. This is critical for supporting the development of the retrofit supply chain. The scheme emphasises the customer journey, which is a key factor driving its popularity. In its first seven months, it received 288,000 applications, which is 25% of its total anticipated grants.[42]

The initiative has also significantly increased the number of energy advisors available (from 948 to 1600) who provide impartial, third-party verification and ratings of a home's energy efficiency.[43, 44]

288,000
applications received in the first seven months - **25%** of the programme's total anticipated grants

Section 02

Listening to UK homeowners

How do UK consumers feel about decarbonising their homes?

Clear appetite for net zero ready homes but barriers remain.[45]

Nearly six in ten (57%) homeowners, and 67% of landlords, think it's important that they take steps to make their property net zero ready by 2035.

The gap in knowledge of EPC ratings for homeowners (just over half, 54%, know their rating) provides an opportunity to improve knowledge and unlock action.

Just 28% of homeowners say that they are confident that they would know what they need to do to make their property net zero ready by 2035.

20% of homeowners and 42% of landlords say that they have the money to make their property net zero ready by 2035.

Those with the oldest properties are 35% less likely to say that they would be able to pay (15% of those with properties built pre-1900 are able to pay, versus 23% for those built post 1961).

Nearly six in ten (56%) landlords expect their property to be net zero ready within the next five years. For homeowners, this is just one in four (27%), and one in five (19%) homeowners say that they don't expect their home to ever be net zero ready.

84% of landlords have considered or actually taken action to improve energy efficiency in the last 5 years (versus 65% of homeowners).

New research was conducted for current report, consisting of surveys of over 2,500 UK homeowners and landlords, as well as in-depth focus groups and one-to-one interviews with those who had already carried out retrofit.

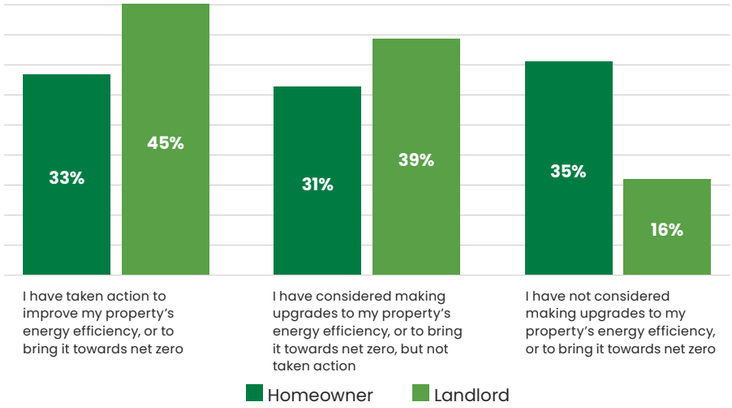
Respondents are aware of the benefits that energy efficiency improvements like insulation bring. Unsurprisingly, most are keen to save money on energy bills and wanted homes that stay warmer during cold winters.

Technical knowledge of what's required is, however, lacking. Many homeowners feel they don't know where to start when it comes to decarbonising their properties, and nearly half don't know their home's current EPC rating. A third of young homeowners specifically want advice on carrying out works.

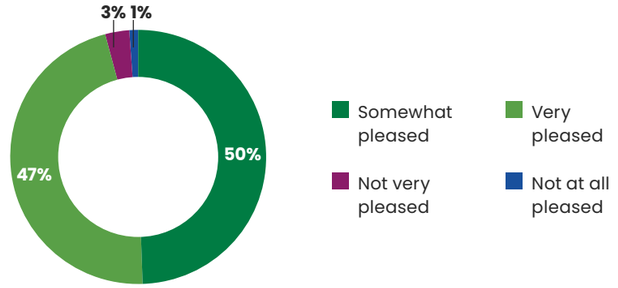
Additionally, homes faced with the pressures of rising costs of living, are put off making changes by both the upfront and longer term costs that retrofitting can entail. The research indicates that the majority of both landlords and homeowners would welcome financial support from both the UK Government and their banks when carrying out any works to decarbonise their home.

Existing frameworks to provide such legislative certainty and financial help are inadequate. Homeowners and landlords need clear direction and ongoing support, in a variety of forms that suit their financial situations and the varying needs of their properties.

Action taken to improve energy efficiency by homeowners & landlords



Satisfaction rates among property owners following the completion of retrofit activities



Overwhelmingly, retrofitters feel rewarded

96%

of people who reported having taken action to retrofit their home to improve energy efficiency reported to be pleased that they had done so

81%

of those who had undertaken retrofit work to improve the energy efficiency of their home would recommend undertaking work to a friend, family member or work colleague

73%

of those who had undertaken retrofit said that their installation had performed at least as well as expected. Half agreed that it had performed better than expected

77%

of property owners say that their property is warmer as a result of the measures they installed

64%

say that the running costs of the property are lower as a result of the measures they have installed

Awareness prompts action

One key aspect of the research was to identify the extent to which awareness of the UK's net zero goals was a contributing factor in driving energy efficiency improvements. Before beginning the survey, the concept of a property being 'net zero ready' was unknown to many participants. Fewer than one in four (22%) homeowners had heard of a net zero ready home and understood what the benefits of a decarbonised home would mean for them.[46]

Once respondents were presented with a definition of 'net zero ready', it emerged that many property owners are in fact confident that their properties will hit the mark within the next five years – a healthy 56% of landlords, and 27% of homeowners.

Our research suggests that public awareness of net zero is linked to the decarbonisation of homes. Those with a better understanding of net zero readiness are far more likely to have already taken action, with those who have heard of a 'net zero ready' home and know what to do to get there (34%) being 1.5 times more likely to have taken action than those who had not heard of the term (22%).[47]

Money matters

Issues relating to cost dominate decision-making for retrofitting improvements.

The potential of lower energy bills and higher home resale value are key drivers of action. 46% of homeowners who had made energy efficiency improvements in the last year reported "saving money on bills" as being a key reason for doing so. One in four (23%) said a key reason for retrofitting was to improve the resale value of their property.

Some property owners face greater challenges than others in this respect. Lower earners are far more likely to avoid retrofit as a result of cost, despite being more likely to live in poorer quality homes that could benefit most from efficiency upgrades. So, too, are owners of older properties, due to the higher levels of investment required to carry out works.

Crucially, there is clear appetite for more support among all parties. Seven in ten (68%) homeowners and nine in ten (87%) landlords want some form of support from their bank or mortgage provider to get their home net zero ready, including direct funding for the required improvements and direction towards skilled tradespeople.

Policy certainty drives progress

When comparing the progress made by the surveyed landlords and homeowner respondents, it's clear the role that public policy certainty can play in accelerating progress on retrofit. Currently, all UK landlords must ensure that their rental properties hold an EPC certificate of at least E.

The research showed that 84% of landlords have considered or have actually taken action to retrofit in the last five years, compared to 65% of homeowners.

At a minimum, policy is a powerful tool for encouraging knowledge and awareness. 85% of landlords know their property's current EPC, compared to 54% of homeowners.

The research also found that policy certainty led to additional retrofit action. In almost all categories, landlords outperformed homeowners on the implementation of additional energy efficiency improvements such as solar panels, triple glazing, heat pumps and battery storage, as they sought to further increase rental value and make properties more attractive to tenants.

The immediate impact of the UK Government's recent decision to scrap requirements for rental properties to reach an EPC C rating by 2028 is also clear. Nearly six in ten (57%) landlords surveyed knew about the latest news, of whom 42% said that they had since cancelled plans to invest in energy efficiency measures. 53% said that it made them less likely to invest in such measures in future.

Overall, landlords and homeowners are clear in their views about the role that Government should play. Six in ten (60%) homeowners and a comparable proportion of landlords (56%) feel that the responsibility to decarbonise properties should sit with Government. With just one in three (30%) in both groups thinking that the Government is doing enough to support homeowners: policymakers must seek to balance any targets and direction with appropriate resources and support.

"We're spending less on energy, but we're also doing something good because we're reducing our consumption. It's a double benefit."
Homeowner,
Male, 51,

"Apart from the environmentalism, which is a very important responsibility that we all share, it also makes a material difference to your bottom line. It improves your quality of life."
Homeowner,
Male, 38,

"The Government wants us to be green, but we need more help and assistance financially in order to be green... It's in their interest, but we're footing the bills."
Homeowner,
Female, 59,

"We need a clearer direction of what is going to help us, because ultimately, if you['ve] got a family, your primary goal... is just [to] save money. I think the information out there is quite conflicting at times."
Landlord,
Male, 40

"I think to actually fork out a big chunk of money upfront, it's something that I'd have to think about and really work out the benefits of doing it. I've got two children. I have to be mindful that I've got other things to pay for."
Homeowner,
Female, 42,

Section 03

Financing the transition

The role of finance in supporting the UK's housing transition

Financial services providers have a clear and vital role in helping to accelerate progress on retrofit. Our research found that 68% of homeowners and 87% of landlords want some form of support from their bank or mortgage provider to retrofit their home.

At Lloyds Banking Group, we recognise the role we can play in educating customers on how they can reduce emissions in their home, and in the provision of financing options to support the transition to more energy-efficient properties.

As one of the UK's largest financial services providers, we play a key role in the housing industry – from providing 1 in 5 UK mortgages to funding hundreds of housebuilders and housing associations.

Retrofitting Europe's oldest housing stock is essential in reaching the UK's net zero goals, but, as well as focusing on improving our existing homes, we are also actively addressing the urgent need for new, high-quality and sustainable homes in the UK.

As part of the NextGeneration Executive Committee we are working with industry to support the building sector to transition – working with housebuilders of all sizes. We have supported the creation of national sustainability standards alongside Homes England and UK Green Buildings Council. With our support, two new standards have been developed by NextGeneration – NextGeneration Project and NextGeneration Core; both designed to help support small- and medium-sized housebuilders assess their own sustainability performance. Alongside these new sustainability standards for UK housebuilders, we also launched our own Housebuilding Sustainability Finance Framework. One of the first of its kind to be led by a UK financial institution, our framework sets out how we will help housebuilders access finance to build more sustainable homes through our financing propositions.

Looking at the social housing sector, Lloyds Bank was an early adopter of the Sustainability Reporting Standard for Social Housing (SRS). These standards provide housing associations with a framework to support the implementation and reporting of ESG performance in the social housing sector, to facilitate reporting and help unlock potential investment.

The role of Lloyds Banking Group in retrofitting homes

Decarbonising homes is a core focus for us as the UK's largest mortgage lender. We have developed a range of educational resources and financial incentives to help tackle the retrofit challenge.

Education and awareness

Many of our customers – especially those living in older, poorly insulated homes – are grappling with high energy use and a substantial carbon footprint, but aren't clear where to start with cost and carbon savings.

To help bridge this gap, we have partnered with the Energy Saving Trust, to support our customers with the right tools and guidance on retrofit. Working with the Energy Saving Trust, we have designed a personalised Eco Home Tool for Lloyds Bank and the Home Energy Saving Tool for our Halifax customers. This practical, easy-to-use tool enables homeowners to create a personalised plan to identify where energy efficiency improvements and cost savings can be made. The tool also suggests what a property's current EPC rating is, providing customers with further valuable insight into the energy efficiency of their home. Since launch, the tool has generated over 30,000 action plans for our Lloyds Bank and Halifax customers.

We have also made our Green Buildings Tool free to use for all commercial customers. From a single property through to larger portfolios, the tool helps people identify, evaluate and understand the estimated outcomes of potential investments to make a property more energy efficient.

Financial incentives for our homeowners and landlords

Beyond education and awareness building, we also offer a number of financial incentives to support with retrofit work, including cashback offers and partnerships with trusted industry leaders that can make it easier for customers to install heat pumps and solar panels.

When live, our Green Living Reward and Eco Home Reward schemes offer Halifax and Lloyds Bank mortgage customers the opportunity to receive up to £1,000 cashback when making energy efficiency home improvements. To date, we've provided over 2,000 customers with cashback for approved energy improvement initiatives.

We have partnered with Octopus Energy to cut the cost of an air source heat pump installation. When used with the UK Government's Boiler Upgrade Scheme, our partnership and cashback reward could mean that for some homes a heat pump would cost less than a new gas boiler.

More recently, we launched a trial scheme with solar panel installers, Effective Home, to take away the hard work of searching for solar panel suppliers. Through Halifax's Green Living Hub, customers can access a virtual consultation to confirm their home's suitability for solar panels. A free, personalised solar plan is provided, outlining installation costs and estimated energy bill savings. Effective Home can then arrange the installation and support customers with registering the panels for a free, insurance-backed guarantee. Eligible Halifax mortgage customers will also be able to access £500 cashback towards the cost through Halifax's existing Green Living Reward offer.

Our work with social landlords and housing associations

Since 2018, we've supported around £16 billion of funding to the social housing sector and we currently work with over 200 housing associations, from small local associations of several hundred homes to larger regional associations with tens of thousands of homes.

The UK currently has around five million social homes, with 1.8 million currently below EPC C. Bringing the sector to that minimum presents a significant challenge, but also a huge opportunity. Housing associations are well equipped to deliver at a scale that is just not possible in the private rented or owner-occupied sectors, and so supporting them to build more new quality homes - and retrofit existing stock - will further support the UK on its journey to net zero.

Since 2021, we have provided around £4 billion in ESG-linked funding to the sector, helping clients to make their housing stock more energy efficient. But we know there is more to do.

Creating new partnership models

Beyond our direct support for customers, we are involved in broader, cross-sector partnerships that can deliver meaningful impact for the decarbonisation of UK homes.

We have worked with leaders of Octopus Energy, Shell and National Grid to launch the Local Low Carbon Accelerator (LLCA) project to provide a blueprint for local authorities and the private sector to work together and get green infrastructure delivered faster. In Leeds, working with the City Council, a new retrofit model is being developed that will enable homeowners to benefit from a streamlined and trusted customer journey that provides access to alternative funding sources. Our aim is to develop a viable city-wide retrofit scheme, that can be used as a case study to examine delivery and policy solutions for the rest of the UK.

We are also partnering with industry experts on new financial models, and are working with the Green Finance Institute to develop property-linked retrofit finance.

Our partnerships highlight the power of working across sectors and industry to help accelerate the UK's progress towards net zero.

There is a crucial role for financial services in increasing awareness and understanding of homes' retrofit and providing the right incentives and financial support to drive progress.

And while we are making positive interventions through our work across Lloyds Banking Group, greater policy certainty is key to unlocking the right market conditions for us to scale up UK retrofit at the pace we need.

Our five key policy asks

To support the urgent need for the decarbonisation of the UK's housing stock, we are advocating for comprehensive policy measures that can effectively drive this crucial transition. In this regard, we have proposed five key policy asks:

Long-term policy certainty on sustainable homes

The UK Government should establish a stable and long-term framework that provides certainty for sustainable home initiatives, ensuring that efforts toward retrofitting and energy efficiency improvements are not derailed by short-term policy fluctuations.

Improvement of Energy Performance Certificates (EPCs)

It is imperative to enhance the accuracy and timeliness of EPCs. Consumers need confidence that changes made to their homes for better energy efficiency will be accurately reflected in their EPC ratings, thereby leading to tangible reductions in energy consumption.

Energy-efficiency linked stamp duty

Introducing a system of stamp duty that rewards green home improvements can significantly motivate homeowners to invest in energy-efficient enhancements. This adjustment in the stamp duty regime can serve as a powerful incentive for prospective buyers.

Use of employer tax incentives to encourage green improvements

Removing existing tax barriers for employers and enabling schemes, such as salary sacrifice or benefit in kind initiatives, can encourage employees to make green changes to their homes. This measure can serve as a crucial step in fostering a culture of sustainability within the workforce and the wider community.

Addressing the retrofit skills gap

Recognising the potential for job creation within the green technology sector, it is vital to prioritise the development of high-skilled jobs that cater to the demands of sustainable housing. Increasing the annual transfer cap in the Apprenticeship Levy can facilitate the necessary reskilling and retraining required to bridge the existing skills gap and support the widespread adoption of green technologies.

Looking to the Future

It is clear that customers, Government and the market need to better collaborate to unlock the progress we urgently need to retrofit the UK's homes.

Long-term policy certainty is a key driver in setting the conditions for the market and supply chain to respond to the scale of the UK's retrofit challenge. And we must equip individuals and communities with the tools they need to actively participate in the net zero transition, starting with their homes.

We are committed to playing our part in decarbonising homes, and ensuring a UK housing stock that is safe, sustainable and affordable as we deliver on our purpose of Helping Britain Prosper.

Glossary
of key terms

Boiler Upgrade Scheme (BUS)	This scheme is designed to help low-income households, including pensioners, to replace their inefficient boilers with more energy-efficient ones.
Climate Change Committee (CCC)	An independent non-departmental public body, formed under the Climate Change Act to advise the United Kingdom and devolved Governments and Parliaments on tackling and preparing for climate change.
CO2 Emissions	Carbon dioxide emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during consumption of solid, liquid, and gas fuels and gas flaring.
Decarbonisation	A term used for removal or reduction of carbon dioxide (CO2) output into the atmosphere. Decarbonisation is achieved by switching to usage of low-carbon energy sources.
Energy Company Obligation (ECO+)	A scheme to provide funding to help many more households become more energy efficient through grant-funded insulation measures and energy efficiency improvements, it is also known as the Great British Insulation Scheme.
Energy Efficiency	The use of less energy to perform the same task or produce the same result. Energy-efficient homes and buildings use less energy to heat, cool, and run appliances and electronics, and energy-efficient manufacturing facilities use less energy to produce goods.
Energy Performance Certificate (EPC)	Gives detailed information about a property's energy efficiency and carbon dioxide emissions.
Green Finance Institute (GFI)	The Institute convenes and leads mission-led coalitions to identify and unlock barriers to deploy capital at pace and scale towards impactful, real-economy outcomes.
Net Zero	Net zero refers to the balance between the amount of greenhouse gas (GHG) that's produced and the amount that's removed from the atmosphere. It can be achieved through a combination of emission reduction and emission removal.
Property Assessed Clean Energy (PACE)	An innovative mechanism for financing energy efficiency and renewable energy improvements on private property in the US.
Retrofit	Retrofit refers to any improvement work on an existing building to improve its energy efficiency, making them easier to heat, able to retain that heat for longer, and replacing fossil fuel usage with renewable energy.

Our research
methodology

The bespoke research outlined in this report was conducted by WPI Economics and Censuswide in October 2023. Three pieces of research were commissioned for this report, focusing on homeowners and landlords.

The three pieces of research were:

- **Primary quantitative research** - with homeowners, landlords, and a specific sample of those individuals who have retrofitted their homes (polling was carried out by Censuswide).
- **Primary qualitative research** – interviews and focus groups with 20 individuals who have carried out retrofit work to their home.
- **Secondary research** – looking at progress on retrofit to date and case studies on galvanising future action.

Participants surveyed were asked a series of 17 questions and the answers to the questions provided the breakdown of statistics used in this report.

Of those polled, the breakdowns were as followed:

- Homeowners polling covered 2001 respondents
- Landlords polling covered 252 respondents

Homeowners and landlords who had undertaken retrofit activity to increase the energy efficiency of their home in the last five years – 502 respondents

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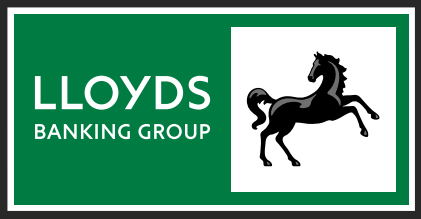

Head office
25 Gresham Street
London EC2V 7HN
+44 (0)20 7626 1500
www.lloydsbankinggroup.com

Registered office
The Mound
Edinburgh EH1 1YZ
Registered in Scotland no. SC095000