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Understanding Mixed Tenure in English Social Housing

Qualitative Report

IFF Research (2023)

Views expressed in this report are from the relevant research agencies, based on data collected from research participants and other evidence, and not necessarily those of the UK government.

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Executive Summary

Introduction

Reducing emissions from domestic buildings, which account for 16% of all emissions, is central to the UK government's strategy to meet their Net Zero target.[1] Given that 17% of homes in England are socially rented[2], the social housing sector presents opportunities for energy efficiency and low carbon retrofit. However, the existence of mixed tenure developments is thought to be a potential barrier to achieving these aims. If private owners or renters within mixed tenure developments do not agree with the energy efficiency measures planned by the owners of the development itself, the decarbonisation of mixed tenure dwellings will not be achieved as efficiently in certain cases.

To date there has been a lack of evidence detailing the views and perspectives of those living within mixed tenure developments, especially regarding retrofit works. The Department for Energy Security and Net Zero (DESNZ) therefore commissioned IFF Research (IFF) and the UCL Energy Institute (UCL) to conduct a research study to develop a comprehensive understanding of how those who own and/or live in mixed tenure housing developments experience mixed tenure living, and how they have or would react to retrofit works taking place within their mixed tenure development.

Methodology

The study included:

- Fifty one-to-one interviews with individuals who own and/or live in private homes within mixed tenure housing developments (private landlords, owner-occupiers and private renters).
- Three development case studies which sought to include perspectives of all those impacted by mixed tenure (including social tenants and social housing providers), by focussing on specific mixed tenure developments.

[1] Department for Business, Energy & Industrial Strategy (2023), Final UK greenhouse gas emissions national statistics: 1990 to 2021 - GOV.UK (www.gov.uk)
[2] Department for Levelling Up, Housing & Communities (2021), *English Housing Survey 2020 to 2021*: *headline report*

Findings

Experience of living within a mixed tenure development

Quality and thermal comfort in mixed tenure environments

Across private landlords, owner-occupiers and private renters, there was a common view that (private) owner-occupied properties were typically of a higher quality than social housing properties within the same mixed tenure developments. This was particularly apparent in mixed tenure developments containing houses rather than flats.

Owner-occupiers were able to make improvements to their own properties in a way that private renters were not e.g. several described making improvements such as fitting new windows, (resulting in more differences between properties within mixed tenure developments). Issues with thermal comfort therefore arose more often among private renters than owner-occupiers.

Relationships between residents of different tenures

Relationships between residents of different tenures were influenced by the following factors: development type, physical distribution of private and social properties, time spent living in the property, and disputes over communal areas and shared service charges.

There was some evidence of disputes linked to developments being mixed tenure. These typically related to the upkeep of communal areas, or increased service charges. Some owner-occupiers were frustrated that they had to contribute financially to works on top of regular service charges, whereas social renters' share of the costs were covered by the council or housing association.

Attitudes towards retrofit works within mixed tenure developments

Private landlords, owner-occupiers and private renters were broadly aware of the types of retrofit works that were possible at the single-property level, with double glazing, modern boilers, smart meters and "insulation" being most front of mind. Overall, there was a lower awareness across tenure groups of what energy-efficiency measures would need to be implemented at a whole-block level.

Potential future take-up of energy efficiency measures within mixed tenure developments

Some owner-occupiers were reluctant to agree to upgrades due to concerns around the quality of the work that the social housing provider would arrange. In addition, owner-occupiers were less willing to participate in works within their mixed tenure development, because the works being led by the social housing provider would result in them having less control over the details of the work (such as costing, choice of contractors, and timeframes).

However, most owner-occupiers and private renters were generally in favour of participating in retrofit improvement works and having measures installed, because they recognised the advantage of cutting their heating bills and the value of reducing their carbon footprint. They

were more open towards smaller/ less intrusive works (e.g. installing smart meters) or bigger works if they could be completed within a few months.

There were a range of additional factors which affected willingness to have measures installed. Some factors, such as anticipated level of disruption, the timeliness of works (often informed by previous experience of social housing provider led works) aren't only important within mixed tenure developments. The following factors were more specific to mixed tenure developments:

- **Communications received regarding works:** The case studies indicated that excessive communications could potentially have a negative impact of residents' views of the works being conducted and the importance of offering residents the choice about whether to be consulted (rather than either forcing consultation on them or not consulting them at all).
- **Relationships between non-social tenants and social housing providers:** Willingness to have measures installed was impacted by existing relationships between non-social residents and social housing providers. Specifically, some residents did not trust providers to complete works to a high standard. Some participants had experienced works being completed to a poor standard in the past, and were less trusting and willing to take part in works by their social housing provider as a result.
- **Option of using the Social Housing Decarbonisation Fund (SHDF) and other government grants:** Some private landlords stated that knowing the existence of financial government support would motivate them to take on retrofitting works because they helped cover some of the costs. Whilst others agreed, they felt that they needed to know more about the schemes before committing.

Ability and willingness to pay or contribute towards retrofit works

Overall, private landlords seemed more open to the idea of contributing towards the cost of retrofit works than owner-occupiers. Once explained to them, the cap on the contribution proposed by the SHDF funding typically increased both audiences' willingness to contribute. However, some private landlords with multiple properties mentioned they would not be willing nor able to do so for multiple properties at once. Private landlords or owner-occupiers unwilling to contribute to the costs of retrofit works were motivated by very tight budgets and the conviction that they would not see the benefits in time before planning to sell the property.

The following factors had the most influence on individuals' ability and willingness to pay or contribute towards retrofit works:

- **Repayment periods:** For a few private landlords and most owner-occupiers, the option of having some control over how and when they pay their share of the cost of the retrofit works was a key driver to their willingness to contribute to the cost of retrofit works. The most common suggestion was splitting the costs in instalments over a period of time (e.g. 12 months or longer). There was also a very clear preference towards an interest-free monthly payment plan.
- **Impact of works being funded by SHDF:** Both private landlords and owner-occupiers were more open to the idea of contributing to costs if these were capped to a third of the

costs / £3,300. The main benefit was the idea of having money-saving and carbon-footprint-cutting works completed at a fraction of the price it would take for them to install and fund the updates themselves. The SHDF cap also increased some owner-occupiers' openness to agreeing to larger scale works and accepting the associated disruption, because they felt they would therefore be getting a 'better deal'.

- **Source of funding:** Private landlords were more inclined to use their own budgets or saving to pay for works, rather than taking out a loan of any kind. If borrowing was necessary, some private landlords (with previous experience of claiming government grants), preferred local authority funding over central government funding.

Conclusions

The key conclusions from the qualitative research were as follows:

- When leaseholders and tenants had low trust in their social housing provider, they were less likely to want to participate in works, and communications had less impact.
- Communications ideally need to encourage a two-way dialogue between leaseholders and those responsible for the works. That said, care should be taken at giving residents too much 'say' over decisions, given their lack of technical expertise, and short-medium term perspective.
- Individuals need relevant and timely information upfront about the extent of the works being suggested and benefits of being included (e.g. increased comfort, reduced energy bills, increased property value and so on), and then to be kept informed of progress at 'key' points.
- Understanding the different motivations (and where these overlap and conflict) across different stakeholder groups (e.g. housing providers and leaseholders) is fundamental to finding a solution that works for all within the mixed tenure context.
- Some private landlords thought that grants such as SHDF did not extend to them, would be means tested (and therefore they would not qualify) or only covered measures which are not suitable for their properties e.g. loft and cavity wall insulation within first floor flats. This lack of understanding limited the impact of government funding on landlords' willingness to consider energy efficiency works.
- Both private landlords and owner occupiers were more open to the idea of contributing to costs if these were capped to a third of the costs / £3,300. The SHDF cap also increased some owner-occupiers' openness to agreeing to larger scale works because they felt they would be getting a 'better deal' agreeing to larger scale works, with their cost still being capped at the maximum contribution.
- Among both private landlords and owner-occupiers, there was not an aversion towards financial contributions, but their willingness to pay was dependent on other factors such as how much value for money the contributions represented.

Glossary

Energy Performance Certificate (EPC). These are required in the UK when residential or commercial buildings are constructed or put up for sale or rent, to provide the prospective owner or tenant with information on the energy performance of the building and recommendations for improvement. EPCs use an A-G rating scale based on the modelled energy bill costs of running the building. They are valid for 10 years. The Social Housing Decarbonisation Fund (SHDF) aims to upgrade social housing stock currently below EPC rating C up to that standard.

Freehold. When an individual(s) owns a property and the land it is built on for as long as that individual(s) wants.

Leasehold. When an individual(s) owns a property but not the land the property is built on. It means they have the right to occupy it for a set period of time, typically 99 years or more.

Mixed tenure development. Mixed tenure housing is where residents live within a residential development under different tenure options. For example, where within a block of flats or within a street some homes are privately owned by residents, whilst others are rented from a social housing provider. Homes may be owned via shared ownership schemes, Right to Buy schemes, or outright.

Owner-occupiers: A person who owns (freehold or leasehold) the house or flat in which they live.

Social housing. Accommodation provided by registered housing providers for people typically on lower incomes or with particular housing needs.

Social housing provider. Typically housing associations or local authorities which provide social homes to those who need them. Housing associations are not-for-profit organisations and local authorities are local government bodies (or ‘councils’).

Social Housing Decarbonisation Fund (SHDF). SHDF is a government fund aimed at improving the energy performance of England’s social homes, by encouraging social housing providers to accelerate their decarbonisation plans and upgrade social housing stock currently below EPC rating C up to that standard. The Main Fund will cover mixed tenure developments as well, which would ask private owners within social housing to contribute towards the cost of the retrofit measures if they have a household annual income of more than £31,000.

Tenure. Tenure defines the conditions under which a home is occupied, whether it is owned or rented, and if rented, who the landlord is and on what financial and legal terms the let is agreed. In this report, respondents are typically grouped into the following tenure categories: owner occupiers, private renters, social renters as well as private landlords.

Retrofit: Improvements made to a building or development after it has finished construction e.g. loft insulation, wall insulation or replacing old windows with double glazing.

1. Introduction

Project background

Reducing emissions from domestic buildings, which account for 16% of all emissions, is central to the UK government's strategy to meet their Net Zero target.[3] A series of policies and programmes are seeking to improve the energy performance of homes, through legislative change and grant-based investment across housing sectors.[4]

Given that 17% of homes in England are socially rented[5] and the management and maintenance structures that exist, the social housing sector presents opportunities for energy efficiency and low carbon retrofit. The 2019 Conservative Manifesto committed to a £3.8bn Social Housing Decarbonisation Fund (SHDF) over a 10-year period to improve the energy performance of social rented homes, on the pathway to Net Zero 2050.

There are a range of technical and financial barriers to be overcome in the retrofit of the social housing stock (which funds like SHDF are designed to address).[6] One such barrier arises from the existence of an estimated 460,000 mixed tenure developments across England, where residents live within a residential development under different tenure types. For example, a block of flats might contain some flats which are owned by residents or private landlords, whilst others are owned and rented out to social tenants by a social housing provider. This has become increasingly complex through the sale of social housing to private leaseholders, who may in turn offer these properties in the private rental market.

In certain cases, the decarbonisation of mixed tenure dwellings cannot be achieved as efficiently without also treating privately owned or rented dwellings within the same development e.g. external wall insulation and associated ventilation. This means schemes like the SHDF need to cater for mixed tenure buildings, and scenarios where private owners or renters may not agree with the energy efficiency measures planned by the owners of the development itself.

Research objectives

There is some evidence about how prevalent mixed tenure social housing is. For example, the Department for Levelling Up, Housing & Communities (DLUHC) estimated that 28% of dwellings in social buildings over 18m in height were private leaseholds, with a figure of 30% for social buildings between 11-18m in height.[7] However, there is a lack of evidence detailing

[3] Department for Business, Energy & Industrial Strategy (2023), Final UK greenhouse gas emissions national statistics: 1990 to 2021 - GOV.UK (www.gov.uk)
[4] Heat and buildings strategy - GOV.UK (www.gov.uk)
[5] Department for Levelling Up, Housing & Communities (2021), *English Housing Survey 2020 to 2021*: *headline report*
[6] https://www.gov.uk/government/publications/barriers-to-retrofit-in-social-housing
[7] Building Safety Programme: monthly data release - October 2021 - GOV.UK (www.gov.uk)

the scale of challenge this stock might pose to conducting retrofit works and therefore reducing emissions from domestic buildings. There has also been a lack of evidence detailing the views and perspectives of those living within mixed tenure developments, especially regarding retrofit works.

The Department for Energy Security and Net Zero (DESNZ) therefore commissioned IFF Research (IFF) and the UCL Energy Institute (UCL) to conduct a research study to meet two overarching objectives:

1. Develop a comprehensive understanding of how those who own and/or live in mixed tenure housing developments experience mixed tenure living, and how they have or would react to retrofit works within their mixed tenure development.
2. Determine the percentage of dwellings in social housing developments which are socially owned vs non-socially owned.

This report focuses on the first of these research objectives. We addressed this research aim through qualitative research, specifically-one-to-one semi-structured interviews and case studies of mixed tenure developments. The research was designed to answer the following specific research questions:

- What are the differing experiences of socially and non-socially rented households in mixed tenure social housing developments with regards to: building quality; thermal comfort and energy efficiency of dwelling; previous interactions with social housing provider; previous works completed on their mixed tenure development?
- To what extent are non-socially rented households willing and able to contribute towards costs of retrofit works within their mixed tenure development?
- To what extent are non-socially rented households willing and able to contribute towards costs of work to complete retrofits funded by the SHDF?
- In what ways can mixed tenure in social housing developments affect the buildings and surrounding environment, and impact the nature and frequency of works completed on these buildings?

This report presents the findings from the qualitative research. Findings answering the second overarching objective are detailed within a separate quantitative report. Findings from across the two methodologies are summarised in a separate summary report: Understanding Mixed Tenure in Social Housing Summary Report: quantitative and qualitative findings.

Research structure

This report is separated into two sections. Findings from the one-to-one interviews form the majority of this report and are explored in the following chapters:

- 3. Experience of living within a mixed tenure development
- 4. Attitudes towards retrofit works within mixed tenure developments

Findings from the mixed tenure development case studies are presented in 7. Case studies but also referenced in preceding chapters when relevant.

2. Methodology

One-to-one interviews

We conducted 50 one-to-one interviews with owner-occupiers, private renters and landlords of private homes who own and/or live in private homes within mixed tenure housing developments.

A specialist recruiter (Mojo Fieldwork) recruited individuals, initially by using local recruiters within communities and a database of respondents, and then snowball sampling from these contacts. The sampling methodology was designed to recruit from a wide pool of residents. A telephone screener helped recruit individuals based on the characteristics outlined in Table 1.

Fieldwork occurred between August and September 2022. Interviews lasted around 45 minutes and took place via telephone or video call (Zoom or Teams) depending on the respondent's preference. Respondents received an incentive of £40 to thank them for their time. Table 1 displays a breakdown of the respondents interviewed.

Table 1. Respondents interviewed during one-to-one interviews

Category	Sub-category	Minimum Target	Interviews Achieved[8]
Tenure	Owner Occupier	10	17
Tenure	Private Landlord	10	16
Tenure	Private Renter	10	17
Dwelling type	High Rise Flat	8	10
Dwelling type	Low Rise Flat	8	20
Dwelling type	Terraced House	8	27
Provider of social homes	Local Authority	12	33
Provider of social homes	Housing Association	12	25
Annual household income	Less than £31,000	5	17
Annual household income	£31,000 - £60,000	5	20
Annual household income	More than £60,000	5	13
Total		**50**	**50**

We used semi-structured topic guides to complete the interviews, covering:

[8] Please note that types of property (high rise flat, low rise flat and terraced housing) and housing provider type (local authority or housing association) do not sum to 50 as some landlords owned properties in more than one development.

- Living situation or context of properties landlord owns;
- Perspectives on energy efficiency;
- Perspectives on home upgrades and retrofit;
- Previous experience of having works completed in mixed tenure development;

We also asked owner-occupiers and private landlords about:

- Their ability and willingness to pay for measures completed on property as part of retrofits to mixed tenure developments;
- Perspectives on the SHDF and other retrofit schemes.

We conducted thematic analysis using an analysis framework, structured under headings relating to the research objectives and allowing discussion to be compared and judgments made about the commonality of experiences, whilst also identifying subgroup differences.

Mixed tenure development case studies

The development case studies sought to include perspectives of all those impacted by mixed tenure (including social tenants and social housing providers), by focussing on specific mixed tenure developments. For each case study, one development (e.g. a block of flats or row of terraced houses) was selected where both social renters and leaseholders lived.

Recruitment

We initially recruited via a range of housing providers, targeting a spread of locations, housing types (high rise developments, low rise developments, terraced housing), provider types (local authority or housing association) and participation in the Social Housing Decarbonisation Fund (SHDF) (Demonstrator and Wave 1). However, due to recruitment challenges we adopted a convenience sample.

We recruited cases studies using our existing relationships with social housing providers and existing contacts via DESNZ. Our Housing Client Account Managers conducted initial engagement work to identify suitable contacts for this research. The project started with a target of 10 case studies but recruitment proved more challenging than originally anticipated. Challenges included:

- Some providers were simply too busy with other work to take part or did not regard the research as a high priority for them versus other work. This was exacerbated by recruitment coinciding with a deadline for applications for Wave 2.1 of SHDF. Consequently, we extended the recruitment and fieldwork window from three to six months.
- Some providers assumed that they were not eligible because they had not carried out energy efficiency improvements or retrofitting on their mixed tenure developments (i.e. repairs or improvements with improved energy efficiency as the specific goal). We amended our communications to provide more clarity on eligibility.

- The responsibility for overseeing retrofitting or works aimed at meeting sustainability goals sat in different departments depending on the social housing provider's structure and size. This made it difficult to identify the most suitable person to approach within these organisations.

Ultimately, we conducted three case studies:

- Case Study A: A local authority in London, low rise flat block, in an urban area, with roughly 35% social housing and 65% leaseholders.
- Case Study B: A housing association in Yorkshire and the Humbers, low rise block of 12 flats, in an urban area, with roughly 75% social housing and 25% leaseholders.
- Case Study C: A local authority in London, with a mix of property types in an urban location, with roughly 70% social housing and 30% leaseholders.

Fieldwork

Each confirmed case study began with a feasibility interview followed by preliminary discussions as detailed below:

There were two main criteria which helped inform which mixed development was selected within each case study:

1. Whether the development had recently undergone retrofit works, or that there was a consultation or plan in place to commence these.
2. Whether we were able to access key stakeholders (i.e. residents and responsible staff) to discuss their experience and attitudes.

Once we had identified a feasible development and the provider had agreed to take part, bespoke fieldwork was organised which could include:

- **In-depth interviews with social housing provider representatives.** On average, three to four virtual interviews were conducted per case study with the staff responsible for the installation process, maintenance and resident communications.
- **In-depth interviews with residents**. Three virtual interviews were conducted per case study, with a mix of residents living in privately owned dwellings and social dwellings within the case study development. Participants received £40 for taking part.

- **Resident survey.** A 10-minute online survey was sent to all residents within the case study development. Depending on the case study this was disseminated via email or through postcards posted through letterboxes. Participants were entered into a prize draw to win a £50 retail voucher.
- **Site visits.** Developments were visited to enable collecting of information on the physical environment such as building form and fabric, building services and building operation and occupancy.

Information about what fieldwork took place is included within each case study summary.

Interpreting findings

Whilst the research aimed to get a wide range of perspectives, its qualitative nature means that **findings are not representative** of the wider population of mixed tenure developments, or their residents. However, the research does aim to capture the full range and diversity of views and experiences amongst residents.

Throughout the report quotations have been used to illustrate findings. These quotes are attributed with details of the individual's housing situation to provide relevant context: tenure, number of years living in/owning dwelling, household income and region.

3. Experience of living within a mixed tenure development

This chapter summarises private landlords', owner-occupiers' and private renters' views on the quality and thermal comfort of homes within their mixed tenure developments. It then describes the relationships between renters, owner-occupiers and their neighbours.

Quality and thermal comfort in mixed tenure environments

Views of building quality and how individuals conceptualise quality

Private landlords, owner-occupiers and private renters reflected on the structural integrity, age, safety features and thermal comfort of their homes and mixed tenure environment..

Across all respondent types, there was a common view that privately owner-occupied properties were typically of a higher quality than social housing properties within the same mixed tenure developments, particularly developments containing houses. Comparisons typically centred on the external condition/appearance of other houses on a street or whole flat buildings and did not extend to considerations on the energy efficiency of other buildings.

> *"There's a noticeable difference between the privately owned-occupied and the social housing on the street. Privately owned houses have had notably more upkeep." Owner-occupier, 10-20 years, £31,000-£60,000, West Midlands*

For private landlords, age and development maintenance affected the perceived quality of their property or properties. Newer properties, i.e. those built within the last 20 years, were generally seen as higher quality than older properties. Secondly, for those who owned properties within blocks of flats, the quality and maintenance of the building overall affected their perception of quality. Perceptions of quality were unaffected by private landlord's income.

In contrast, owner-occupiers and private renters typically focused on the structural integrity of the build, it's thermal comfort and the affordability of utilities bills. Owner-occupiers were generally positive about the quality of their properties. Unlike private renters, they had the agency to undertake chosen measures to improve their homes and had full control over aspects such as décor, furniture and appliances.

Private renters were also generally positive about the quality of their homes, whether these were modern or older homes. Only a very small number of private renters reported serious structural issues, poor upkeep or "penny-pinching" on upkeep and repairs by their private landlords, and most reported that their private landlords acted on repairs. Whilst household income did not correlate strongly to perceptions of quality, private renters of flats with a household income of <£31,000, were slightly more likely to report issues.

Views on thermal comfort and what informs these views

There were four key factors that influenced views on thermal comfort: tenure, age of property, type of property, and living within a mixed tenure development.

Tenure

Living in a mixed tenure development did not generally impact views on thermal comfort. None of the respondents participating in the one-to-one interviews had contacted their housing association or local authority due to issues with thermal comfort. Similarly, private renters had very little contact with the housing association or local authority in general, as they primarily interacted with their landlord or letting agency.

Age of property

Residents of older properties tended to have lower satisfaction with the thermal comfort of their home, however the interviews did not explore whether age of property (and its impact on quality and thermal comfort) varied between social and non-social homes.

Two common complaints about older properties were that they were difficult to heat in the winter or suffered from drafts or damp. These issues were attributed to aspects such as poor insulation (loft or cavity), old windows, inefficient or outdated boilers, old fashioned heating systems such as storage heaters and poor ventilation. Residents in Case Study A, who lived in a 1930's high rise building with poor energy performance suffered from drafts and damp, particularly those who lived in properties far away from the communal boiler.

Type of property

Residents who struggled to keep their property cool generally lived in (new build) flats, while those who struggled to keep their property warm in winter generally lived in houses. However, the age of the property had more impact on thermal comfort than the type of property – so some people living in older flats also complained about drafts and damp.

Mixed tenure environment

Some owner-occupiers had improved their thermal comfort by taking advantage of improvements being carried out by the housing association or local authority to their social housing properties; in some of these cases, owner-occupiers had received the works for free, and in others, they had made a financial contribution. One decided to get the same work done (cavity wall insulation) on their own property, and a small number of others had the work done by the housing association. In this way, living in a mixed tenure building had a positive impact on their thermal comfort.

> *"I had PVC double-glazed windows installed about 19 years ago. The cavity-wall insulation was installed about five years ago by the housing association. I was really pleased they included me when they were doing the rest of the block, as it didn't cost me anything." Owner-occupier, >20 years, £31,000-£60,000, North West*

Relationships between residents of different tenures

It was important to explore relationships between residents of different tenures to understand whether they would present challenges when implementing retrofit measures (e.g. private tenants being frustrated that social tenants are receiving improvements for free, while they may need to contribute to the cost of the works).

Relationships between residents of different tenures were influenced by the following factors: development type, physical distribution of private and social properties, time spent in the property, and disputes over communal areas and shared service charges. Opinions regarding the condition of socially rented properties did not appear to influence individuals' relationships with social tenants.

Development type

Relationships between neighbours in terraced houses were generally reported to be cordial and influenced by factors such as having children of similar ages of seeing one another in a communal garden (as referenced in Case Study B).

> *"Relationships [with the neighbours] are really good, I know all the immediate ones. There's no difference in who I know, whether it's private or social renters. It seems like there are lots of families with children going to same schools as well as a lot of dog walkers, which creates a community feel." Private renter, 5-10 years, <£31,000, West Midlands*

People who lived in flats were less likely than those in terraced housing to know their neighbours (regardless of whether their neighbours lived in social housing or private flats) because people rarely saw other residents except for very brief interactions when entering or exiting their property. Neighbours within a mixed-tenure flat block typically 'kept themselves to themselves', unless there was an issue that affected multiple people in the building such as antisocial behaviour.

> *"We help each other if needed but the neighbours tend to keep themselves to themselves...I feel like I'm quite lucky with the neighbours." Private renter, Two-five years, <£31,000, Yorkshire and the Humber*

> *"There was an issue with one of their neighbours playing loud music in the flat shortly after they bought it. This was both notified by and dealt with by the [property management] agents." Private landlord, 10-20 years, >£60,000, East of England*

Physical distribution of properties

Private renters and owner-occupiers who were more physically separated (e.g. socially rented flats on one floor while privately owned flats were on another) tended to report having a slightly worse relationship, or no relationship at all, with their socially renting neighbours.

Time spent in property

Cordial relationships between residents were more common amongst those who had lived in their properties for a long time, whereas factors such as income or location did not appear to have any effect on these relationships.

This was described by residents in Case Study B, which was a 12-flat low-rise development with communal area. Residents described very positive interactions between tenants and leaseholders, and attributed these both to being older, i.e. retired with no children at home, and to people staying in the development for a number of years.

Disputes over communal areas and shared service charges

Some disputes between tenures related to the upkeep of communal areas, or increased service charges which private residents attributed to social renters.

Some owner-occupiers were frustrated that they had to contribute financially to works, on top of regular service charges, whereas social renters' share of the costs were covered by the council or housing association.

> *"There is sometimes some resentment, or unhappiness, when there are building or maintenance works/issues because when there's any works that have to be done we have to pay for them, whereas the social housing people [renting from the council] get it all done free." Owner-occupier, 5-10 years, £31,000 - £60,000, West Midlands*

One private renter described how owner-occupiers in her high-rise building blamed the social housing residents for a rise in the cost of service charges.

> *"The fire brigade was called out as the alarm went off and it was in the social housing side and the home owners weren't happy as it puts the service charge up for the whole building" Private renter,* Two-five *years, <£31,000, South East*

4. Attitudes towards retrofit works within mixed tenure developments

This chapter describes private landlords', owner-occupiers' and private renters' broad awareness of retrofit works and the perceived associated benefits of having such work completed on their property and properties. Only a small number of people interviewed had experienced retrofit works carried out by a social housing provider, so the observed impact of mixed tenure on such works was limited.

Awareness of types of retrofit works that have taken place or are suitable

Private landlords, owner-occupiers and private renters were generally aware of the type of retrofit works that were possible at the **single-property level**, especially regarding windows and walls. Double glazing, modern boilers, smart meters and (generic) "insulation" were more commonly referenced. Knowledge of energy efficiency measures did not correlate to factors such as income, location, length of time in a property or whether the social homes were managed by a housing association or local authority. All three tenures were less aware of energy-efficiency measures at a **whole-block level.**

All three tenure groups were aware of the retrofit works that had been carried out in their properties but had more limited understanding of the energy performance of individual homes (including their EPC), and how such specific measures could improve these. Those who found their properties easy to keep warm, and in good condition, estimated that their homes had higher EPC ratings than those who experienced issues with thermal comfort.

> *"I don't know the EPC rating but I'd score it a 4 out of 10. The building doesn't keep heat in very well, the windows aren't double-glazed and one of my windows has a hole in it." Private renter,* Less than two *years, <£31,000, London*

Perceived impact of upgrade or retrofit works

Private landlords, owner-occupiers and private renters typically understood that energy efficiency measures can lead to reduced energy bills as well as environmental benefits. Private landlords were also aware of the benefits it would provide for their tenants; for example, in lowering energy bills and providing more thermal comfort.

Several landlords saw no direct personal benefit of installing retrofit measures in their properties, as they anticipated that the cost of retrofitting would not increase the value of their property by an equal or greater amount. However, some highlighted that upgrades could make the property more attractive to potential buyers or potential tenants, and that decreased fuel bills for their tenants would increase the likelihood of rent being paid on time. One landlord

noted that making upgrades now would prevent them having to “make changes in a rush” if minimum energy efficiency standards were raised.

Owner-occupiers and renters focused predominantly on reduced energy bills, and some also noted the benefits to the environment that energy-efficiency can bring. They noted that they would have to pay for any retrofit works, so would need to consider the costs of the measures to see how quickly they could recoup their investment through cheaper bills.

An additional benefit identified by owner-occupiers was the possible impact it would have on the quality of the builds. Owner-occupiers in Case Study C identified how retrofitting works on the roofs and walls would have the additional benefit of fixing cracks, or that a replacement boiler would be more reliable.

5. Potential future take-up of energy efficiency measures within mixed tenure developments

This chapter looks at private landlords', owner-occupiers' and private renters' willingness (and what impacts this willingness) to have energy efficiency measures installed in their property or properties within a mixed tenure development.

Willingness to have energy efficiency measures installed

Some owner-occupiers were reluctant to agree to upgrades due to concerns around the quality of the work that the social housing provider would arrange. In addition, owner-occupiers were less willing to participate in works within their mixed tenure development, because the works being led by the social housing provider would result in them having less control over the details of the work (such as costing, choice of contractors, and timeframes).

However, most owner-occupiers and private renters were generally in favour of participating in retrofit improvement works and having measures installed because they recognised the advantage of cutting their heating bills. They were more open to smaller/ less intrusive works (e.g. installing smart meters) or bigger works if they could be completed within a few months.

Private landlords were mostly supportive of having energy efficiency measures installed, provided these were affordable. Some anticipated that they would be less likely to agree to such works if their tenants:

- Didn't think the improvements were needed (because these tenants would be less likely to tolerate any mess or disruption caused by such works)
- Were uncomfortable with installers being in their home on personal safety grounds.
- Only have plans to stay in the property for a short period of time (thus being negatively impacted by disruption caused, but not receiving any of the benefits)

Factors affecting willingness to having energy efficiency measures installed

The following factors affected willingness to have measures installed: anticipated level of disruption, the timeliness of works, the types and quality of communications needed surrounding the work, existing relationships between relevant parties and awareness of government grants such as SHDF. However, all of these were perceived to be less significant barriers than the issue of cost (detailed in Chapter 6: People's ability and willingness to pay or contribute towards retrofit works).

It should be noted that factors such as disruption and timeliness won't only be important within mixed tenure developments. For example, these barriers to retrofit work were raised by social housing landlords and tenants in the Social Housing Decarbonisation Study.[9]

Anticipated level of disruption

Private landlords were generally happy to have measures installed provided their tenants were able to continue living in the apartments with minimal disruption to their daily lives.

Timeliness of works

All tenures expressed concerns about the length of time needed to conduct the works.

Concerns related to works being completed on time as well as overall timelines not being initially too long either. One (private renter) stated that one or two days would be acceptable but any longer than that would be a problem for them, whereas most interviewed wanted works completed within a couple of months.

> *"If work was to take 18 months or two years, I'd be unlikely to do that." Landlord, Two-five years, more than £60,000, North West*

Owner-occupiers and private renters also thought it was important to consider when in a year works are conducted, with some not wanting to support works conducted in the winter.

> *"I'd want to be consulted about it if it's going to affect my property...I'd want to make sure the inconvenience to myself was as little as possible…And if it's in winter-time, I don't particularly want it done. There's been better times in the year to do it". Owner occupied, East England, more than 20 years, <£31,000*

Concerns regarding the ability of the social housing provider to deliver works

Some participants had negative previous experiences with their local authority, which made them cynical about whether the works would be delivered in a timely manner.

> *"From my experience, even the smallest things like roofs on the local authority houses takes three-four weeks as opposed to three days." Private landlord, 5-10 years, between £31,000 and £60,000, East England*

Participants were also concerned that they wouldn't be given sufficient agency over the works by the administrator. They emphasised the importance of being consulted and being able to control the timing of the works.

Communications received regarding works

Communications from social housing providers about works are just as important for non-social homes within their mixed tenure developments (as social homes). Private landlords and owner-

[9] Social Housing Decarbonisation Study: views from social housing providers (publishing.service.gov.uk)

occupiers would only be comfortable making a decision about works if they were fully informed about the extent of the works, costs and potential savings as a result of the works.

Content of communications

Most expected initial contact to come via a letter sent directly to their property which would outline the potential works and options for involvement. Many owner-occupiers and private landlords also thought consultations would help provide an opportunity to be fully informed and understand the impact of the works. Private landlords are likely to need more detail ahead of works than social tenants within mixed tenure housing. For example, one private landlord flagged that they would need extensive detail such as an accurate breakdown of the costs so that they could effectively pass this information onto their tenants.

Some less-willing owner-occupiers wanted to see more research that energy efficiency measures would achieve the stated aims of reducing energy consumption or hearing from others who had experienced the process of having the measures installed.

> *“To prove that it’s a better option, because I don’t think that there’s enough research, data, statistics, to give people, or participants, the information that they need to make an informed decision on whether to have it or not have it.” Owner-Occupier, more than 20 years, <£31,000, West Midlands*

Owner-occupiers and private landlords also saw value in receiving communications from the contractors conducting the works. Residents noted that when this was done in the past it increased their confidence in the process, as they knew who was completing the works and who should be let into the buildings. This combined with ensuring contractors have verifiable identification, such as badges, helps limit concerns during works.

One landlord highlighted they would like to know what safety measures would be in place, including flammability ratings, and how it would affect the security of the building.

Volume of communications

Across case studies and interviews, residents’ expected more communication during more substantial and disruptive works.

Based on previous experience, residents expected to be informed of any changes to timescales, or delays in the work. The most common complaints about the retrofit process were works taking longer than expected, and poor / no communication about this from the provider.

> *"It's hopeless with the local authority. They'll say work is going to be done starting Monday 19th, for example, then nobody will turn up that day and they'll come 3 weeks later. If you speak to the contractor, they'll say they were never coming in on that day." Landlord, 10-20 years, £31,000-£60,000, South East*

Detail from the case studies reveals more nuance on how to communicate to residents. In Case Study C, the local authority has extensively consulted with residents about proposed retrofit works. However, the social housing residents in this building did not know a lot about

retrofit options, and described feeling “survey fatigue”. They would have preferred fewer communications, with details about what was going to happen, rather than extensive consultations.

In contrast, in Case Study A, residents were more knowledgeable about the ongoing discussions about replacing the communal heating system. As these residents had more personal involvement in the outcome (which concerned installing a new system at a whole-building level or in individual properties), they wanted to be consulted more, and were frustrated when they were simply told what was going to happen.

These two examples highlight the complexities of individual situations, and how communication and consultation preference can be affected by existing relationships with the social housing provider, the extent of trust that has been built, personal interest, and whether someone owns their property or rents it. Most importantly, it highlights the importance of offering residents the choice about whether or not to be consulted, rather than either forcing consultation on them or not consulting them at all.

Relationships between non-social tenants and social housing providers

Willingness to have measures installed was impacted by existing relationships between non-social residents and social housing providers. Specifically, some participants had experienced works being completed to a poor standard in the past and were less trusting and willing to take part in works by their social housing provider as a result. One tenant highlighted that the fallout from the Grenfell fire had made them less trusting of the government and would no longer trust the council to oversee future works.

> *"We’re in a painful position [following what happened]- I don’t have any trust in how the system works, the law, the government, - we've been through quite a lot." Owner-occupier, 5-10 years, £31,000 and £60,000, London*

Option of using the SHDF and other government grants

Awareness of the SHDF or other government grants amongst private landlords was generally mixed, with a similarly mixed picture of whether such grants would impact individuals’ willingness to have work conducted. Some private landlords stated that grants such as the SHDF and interest-free loans would motivate them to take on retrofit works because they helped cover some of the costs. Whilst others agreed, they felt that they needed to know more about the schemes before committing.

> *“BEIS [now DESNZ] are going out of their way, they don't want you to fully contribute so they are giving you the option to only pay a third…that's going to be a great thing". Landlord, 10-20 years, >£60,000, South East*

In addition, some private landlords thought that the grants did not extend to them, would be means-tested (and therefore they wouldn’t qualify) or would only cover measures which are not suitable for their properties e.g. loft and cavity wall insulation within first floor flats. This lack of

understanding resulted in the existence of grants having less impact on increasing private landlords' willingness to consider energy efficiency works.

6. Ability and willingness to pay or contribute towards retrofit works

This chapter explores private landlords' and owner-occupiers' ability and willingness to contribute financially towards retrofit works, and what factors (payment plans, sources of funding and information provided) impact this willingness.

It is very difficult to separate owners' ability to contribute to or to cover the costs of retrofit work from their willingness to do so. Overall, private landlords seemed more open to the idea of contributing towards the cost of retrofit works than owner-occupiers. Once explained to them, the cap on the contribution proposed by the SHDF funding typically increased both audiences' willingness to contribute.

People who were unwilling to contribute to the costs of retrofit works were motivated by very tight budgets and the conviction that they would not see the benefits in time before planning to sell the property (as reflected in Case Study B).

Factors affecting ability and willingness to pay or contribute towards retrofit works

Among both private landlords and owner-occupiers, there wasn't an aversion towards contributions, but their willingness to pay was dependent on various factors. For instance, the consideration was not just about size of the payment, but about the cost-benefit value of the works and the length of time it would take for the savings enabled by the upgrade works to offset the initial contribution.

The following factors influenced individuals' ability and willingness to pay or contribute towards retrofit works:

Financial benefits on the rental market

Private landlords' willingness to pay for retrofit works centred around these works making their property more desirable on the market. They were also more willing if they thought it would help tenants to save on their energy bills and make them more likely to take better care of the property (as they would see it as "nicer" to begin with). Although some landlord indicated they would increase tenants' rent due to the upgrades, others intended to keep rents the same.

> *"Tenants are going to think 'why are you increasing charges for something I'm already happy to live in?' They're going through works for me on my property, so I should bear the costs." Landlord, 10-20 years, >£60,000, London*

Repayment periods

For a few private landlords and most owner-occupiers, the option of having some control over how and when they pay their share of the cost of the retrofit works was a key driver to their willingness to contribute to the cost of retrofit works. The most common suggestion was splitting the costs in instalments over a period of time (e.g. 12 months or longer), and there was a very clear preference towards an interest-free monthly payment plan. Where monthly sums were mentioned, they were between £50-150 per month.

> *“It depends on how much they would want me to pay. Could I pay over a period of time?” Owner occupier, more than 20 years, >£60,000, London*

One private landlord suggested that the SHDF could offer a financial incentive for landlords to pay their contribution up front. They suggested a discount could be applied to the cost of the works to encourage people to pay in one lump sum, for example of 10%.

> *"If they said to me I could pay upfront and therefore get a reduction on the cost, like a 10% discount, I would, otherwise I would spread the payment over 12 months. It needs to be interest free though." Landlord, 10-20 years, >£60,000, London*

Some participants felt that financial pressures resulting from the current cost of living crisis would make people less likely to contribute. Some owner-occupiers implied that they would agree to take part in the works in the near future if their payment instalments could be delayed until a more prosperous economic time, akin to a buy now pay later scheme.

> *"Cost of living is so much and I just don't feel like I have any spare money. The money that I have is all accounted for." Owner occupier, 5-10 years, <£31,000, South West*

Impact of works being funded by SHDF

In general, the parameters of the co-payment suggested by SHDF were seen as attractive. Both private landlords and owner occupiers were more open to the idea of contributing to costs if these were capped to a third of the costs / £3,300. Perhaps unsurprisingly, the main benefit was the idea of having money-saving and thermal-comfort-improving works completed at a fraction of the price it would take for them to install and fund the updates themselves.

The SHDF cap also increased some owner-occupier’s openness to agreeing to larger scale works and accepting the associated disruption because they felt they would be getting a ‘better deal’, with their cost still being capped at the maximum contribution.

Participants also indicated that, if the reduction in payment offered by SHDF was coupled with information of alternative funding sources such as available grants, loans and other budgeting tools directly relevant to the owners in this case, they would be more likely to contribute towards SHDF-funded works.

A few private landlords did suggest that it would be helpful if the cut-off point of their contribution to the works could be proportional to the rent they can charge.

> *“I wouldn’t want to hold back an improvement … but maybe the £3.3k max shouldn't be the same for every landlord. If you're in London and can get a lot of rent, yes … but I would be happier to agree if there was a differentiated approach." Landlord, Two-five years, >60,000, East Midlands*

Source of funding

Most private landlords had some savings put aside for maintenance works that they could use for energy efficiency works but those with multiple properties said they would need to pay for one property at a time.

Private landlords were also more inclined to use their own budgets or saving to pay for works, rather than taking out a loan of any kind. If borrowing was necessary, people preferred a government loan (if SHDF offered a list of available loans in an information pack) or to borrow from the social housing provider, rather than any other 3rd party loan.

Some private landlords (with previous experience of claiming government grants), preferred local authority funding over central government funding. Loans provided by the local authority were seen as more likely to be targeted specifically to the works being carried out, whereas government schemes more broadly may have criteria that would be difficult to navigate and make getting the funding more complicated. A landlord with previous experience, claimed it was the amount of paperwork and form filling put them off, while another feared that the financial support would never materialise, demonstrating a lack of trust in government.

> *“The only way we would now consider it...would be if the local authority would offer grants for this to be done and in that kind of circumstance, we would take up that offer.” Landlord, 10-20 years, <£31,000, South East*

> *“I'd definitely take up that opportunity [offered by the LA] and not those provided by the central government. You hear horror stories about this funding and that funding, and it never materialises.” Landlord, Two-five years, £31,000-£60,000, South East*

Where schemes had no impact on people’s willingness to participate or pay, it was because they didn’t think any of the grants were appropriate for them, or even more so, upgrade works would be difficult to conduct regardless of funding. For example this was the case for people owning flats in new buildings (which are built to code) or those living in listed buildings (where upgrade options are limited and strict rules for restoration must be followed if any kind of upgrade works do occur).

Information provided by housing provider about the upgrade works and SHDF

Interviewees were more open to paying if they were made aware of the existence of government grant schemes and various loans options. After the interviews, some owners wanted to go away and research available government grants and funding options, but others

expressed some worry that any kind of targeted or in-depth research may end up being overwhelming. This speaks to the importance of providing specific, relevant in initial communication about the works.

7. Case studies

Case Study A

Case Study A is a local authority based in London, who are participating in the SHDF. They have 40,000 properties with around 65% of their units made up of leaseholders. For this case study, we selected a medium-rise urban block of flats comprising five floors and 54 properties (35 of these are owned by leaseholders; 19 are social renters). Built in the 1930's, the brick-built building is typical of stock of its age. The condition has broadly satisfactory living conditions but suffers from poor energy performance.

While the local authority is participating in the SHDF, no funding has been used for the development which this case study focuses on. This is because the residents of this development and the local authority have been in dispute over the approach to replacing a communal heating system, which forms the focus of the case study analysis

A summary of the research activities conducted between September 2022 and January 2023:

- Three staff interviews and one focus group
- Three resident interviews, of which two were leaseholders
- Site visit to review the existing fabric and energy efficiency potential of the stock
- Analysis of background documentation and development-based data including energy efficiency supplied by the local authority.

Quality and thermal comfort in mixed tenure environments

This case study development operated on a communal, gas-based heating system, which was in operation since 2010. Thermal comfort varied considerably based on proximity of each property to the communal boiler. Residents living closer to the boiler were typically content with the heating of their property (although one mentioned that at times the water was "too hot"), while those living further away complained that their flat was particularly cold at winter. They considered that the poor heating related to leakage in the gas pipes, and also felt that the windows – despite being uPVC double glazed and fitted around a decade ago – provided sub-standard insulation. Our site visit determined that upgrading the windows would not necessarily reap significant energy benefits.

There were also considerable maintenance issues with the current heating system, with one resident reporting that in the last few years two of the communal boilers have stopped working.

Relationships with private landlords, social housing providers and neighbours

The relationship between residents (organised around a co-operative[10]) and the local authority was heavily influenced by the preceding decade which saw disagreement about how the communal heating system should be replaced, as summarised in the box below.

Brief history of replacing the communal heating system at Case Study A

The development plant room had a replacement communal heating system installed in 2010. At that time some leaseholders declared their preference for individual boilers. Two factors informed this position: leaseholders felt they lacked the autonomy over their heating (and associated costs) that individual boilers provided, while they were also concerned that the communal system was not sufficiently energy efficient.

Subsequently, a 2015 feasibility report established that the distribution pipework and heating installations within the dwellings had eclipsed their recommended economic lifespan. Allied to an increasing number of repairs being required, upgrade works were proposed (although not to the plant room itself, given the previous works in 2010).

However, leaseholders were not content with the proposed works due to their preference for individual heating systems. This disagreement led to a public demonstration and Tribunal proceedings, resulting in agreement for a new, independent feasibility report, with the tenant co-operative encouraged to provide the names of consultancies this was tendered to. At the time this research was conducted, two consultancies had prepared feasibility reports, under review by both the local authority and the co-operative.

The lack of progress and agreement regarding the heating system, and on perceived poor insulation across the development, have contributed to a sense of distrust and dissatisfaction among residents (especially leaseholders) towards the local authority. With a view to building trust and therefore progress the new heating system, the local authority had recently moved to a more communicative and collaborative resident engagement model. Regular meetings are held with the co-operative to support this. This appeared to have improved relationships.

> *"We now have quite a nice dialogue with the residents…I've said to my team we have to be open and work with them, not saying 'you're getting this; you're getting that'. We've got to build up trust with the leaseholders that have had a difficult history, and demonstrate positive behaviour. If you do a lot of work up front, and set it up right, you save a lot of time later on." Local authority representative*

> *"I sort of like dealing with them [the local authority] because they talk to you in quite a human and personal way, which I appreciate. They can take months to do things but they do do things eventually." Leaseholder, Two-five years*

[10] This co-operative was set up by leaseholders but represents the views of all tenants. They have an office on site, and are run by a manager and Chair. Regular meetings – open to all – enable residents to vote on different issues; the co-operative adopt the majority view in subsequent dealings with the council.

The local authority reported that they did not set out to treat leaseholders and social tenants differently (with the exception of the required statutory consultation with leaseholders), and nor was their approach to retrofit works on mixed tenure stock different to solely socially rented stock. However, they have found that with leaseholders organised around a co-operative there tends to be greater opposition to proposed plans. Adopting a collaborative and tailored approach to communication has helped to understand and engage with concerns held.

> *"There's no difference in theory between the way we approach stock with leaseholders. The reality is that leaseholders push back more, especially if there's a TMO or co-op. The organisation that you get with TMOs if they really object to your plan is where the leaseholders come in, and we have changed tack as a result later on because the leaseholder challenge is so strong." Local authority representative*

> *"When we get down the line to procure we have a different mechanism as we need a statutory consultation with leaseholders, but my plan is that when we do that we send a letter to tenants to say we're communicating with leaseholders." Local authority representative*

Plumbing and heating maintenance issues were outsourced to an environmental building services company. However, leaseholders felt there needed to be improved transparency and communication with how their service charge is used. This somewhat undermined their relationship with the local authority, and informed more negative reflections of the heating system.

> *"We have no idea what [specialist environmental building services company] are doing. The more we ask the council to tell us the less we get. The service charge went up by £100 per month. And the heating went from £500 to £1000. That's stupid amounts of money but you're not telling me why?" Leaseholder 20+ years*

Attitudes towards retrofit works

Residents were typically keen for a new heating system to be installed quickly; alongside individual boilers, residents preferred a 'green' heating solution (i.e. one with minimal associated carbon emissions). Beyond broad aspirations for a green solution, residents' understanding of energy efficiency, and carbon emissions associated with their home was limited. None were aware of their EPC rating, and there was little awareness as to what could be done to reduce carbon emissions across the development. This speaks to an issue raised by the local authority, whereby resident involvement in decisions on heating systems are hindered by a lack of specialist knowledge.

> *"We had one example [on a separate development] where we agreed to what residents wanted but we were too accommodating and now they want to change again. It's dangerous for highly technical set ups not to resort to experts." Local authority representative*

There were pockets of knowledge and some measures being installed independently of the local authority; indeed one member of the co-operative had solar PV panels installed on the roof of the development, when they heard about the provision of a local government grant. Linked, there was evidence from resident discussions that some are undertaking their own works without factoring in environmental concerns. If there was a clearer directive from the local authority they might be able to factor these in to any individual works conducted.

> *"I hate that I replaced the kitchen before having thought about what I could do to improve the energy performance of the property. I don't know if it would have occurred to me that any kind of funding was available. There could be an option to do external insulation, which is obviously not an individual measure, but might be something that the council could lead on." Leaseholder, Two-five years*

Plans for future retrofit works

At the time of the research the co-operative and local authority were considering feasibility reports for future retrofit works so it was yet to be decided what retrofit works would be conducted. From the local authority's perspective they were highly reticent to move away from the communal system:

- They consider that communal heating supports the drive towards greater energy efficiency and reduced carbon emissions in their housing stock.
- There are also considerable inefficiencies if they were to acquiesce to those who want an individual boiler, as the terms of the lease means the local authority is obliged to provide communal heating should other leaseholders still want this. Operating communal heating for only a minority of residents would likely nullify the benefits that comprehensive communal heating provision affords.
- Finally, the local authority has a responsibility to ensure their systems are future-proofed, and their belief is that individual boilers will eventually be made redundant as the UK's heating system becomes less reliant on gas.

As discussed however, leaseholders still prefer individual systems, although one resident conceded that a communal system alleviated them from certain administrative tasks as a result of it being controlled by the local authority.

> *"I was initially sceptical about communal heating [when I bought the flat] as some of the other residents mentioned the issues they faced. But now I like the luxury of not having to worry about choosing a gas supplier or changing suppliers. I don't really mind if it's communal, the important thing is that it's carbon and cost effective." Leaseholder, Two-five years*

Away from the heating mechanism itself, the site visit determined that there were a number of potential solutions to consider, including the installation of 300mm of mineral fibre insulation within the loft space, and further fabric insulation measures to support the potential for the installation of (communal or individual) heat pumps.

One persistent issue raised by the local authority was the length of time it takes to undertake works. Having leaseholders involved in the process adds considerable time due to the consultation required. This frustrates residents and creates issues for the local authority where, for example, staff turnover over this extended timeframe affects the relationship they have with residents.

> *"One of the huge challenges is the timelines to get these through. It takes years with all the consultation. It's frustrating for us and the residents; we have to put the reins on the residents and advise them to be careful what they wish for." Local authority representative*

The local authority was also concerned that a lack of awareness among leaseholders about the details of their contract lease could serve to hinder progress.

> *"Leaseholders are not aware of their contracts. Where I previously worked I invited them to come for leaseholders management training days - and the leaseholders didn't have a scooby [clue] about what was in their lease. We can only do so much." Local authority representative*

Residents' ability and willingness to pay or contribute towards the retrofit

Whilst the measures being considered in this case study would not be eligible for SHDF infill funding; the residents engaged in this research were generally happy to pay for a portion of the capital costs required for installing retrofit works (assuming they are subsidised). This was in part due to the need to improve the current heating situation, but also due to the knock-on effect on the value of the property.

> *"It [financing retrofit works] would be conditional on whether the works still seem worth doing, but in principle, it works. Even from a selfish kind of point of view, it feels like if you're having these work subsidised then that money could be going back on the value of the flat anyway. And even if it doesn't, I'd really like it to be like a green, low carbon building." Leasehold owner, Two-five years*

However, they were concerned that they would continue to have to pay high maintenance fees for a system that they did not want. This meant that while many felt they could afford to pay for the upfront, capital costs of a new system, they were wary of committing to these unless they received their preferred system and/or reassurance that maintenance fees would be minimal.

> *"Even if someone were to come in to say: 'spend £50,000 to replace your boilers', I still think as a community we'll probably say no just because we've had it replaced three times now and it doesn't work. We know it needs a completely different system and I think this is why we're in dispute; they're trying to put more of the same in and we've had three now and we know it just doesn't work." Leaseholder, 20+ years*

There was some conflict between social tenants and leaseholders in this regard. They both agreed there was an issue with the heating system that needed resolution but their different

perspectives on costs made it difficult to reach a consensus. Social tenants knew that they would not have to pay for works and were therefore keen for the local authority to progress with their preferred new heating system. However as leaseholders represent the majority of residents these views tended to be overridden. The local authority were conscious of this but found it difficult to find a suitable balance.

> *"We're dealing with a TMO that's dominated by leaseholders. But we're not necessarily reaching [social housing] tenants. So it's important to speak to tenants. We are seeing it being difficult for residents to express their views in front of other residents for fear of defying the direction of movement." Local authority representative*

For the local authority, government funding is fundamental to delivering retrofit works that help reduce carbon emissions. Without this they feared residents would opt for the cheapest option, which would typically not be the most environmentally friendly option. There were concerns that the current government fund application system was quite complex and that the variety of funding options launched concurrently made it difficult to bid for everything they wanted to. Nevertheless, since the SHDF funding widened to include leaseholder properties they felt this could have a significant impact on their ability to deliver retrofit in mixed tenure properties.

> *"The application process is quite onerous. It does take a hell of a lot of time. I get that it's complex and they need commitment. A lot of them [different funding competitions] come out at the same time, which makes it a bit tricky." Local authority representative*

Key takeaways

1. Resident trust in the local authority is critical for progressing retrofit works.
2. Adopting a more responsive and collaborative dialogue with residents (and in particular leaseholders) will help build trust.
3. There is however a balance to be struck in the consultation process. It is important for residents to have their views heard, and for the local authority to show that they are listening and acting. However, residents do not bring expertise in retrofit measures, not in the contractual nature of their lease. Support provided by the local authority on these areas may help.
4. Ultimately, different stakeholders on mixed tenure properties will have different priorities relating to financial, environmental, thermal comfort and practical aspects of retrofit works. The local authority considers these through a longer-term lens, while residents take a more short-medium perspective. Understanding these perspectives – where they overlap and where they conflict – is fundamental to finding a solution that works for all.

Case Study B

Case Study B is a Housing Association (HA) based in the North of England. They have 37,000 properties of all different types, most of them located in West Yorkshire. The urban development used as the focus of the case study is a low rise building from the early 1960s comprising 12 flats, three of which are leasehold properties which were bought from the HA by their social tenants. The development houses exclusively older people, with all residents aged over 60. The majority of the flats are one-bedroom flats with individual gas boilers for heating.

The building recently had external wall insulation installed, utilising SHDF funding. Around 90% of the work was completed before the end of 2022 but the project was experiencing some delays due to bad weather. Plans for further HA-funded retrofit works for air source heat pumps had to be delayed until further notice due to lack of adequate electric infrastructure in the building. This is discussed in further detail below.

A summary of the research activities conducted between December 2022 and January 2023 is shown below:

- Four staff interviews, including external contractor for wall insulation
- Three resident interviews, of which one was a leaseholder
- Five resident survey responses
- Site visit to review the existing fabric and energy efficiency potential of the stock

Quality and thermal comfort in mixed tenure environments

There was consensus among residents interviewed that the building is of good quality and well maintained by the HA as well as by the residents themselves. The communal gardens are well taken care of, with all residents involved in tending to this over the warmer months.

Both social tenants and leaseholders were content with the quality of the flats, and considered themselves lucky, especially given some stories they had heard about other social housing providers and developments. The HA had recently updated the floor coverings and electric lights (in the stairwell and outside the development) alongside the more major energy efficiency works being conducted.

The contractor reported that, given the development was built in the 1960s, the walls were concrete without any cavities, and therefore unlikely to provide a high standard of insulation in the first instance. However, all tenants remarked that the new external wall insulation improved their thermal comfort.

> *“Yes I’m happy with the building and the materials. Originally the house could get very very cold in winter, but since the cladding has been installed it’s clearly warmer. There’s definitely a clear change.” Tenant, 5-10 years*

One resident living in a corner apartment mentioned that their flat had a mould problem due to a patch of humidity in the kitchen. The humidity and mould affected the wall paint and it was flagged to the HA, but all parties anticipate that the external wall insulation will solve this. At the time of the interview it was too soon to tell if the problem was fixed, but the tenant reported that the temperature no longer dropped in the kitchen the way it used to.

Nobody interviewed was aware of the EPC rating of their flat, but the HA staff were confident that the external wall insulation would place all of them at or above C.

Relationships with private landlords, social housing providers and neighbours

Residents were generally positive about their housing association. They have several ways of contacting the HA with queries, concerns or complaints. For general issues they have a neighbourhood officer that they can contact, though some of the residents interviewed were not personally familiar with them and opted to call the general contact number for the HA and be redirected as appropriate. One leaseholder mentioned that they rarely contact the HA as they do not manage her property and they never had issues with the wider building maintenance or management. For all refurbishment works there is a project specific tenants liaison officer who is in charge of all communication, as well as an on-site project coordinator, and contractor site manager, both of whom are on site at least one day a week.

Relationships between neighbours were regarded as positive, with no differences in interactions between tenants and leaseholders.

Attitudes towards retrofit works

The HA, with a team dedicated to achieving Net Zero, run yearly schemes with and without government funding, installing regular or light measures such as underfloor insulation and deeper retrofit such as external wall insulation.

The commitment to achieve their Net Zero targets, recently rebranded as an effort to reduce tenants' bills, enjoys support from the board and senior partners of the HA. This recent rebranding in communications from "decarbonisation efforts" to a focus on reducing costs for their tenants was based on resident engagement. Residents seemed to respond better to upgrade works when they were informed of the benefits and impacts that would affect them directly. Since being introduced, this alongside clear, early and regular communication with the residents and working with trusted or well-reviewed contractors, has resulted in a slight increase in the openness of residents towards proposed works.

> *"The initial letter is good. The induction process delivered in person face to face, people being able to put a face to a name and meet the tenants liaison officer and the project manager, that's important. That way they have all contact details necessary… If people see that you're on site twice per week and try to deal with issues you get a better response from the people and they feel like you care about them and what's going on." Tenants Liaison Officer*

Residents' attitudes towards retrofit works were generally positive, given they made their homes warmer and reduced their energy bills. The leaseholder interviewed was also in favour of retrofit works at the whole building level, particularly as they had not been asked to contribute towards the costs. The HA had a view that if they conduct building level works in mixed tenure developments with a low percentage of leasehold properties, then it would be unfair to ask the leaseholders to bear part of the costs since they would have installed them regardless. They have previously avoided tackling projects in mixed tenure developments with a higher percentage of leaseholds due to constraints of external funding streams.

Residents did not express any problems with the installation of the external wall insulation in terms of granting access to their properties, the communications or quality of the cladding works themselves, highlighting the amount of information they received prior to the works. The only point of contention was that the works were not able to finish before the winter holidays, leading to further delays into the new year due to weather complications.

Potential and plans for future retrofit works

As mentioned, the HA were also planning to have air source heat pumps installed in the development. This was meant to happen at the same time as the external wall insulation but funded via the HA itself, rather than the SHDF. However, they discovered the energy infrastructure in the building was not enough to sustain that, so it needed to be updated before any such works could be undertaken. The plans have been put on hold for now.

Although they were not opposed to heat pump installation, residents expressed concerns about foregoing their gas supply. Concerns related to the cost of electricity compared to gas, the need to switch to bigger heaters, the water not being as hot, and the implications for keeping warm and cooking should there be an electricity outage. Such concerns were exacerbated by the fact that the heat pumps were only planned for the social tenant properties. There were some social tenants who were somewhat begrudging of the leaseholders who were able to retain their gas supply.

The leaseholders themselves were content with not being included in the heat pump installation works as long as they would not be affected negatively in any way by the changes to their neighbours.

> *"I understand why they're doing it, but if they're going to change it to all electric… Electricity price is sky high now, more costly than gas. But the man explained we'd have a third of the cost with the heat pump than we do now, and if that's true then that's good." Tenant, Five years*

All residents interviewed mentioned the need to replace windows which although double glazed, were old and draughty. They had expected the windows to be updated before or at the same time as the external wall insulation installation, to prevent any future change or windows damaging the new cladding. Interviews with HA staff were conducted before the resident interviews so they could not be prompted to enable understanding of why this decision had been made, but they made no mention of plans to upgrade the windows.

> *"They updated electric, lights and did the cladding yet they have not updated the windows, which are a bit old. They are double glazed but the quality is questionable as they let in draught. It seems rather negligent not to update windows with the cladding." Tenant, Five years*

On a smaller scale, the HA did also decide to insulate the loft of the building as part of the same scheme as the external wall insulation. Residents were told works for that should start in February 2023.

Residents' ability and willingness to pay or contribute towards the retrofit

Most residents were pensioners with annual incomes of under £31,000 and would therefore not be required to contribute to retrofit. The one leaseholder interviewed had an income of under £31,000 per year and mentioned that she would not be able to contribute to the cost of any major retrofit works (which she would not be required to do on any SHDF funded project given her income).

She mentioned the need to upgrade the windows but the fact that she is a leaseholder and the HA own the freehold means that they would be in charge of changing the windows since leaseholders cannot make any changes to the outside of the building. She felt that she should only be obliged to pay towards upgrades if she was given some discretion in how the changes were implemented.

> *"If they are doing all the windows the same I think they should pay for them. If I pay for them I would like to have a say over what they are or look like. My understanding is that the window frames are theirs and the glass is mine, so maybe I would be willing to pay for the glass, but I would not want to pay at all, really." Leasehold owner, 20+ years*

There was little familiarity with the SHDF, nor with any other government grants or funding streams for any retrofit works. In their communications to residents about the wall insulation, the HA had mentioned it was government funded, but the leaseholder did not recall the fund being named.

Key takeaways

1. Social housing providers should consider the wider implications undertaking retrofit work to certain properties and not others. In this case the proposal to install heat pumps in social rented properties has caused some antagonism for some social tenants, who would prefer the gas supply that the leaseholders have. If it is necessary for works to be applied to certain properties and not others, it is important when communicating to be mindful of the potential 'us and them' mentality that could develop. Communication needs to be clear and transparent, articulating the rationale for differences between properties, as well as conveying the benefits of the work in a targeted fashion. In addition, understanding what drives tenant and leaseholder attitudes to retrofit works (and understanding that these might differ across developments) is important to consider in communications.

2. With (potential) disruptions a key factor in residents' views of retrofit works, due consideration should be given to whether a variety of retrofit works can be undertaken in one go.
3. A clear distinction for this case study was the age group of residents. With all residents over the age of 60, there were more pressing concerns that retrofit works would not represent a good investment for them; the return on investment can be a key factor for leaseholders.

Case Study C

Case Study C is a local authority within a London borough who have participated in the SHDF. The development that was used as the focus of the case study was a low-rise building built in the 1960s. With 367 houses, the split between private leaseholders and social housing is roughly 30:70. Sizes of the houses range from studio apartments to multiple bedroom flats. In the last few years the development has been managed by a new Tenant Management Organisation.

The development has not yet had any block-wide retrofit works conducted, but plans are in place for triple glazing windows, as well as cavity wall and roof insulation. There are also plans to replace the temporary boiler with a new Mechanical Ventilation with Heat Recovery system.

A summary of the research activities conducted between September and December 2022 are shown below:

- Three staff interviews
- Three resident interviews
- 15 resident survey responses
- Site visit to review the existing fabric and energy efficiency potential of the stock

Quality and thermal comfort in mixed tenure environments

The development is a series of three horizontal blocks of flats, with communal spaces between the three buildings. Each block features a number of open spaces between columns of flats. Whilst previously unroofed, a roof was added to these spaces to limit heat loss.

Owing to a lack of investment preventing further upgrades, the infrastructure and utilities are in a poor state of repair. Most walls and roofs are uninsulated, while the windows are single glazed and require replacing. The blocks are served by a communal heating system which is part supplied by a temporary boiler and pipework requires complete replacement. Houses where there were exposed walls, including those facing open communal areas, had especially low levels of insulation. Most apartments have an EPC rating of D, although tenants participating in the research were typically unaware of their property's rating.

Staff noted that kitchens and bathrooms are damaged due to age, although such issues were less prevalent in leaseholder apartments where refurbishments have occurred.

> *"Some of the flats have not had any work done to them since the 1970s, so kitchens and bathrooms often fall into disrepair." Council representative*

Alongside concerns with crime and anti-social behaviour, the most common issue reported by residents was the poor energy efficiency of their home, as well issues with general maintenance. As leasehold properties have not been reliant on cyclical works, they tend to be in a better condition internally. However, these differences tend to be minor and are not related to the fabric of the property, as the council has responsibility for this. This means windows, walls and roofs cannot be changed without council approval.

Refurbishment plans

Internal roof and wall insulation for each home was currently in the process of being installed, in addition to triple glazed windows and a proposal is being developed to replace the communal heating system with a district heating system. The proposal suggests implementing a renewable energy centre, which would use a heat exchanger to extract heat from air, heating the liquid that is sent through the pipes to each home.

There is also a proposal to replace the ventilation system with individual Mechanical Ventilation with Heat Recovery (MVHR) systems (survey respondents across tenure types had mixed views concerning the thermal comfort of their home; just as many reported that they found it easy to heat their home as those who said they found it difficult. However, alongside concerns with crime and anti-social behaviour, the most common issue reported by residents was the poor energy efficiency of their home, as well issues with general maintenance. This suggested that for those that struggled to heat their home, it was their primary concern, thus highlighting the need for refurbishment.

As leasehold properties have not been reliant on cyclical works, they tend to be in a better condition internally. However, these differences tend to be minor and are not related to the fabric of the property, as the council has responsibility for this. This means windows, walls and roofs cannot be changed without council approval.). By using a heat exchanger to keep the hot air from escaping the building, the new system limits heat loss whilst bringing in fresh air. Not only should this lead to universal ventilation for the flats, but also improve their energy efficiency.

Figure 1: Mechanical Ventilation with Heat Recovery (MVHR) system in show flat

Owing to the extensive nature of the proposed refurbishments, the process is complex and funded from different sources (including the SHDF, GLA, and DLUHC). The refurbishment would require temporarily moving those in social housing into different apartments within the development during the works. This has proved to be a considerable barrier to progress, with staff reporting that they have only managed to refurbish a few apartments.

A lack of information regarding the status of certain apartments and their utilities (e.g. which apartments have gas boilers to support with heating) creates complexity for the Tenant Management Organisation (TMO) in identifying which works should be prioritised.

Relationship between residents, TMO and the Council

Many residents had a negative perception of the local authority, based on their experience with the previous TMO, and the lack of investment in the development leading to the disrepair described earlier. Where there have been efforts to improve utilities and infrastructure, residents have considered them to be to a poor standard, unsuitable or rushed. Residents did note that they felt that services had improved recently but were disappointed that these steps only seem to have been taken following the Grenfell fire. The communal boiler which was in place frequently did not work and the gas pipes that ran through the building were considered a fire hazard.

This has led to a feeling of mistrust, which the new TMO is seeking to redress. The current TMO has made a number of efforts that have been supported by residents to varying degrees, particularly focussing on the communication and customer service they provide. The current team is considered friendly and responsive, with residents pointing to their effective resolution of an issue relating to external contractors lying about the work they were doing in installing temporary boilers. The TMO also works on-site, after a recommendation from a tenant.

> *"For the last four years I have been able to go to the office if I need to… and to go to higher-ups if needed to." Leaseholder, 20+ years*

For the approach to refurbishment, the TMO has adopted a co-design process (works can only proceed with 50% approval from residents), involving pilot homes and extensive consultation. However this has generally not proved as successful as anticipated:

- The pilot homes show residents how resident homes might look following the retrofit, inviting residents to provide feedback, however our research suggests few have.
- As part of the consultation process, numerous surveys with tenants have captured their views on a range of design features, such as window types and colours. This has led to survey fatigue, and a perception that 'a lot of ideas [were] being thrown about' without much resulting action, due to the slow progress of the overall refurbishment.
- Meetings have supplemented the surveys, but tenants flagged these were often arranged at short notice or with little advertisement, meaning attendance is low. This has raised fears about the transparency of the process, and a concern that refurbishment might benefit some residents more than others.
- Leaseholders had said that they felt their views weren't being listened to via this consultation, and that the council already knew what approach it wanted to take. This feeling may be being exacerbated by a lack of tailored communications to leaseholders (communications with residents was consistent across both leaseholders and social tenants) which don't address leaseholder's specific concerns or viewpoints.

Views on retrofit works

Residents were mixed in their support for energy efficiency measures, with mixed awareness of the concept of energy efficiency. Whilst all who were interviewed recognised the environmental and financial value of improving energy efficiency, some raised concerns about specific measures. For example, one tenant did not trust smart meters as they were concerned that if there was a power cut they would also lose heating. However, there was common consensus that wall insulation and triple-glazed windows would be valuable additions.

While leaseholders reflected that they were more likely to be concerned with the costs of retrofit works than those in social housing (as they were aware that they may need to contribute to some of these costs), their primary concern was the disruption that the works would cause.

More generally, refurbishment efforts seem to be affected by a historic lack of trust among residents with the council (one leaseholder felt for example that the retrofitting works were part of a council plan to gentrify the development and move out its existing residents; another flagged that they would not trust the quality of any works conducted due to prior experiences in the development). This sentiment appeared to be shared by both social tenants and leaseholders. However, leaseholders had the additional frustration of not being able to adapt their property as they would like. One leaseholder felt that "the council doesn't give you much of a choice" regarding changes to the development, so even if they do not consent to the works being conducted, they feel the council will "bully" them into getting them done.

> *"It's not what do I want, it's what the council wants." Leaseholder, eight years*

> *"[I'm unsure of supporting works due to] the disruption and the quality of work. I have little faith in the council doing a good job." Leaseholder, eight years*

Without leaseholder support, the TMO is struggling to move forward with its plans. Staff did note that if they do not hear back from 50% of residents, they would use the responses to decide upon if they had a mandate to move forward. However, they cannot do this immediately and must give residents the chance to respond. Given the 'survey fatigue' and the feeling from residents' that their voice is not relevant, especially amongst leaseholders, this is limiting the responses they are receiving, and likely limiting the positive responses they are getting, and slowing down the co-design process.

Residents' ability and willingness to pay or contribute towards the retrofit

The council is hoping to use SHDF funds to pay for the majority of the works to keep costs for leaseholders at an affordable level. The walls, roof and MVHR heating upgrade will be mandatory for leaseholders to be installed, and therefore mandatory for them to support costs, but additional upgrades offered will be optional.

When asked about this in the research, leaseholders demonstrated minimal awareness of the need to pay, suggesting a lack of clarity in council communications. The primary concern in contributing financially to retrofitting measures is trusting the standard of the works from the council and timeliness to fix related repairs in the future.

Key Takeaways

1. The ability to undertake retrofit works in the development has been inhibited by the residents' lack of trust, towards the council, and their ability to ensure the works undertaken are done to a sufficient quality and with minimal disruption.
2. The council has provided the same communication to leaseholders and social tenants. This appears to have led to leaseholders feeling overlooked and contributed to the sense that they do not have a say in what goes on in the development and that the council will do as it pleases. Social housing providers must strike a balance of addressing different residents' concerns whilst ensuring consistency of messaging.
3. Improving communications has helped to reduce the level of distrust in recent years. However, the current volume of consultations has actually served to disengage some residents from refurbishment works. Indeed, it was clear from the interviews that residents typically had quite broad views of energy efficiency measures and were not able to engage in detailed conversations regarding retrofit works.
4. Following news coverage and national government response to the Grenfell Tower fire, residents interviewed for this case study were frustrated by the idea they would need to pay for measures to be installed that they see as safety requirements.

8. Conclusions

This qualitative research sought to develop a greater understanding of how those who own and/or live in mixed tenure housing developments experience mixed tenure living, and how they have or would react to retrofit works within their social housing development.

Key findings

Trust in those conducting works impacts willingness to take part in works. When leaseholders and tenants had low trust in their social housing provider, they were less likely to want to participate in works, and communications had less impact. Cultivating this trust, particularly among leaseholders, is an important step in gaining consent for retrofit works in mixed tenure environments.

Communications ideally need to encourage a two-way dialogue between leaseholders and those responsible for the works. That said, care should be taken at giving residents too much 'say' over decisions, given their lack of technical expertise, and short-medium term perspective. This may present as a greater challenge within mixed tenure developments with different tenures having different motivations and concerns regarding works. In addition, if it is necessary for works to be applied to certain properties and not others, it is important when communicating to be mindful of the potential 'us and them' mentality that could develop within mixed tenure developments.

Individuals need relevant and timely information upfront and during works. Private landlords, owner-occupiers and private renters all need to be informed upfront about the extent of the works being suggested and benefits of being included (e.g. increase comfort, reduced energy bills, increased property value and so on), and then kept informed of progress at 'key' points. Private landlords and owner-occupiers would only be comfortable making a decision about works if they were made aware of the costs associated and financing support available.

Those living in mixed tenure developments have different motivations to agreeing to participating in works. Owner-occupiers would be more willing to contribute to costs if they believe their thermal comfort will increase and they will see a return on investment via lower energy bills (as soon as possible). Private landlords are also more willing if they can be sure the value of their property will increase. These motivations differ somewhat to social providers who are more likely to be motivated by implementing long term solutions that support their net zero/sustainability targets (as well as meeting their duty of care to tenants with regards to thermal comfort). Understanding these perspectives – where they overlap and where they conflict – is fundamental to finding a solution that works for all.

There is low awareness and understanding of grants such as SHDF. Some private landlords thought that grants such as SHDF did not extend to them, would be means tested (and therefore they would not qualify) or only covered measures which are not suitable for their properties e.g. loft and cavity wall insulation within first floor flats. This lack of understanding

limited the impact of government funding landlords' willingness to consider energy efficiency works. This will need to change if private landlords and owner-occupiers are going to be able to agree (or disagree) to works with all relevant information and knowledge of financial support available.

Awareness of the SHDF and associated cap had a positive impact on willingness to contribute to costs of works. Both private landlords and owner occupiers were more open to the idea of contributing to costs if these were capped to a third of the costs / £3,300. The SHDF cap also increased some owner-occupiers' openness to agreeing to larger scale works because they felt they would be getting a 'better deal' agreeing to larger scale works, with their cost still being capped at the maximum contribution. However, despite the cap private landlords with multiple properties were unlikely to agree to works on more than one of their properties at a time.

More information is needed other than the pure cost contribution required. Among both private landlords and owner-occupiers, there was not an aversion towards contributions, but their willingness to pay was dependent on other factors. Owners needed to know the cost-benefit value of the works and the length of time it would take for the savings enabled by the upgrade works to offset the initial contribution.

Potential further research

This research provides a starting base for understanding how private landlords, owner-occupiers and private renters experience mixed tenure developments and their willingness to agree to (and contribute to costs) energy efficiency works. It identified several factors that can impact an individual's willingness to agree to and/or contribute to cost of works (such as anticipated disruption, communications received and timeliness). However it also suggested that the following contextual factors also impact willingness:

- Relationships between leaseholders and social housing providers.
- The scale of works being planned.
- The ratio of social and non-social tenants.
- The demographic of residents.
- Familiarity with energy efficiency measures

There would therefore be value in:

1. Identifying the most common archetypes of mixed tenure developments based on such factors.
2. Co-developing recommendations for how to approach retrofit works within these environments.

This could increase social housing providers ability to engage with residents and landlords and increase willingness to agree to retrofit works.

This publication is available from: www.gov.uk/government/publications/understanding-mixed-tenure-in-english-social-housing

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