

# Bristol City Council Able to Pay Retrofit Research

## Final Report – Executive Summary

**July 2022**  
**Version 2**



# Executive summary

## Purpose of research

The aim of this research is to understand the motivations and needs of a group of Bristol Able to Pay (ATP) retrofit consumers that applied for a Bristol City Council Bright Green Homes scheme grant in March 2021. The main outcomes sought are to inform the council's design of a retrofit scheme which integrates the needs of ATP customers alongside other considerations such as the development of local supply chain skills and expertise to meet expected retrofit demand, to reach net zero targets.

The objectives of the research are to understand ATP retrofit customer perspectives on installing home energy efficiency measures. The research examines customer motivations, previous retrofit experience, intentions around energy home improvements over the next five years, knowledge about low carbon heating technologies, preferences for the advice and financial support of a local retrofit scheme and anticipated personal investment.

## Methodology

This final report presents analysis from online surveys – a Bright Green Homes scheme register of interest survey and an 'Able to Pay' survey - and two focus groups. Data from the Bright Green Homes scheme register of interest survey (March 2021) was combined with responses to an 'Able to Pay' online survey (February 2022). In total, 649 people with incomes of £30,000 or more registered their interest for a Bright Green Homes grant. Of these 649 people, 77 responded to an invitation to complete the 'Able to Pay' online survey. Of the 77 responses received, 67 were complete responses and 10 were partial responses, with at least 20 questions completed. Responses from the two surveys were matched via postcode for 74 households. Survey analysis was presented in an interim report.

Survey results informed the areas for further investigation in focus groups. Two focus groups separately addressed key retrofit measures – heat pumps and insulation. They also explored shared considerations such as whole street retrofit and finance. Five Bristol residents participated in focus groups, held online in June 2022.

## The Sample: Able to Pay Households

These ATP households were all owner occupiers, most of whom live in semi-detached or mid-terrace properties built pre-1900 with solid walls. Nearly all homes had gas central heating. Most properties (85%) had Energy Performance Certificate (EPC) bands of D-F. Findings from this small distinct sample have limited external generalisability to owner occupiers with similar properties and incomes.

## Results

### **Prior experience of home improvements**

The survey responses showed that:

- People in ATP households primarily applied to the Bright Green Homes project for partial funding for home improvements.
- Before applying to the scheme, these retrofit consumers had preferred to install loft insulation, double glazing and draught proofing. They had least favoured the installation of external wall insulation, solar PV, solar thermal and triple glazing.
- Nearly a fifth of households had made no improvements to their home in the last decade. Retrofit work that's more disruptive than simple measures such as loft insulation are highly likely to be needed to improve the energy efficiency of these properties.
- A fifth of respondents said that they had carried out the work themselves, indicating that a small but significant proportion of ATP retrofit consumers are interested in and can install DIY home improvements themselves.
- The main challenges ATP households reported encountering with previous retrofit work were frustration experienced in applying for grants, such as the Green Homes Grant, and its time-consuming nature.
- Almost half of respondents said they'd found it difficult to find a tradesperson to carry out work.

### **Prioritising insulation ahead of heat pumps**

The measures that ATP retrofit customers were most interested to install in the next 12 months were draught proofing, loft insulation and underfloor insulation. Heat pumps and solar PV are considered as potential measures to install within 3-5 years. Focus group discussions indicated that, in spite of the current availability of funding for heat pumps through the Boiler Upgrade Scheme<sup>1</sup>, some ATP retrofit customers were reticent to bring forwards installation of a heat pump. Anticipated future improvements in heat pump technologies, decreasing costs and availability of grants were cited as the main reasons.

### **Scale of retrofit ambitions**

Regarding the scale of retrofit, 61% of survey respondents stated that they were interested in installing one or two measures within the next five years; over a third were considering changing their heating technology and 21% were contemplating having an extension. Trigger events, like redecoration, did not appear to feature highly in survey respondent's thinking about the timing of retrofit work. This was not influenced by income, property type or EPC rating. Potential triggers for the installation of energy efficiency improvements were other building work (14%) or the heating system failing (11%).

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<sup>1</sup> The Boiler Upgrade Scheme is a government grant which replaced the Renewable Heat Incentive. It offers £5000 off the cost and installation of an air source heat pump or biomass boiler, or £6000 for a ground or water source heat pump to replace specific heating systems e.g., fossil fuel boilers. The scheme runs from April 2022-March 2025. [www.gov.uk](http://www.gov.uk)

From focus groups and survey responses, ATP customers viewed packages of measures such as a heat pump with solar PV as desirable. An offer from a trusted provider for the coordination and delivery of a retrofit package of measures could trigger a more 'whole house' decarbonisation approach. An example of a retrofit package offer for an insulated home was heat pump, solar PV, battery and EV charger.

## Information sources

- The main information sources that people reported using for advice on home improvements were the internet, personal contacts, and their Local Authority. Higher income bracket households were more likely to use the internet (69% compared to those in the lower income bracket 39%). The latter group preferred going to a tradesperson for information (22% compared to 12% of ATP customers in the higher income bracket).
- Only 6% of those surveyed reported having a home retrofit plan done to inform their home improvements.
- Regarding non-gas and renewable heating solutions, 20% of ATP retrofit customers reported that they were well informed about heat pumps. ATP customers were less informed about other low carbon heating solutions particularly high-performance electric storage heaters and biomass boilers.
- On heat pumps, survey and focus group results indicated that ATP households felt that the insulation of their home would need to be improved before a heat pump could be installed. Nearly half of those surveyed reported that they did not have the space for a hot water tank in their home. A similar proportion were unsure about different types of heat pump and their combination with other technologies like solar PV or solar thermal. Nevertheless, 29 (42%) of respondents said that they were likely or very likely to change to low carbon heating in the next three to five years.
- To learn about and plan retrofit, ATP survey respondents' preference was to do so via a website (92%). Comparing respondents by income, those in the higher income bracket (> £60,000) were more interested in a one-stop-shop to visit in person (77% compared to 67%) or one-stop-shop touring van (56% compared to 47%) than those in the lower income bracket. There was high interest (87% or more) in all types of retrofit support - light touch, comprehensive, home retrofit plan and checklist.
- Feedback from focus groups indicated a preference for an external contractor to manage the retrofit process, including applying for grants, particularly for installation of a heat pump or package of measures. However, the cost of this support or their reaction to that wasn't included in the scope of this research.
- Whole street retrofit was of interest to nearly all survey respondents (97%), with cost reduction and timing being the biggest incentives. For heat pumps and insulation, focus group discussions revealed that ATP customers were interested in whole street retrofit if it resulted in financial savings or better quality of retrofit work. Issues were raised about timing and convenience of work if it involved a group schedule, and lack of affordability for everyone in the street.
- Nearly all ATP survey respondents (99%) indicated that a grant for 25% of the anticipated investment in an energy efficiency measure (the highest financial incentive offered) would support them to invest in

energy efficiency improvements. A 0% loan was the second most popular option (91%). Nearly three quarters of this ATP customer group would be very likely or likely to seek funding from the local authority or a government-funded scheme. However, the upfront cost of installing measures could still be a deterrent, even with reduced prices.

- In focus groups, the payback period for retrofit was a major consideration. ATP customers were unwilling to risk using 'rainy day' funds for energy efficiency improvements. The lack of value put by mortgage lenders on property energy efficiency was cited as a barrier to further investment in retrofit.
- Respondents stated that they'd prefer a Bristol retrofit scheme to be delivered by a partnership of independent organisation(s) and local authority with or without an energy supplier involved, or by local specialist tradespeople. All respondents said that quality assurance and minimum training requirements were important considerations when choosing contractors. In focus groups participants expressed a preference for local installers for insulation measures due to installers' knowledge of the local housing stock and accountability.

## Recommendations for design of an able-to-pay retrofit scheme for Bristol

These recommendations are informed by the study results, in the context of spiralling fuel prices, cost of living increases and social uncertainty about wider factors, including the war in Ukraine, the Covid-19 pandemic, the climate crisis. A June 2022 Committee on Climate Change report to Parliament<sup>2</sup> identified progress on indicators on energy efficient retrofits of buildings being 'significantly off track', along with the need for new policies for home energy efficiency improvements of owner-occupied homes. Particular noted<sup>3</sup> is the need for Government to direct people towards obtaining better information about their properties, to offer more bespoke support for complex retrofits and to deliver support tailored to local markets. The role of local authorities is recognised in delivering retrofit, as they are best placed to keep track of traders and to help homeowners find trustworthy people to do work for them.

The recommendations below also recognise the local context, including Bristol City Council's development of district heating and its credentials as a green capital. In its Climate Emergency Action Plan<sup>4</sup>, Bristol has committed to investing in the city's energy system particularly in energy-related jobs, insulating homes and installing new renewable energy.

### The retrofit measures to focus on

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<sup>2</sup> Climate Change Committee (2022) Progress in reducing emissions. 2022 Report on Parliament. Progress on key indicators pg. 21.

<sup>3</sup> Ibid, Box 4.4 Trusted and independent advice for the public on how to reduce energy bills and Emissions, pg. 203

<sup>4</sup> Bristol City Council Mayor's Climate Emergency Action Plan 2019 pg. 11

- Prioritise information, training, and financial support for measures with shorter payback periods and lower upfront costs that are popular for installation with ATP households such as draught proofing, loft insulation and underfloor insulation. Most ATP respondents stated an interest in installing 1-2 measures in the next 5 years.
- Support the expansion of heat pump installations (given the availability of the BUS) via promotion of the BUS, upskilling and growth of the supply chain, bearing in mind longer term aspirations of ATP consumers for retrofit of heat pumps in 3-5 years.
- Support solar PV, based on a similar timeframe of 3-5 years, potentially packageable with a heat pump and other technologies like battery storage or EV charger.

### Information and assistance for planning retrofit

- Provide retrofit information on a website and at a one-stop-shop centre, as first options. Give or signpost to trusted independent information that is not sales orientated. The need for households to understand what a well-retrofitted 'futureproofed' building is like and how it should be managed is clearly identified as a need in Bristol's One City Climate Strategy<sup>5</sup>.
- Information available should include:
  - ✓ details on specific measures and combinations of measures, particularly low carbon heating.
  - ✓ details on the likely changes that people will need to make to successfully retrofit their home i.e. installing a hot water tank to work with their heat pump.
  - ✓ a list of trusted traders, trusted products; retrofit assessors, recommended architects and retrofit coordinators
  - ✓ indicate availability of any grants towards EPCs, like the Mendip EPC and EPC Improvement Grants
- Show how to retrofit local properties. Have detailed case studies of successful retrofit for a range of Bristol property types on a website in video and document format, with both homeowners and installers sharing their experiences. Give guidance on retrofit for older properties and listed buildings including planning constraints. Support 'Green Open Homes' type exchanges between people who've had retrofit done sharing their experiences with others. Organise events with installers including possible site visits so the public can ask questions and see work for themselves. Promote the benefits of retrofit and high energy efficiency properties to the public, mortgage lenders, estate agents and private landlords.
- Support all levels of customer support with retrofit:
  - ✓ simple retrofit guide based on industry expertise
  - ✓ reference list of self-use tools for retrofit planning
  - ✓ checklist for what to think about and consider before appointing contractors
  - ✓ light touch support
  - ✓ thermal imaging and retrofit advice
  - ✓ home retrofit plan
  - ✓ comprehensive coordination package for retrofit delivery

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<sup>5</sup> Bristol One City Climate Strategy (2020) page 34

- Support DIY for ATP householders with training (potentially delivered by community energy groups) and signpost to quality learning resources. This will encourage ATP consumers open to doing DIY to do so to a high standard, in readiness for retrofit which requires a professional.
- Promote collective bulk-buy schemes widely amongst the ATP market.
- Tie together information on low carbon heating and district heating network developments.

### **Financial support**

- For any grant scheme, be clear upfront on income eligibility criteria.
- Provide 25% grants (with a price cap for main homes only) for some measures or a set contribution towards specific measures, with further support available via a home improvement loan with 0% finance. This is like the Home Energy Scotland scheme, which has a useful funder finder tool on its website <sup>6</sup>.
- Support collective bulk buy schemes for technologies, which can also build a local sense of place.
- Support discounted materials purchase for DIY in partnership with a local supplier.

Bristol City Council's One City Climate Strategy (2020) states that appropriate funding support is required for households to improve the energy efficiency of their homes to encourage prompt action. Whilst the strategy highlights the need to focus on households experiencing fuel poverty, it does not preclude providing financial support to ATP customers which could stimulate and support the growth of retrofit and renewables supply chains.

### **Retrofit choices, contractors and quality assurance**

- Support local installers and supply chains for insulation first, then heat pumps for the longer term (3-5 years).
- Support the expansion of the supply chain through the provision of grants for training, targeted apprentice programmes and business development loans or grants.
- Consider developing partnerships like the "Good Energy – Caplor" partnership for retrofit planning and project management which also includes application for grants for ATP households.
- Focus on packages of measures e.g., heat pump and solar PV, to maximise the measures installed which will accelerate decarbonisation whilst minimising household disruption.

### **Other support**

- Support connections with community energy groups which can provide energy-related advice e.g., best use of smart meter data, tariffs, best practice examples and learning resources.
- Support community energy groups to develop their capacity to deliver advice through grants for training and employment opportunities.
- Specifically address issues with converted flats in which retrofit could be an issue.

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<sup>6</sup>. <https://www.homeenergyscotland.org/find-funding-grants-and-loans/>



The full report can be made available on request, by emailing [sustainable.city@bristol.gov.uk](mailto:sustainable.city@bristol.gov.uk) with the subject line 'Able to pay retrofit research'.