Sureserve

Delivering Warm Homes

The plan for a Labour Government

September 2024

Produced in partnership with Global Counsel

About this report

Global Counsel (GC) was commissioned to develop this report by Sureserve. It provides a framework for the new government as it seeks to develop its Warm Homes Plan - highlighting the key challenges that have stymied progress to date and the opportunity to do things differently.

The report is the product of Sureserve's extensive experience in retrofitting and social housing, as well as ongoing engagement with NGOs, research bodies, consumer advice groups, social housing providers and residents.

GC is a strategic advisory firm, helping companies and investors across a wide range of sectors to anticipate the ways in which politics, regulation and public policymaking create both risk and opportunity - and to develop and implement strategies to meet these challenges. The GC team has experience in politics and policymaking in national governments and international institutions backed with deep regional and local knowledge.

Sureserve is a trusted partner dedicated to addressing the unique needs of housing associations, local authorities and residents by providing a comprehensive portfolio of high-quality solutions that ensure energy efficiency, safe compliant homes and buildings, and improved quality of life.

We would like to express our gratitude to the stakeholders we consulted during the drafting process of this report. Please note, that the list below does not constitute an endorsement of the views expressed in the report nor its recommendations by any of the organisations or individuals referenced.

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Executive Summary

The Sureserve Group has been focused on creating healthy homes, lowering bills and reducing emissions for the UK's social housing stock since its foundations were laid in 1988. Our expert team have experienced first-hand how different aspects of the policy environment have both enabled and inhibited delivering more energy efficient homes. The cost-of-living crisis, rising energy prices, and carbon emission studies combined have raised the profile of domestic heat as a key area to tackle for both inequality and climate reasons. Policymakers should now work in partnership with industry to deliver the changes required. This report, and the recommendations within it, offer the new government a sustainable plan to meet its goal to decarbonise domestic heat and reduce household bills, using social housing as a template.

To date, the UK has made limited progress in rolling out energy efficiency and low carbon heat measures - hampered by stop-start cycles in funding, a lack of public awareness and understanding, fragmented regulation and the absence of a single clear plan to deliver retrofit. This is not just an issue of carbon emissions and missed climate targets, but energy bills, standards of living and health inequalities – inevitably felt most acutely by the poorest households. The new government's energy mission and corresponding Warm Homes Plan present a fresh impetus to look again at what is required to lower bills, reduce emissions and create genuinely warm homes.

Barriers to the uptake of energy efficiency measures are many and overlapping

The UK has the leakiest homes in Europe. Residential heating is responsible for 18% of UK emissions and domestic use of fossil fuels contributes to 21% of England's emissions.[1] Meanwhile, rising energy bills are pushing more vulnerable people into fuel poverty. 3.17 million households remain in fuel poverty in England - virtually unchanged from the previous year. [2]

According to the government's modelling, there is a gap of 105,000 energy efficiency installers, 15,000 for assessors and 10,000 for retrofit co-ordinators to meet current targets.[3] Some estimates suggest that an additional 350,000 workers will be needed by 2028 to meet retrofit targets.[4]

There is significant variation across the UK housing stock in terms of the age of properties and types of tenure. 20% of those living in pre-1919 dwellings are fuel poor; households living in converted flats (3.7% of all households) had the highest likelihood of fuel poverty (23.5%); and 56% of social housing sector households with band D-G are fuel poor.[5]

1. Left Out in the Cold: The Hidden Impact of Cold Homes, Institute of Health Equity, 2024
2. Annual Fuel Poverty Statistics in England, GOV.UK, 2024
3. Heat and Buildings Strategy, GOV.UK, 2021
4. Industry Insights and Analysis, CITB, 2021
5. Annual Fuel Poverty Statistics in England, GOV.UK, 2024

There is no one-size-fits-all solution for landlords to retrofit social housing. Some regions have a higher proportion of older housing, and others have fewer resources. Only 26% of local authorities have over half of their homes at energy efficiency band C or above. Of these, a majority (52%) are in London or the South East. [6]

Stop-start cycles in funding schemes over the last 14 years have made it increasingly complex for local councils, social housing providers and households to access finance for retrofit.

Local, regional and national governments shaping their retrofit strategies should initiate "people first" approach that ensures that energy efficiency improvements and the deployment of low-carbon heat are maximised to benefit households in their daily lives.

But there are many proven examples of how to do things differently

There is no silver bullet to put the UK on the path to warm homes in five years, but there is plenty of good practice to draw on. The examples in the report highlight approaches taken by local and devolved governments, public-private partnerships and the growing role of industry innovation.

Key identified opportunities include:

1. **Improving personalised advice** – Home Energy Scotland is a one-stop shop providing tailored, localised advice for consumers on grants and incentives, ways to reduce demand and finding accredited installers for retrofit measures.

2. **Engaging the hardest-to-reach communities** – Warmworks identifies where there is the greatest need and coordinates every stage of installing energy efficiency measures as part of a tailored, personalised service.

3. **Encouraging traditional gas boiler engineers to upskill** – a research project by Nesta and Surrey Council offered insight into what motivates heat pump installers – motivations include consumer demand and a desire for a mixed portfolio of work.

4. **Delivering better resident engagement to ensure work is done with residents, not to residents** – Dyson Energy Services and Hyde's retrofit pilot exemplifies the importance of engaging residents at every stage of retrofit, ensuring they can maximise the benefits of new technologies and measures.

5. **Implementing area-based retrofit** – Leeds City Council's "priority neighbourhoods" approach helped to target the most deprived areas by consolidating funding streams.

6. Energy efficiency of housing in England and Wales, ONS, 2023

And an opportunity for the new government to set out a clear delivery plan

Taking these points together, we have developed recommendations to inform the new government's journey to delivering its Warm Homes Plan.

These recommendations are built around three principles that align with Labour's plan for government:

They do not rely on multibillion-pound funding pots from central government, but provide the conditions for delivery partners – businesses, local authorities and housing associations – to do what they do best, to support and improve the lives of households.

Why focus on social housing?

Sureserve sees the social housing sector as a pioneer in testing new approaches to retrofit that can be applied across other housing tenures. The government necessarily has the most leverage in the social housing sector and change here can be used to create a tipping point for progress elsewhere. For example, an army of retrofitters trained using social housing stock through government schemes can then turn to other types of tenure. In addition, social housing is where you can make the most immediate impact on alleviating the cost-of-living pressures on some of the poorest households.

Domestic use of fossil fuels contributes to 21% of overall England's carbon emissions, with social housing contributing 10% of this.[7] Social housing residents are among the hardest hit by high energy prices and fuel poverty; as we enter the cold winter months, the role of housing associations and councils in helping to ensure their homes are warm and comfortable is critical. But for housing associations and local authorities, upgrading over 4.5 million social homes is a major transformation project. Government should therefore focus their support here, acknowledging that this can lead to improvements at scale that can subsequently act as a catalyst for wider transformation.

Beyond the immediate impact, social housing retrofit provides an opportunity for exactly the kind of public-private partnership the new government have proposed. There is an opportunity to work together on solutions and innovations that government can then roll out in the private housing sector and the wider built environment too.

7. Decarbonisation: a guide for housing associations, National Housing Federation, 2021

State of Play

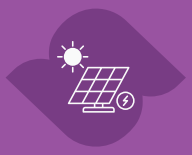
State of Play

> While there has been some progress in making homes more efficient, delivery has been frequently stymied by stop-start cycles in funding schemes and inconsistent policy choices over the last 14 years. Labour's energy mission and corresponding Warm Homes Plan presents an opportunity to look again at what is required to lower bills, reduce emissions and create genuinely warm homes.

There are three main aspects of decarbonising housing in the UK:

Improving energy efficiency in the UK's housing stock, e.g. through better insulation, ventilation, draught proofing and better controls, so that people use less energy in the first place.

Shifting UK households over time from a reliance on gas central heating to lower carbon forms of heating, e.g. air source heat pumps or other highly efficient electric heating.



Installing renewable energy generation e.g. through solar photovoltaic (PV) panels, and making best use of it through energy storage.

In terms of heat, the UK has the leakiest homes in Europe.[8] Residential heating is responsible for 18% of UK emissions, so forms a key part of our net-zero ambitions, but it is also critical to tackling the cost-of-living crisis – this is especially critical in the context of rising energy prices and 3.17 million UK households being in fuel poverty.[9] Delivering energy efficiency means lower bills, which would have a disproportionately beneficial impact on the poorest households.

This is not to say there has been no progress – energy efficiency measures successfully moved 112,000 people out of poverty in 2022-23, even in the context of record gas prices.[10] But policy churn and stop-start funding decisions mean there is significant unrealised potential both to save households money and progress our net-zero ambitions. The government taking decisive action would offer certainty and stability, presenting an opportunity for the UK to catch up to its peers in a vital policy area that would benefit households across the country.

Labour understands this. The decarbonised energy mission, the Warm Homes Plan and the overall commitment to policy stability and certainty present a clear path to lower bills and emissions. We now need to move to the next level and determine the practical steps for how they can deliver on this. The prize for getting it right is accelerating the transition to net-zero, alleviating the cost-of-living crisis,

8. Annual Fuel Poverty Statistics in England, GOV.UK, 2024
9. Ibid
10. Fuel Poverty Factsheet England, GOV.UK, 2023

and supporting the delivery of Labour's other missions – such as creating opportunities for future-proof skilled employment across the country for young people entering the workforce and existing engineers looking to re-train.

Energy efficiency is also crucial in improving the UK's health, particularly for the most vulnerable people in society. Better insulated, warm homes prevent avoidable health conditions and reduce disparities in life expectancy across geographies and income.

The importance of a "people first" approach

Sureserve acknowledges that there is an ongoing debate about the role of "fabric first" but we strongly believe that there are continuing merits in this approach. A fundamental principle in social housing retrofit is that residents' bills do not increase as a result of any works and fabric first had served to reinforce this to date.

The benefits of a fabric-first approach have been outlines by the Committee on Fuel Poverty in their 2024 Annual Report. The report notes that a shift away from fabric first has proved "ineffective at delivering substantially warmer homes". A key message from the report is that "tackling fuel poverty among fuel poor households requires a fabric first insulation approach".[11]

As part of this, we recognise that fabric alone will not result in the levels of decarbonisation required to meet our net-zero targets. We are against over-specifying fabric measures and think value for money is a key consideration for retrofit of both social and private homes. The fabric of social homes should be increased sufficiently to ensure running costs of electrified heating systems are not above the cost of running gas boilers. Where heat pumps are paired with solar PV and batteries to offset running costs, a lighter level of fabric could be adopted.

Spreading the cost by doing incremental retrofit can also be a good strategy where there are constraints in doing a whole house retrofit in one go. This can be achieved by doing fabric first, reducing residents' bills and getting the house 'heat pump ready'. The design and phasing of measures still needs to be viewed as a whole house approach that prioritises the needs of residents.

Fabric first has always been about securing the best outcomes for households and not prescribing a specific strategy for home retrofit or heating decarbonisation. In this vein, government should focus on the need for a joined up approach that considers costs and carbon emissions reductions alongside the improvements that are likely to improve households' overall warmth and experience. Language that emphasises 'people first' may be one way of doing this.

11. Committee on Fuel Poverty Annual Report, 2024

The shape of the challenge

The shape of the challenge

The challenge for government is that there is not a single factor limiting the uptake of energy efficiency measures and low-carbon heating. Sureserve frequently sees overlapping metrics that hold back households and delivery partners from installing new measures or accessing the funds required. These barriers demonstrate the need for a consistent, multi-pronged approach that considers the supply chain and those responsible for delivery, as well as households themselves.

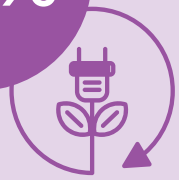
Impact of property age and types of tenure on need and vulnerability

There is significant variation across the UK housing stock in terms of the age of properties and types of tenure. Recognising this variation is key to understanding which homes are likely to receive the greatest benefit from energy efficiency measures. Old or converted properties are widely accepted to be more energy inefficient and expensive to heat and this tends to have a disproportionate impact on those who are already in fuel poverty, because these households are statistically more likely to live in old, converted, and energy inefficient homes. Making these homes the primary target of a drive to retrofit would have an outsized impact on the cost-of-living for these households.

At Sureserve, we observe how tenure types intersect with household vulnerability – and the potential to make an impact.

The scale of the potential impact on this grouping is illustrated by government statistics on how the type of tenure interacts with household profiles and energy efficiency:

56%



Poor energy efficiency rating: 56% of social housing sector households with band D-G are fuel poor. Band F-G are more likely to be fuel poor than Band D-E by 33%. Band D-E properties had an average fuel poverty gap[14] around six times lower than band F-G.[15]

25%

Type of tenure: Households living in converted flats (3.7% of all households) had the highest likelihood of fuel poverty (23.5%).[13]

20%

Age of property: 0% of those living in pre-1919 dwellings are fuel poor.[12]

12. Annual Fuel Poverty Statistics in England, GOV.UK, 2024
13. Ibid.
14. Defined as the amount that bills would need to fall or incomes rise to lift a household out of fuel poverty.
15. Annual Fuel Poverty Statistics in England, GOV.UK, 2024

Case study 1: Dyson Energy Services and Hyde

Dyson Energy Services, part of the Sureserve Group, was contracted to deliver energy saving measures as part of a 22-home pilot retrofit project for social housing provider Hyde. An extensive programme of engagement was built into the pilot from the start with time taken to get to know the residents and understand how best to communicate with them at different stages of the project.

Resident engagement on housing retrofit projects can be challenging, due to tight budgets, time constraints and lack of internal resources. However, ensuring effective communication between Dyson Energy Services, Hyde, and residents, was crucial for the success of this project which resulted in all homes reaching at least EPC C and each of homes undergoing improvements including loft insulation top-up and solar panel and air sour heat pump installation.

By starting early and investing time in understanding the demographic we were able to tailor communication for specific groups e.g. large print for elderly residents, ensure single points of contact for residents throughout and be open about the project, including potential disruptions during installation and changes to homes and their benefits. This resulted in residents being well informed of proposed changes to their home and the progress of the installations, as well as how best to use any new technologies. It also allowed us to ensure the improvements were working for them.

Initial outreach

Ahead of face-to-face resident engagement, letters were sent to all the residents' homes to inform them about the upcoming works and how they could get in touch with the team.

First engagement event

This was held the beginning of the project, allowing residents to speak with Dyson Energy Services, Daikin – the heat pump manufacturer, and Hyde, about the improvements. Daikin brought a heat pump so residents could see the technology. Details of the project manager and guides for the retrofit measures were left with the residents.

Installation phase

Our project manager and Hyde's team were regularly on-site, speaking to residents to keep them updated on progress and hear any concerns.

In-person meeting

Once the project was completed there was an in-person meeting with residents to record any issues for resolution, gather feedback, address any post-installation concerns and provide energy efficient behavioural advice.

Follow up

We sent out a resident satisfaction survey six months after the project was completed.

Outcome

The measures saw a remarkable improvement in living conditions. The ventilation unit kept CO_2 within safe levels and both the dew point and relative humidity of 70% were not reached once in the bedroom or the bathroom. This eliminated damp, condensation and mould issues.

The case study exemplifies the importance of assessing the extent of the problems and choosing simple, cost-effective measures appropriate for the property. Through taking a targeted retrofit approach we can improve living conditions that can mitigate risk of adverse health effects, particularly for vulnerable residents.

Case study 2: Energy efficiency and damp in a rural property

Issues

This case study captures a successful retrofit of a semi-rural property, occupied by two adults, two children and an infant. The property, rated at Energy Performance Certificate (EPC) band E, suffered significant heat loss, draughts, condensation and mould growth in the bathroom. The kitchen had poor insulation, damaged doors and undersized radiators, while the infant's bedroom the roof lacked structural insulation. The property was on a pre-payment meter - the residents spent £450 in two weeks in December.

Action Taken

An initial assessment using IoT environmental sensors and thermal imaging revealed high levels of CO_2, exceeding safe limits, and frequent occurrences of condensation and mould growth. Dew point and relative humidity measurements underscored the severity of the dampness issues.

Spray underfloor insulation throughout the ground floor, which took less than a day to install, ensuring minimal disruption to occupants.

New rear and patio doors, coupled with repairs to broken glazing, improved thermal performance and security. Installed over two days.

External wall insulation was installed in the rear kitchen extension, incorporating a new extractor fan to enhance ventilation. Installers made this choice to avoid removing kitchen cabinets and it could be completed in a week.

Outcome

These measures significantly improved the property's energy efficiency and thermal comfort for the residents. Air pressure tests showed reduced draughts and improved warmth throughout the home.

The case study demonstrates the impact of targeted retrofit measures on residential properties. Using a series of measures that minimised disruption and addressed the major issues in each room led to positive outcomes across the whole property. These residents were particularly vulnerable to cold snaps, given the location and being on a pre-payment meter, these retrofit measures cut down bills and reduced emissions.

Skills gaps for retrofitters

Attempts to decarbonise residential heating will remain an uphill struggle due to an insufficient supply of green skills. The Heat and Buildings Strategy from 2021 identified a gap of 105,000 energy efficiency installers, as well as gaps of 15,000 for assessors and 10,000 for retrofit co-ordinators, and the need to train 30,000 per year over the next five-ten years.[16] Currently, there are only around 850 MCS (Microgeneration Certificate Scheme) certified heat pump installation companies equating to approximately 1,700 individual qualified heat pump installers. There are also less than 3,700 MCS certified thermal and PV solar installers in the UK.[17]

Meanwhile, there are over 150,000 registered gas engineers and, according to an installer survey in 2019, over 50% would be willing to retrain to install low carbon heating systems if there is sufficient demand.[18] However, currently, there is no single route for re-funnelling current gas engineers into retraining. Unlike for gas engineers, there is no mandatory qualification on top of the minimum NVQ Level 2 qualification for general heat pump installations. This is despite the fact the government schemes require heat pump installers to be MCS certified to access funding.

There is also a challenge in terms of the ageing workforce. Currently, around a third of Sureserve's workforce are over 45 and there is a clear need to attract young talent before a large wave of engineers retire. This is both to ensure that skills shortages do not hold back the delivery of efficiency measures, low carbon heat and deep retrofit, and so that experienced engineers can pass on their accumulated knowledge to those at the beginning of their careers. In practice, this means that government needs to draw up a training offer that is both entry-level and enables the transition of an ageing workforce.

This training offer to date has also not taken a clear enough position on accreditation. The transition of the workforce should not be an opportunity for rogue traders who lack qualifications to enter the market taking advantage of pent-up demand - it should be an opportunity for a skilled workforce to retrain to the benefit of households.

Notably, PAS 2035, the official framework for whole-house retrofit in the UK, has embedded a requirement for quality standards and processes to de-risk retrofit. It introduces the qualified roles of retrofit assessor and retrofit coordinator but without necessarily providing the corresponding support to deliver the accreditation of the workforce. Much more must be done to identify and upskill qualified retrofit professionals to ensure residents and their homes are protected. There is also an opportunity to make the PAS 2035 assessment, coordination and compliance process less labour-intensive and more streamlined, with the use of digital tools.

Variations in housing associations and local authorities' ability to deliver

Not all local authorities are equally well equipped to deliver retrofit; as highlighted, some regions have a higher proportion of older housing while others just simply have fewer resources to devote to this as a function of greater social deprivation in their area or greater demographic need. It is, for example, notable that 26% of local authorities have more than half of their dwellings at energy efficiency band C or above but just over half (52%) of these local authorities were in London or the South East. [19] In 56% of the 335 local authorities across England and Wales, the typical retrofit bill equates to 10% or more of the average house price.[20]

A Westminster-centric approach to the home decarbonisation and energy efficiency transition may restrict local government's ability to develop bespoke approaches and engage properly with residents. However, while local authorities understand the communities they serve, they do not necessarily have the capacity or capability to deliver schemes from the get-go. There is an opportunity to consider how these bodies can be empowered to deliver retrofit in the way that works best for their area; this applies to funds but also technical know-how and the ability to address skills gaps in their areas.

The Open Data Institute (ODI) assesses risk of fuel poverty by local authority using two main types of metrics – local area demand for fuel (e.g. housing quality and climate patterns) and local area ability to pay for fuel (e.g. income and deprivation), as well as available support. Fig.1 below shows the local authorities with the highest and lowest fuel poverty risk scores. There is a clear pattern with council areas in the Midlands, North West and North East most at risk of fuel poverty and councils in the South East at the lowest risk of fuel poverty. This regional discrepancy cannot be solely attributed to household income. Data showed that residents in London frequently had the lowest scores in terms of ability to pay, but were better supported by grants and government funding, and required less demand to heat their homes (presumably because they had been made more energy efficient). [21]

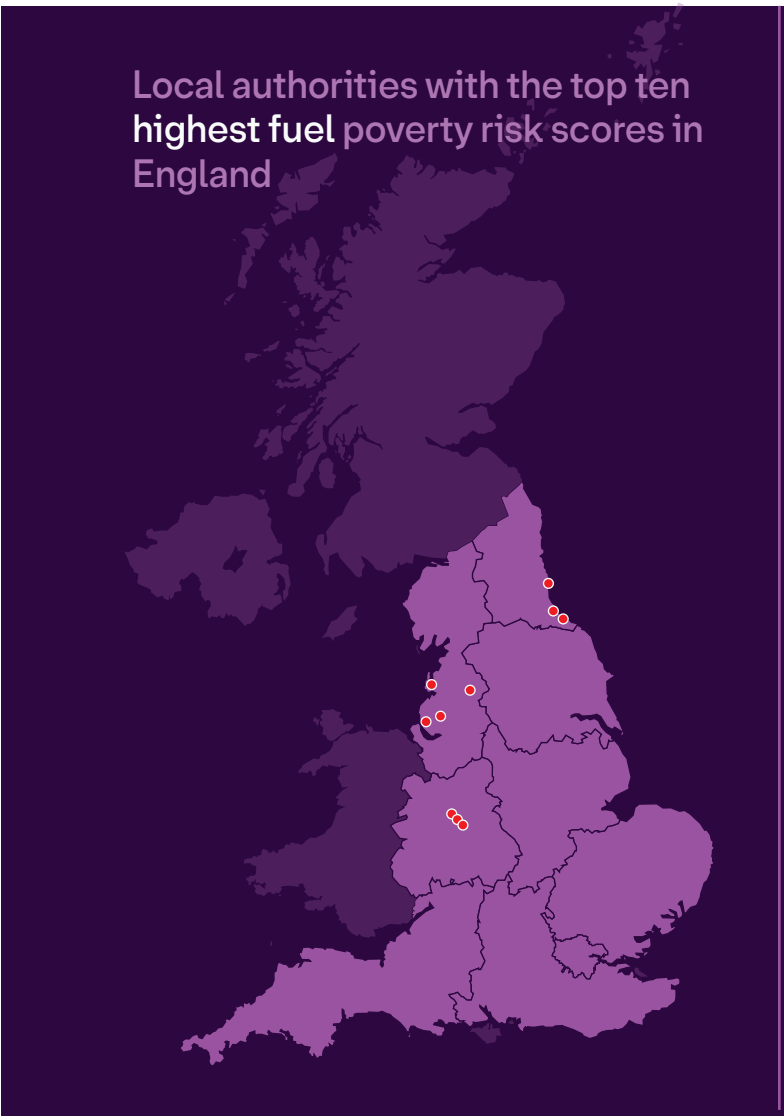
Local authorities are also held back by the lack of universal property standards and confusing landscape of local licensing schemes, given the burden is on them to conduct inspections. The result is both a divergent approach to warmth and health standards across areas and prospective residents are unclear on whether their accommodation is suitable. It also undermines good landlords, as less diligent housing providers are not properly held to account.

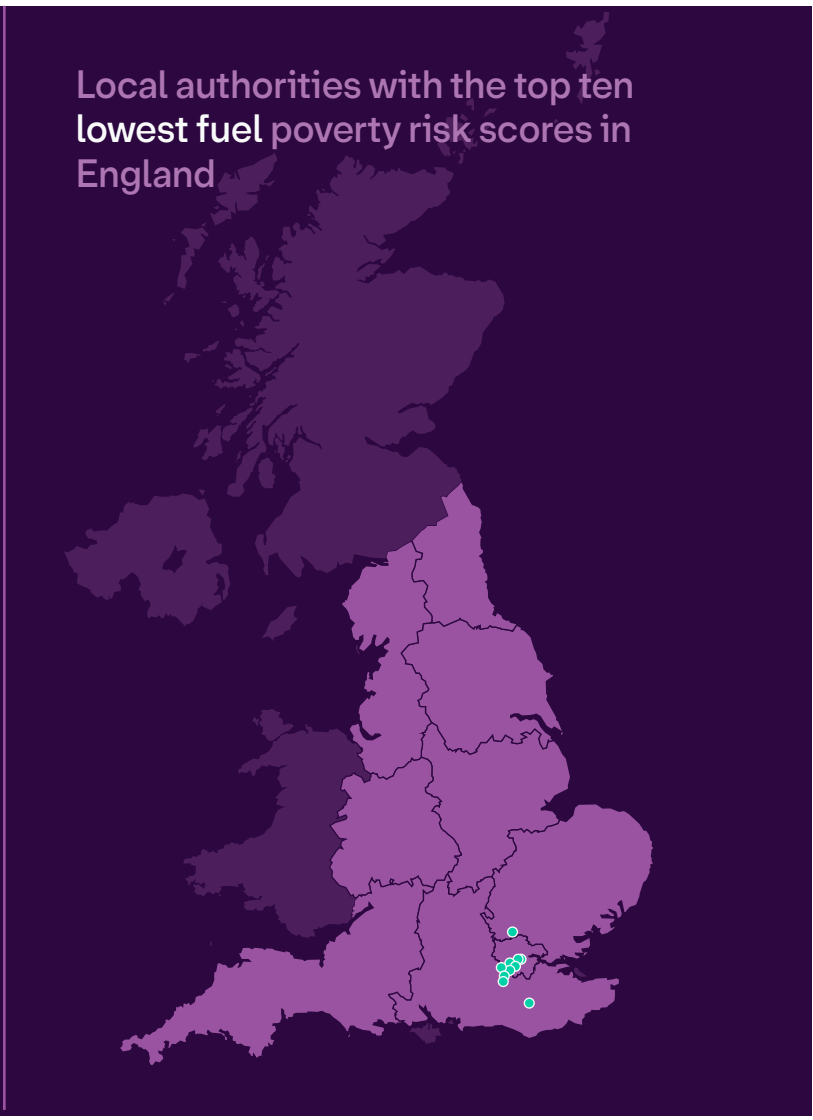
There are opportunities for the government to boost housing quality, including through reforming EPCs to make better use of the data collected during assessments, as well as

16. Heat and buildings strategy, GOV.UK, 2021
17. MCS Data Dashboard
18. Gas Safe Register At A Glance, 2022/2023; Installer Survey Results October, 2019
19. Energy efficiency of housing in England and Wales, ONS, 2023
20. Decarbonising UK housing, JLL, 2024
21. Fuel Poverty Index, ODI, 2023

introducing a property passport (or a property MOT) scheme. The property passports - originally suggested by the Letting Industry Council - would replace local authority inspections. Landlords would be responsible for checking and self-certifying the quality of their properties, providing a one-stop-shop for councils and residents. Property passports linked to the sale and purchase of homes would provide a digital tag that emphasises the importance of keeping homes up to certain quality standards. Similar tools do exist in the UK, such as the Unique Property Reference Number, but these have not evolved into tenant-focused property passports as was originally suggested.[22]

Both introducing property passports and reforming EPCs are relatively low-cost interventions that alongside national standards would support local authorities and housing associations to identify energy inefficient housing. This would also make national comparisons on local housing quality easier, helping national government to target support to the most deprived regions where fuel poverty is high and current local interventions are insufficient.





The interaction between fuel poverty and vulnerability

Government statistics from February 2024 show the number of households in England in fuel poverty is 3.17 million – virtually unchanged from the previous year. [23] Meanwhile, the fuel poverty gap is growing.[24] This is particularly troubling in the context that 2.1m of all those who are vulnerable (under the UK government definition) households are fuel poor.

Housing is healthcare. There is a clear link between living in cold, damp, poor-quality housing – common among fuel poor households – and vulnerability to health conditions through respiratory problems and suppressed immune responses.[25] Analysis by UK Finance estimates that the health implications of fuel poverty cost the NHS £1.2 billion annually.[26] Citizens Advice argue that cold homes are associated with developing mental health conditions and insulating all properties to EPC C could save the NHS £2 billion and help prevent 650,000 cases of childhood asthma by 2030.[27]

22. Unique Property Reference Number, GeoPlace LLP
23. Annual fuel poverty statistics report, GOV.UK, 2024
24. The fuel poverty gap refers to the additional income that would be needed to bring a household to the point of not being fuel poor.
25. Left Out in the Cold: The Hidden Impact of Cold Homes, Institute of Health Equity, 2024
26. Net-zero Homes: Time for a Reset, UK Finance, 2022
27. Home advantage: Unlocking the benefits of energy efficiency, Citizens Advice, 2023

Long-term ill health is a key facet in record levels of economic inactivity in the UK, holding back growth and productivity. The opportunity in accelerating energy efficient retrofitting is more than lower bills and carbon emissions, but less days off schools, improved health among vulnerable households, reduced pressure on the NHS and increased economic productivity.

Low-carbon heating, though an integral part of the journey to decarbonised heating, does not alone tackle fuel poverty or deliver better health outcomes as underlined by a Nesta report from January 2024.[28] However, when coupled with fabric measures and other technologies like solar PV it can make a significant difference to people's homes and lives. Where there are strong budgetary constraints, this may lead local authorities to opt for heat pumps over more expensive insulation measures, given basic cost-benefit analysis does not always consider the holistic benefits of installing energy efficiency measures ahead of low-carbon heat.

Creating a positive offer for residents

Like any remediation work, energy efficiency measures can be disruptive to residents, as well as expensive for social housing providers. Residents may be reticent to advocate for or agree to retrofit, particularly if they are distrustful or have not been presented with a strong case of the benefits. Over 15% of all over-65s are social housing residents, [29] which one report commissioned by government suggested may "exacerbate the lack of acceptance of new and unfamiliar energy efficiency technologies."

Stakeholders responsible for decarbonising residential heating in social housing (central government, local authorities, housing associations and retrofitting businesses) need to consistently articulate the tangible benefits of energy efficiency and low carbon heat measures in terms of bills, warmth, comfort, mould and better health. Residents should also be able to share their views on plans to retrofit their properties with regards to energy efficiency measures and how to minimise disruption. In case study 2, you can see how we chose interventions that would deliver the maximum benefit without burdening the residents – the whole project was completed within one week.

There is currently a lack of widely used best practice for providers to engage with residents. One example of a possible best practice is the Retrofit Information Support and Expertise (RISE) service, which provides government-backed support to housing providers in England to make bids for the Social Housing Decarbonisation Fund. [30] RISE has developed masterclasses and toolkits on good resident engagement for retrofit works. However, across the board, resident hesitancy is still a factor restricting social housing providers when they should be staunch advocates of retrofit, given the potential positive impact on their households.

Raising and allocating capital

The increasingly constrained fiscal environment in the UK and changes to funding levels and mechanisms raise the question of whether there is the necessary capital to meet retrofitting ambitions. However, on top of central government schemes like the SHDF, growing climate-related risks and opportunities have seen an increase in lenders' appetites to offer capital to the sector, especially due to the benefit to society. There are a number of well-developed mechanisms available to local authorities and housing associations:

Bond aggregators use sustainable bond frameworks to lend to smaller housing associations using proceeds from long-term bonds. [33]

Social housing landlords issue sustainable bonds to build affordable, energy efficient homes, with one raising nearly £1bn from three bonds. [32]

Retail banks have created lending capacity in this space worth several billions.[31]

Bonds show the potential of leveraging funds from residents and their appetite for it (see local authority financing models case study below).

28. Insulation impact: how much do UK houses really need?, Nesta, 2024
29. Annex tables for English Housing Survey headline report 2022 to 2023, GOV.UK, 2023
30. Resources | Retrofit Information, Support and Expertise (riseretrofit.org.uk)
31. NatWest Group announces new £5bn UK social housing sector lending ambition, 2024
32. Clarion 350m in record breaking sustainable bond issue, 2022
33. Retrofitting social housing: a model for the UK, GFI, 2022

However, the issue is not only about access to finance but also social housing providers prioritising energy efficiency, and understanding and communicating the benefits of retrofit to households.

Over the last decade, funding from central government for councils to spend on home heating and social housing more generally has been inconsistent and insufficient to deal with the scale of the challenge, particularly given the UK's low starting point. As a result, social housing providers must weigh up the investment cases for retrofitting relative to housebuilding or safety remediation, for example. Housing associations face similar competing priorities with sizeable opportunity costs.

Housing retrofit is often viewed as an "all-or-nothing" intervention, which can cost well over £30,000. When compared to a just installing heat pump, often less than £5,000 after the subsidies, social housing providers use the cost per unit (CPU) metric and favour this option, which ignores the indirect and medium-to-long-term benefits of a whole-house approach . There can also be costs associated with heat pumps beyond the unit itself that these calculations do not always consider. For example, needing new, larger radiators and pipework or requiring the installation of a hot water tank for houses with combi boilers that are switching to heat pumps.

Retrofits do not need to include every measure – the lowest hanging fruit in terms of price and convenience can still make significant differences to a home's bills, emissions and comfort, as well as maximising the benefits of a heat pump further down the line. However, if retrofit is done incrementally, it should still be designed as a whole-house approach. This avoids wasted effort where work needs to be redone to prepare for new measures. This reiterates the point about 'getting fabric right'.

The financing gap is more an issue of 'allocation' than 'access', stemming from the perception of a limited investment case, exacerbated by the workforce issues and tenant hesitancy outlined above. To close this gap, the government needs to take a leading role using available levers to build the investment case for retrofits, work with housing providers to reduce these barriers and unlock the capital required.

How to do things differently

Despite the challenges to retrofitting the social housing sector, the new Labour government can draw on the numerous existing examples of good practice to do things differently. This reflects the differentiated approaches taken by devolved administrations and local authorities, the growing development of public-private partnerships in this area and the increasing role of industry innovation. To realise the full benefits of these areas of good practice and oversee the level of transformation required across the social housing sector, government now has the opportunity to scale these solutions and innovations.

Personalised advice: Home Energy Scotland

9,000

Advice interactions in Scotland in January 2023 alone

£1bn

Estimated saving on domestic energy bills

Launched in 2008, Home Energy Scotland (HES) is the first nationwide one-stop shop that provides tailored, localised advice for consumers on grants and incentives, ways to reduce demand and finding accredited installers for energy efficiency measures.

Managed by the Energy Saving Trust and funded by the Scottish government, HES is a network of local advice centres across Scotland providing low-income and fuel-poor households free and impartial information. Businesses can also receive free training on electric heating systems and use HES to refer struggling customers and pursue funding opportunities. There is a phone line with long opening hours and an option to contact HES via email and WhatsApp, with interpreters available for non-English speakers. HES also runs awareness campaigns targeted at those most likely to be suffering from fuel poverty.

Research shows low consumer awareness of potential energy improvements and funding eligibility as core barriers to rolling out energy efficiency measures. Being a one-stop shop for all – whether consumers, landlords or businesses – means HES significantly reduced informational barriers to those looking to make energy efficiency improvements or reduce costs.

Although HES has some limitations in that it does not cover consumer protection or referrals to trading standards, it does show the value of having one dedicated resource for all matters related to energy and utilities over a long period to build recognition among the public and businesses. Being funded by government but run by an independent, trusted organisation is key to its success.

Reaching all communities: Warmworks and Warmer Homes Scotland

£707k

on bills and 4,600 tonnes of carbon saved in 2022/23

5,478

Households received support in 2022/23

170

Apprenticeships, 828 jobs and 3,500 training opportunities created so far

Warmworks is a unique organisation that leverages the combined experience and expertise of a purpose-driven social enterprise, an energy efficiency charity and a retrofitting business to tackle fuel poverty. Launched in 2015 as a partnership between Energy Saving Trust, Changeworks and Everwarm (part of the Sureserve Group), Warmworks is the managing agent of the Scottish government's Warmer Homes Scotland scheme to improve the energy efficiency of fuel poor/low-income households in the privately-owned/rented sector.

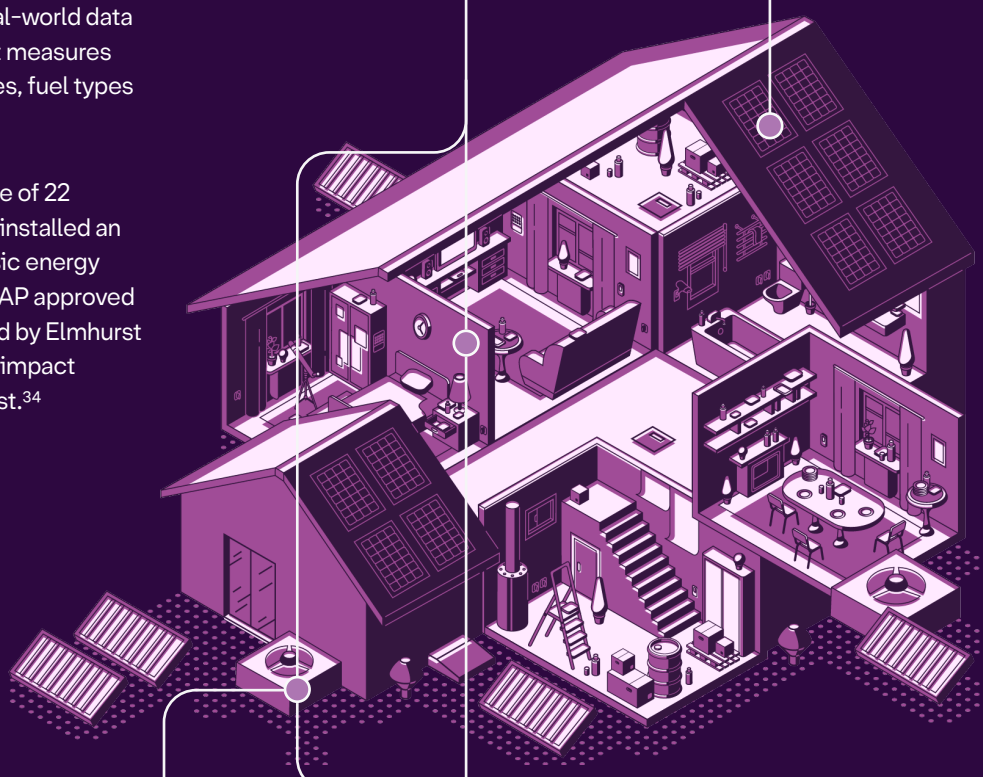
Warmworks works with local authorities to understand where there is the greatest need and vulnerability. It coordinates the project design, installation and quality assurance of energy efficiency measures as part of a tailored, personalised service. Households receive a free assessment and subsequent recommendations, followed by guidance in accessing available funding and financial assistance schemes to cover the costs. A network of approved contractors and installers carry out the works, with Warmworks acting as an intermediary and providing follow-up support. To reach these households, Warmworks conducts community outreach, partners with local groups and uses targeted campaigns, both in person and online.

Its success can be seen in the quantifiable outcomes from the Warmer Homes Scotland scheme. Warmworks demonstrates the need to provide potentially vulnerable consumers with personalised trustworthy wraparound support. Having funding from the Scottish government gives long-term stability for Warmworks to operate, and the credibility from a known consumer organisation is key for engaging vulnerable households.

Modelling case for a "people first" approach

Sureserve's participation in Warmworks gives us an extensive pool of real-world data on the effectiveness of different measures across tenure types, geographies, fuel types and wall materials.

We took a representative sample of 22 homes where Warmworks have installed an air source heat pump and/or basic energy efficiency measures and used SAP approved methodology software, provided by Elmhurst Energy, to show what measures impact energy bills and SAP scores most.[34]



3

Installing solar panels to supplement the heat pump's running costs takes these to up to 34 SAP points and £1,712 in electricity and heating bill savings.

1

The modelling finds that, without fabric measures, heat pumps make a marginal improvement to the SAP score of 1.2-2.2 and increase bills by an average of £415-£454, in part due to higher levies on electricity than gas.

2

However, applicants who received a heat pump and all available fabric measures saw SAP increases of an average of 23 points and bills reduced by up to £1,033.

These are modelled projections, but they are grounded in real examples and an industry-standard methodology. The results make clear that heat pumps without insulation increase costs for households, which is particularly challenging for social housing residents who are often on lower incomes. Not to mention that this approach fails to deliver improved comfort and health outcomes, as outlined above.

This data underlines the continuing need for a "people-first" approach focussed on design solutions that support households to reduce their energy use and lower bills. Rapid mass adoption of heat pumps without reducing energy consumption would also acutely pressure the UK's electricity grid, which is currently underprepared for that demand spike.

34. SAP (Standard Assessment Procedure) scores measure energy efficiency from 1 to 100+. The average in the UK is 63.2 Average UK SAP Ratings - SAP Calculations UK | Briary Energy

Improving the investment case for retrofit: Energiesprong UK "Comfort Plans"

165

Retrofitted pilot homes in the UK since 2022

£330

maximum cost per year, per home

First developed in 2017 as a non profit in the Netherlands with the Dutch government, Energiesprong (or energy jump) provides an alternative funding model for social housing landlords to implement energy efficiency measures at scale. Landlords combine rent and utility payments into a single package of services, providing residents with a warm home at the same price or cheaper than before. The energy savings are then used by the landlord to fund the costs of retrofit.[35]

Housing association Nottingham City Homes (NCH) piloted the Energiesprong innovative model of whole house retrofit in a single visit using a mix of ten terraces in bungalows in Sneiton. Through a series of partners, NCH delivered ten measures, most importantly insulating external wall panels and in-roof solar, double-glazed windows, a communal energy system, space heating and a durable wall finish to renovate the outside of the properties. All of the works were completed in a single week and residents could remain in their homes during installation.

Residents were closely involved in the design process, so the provider could add other smaller improvements that they said would make the homes better places to live, e.g. stairwell lighting, doorbells and outside taps. Under the comfort plan model, the package had a maximum cost of £330 per year based on fixed prices that considered the whole life cost/benefits and design quality.

Energiesprong's approach also fosters a low-carbon heat ecosystem of installers, evaluators and companies developing easily implementable, modular energy efficiency measures. The comfort plan model offers social housing providers a way of recouping their investments over time - even creating a stable revenue stream - while residents get predictable bills and better quality, warmer homes. Although the scheme would need to demonstrate economies of scale, cost efficiencies, and that it saves housing providers and residents money in the long run before it is deployed on a larger scale, the pilot demonstrates the need to consider a range of alternative funding and retrofit models.

35. About Energiesprong UK

Training and skills: Nesta project with Surrey Council

Nesta provided gas heating system engineers with free training and financial support that could be used flexibly. The aim was to understand what kinds of financial incentives are most effective at increasing training uptake. Offering a bursary with no conditions on how it was used provided clear insight into what motivates (potential) heat pump installers.[36]

Nesta, funded by Surrey County Council, offered the engineers a free training course on installing heat pumps, as well as post-training payments of an upfront bursary or a monthly payment for each heat pump installed over a six-month period. Engineers generally chose the bursary option because it could be used flexibly on further training, certification fees or advertising heat pump services. The engineers were also unsure over whether customer demand is sufficient to fully transition to installing heat pumps, preferring a mixed portfolio of traditional and renewable heating systems to future-proof their business.[37]

The lack of heat pump installers remains a significant obstacle to the UK achieving the target of 600,000 installations a year by 2028. Though it had a small sample size, the research suggests there is some appetite for retraining. Retraining existing gas heating engineers is essential to making up the shortfall and ensuring they do not lose out in the transition to net-zero, but there are not yet clear incentives to move into heat pump installation.

Any financial incentives to retrain should recognise that the majority of engineers will continue to offer multiple services to avoid the uncertainty of pivoting entirely to a new sector. Further research is key to understanding whether this sort of upfront, unconditional subsidy provides enough benefits to convince engineers to retrain. Unconditional public sector bursaries for any potential installers would be expensive, but if the benefits are as widespread as the early research suggests, we could investigate funding options with the private sector.

18

Gas heating engineers offered a free five-day training course

£1000

Post-training payments of a £1,000 upfront bursary or a monthly payment for heat pump installations

36. Financial support for heat pump trainees, Nesta, 2023
37. Ibid

Local authority financing models: Local Climate Bonds

4.2%

A further six councils have raised over £6bn for green projects, with returns as high as 4.2%

£1m

Raised by pilot programmes with Warrington and West Berkshire councils respectively

The Green Finance Institute (GFI) developed Local Climate Bonds (LCB), a new mechanism through which local authorities could crowd-in private investment from residents and other retail investors, giving them long-term access to low-cost funding. This presents a new source of funding specifically for climate and sustainability projects with fewer barriers than raising capital through more traditional markets or from central government.

Through the GFI and the Abundance Investments platform, councils have three months to fundraise with investors able to contribute as little as little as £5 towards initiatives to reduce emissions – including energy efficiency measures – after which funds are deployed to the projects. Interest and capital payments are made twice a year by the investment platform, and allow investors to donate part or all of their returns to the council to finance more challenging council projects.

This innovative financing model not only lowers the upfront cost for councils facing fiscal pressures but supports their efforts to reach net-zero targets. LCBs allow councils to engage with residents on their climate action plans and create an investor appetite among communities. Support from the GFI and Abundance also provide private fundraising expertise that may not be present in the councils. LCBs are tried and tested in multiple councils and provide mayoral authorities and central government with an effective template to finance innovative projects in low-carbon tech, social housing retrofitting and training and accreditation.

Area-based retrofit: Leeds City Council

5 °C

Increased average temperature in homes

£350

Saved annually on average by each property - 25% on bills - and 2.5 tonnes of CO2

180

Renovated properties, 40 of which were social homes

Several areas of Leeds are the most deprived in the UK. Leeds City Council developed a "priority neighbourhoods" approach, to address some of the issues facing these areas. The priority neighbourhoods were defined as extremely deprived, with poor housing, empty homes and social issues. The council focused on one neighbourhood at a time. To fund the project, they combined various sources of funding, including the Energy Company Obligation and the West Yorkshire Combined Authority local economic partnership funding. This enabled Leeds to renovate 180 properties in the Holbeck area. [38]

Uptake from privately rented properties was low, so the council prioritised retrofitting the 40 council owned social homes to demonstrate the value. Demand for retrofit from private landlords and homeowners soon followed. For privately rented properties, the landlord was charged 25% of the costs of renovation. For owner-occupied, the residents paid up to 25%, depending on their income levels. To reach private landlords, the council also declared the neighbourhood as a selective licensing area, which meant that landlords had to apply for a licence from the council. This licence gave the council the authority to inspect properties and identify the homes with the greatest need for retrofitting.

Phase 1 of the project was well received by residents and when Leeds announced phase 2 of the project, 90% of targeted properties signed up within a month. The area-based approach not only allowed the council to combine funding and reduce costs but also engaged residents and built trust. Working alongside members of the community and long-term contractors, they identified key local issues that could be worked on alongside retrofit. For example, replacing bin yards – hotspots for fly-tipping, vermin, and anti-social behaviour – with larger unenclosed bin areas.[39]

38. Retrofit Project in Low Socio-Economic Status Areas, Leeds City Council, 2022
39. Ibid

Resident engagement: Ksquared and the North River Alliance

The North River Alliance (NRA) is a consortium of smaller housing associations in London, delivering Social Housing Decarbonisation funded retrofits to their homes. Ksquared assisted the NRA with their SHDF Wave 2.1 bid, successfully receiving £2.6m of grant funding and the consequent project delivery. The consortium and Ksquared established early key strategies to assist in a successful resident uptake.

NRA members participated in Resident Engagement Learning Forums, sharing best practices and lessons learned. The result was a mutually agreed Resident Charter which met all National Tenant Engagement Standards and established common commitments and processes. The delivery team also worked closely with each consortium member's internal housing and lettings officers to pinpoint residents' prior negative experiences.

An overarching goal was for residents to feel pride in, and ownership of, the retrofit works. Time was dedicated to thoughtful communication with residents to evidence how the retrofit works would make a real difference to their lives. This extra level of understanding allowed Ksquared to tailor communication to align with resident's individual circumstances. Where English was the second language, written communication was in the resident's first language. Two resident liaison officers on the client and main contractor side worked closely on resident communications and programming.

During the work, consistent and timely communication was key to maintaining good relations. This meant timely updates, reports and a clear description of forthcoming works for residents. This continued into handover with clear and concise explanations of new systems, in-person with demonstrations, to ensure residents have learnt how to operate their newly retrofitted home in the most efficient way. The engagement strategy for the project has proven very effective, with access rates of 97%. It presents a blueprint for successful future social housing resident engagement.

97%

Access rate on engagement strategy for the project

6

of the most income deprived boroughs in London covered

Recommendations

Our recommendations build on the three principles that we consider should guide the government's approach to home heating

These principles are intended to reinforce each other. For example, delivering consistency in policy creates a supply chain that can meet household demand and support local authority delivery. Likewise, prioritising those most in need ensures we are not creating unequal provision, which is then made more complicated by local authorities' differing abilities to deliver. The recommendations are by no means exhaustive but, instead, intend to build on good practices and rectify mistakes to date. They recognise that a government with a genuine focus on home heating has the opportunity to refine the approach in a way that delivers for households and creates a significantly wider set of socio-economic benefits.

Delivering the consistency and clarity in policy, regulation and funding that is required to scale up the supply chain

Consistent policy and regulation bolstered by associated funding will be key to scaling up the supply chain to deliver the government's energy efficiency targets and decarbonisation objectives. To date, where the government has provided this regulatory clarity and consistent funding – for example, imposing an EPC rating of C for social housing or the ECO scheme – the positive outcomes have been visible. A new government now has the opportunity to put consistency and clarity at the heart of its approach, using existing policy levers to provide that certainty on funding and regulatory requirements that are necessary to scale up the supply chain.

S/N	ACTION	TIMESCALE FOR IMPLEMENTATION
01	Provide longer time horizons for existing subsidies and funding schemes for energy efficiency and low-carbon heat technologies. DESNZ and DLUHC to work with the Treasury to implement longer funding timelines for energy efficiency and low-carbon heat technologies, potentially mirroring proposed 10 year funding cycles for R&D already committed to.	Short term (0-9 months) Likely to be determined at Spending Review
02	Set out pathways available to new trainees and the benefits of MCS accreditation for heat pump and renewables installers. DESNZ and the DfE should collaborate to create a register of all accredited renewable courses that are eligible for public funding as the starting point for new trainees in the industry.	Short term (0-9 months)
03	Introduce a mandatory minimum standard for all heat pump installers similar to that required for boiler engineers. Subject to public consultation, DESNZ should implement a mandatory qualification on top of the minimum NVQ Level 2 qualification for heat pump installations completed outside the BUS.	Medium term (within two years)

04	Use Gas Safe "refresher" courses to offer existing gas engineers funded modular training in certified renewables installations. DfE and DESNZ should work together with certified training providers and the Accredited Certification Scheme to assess and identify how "refreshers" can be used as an opportunity to retrain engineers in certified renewables installations.	Medium term (within two years)
05	Develop a cross-departmental strategy to scale up efforts to train more low carbon heat engineers and renewables installers. DBT, DESNZ, the DWP and the DfE should work together to assess where the need for engineers and installers is greatest as part of the previously promised net-zero skills strategy. The £5m Heat Training Grant is one policy solution,[40] but its offer of £500 discounts towards relevant training schemes should be expanded in terms of scope, ambition and funding.	Short term (0-9 months)

Presenting a positive offer to households and supporting local authorities and housing associations to deliver on it.

The mixed results of previous schemes have highlighted an insufficient focus on those expected to deliver the schemes and benefit from them. Too often, households' interaction with the system is seen as a secondary concern rather than a key factor in their success. There are opportunities for government to change its approach and learn from mistakes to deliver a system that enables households to make the right choice for them. This would also avoid a postcode lottery, where some households are able to access support and others are not.

S/N	ACTION	TIMESCALE FOR IMPLEMENTATION
06	Ensure subsidy and support schemes provide support across a range low-carbon technologies. DESNZ to identify equivalent replacements for subsidies like the Renewable Heat Incentive, noting that the BUS is intended to run until December 2027 and there needs to be a corresponding proposition.	Long term (within five years) Changes can be made quicker than this where existing schemes have expired (or will expire in short to medium term)
07	Improve home energy efficiency 'checker tool' to increase access and incorporate external advice. DESNZ to work across government to improve the home energy efficiency portal to ensure personalised advice is comprehensive and accessible, ensuring the options for households in different tenures are made clear with stronger referral paths into and out of the service.	Short term
08	Create a comprehensive, public database to design and enforce uniform housing quality standards nationwide. MHCLG to use existing regulations (e.g. housing health and safety rating system) and reporting frameworks (e.g., AddressBase) to create a single system that residents, landlords and local authorities can use to enact and enforce nationwide property standards. From this, MHCLG should look to develop a one-stop "property MOT" that contains all of the necessary information on homes (energy efficiency, health and safety, inspection data, etc.) that would reassure residents and drive up standards.	Long term (within five years)

40. Heat Training Grant (www.gov.uk)

09	Establish a working group on how local authorities and social housing providers can better account for the wider benefits of retrofit in their business planning. DESNZ should coordinate the group which should include representatives from the department and MHCLG, local authorities and other social housing providers. The group should explore why CPU has emerged as the defining metric councils use to measure their performance on decarbonisation as well as the need for government to introduce flexibility in funding or produce guidance that states cost and emissions reductions should be considered in the long term when allocating funding	Short term (0-9 months)

Prioritising those in greatest need to ensure that the impact of the transition is felt equally.

It is vital that, in our desire to decarbonise homes and heating, we do not lose sight of those households who stand to benefit and lose most from the changes. The title of Labour's plan rightly focuses on "warm homes", recognising that better insulation and more efficient heating systems are ultimately going to be most material to those who are currently experiencing fuel poverty. It is also important to acknowledge that the upfront cost of retrofit presents a disproportionately large barrier to those households. The recommendations below set out how a future government might build this focus into its policy choices.

S/N	ACTION	TIMESCALE FOR IMPLEMENTATION
10	Ensure government funding schemes retain a "people first" approach to retrofit. DESNZ to prioritise appropriate fabric measures in existing and future retrofit funding schemes for, tackling fuel poverty. This approach in the long term should ensure that installing low carbon heating is both cost-effective and impactful on households' bills and comfort.	Long term (within five years) Can be made sooner where funding schemes have expired/ are expiring
11	Use the delay in introduction to the Clean Heat Market Mechanism (CHMM) to identify refinements that ensure vulnerable consumers are not hit by higher prices. DESNZ to make refinements to the CHMM including making Ofgem responsible for implementation so that fines can only be levied on profits rather than forward sales and changing the remit of the Heat Pump Investment Accelerator Competition to specifically support UK boiler manufacturers that are captured by the CHMM to transition to other low carbon heat manufacturing.	Short term (0-9 months)
12	Ensure that any changes to how green levies are charged do not make gas more expensive. HMT/DESNZ to acknowledge in the first budget that a decision to move green levies onto general taxation would represent a shift away from the regressive approach taken to date. HMT to recognise that while ensuring pricing adequately incentivises the decarbonisation of heat is important, this should not be at the expense of the poorest households.	Long term (within five years)

About Sureserve

Sureserve is a trusted partner dedicated to addressing the unique needs of housing associations, local authorities and residents by providing a comprehensive portfolio of high-quality solutions that ensure energy efficiency, safe compliant homes and buildings, and improved quality of life.

The company's strength is our Nationwide knowledge delivered as regional expertise and commitment to excellent customer service. We foster strong partnerships and maintaining a focus on solutions and sustainability.

Sureserve

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