

How low-cost finance supports the greening of UK homes

October 2024



Executive Summary

“ Nationwide is committed to a net-zero future. It is our aspiration to support the UK in achieving its ambition to be net-zero by 2050. In June 2023 we became the first lender to offer a 0% Green Additional Borrowing mortgage product. This has enabled us to gain critical insight into how borrowing pricing affects customers' ability and interest in making green home improvements. ” **Debbie Crosbie** Chief Executive, Nationwide

Reducing carbon emissions from homes is one of the biggest challenges to achieving the UK's net-zero ambitions by 2050.

The high cost of living and elevated energy prices hinders homeowners' ability to afford energy-efficient home improvements. The lack of awareness about suitable home improvements and where to seek support further complicates the situation.

The expansion of green financial products over the last few years has offered new options for those in the 'able to pay' market without sufficient savings.

However, the impact of these green finance products on driving new demand for retrofit has been limited despite the efforts of financial providers.

We have launched several green propositions to support home decarbonisation.

We learned that despite the increase in energy costs over the last few years, the upfront costs of low-carbon measures and the consumer payback period for home retrofit changes are still significant challenges, with interest rates on lending adding an extra layer of complexity and increasing both the term and cost of financing for consumers.

We therefore launched 0% interest Green Additional Borrowing to understand how the cost of borrowing affects retrofit activity.

We conducted research with our mortgage customers who have taken the product and those who have not.

We made eight key findings:

1. The public believe responsibility for funding energy efficiency lies primarily with the Government.
2. Customer barriers to retrofitting are numerous and complex, finance is just one of these barriers.
3. Many homeowners judge retrofit success by a reduction in bills.
4. Finance sits too late in customer retrofit journeys to drive new demand – low-cost finance is just a component in a retrofit journey.
5. 0% interest Green Additional Borrowing appeals to those already interested and planning a retrofit change.
6. Brokers are largely not aware of the home decarbonisation challenge, and the relatively small loan sizes associated with retrofit mean the procurement fee is not sufficient to motivate them to promote it.
7. Homeowners would value more support in identifying tradespeople.
8. Well-known technologies are being installed to fix perceived issues.

And we are making six recommendations:

1. More needs to be done by the Government to raise public awareness of why households should retrofit and where they can access information and advice. Our recent data shows that owner-occupier properties rated EPC A/B attract a 2.8% house price premium over EPC D-rated ones. This is more pronounced in the Buy to Let sector, where EPC A/B homes attract a significant house price premium of 11.5% over EPC D-rated ones.

2. The Government needs to develop a national retrofit hub.
3. Demand should be created by organisations such as energy companies, who are close to where a retrofit need exists, leveraging the homeowner's desire to solve an issue.
4. Further work is needed between lenders and Government to support customers typically defined as 'able to pay'.
5. Brokers need to be educated on the benefits of home retrofit and incentivised to advise on, and actively promote, green lending products.
6. To supplement any low cost loans or subsidies provided by the Government, banks and building societies should be incentivised to offer their mortgage customers low cost additional borrowing for green home retrofit.

We will do more to support our mortgage customers.

We demonstrated that our lending could motivate those considering a retrofit change to act sooner. This increases the pace of change and could help drive down the cost of retrofit, which could then result in increasing market demand. Therefore, to ensure the product maximises its appeal, we're extending our maximum loan size from £15k to £20k and removing the requirement for new customers to wait six months before being eligible to apply for the 0% interest Green Additional Borrowing product.

Foreword



Nationwide is committed to a net-zero future and the UK's ambition to be net-zero by 2050.

We are the world's largest building society and one of the largest mortgage providers in the UK. We started out in 1884, founded on the belief that everyone deserves a safe place to call home. That has not changed. We know that climate change will have a significant impact on our customers, their homes, and wider society, and so tackling climate change, and the risks associated with it, are fundamental to our purpose: Banking – but fairer, more rewarding, and for the good of society.

The Society's investments in homes, primarily through residential mortgage lending, account for over 80% of Nationwide's carbon footprint. Our commitment to environmental and climate consciousness means we act to minimise the environmental impact of our operations and assist customers in making their homes more energy efficient. By helping to green homes, we make them warmer, healthier, more comfortable, and cost effective to heat in the long term. Moreover, by managing better the impacts of an increasingly unpredictable climate, we extend the benefits beyond our immediate customers to positively impact our communities and wider society, in line with our mutual purpose.

In June 2023 we became the first lender to offer a 0% Green Additional Borrowing mortgage product. This followed the launch of several green mortgage products that suffered from limited take-up and had little impact on increasing the much-needed retrofitting of UK homes. Our experience has provided us with some critical insight into how borrowing pricing affects customers' ability and willingness to make green home improvements. This paper shares our findings and recommendations.

A handwritten signature in black ink that reads "Debbie A Crosbie". The signature is written in a cursive, flowing style.

Debbie Crosbie
Chief Executive, Nationwide

Reducing carbon emissions from homes is one of the biggest challenges to achieving the UK's net-zero ambitions by 2050.

The United Kingdom aims to achieve net-zero emissions by 2050, addressing both the financial and transition risks associated with climate change. Notably, the UK's 28 million homes¹ are significant contributors to greenhouse gas emissions, accounting for approximately 15% of the national total². This presents a considerable challenge, made worse by the fact that the UK has one of the oldest and least energy-efficient housing stocks in Western Europe. A significant portion of homes—20% built before 1919 and another 34% before 1964—are characterised by poor insulation, leading to higher energy bills and less comfortable living conditions and 80% of buildings in use today will still be inhabited by 2050³. Despite the goal of improved energy efficiency, only about 40% of UK households currently have an Energy Performance Certificate (EPC) rating of C or higher, with a mere 3% achieving an A or B rating.

Furthermore, the reliance on gas heating in 85% of homes³, combined with inadequate insulation, increases dependency on fossil fuels, thereby exacerbating the country's carbon footprint and reducing energy security. Poorly insulated homes particularly affect economically disadvantaged individuals, intensifying the cost-of-living crisis and making them more susceptible to rising energy prices. The NHS incurs costs of up to £1.4 billion³ annually due to illnesses related to cold homes.

Addressing these issues effectively requires a comprehensive national retrofit strategy, demanding the retrofitting of approximately two homes per minute over the next 25 years.

The approximate cost to retrofit these homes is a substantial £250 billion⁴. However, only around 8.8 million owner occupiers⁵ out of the total 28 million UK households⁶ have a mortgage, therefore many households do not have a relationship with a mortgage provider to engage with on home retrofit.

The benefits to homeowners are clear: retrofitted homes will be warmer, cheaper to heat, healthier, more comfortable, and cost effective to heat in the long term. However, the high cost of living and elevated energy prices hinders the ability to afford energy-efficient home improvements.

The lack of awareness about suitable home improvements and where to seek support further complicates the situation.

Addressing these barriers is crucial to achieving the UK's net-zero ambition, as cost is just one of many factors influencing homeowners' decisions to retrofit their properties.

¹ Progress in reducing emissions: 2023 Report to Parliament – Climate Change Committee

² 2022 UK Greenhouse Gas Emissions, Final Figures

³ Domestic Retrofit Policy | UKGBC

⁴ Committee on climate change

⁵ UK finance, 2023

⁶ ONS 2023 families & households

The role green finance has played so far...

Government initiatives like the Energy Company Obligation (ECO) have been essential in supporting low-income households. Meanwhile, early adopters and wealthier individuals have often funded retrofits through personal savings, supplemented by government programmes such as the Boiler Upgrade Scheme. For those in the 'able to pay' market without sufficient savings, the expansion of green financial products over the last few years offers new options.

Green finance includes secured funding, such as first charge mortgages⁷ or additional advances on existing mortgages⁸, to cover the purchase and installation of retrofit measures. It also includes unsecured funding options, like credit cards, personal loans, or finance agreements, which do not require tangible security or collateral.

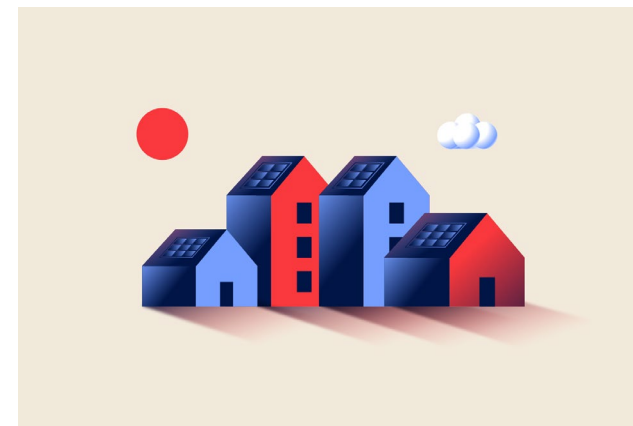
Credit risk is one of the primary concerns for lenders. Affordability checks for secured lending help mitigate this risk. However, unsecured green lending presents additional challenges due to the Consumer Credit Act 1974. Under Section 75 of the Act, lenders may be liable for the breaches of an installer, making them jointly and severally liable to the consumer for any misrepresentation or breach of contract by the installer.

Although there is no agreed industry definition nor any regulatory requirement to offer green mortgages, typically providers offer various financial incentives to homeowners through two main types of green finance:

1. **House purchase mortgages:** These provide lower interest rates and/or cashback and, in some instances, enhanced affordability to homeowners who buy properties with a high Energy Performance Certificate (EPC) rating.
2. **Retrofit mortgages:** These offer additional borrowing at lower interest rates or cashback for homeowners making energy-efficiency improvements.

Some providers also offer green home improvement loans to finance energy efficiency improvements. Many financial providers offer customers free digital personalised action plans for their homes and, in some cases, visit a home to conduct a home assessment.

The impact of these green finance products on driving new demand for retrofit has been limited despite the efforts of financial providers.



⁷ A first charge mortgage is a loan taken out on a property that is the primary or 'first charge' loan against that property.

⁸ Additional advances means that when you remortgage, you borrow more money and therefore increase the overall size of your mortgage.

We have launched several green propositions to support home decarbonisation.

Our investment in homes through secured mortgage lending accounts for 80% of Nationwide Building Society's carbon footprint. Supporting members in overcoming key barriers to retrofitting is essential for us to reduce these risks to our customers, their homes, and wider society⁹.

In 2020 we introduced a low-rate Green Additional Borrowing product for our mortgage customers to facilitate energy-efficient home improvements¹⁰. In 2021 we added the Green Further Advance Mortgage for customers of our buy-to-let subsidiary, The Mortgage Works. Despite the attractive rates, uptake for these products has been limited¹¹.

We launched a Green Reward Mortgage in 2021, which offers cashback to customers purchasing energy-efficient properties (Standard Assessment Procedure (SAP) score of 86 and greater). However, our findings indicate that this has not significantly influenced consumer behaviour towards increased demand for high-EPC homes. Instead, it has primarily rewarded those who were already planning to purchase energy-efficient properties.

From October 2021 to August 2022 we conducted a solar panel test with our partner MakeMyHouseGreen. This test aimed to simplify the installation process and help consumers understand their options by providing a trusted supply chain for the work. The test revealed various consumer challenges and barriers in the retrofit journey. It also showed that demand mainly came from those already considering solar panels, limiting our ability to expand the market. Additionally, we encountered liability challenges despite only acting as an introducer to the service provided by MakeMyHouseGreen and their installers.

As take up of our low-rate retrofit Green Additional Borrowing had been limited, our Green Reward Mortgage proposition hadn't driven behavioural change, and our solar panel test demonstrated the immense challenges we would face scaling an onward supply chain, we decided to re-focus our efforts on innovating a new green finance proposition that tackled the core barriers for customers associated with borrowing to retrofit.

We had learnt up until this point that despite the increase in energy costs over the past few years, the upfront costs of low-carbon measures and the consumer payback period for home retrofit changes are significant challenges, with interest rates on lending adding an extra layer of complexity and increasing both the term and cost of financing for consumers. Therefore, to overcome this we developed the concept of a 0% interest Green Additional Borrowing product.



⁹ For information on our understanding of the impact of climate change on Nationwide and our customers, how the risks from climate change are managed and incorporated into the Society's governance model and the metrics and targets used to monitor the risk, please view our [Climate-related Financial Disclosures 2024 | Nationwide](#)

¹⁰ Low-rate Green Additional Borrowing mortgage - year to 4 April 2023: applications: 409, completions: 391

¹¹ Green Further Advance mortgage 2023/24 applications: 8, 2023/24 completions: 5

We launched 0% interest Green Additional Borrowing to understand how the cost of borrowing affects retrofit activity.

In June 2023 we began testing our 0% interest Green Additional Borrowing, reducing retrofit costs for existing residential mortgage customers who elect to take up the product. This test aims to gauge how the cost of borrowing impacts customers' ability and interest in making green home improvements.

Although customers still need to repay the borrowed amount eventually, the test offers eligible homeowners with a Nationwide mortgage the opportunity to borrow £5,000 to £15,000, up to a maximum of 90% loan to value (LTV). The 0% interest rate is fixed for up to five years, and the full loan must be used for non-structural, energy-efficient improvements such as solar panels, air source heat pumps, window upgrades, boiler upgrades, cavity wall insulation, or loft insulation.

Take-up of the 0% interest Green Additional Borrowing product from 1 June 2023 to end of September 2024, was around 2,200 applications, with around 1,900 applications completing over the period, totalling £21.1 million in lending. The average loan size was around £12,300. The product represents around 8% of our total additional borrowing applications. Whilst the rate of take-up has been over three times that of our previous low-rate Green Additional Borrowing product*, its impact remains limited suggesting that the cost of finance is not the primary barrier to green retrofit.

The product was predominantly taken out by those with a lower LTV¹², indicating that it is more accessible and attractive to those with more equity in their home. Most borrowers take the product out for 5 years to benefit from the 0% interest over a longer duration, and approach Nationwide directly instead of using a mortgage broker. The uptake is also stronger in the southern regions of the UK.

To make our customers aware of the **0% Green Additional Borrowing** product, we promoted it to over 4 million customers. We sent emails to over 133,000 mortgage members, messages to 213,000 online banking users, and notifications to 3.75 million members on the banking app, and promoted it on our online Mortgage Manager.



We conducted customer research to understand their perspectives

We conducted research with our mortgage customers who have taken the 0% interest Green Additional Borrowing product and those who have not.

To understand customers' perspectives on the 0% interest Green Additional Borrowing product, we ran an online survey, which was completed by Nationwide mortgage customers¹³ who had not taken up the product. Additionally, Nationwide mortgage advisers conducted a phone survey with mortgage customers¹⁴ who had recently applied for 0% interest Green Additional Borrowing.

¹² Loan to Value (LTV)

¹³ 223 Nationwide mortgage customers

¹⁴ 118 Nationwide mortgage customers

* Product available from March 2020 to May 2023

Our eight key findings

Our research uncovered eight key findings, which we believe need to be considered when determining actions that the Government, industry, banks and building societies can take to encourage home decarbonisation.

1. The public believe responsibility for funding energy efficiency lies primarily with the Government.

A large majority of the customers surveyed (31%) believe that the responsibility for funding home energy efficiency changes lies primarily with the Government and will look for subsidies to fund these improvements. One-quarter of those asked believe energy companies should play a role in funding, whilst only 9% think that financial organisations have a role.

2. Customer barriers to retrofitting are numerous and complex, finance is just one of these barriers.

The retrofit challenges are multifaceted, involving the specific architectural characteristics of UK homes, high electricity prices, and the inherent difficulties of upgrading an aging housing stock.

There is a perceived lack of urgency and compelling benefits, financial constraints such as high upfront costs and affordability issues, and perceptions about payback periods. Additionally, there is an awareness and knowledge gap regarding the environmental impact of homes, suitable measures and technologies, and what improvements are appropriate for individual homes.

Trust and risk concerns also play a significant role, with homeowners wary of suppliers, technologies, and potential negative outcomes. The complexity of solutions and the hassle associated with navigating options and undergoing home disruptions further deter action. There is also a perception that delaying action might be advantageous due to anticipated future cost reductions or incentives.

Property constraints, such as fabric limitations, specific regulations for conservation areas or listed buildings, and issues related to tenure, further complicate the retrofitting process. Life circumstances, such as anticipated length of home tenure and competing priorities for resources, along with personal preferences for aesthetics, also influence decision making. The supply chain's limited availability and quality of suppliers add another layer of difficulty, particularly in cases where landlords face split incentives, bearing the costs while tenants reap the benefits.

3. Many homeowners judge retrofit success by a reduction in bills.

Nearly all those who completed retrofit work using the 0% interest Green Additional Borrowing are happy with the work they have completed. For about two-thirds, this satisfaction comes from seeing a decrease in bills. Just under half believe their homes are warmer, and 38% feel their homes are more environmentally friendly. Only 4% had their home re-assessed to understand their new EPC rating, and only 3% obtained a new property valuation.

4. Finance sits too late in customer retrofit journeys to drive new demand – low-cost finance is just a component in a retrofit journey.

Those who applied for the 0% interest Green Additional Borrowing had already determined the changes they wanted and the amount they needed to borrow. These customers were not at the stage of their journey where they were considering what changes were needed in their homes. Despite marketing to approximately 4 million people, our communications failed to engage customers who were not actively thinking about making a change, demonstrating how hard it is to engage those who are not actively considering green home changes.

5. 0% interest Green Additional Borrowing appeals to those already interested and planning a retrofit change.

Take up predominantly came from early adopters, specifically those already interested in green technology and were already planning changes. The product appeals mainly to relatively better-off individuals, with 28% using their income to supplement the Green Additional Borrowing loan. The 0% interest rate encouraged these individuals to make retrofit changes sooner than they had originally planned, with 53% deciding to retrofit now, rather than in the future, due to the offer. As a result, while we did not expand the overall market for retrofitting, we facilitated some people in implementing these changes earlier than they otherwise would have. This demonstrated that the significant payback periods are generally still prohibitive apart from to those who were already motivated to retrofit and had the resources for the change.

6. Brokers are largely not aware of the home decarbonisation challenge, and the relatively small loan sizes associated with retrofit mean the procurement fee is not sufficient to motivate them to promote it.

93% of reservations came via Nationwide's direct channels. Brokers report having little awareness of the impact homes have on UK carbon emissions. Given the breadth of products they cover, they are also not familiar with many of the green mortgages available to customers. Where there is awareness, brokers indicate that the low borrowing amounts for retrofits, compared to a house purchase, result in minimal fees, making it not worthwhile for them to advise on or actively promote these products.

7. Homeowners would value more support in identifying tradespeople.

Homeowners often struggle to find trustworthy tradespeople who are both available and cost effective. There is a need for additional support in recommending reliable tradespeople and determining reasonable costs for various services. Many homeowners conduct research and gather quotes before formally seeking lending to demonstrate how the funds will be utilised and the required amount.

8. Well-known technologies are being installed to fix perceived issues.

The top three reasons for energy efficient improvements to a home are: 23% of people aim to save money, 19% seek to make their homes more comfortable, and 14% want to contribute to environmental sustainability. Well-known technologies are being installed to address these perceived issues, with 50% opting for solar panels and 47% choosing window replacements.



Our recommendations

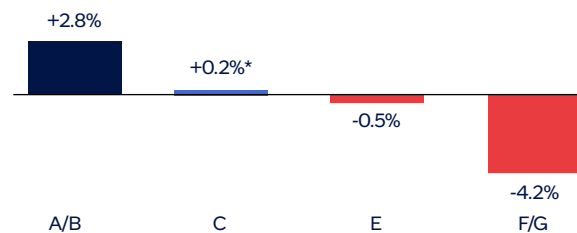
The insight we gained from our research has led us to the following six recommendations. Our belief is that if these were implemented then demand for home improvement measures would increase.

1. More needs to be done by the Government to raise public awareness of why households should retrofit and where they can access information and advice.

The Government should co-ordinate consistent communication across the entire market, increasing awareness of the need to retrofit and so customers encounter repeated messages from multiple touchpoints such as energy providers and builders. Organisations close to the triggers for home retrofits should signpost balanced and objective information, and how households can access personalised advice from trustworthy sources. Solutions must be available at the point of need to drive demand, such as when a household's boiler fails, or an energy bill is higher than expected. Households need clear, tangible, and compelling reasons to act, along with a concrete and reliable cost-benefit case. Household smart meter data should be more readily available to companies, including financial service providers, to enable them to build the benefits case for the customer.

The benefits should include the potential for higher EPC-rated homes to command a premium price – Our recent data shows that owner-occupier properties rated EPC A/B attract a 2.8% house price premium over EPC D-rated ones, while EPC F/G-rated properties face a 4.2% house price discount compared to EPC D-rated ones. This is more pronounced in the Buy to Let sector, where EPC A/B homes attract a significant house price premium of 11.5% over EPC D-rated ones, while EPC E-rated properties face a 1.7% house price discount compared to EPC-D rated ones. The benefits case could be further improved if the Government rebalanced levies on electricity to support the decarbonisation of heat.

Average price premiums of owner-occupied houses by EPC rating, relative to EPC D rating



* Not statistically significant

Source: Nationwide analysis based on England & Wales data (12 months to June 2024)

2. The Government needs to lead the development of a national retrofit hub.

A national retrofit hub needs to be developed to provide customers with an integrated and trusted end-to-end retrofit journey, from the initial trigger point through to installation and validation of the benefits. Finance would be one component of this hub. This hub would enable the public to identify and access installation journeys that minimise hassle, ensure proper care for their homes, connect with trusted suppliers, and offer a performance guarantee, post-installation care and performance monitoring.

For this to be successful, there needs to be enough skilled suppliers to fulfil demand across the country and therefore the Government need to continue to focus on upskilling workers to address the current green skills shortage.

3. **Demand should be created by organisations, such as energy companies, who are close to where a retrofit need exists, leveraging the homeowner's desire to solve an issue.**

Retrofit triggers are better identified by organisations such as energy companies, architects, builders, and customer advice organisations, particularly when individuals face issues like high bill costs or cold homes, making them more open to considering changes. These organisations are better positioned than financial institutions to create demand and initiate retrofit journeys. However, affordable and attractive finance options that suit a customer's circumstances are an important component of the retrofit process. Therefore, finance options should be integrated into these third-party journeys so that customers are aware early on of all the funding options available to them.

4. **Further work is needed between lenders and the Government to support customers typically defined as 'able to pay'. In reality, many don't have sufficient savings or disposable income to fund changes.**

Existing government subsidies, such as the Great British Insulation Scheme and ECO, are rightly targeted towards people on lower incomes. We welcome the Labour party's proposal to offer a low-cost government loan for retrofit, as this would motivate the 'able to pay' market to act sooner than they otherwise would. The Government should work with financial services providers to ensure that the lending they offer is complementary to the grants or low-cost loans the Government will offer.

5. **Brokers need to be educated on the benefits of home retrofit and incentivised to advise on and actively promote green lending products.**

The Government, the Association for Mortgage Intermediaries, and banks and building societies all need to play a role in educating brokers about how UK homes contribute to greenhouse gas emissions. Brokers can play a key role in supporting the decarbonisation of housing stock by creating customer awareness of Green Finance available to retrofit homes.

6. **To supplement any low cost loans or subsidies provided by the Government, banks and building societies should be incentivised to offer their mortgage customers low cost additional borrowing for green home retrofit. The Bank of England should provide cheap funding to enable this.**

Although we found that 0% interest lending didn't create additional demand for retrofit, there was a beneficial effect as it made those who were considering a retrofit change act sooner. This increases the pace of change and could help drive down the cost of retrofit, which could then result in increasing market demand.

What more will we do to support Nationwide's mortgage customers?

Whilst our initial findings point to wider industry support being crucial to solve the challenge of greening homes, there is more that we want to do to play our part.

Helping our customers with bigger projects

Whilst some customers may not be ready to green their home, we want to ensure our 0% interest Green Additional Borrowing product is available to support those who are but need a bit more finance to make that step. Therefore, we're extending our maximum loan size from £15,000 to £20,000 to use towards their project. It is worth noting that 0% financing for a mortgage lender is not commercially sustainable on a long-term basis without government intervention in the funding model, and so we'll continue to cap the proposition at a total of 5,000 customers¹⁵, to ensure we lend responsibly. Using current application rates, this means that the proposition could be maintained for another two years.

Supporting our new mortgage customers

We will also remove the requirement for new customers to wait six months before being eligible to apply for additional borrowing with us, if they are using the 0% interest Green Additional Borrowing product to create a greener home. This will encourage more people to retrofit their home when they have either just moved or re-mortgaged, where finance and improvements are likely to be top of mind.

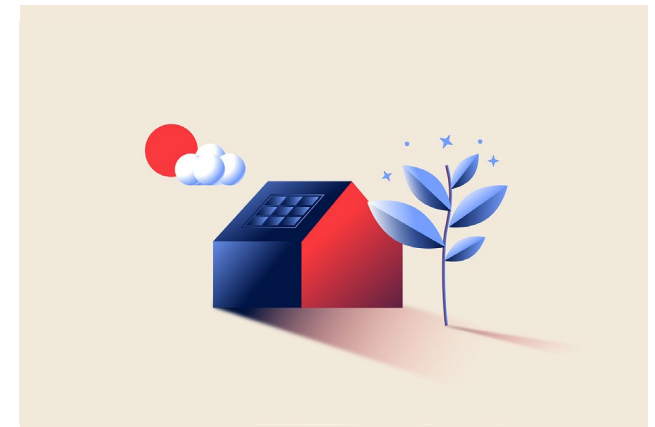
Educating brokers on the need to retrofit homes

As brokers originate over 70% of mortgages in the UK, we feel it's critical to educate them on the need to decarbonise homes and how green finance can be utilised to support retrofit. Nationwide have already begun to test some educational green home events for brokers. In these we layout the home decarbonisation challenge that exists in the UK and the regulatory landscape, share our insight on what the drivers and motivators are for homeowners to retrofit, provide a market overview of all green finance that exists in the UK, and the grants and subsidies that are available.

Working with government and industry stakeholders

Driving change around green homes cannot be delivered by Nationwide alone. To ensure we are working in partnership with other organisations seeking to deliver green homes, we regularly convene our Green Homes Action Group which brings together organisations including energy companies, housing providers, charities and representative bodies. The group discusses key issues, including supporting private landlords to improve properties and how to green social housing.

The outputs from this group form part of our engagement with the Government and Nationwide also discusses green homes issues with MPs, Lords and officials working for key UK Government departments and devolved administrations.



¹⁵ The product can be withdrawn at any time.



Nationwide Building Society

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