



Liverpool City Region
All Party Parliamentary Group



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Heseltine Institute for Public
Policy, Practice and Place

Liverpool City Region All-Party Parliamentary Group

Research Paper No.3

The Future of Housing in Liverpool City Region: Sustainable, Affordable, Healthy Homes

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Introduction

The UK has the oldest housing stock in Europe. Over 20% of homes in England are over 100 years old, with a further 15% built before the end of the Second World War.¹ This presents a unique challenge for policymakers attempting to address issues such as poor energy inefficiency, ill health and the impacts of climate change. While new homes will play a part in addressing these challenges, it is anticipated that the vast majority of the homes that people will inhabit in 2050 already exist today.² That means significant improvements will be needed for the homes people are living in today if they are to remain habitable in thirty years.

The current energy crisis in Europe has placed a particular spotlight on the important role played by housing in keeping energy use – and costs – at a manageable level. Housing is also crucial for the UK to meet its target to reach net zero carbon emissions by 2050. Residential buildings contribute around 15% of overall greenhouse gas emissions.³ Retrofitting older properties with insulation and other energy saving measures is central to this policy challenge, but variation in residential tenures presents difficulties – 63% of dwellings in the UK are owner-occupied, with the remainder split across social rented (18%) and (private) rented (19%).⁴ However, over the last decade, investments in home energy efficiency have declined significantly⁵.

¹ Piddington, J., Nicol, S., Garrett, H. and Custard, M. (2020) *The housing stock of the United Kingdom*. BRE Trust. https://files.bregroup.com/bretrust/The-Housing-Stock-of-the-United-Kingdom_Report_BRE-Trust.pdf

² Royal Academy of Engineering (2010) *Engineering a low carbon built environment*. https://raeng.org.uk/media/o4wfypqy/engineering_a_low_carbon_built_environment.pdf

³ Housing, Communities and Local Government Committee (2021) *Local government and the path to Net Zero*. Fifth report of session 2021-22. 26 October 2021. House of Commons. Available at: <https://committees.parliament.uk/publications/7690/documents/80183/default/>

⁴ Piddington et al (2020)

⁵ Carbon Brief (2022) 'Analysis: cutting the 'green crap' has added £2.5bn to UK energy bills'. <https://www.carbonbrief.org/analysis-cutting-the-green-crap-has-added-2-5bn-to-uk-energy-bills/>

In light of this context, this paper assesses the housing challenges faced in Liverpool City Region (LCR), and the powers and funding that might be required to meet those challenges. In common with other English city-regions with devolution deals, LCR is responsible for some housing and planning powers, and is currently developing its Spatial Development Strategy. This paper does not cover issues related to planning and development, but instead focuses on policy related to existing housing stock.

The state of housing in Liverpool City Region

Liverpool City Region’s housing market is comprised of around 720,000 dwellings. Latest ONS figures suggest that, whilst most homes are owned by the occupiers, almost one in four properties in the city-region are now rented, with an increase of almost 10,000 homes in the private rental sector since 2012 (Figure 2). Whilst there are now very low levels of local authority housing in LCR (around 175 properties in total), some 20% of housing in the city-region is provided by housing associations.⁶

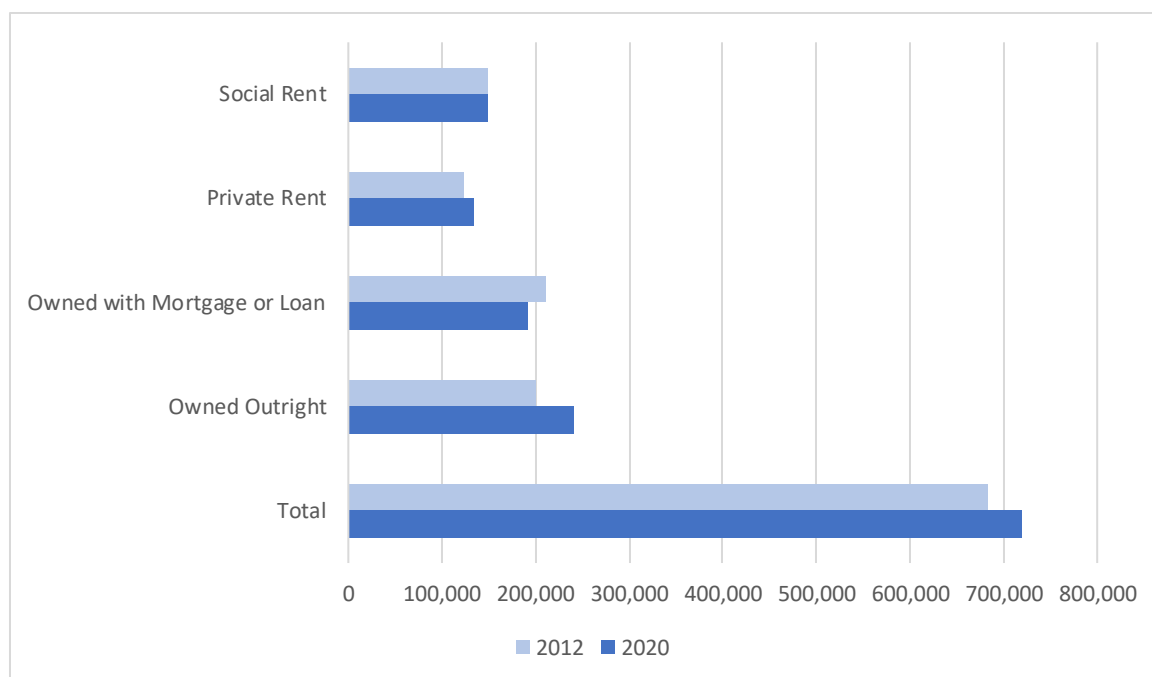


Figure 2: Estimates of dwellings by tenure, Liverpool City Region.⁷

Compared to other areas of the country, housing in LCR is relatively affordable. Full-time employees could typically expect to spend around 6.6 times their workplace-based annual earnings on purchasing a home in Liverpool City Region, compared with England as a whole where the average house price is 9.1 times the average salary.⁸ Moreover, local plans propose to deliver over 20,000 new homes across LCR over the next five years, representing a level

⁶ Department for Levelling Up, Housing and Communities (2022) Live tables on dwelling stock <https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants>

⁷ ONS (2022) Subnational estimates of dwellings and households by tenure, England: 2020. <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/researchoutputs/subnationaldwellingstockbytenureestimatesengland2012to2015/2020>

⁸ ONS (2022) Housing affordability in England and Wales: 2021 <https://www.ons.gov.uk/peoplepopulationandcommunity/housing/bulletins/housingaffordabilityinenglandandwales/2021>

of housing delivery that is 10% higher than Government's calculated housing need.⁹ This places LCR in distinct contrast with other areas of the UK facing the challenge of low affordability and low supply.

The nature of the housing challenge in Liverpool City Region is, instead, driven by low housing quality, with a high proportion of ageing, inefficient housing that offers insufficient choice for residents.

Ageing housing stock

LCR has ageing housing stock, with a high proportion (and, in certain areas of the city-region, high concentration) of properties built before 1945, often to what today would be considered poor standards. Indeed, more than 50% of private sector homes in LCR are estimated to pre-date World War 2, with a quarter built before 1919 (Figure 3).

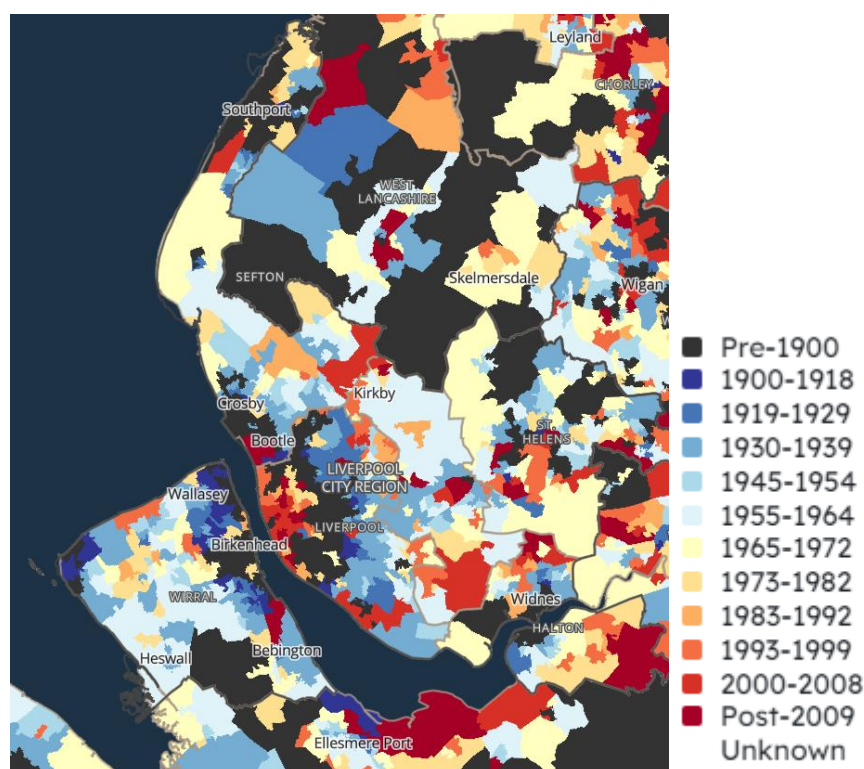


Figure 3: Modal build period for residential dwellings, Liverpool City Region.¹⁰

Poor efficiency

LCR's housing stock is also typified by thermal and energy inefficiency. Latest figures suggest that, of those assessed, only around 41% of homes in the city-region have an Energy Performance Certificate (EPC) at band C or above by Energy Efficiency Rating (EER). This measure is estimated from characteristics of the property and its services, with numerical ratings banded from A to G (A being the most energy efficient). Such figures suggest that a

⁹ Liverpool City Region Combined Authority (2019) *Our housing ambitions for the Liverpool City Region, 2019-2024*. <https://www.liverpoolcityregion-ca.gov.uk/wp-content/uploads/LCRCA-HOUSING-STATEMENT-2019.pdf>

¹⁰ Consumer Data Research Centre (2022) Dwelling Modal Age <https://mapmaker.cdrc.ac.uk/#/dwelling-age?d=0101100&lon=-2.8229&lat=53.4722&zoom=9.6>

significant proportion of properties continue to fall below the threshold of decent energy efficiency (Figure 4).

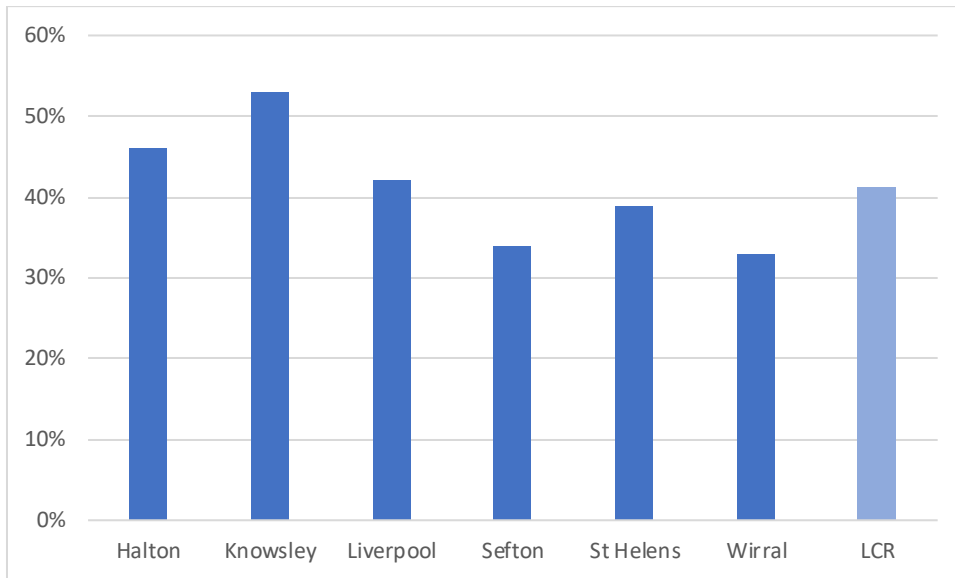


Figure 4: Percentage of EPCs at band C and above (all dwellings, by EER).¹¹

Lack of choice

Housing choice in LCR is characterised by a higher than average proportion of lower value houses (Council Tax Bands A and B) than that found nationally (Figure 5). This is exacerbated in some areas of the city-region by an under supply of good quality one-bedroom homes – whilst in others choice is constrained for higher earners and growing families who wish to remain in their community but are unable to find larger and better-quality properties to move in to. Lack of choice in local housing markets is also particularly acute for elderly residents, with much existing housing stock currently ill-suited to meet the accessibility and adaptability standards required by an increasingly ageing population.¹²

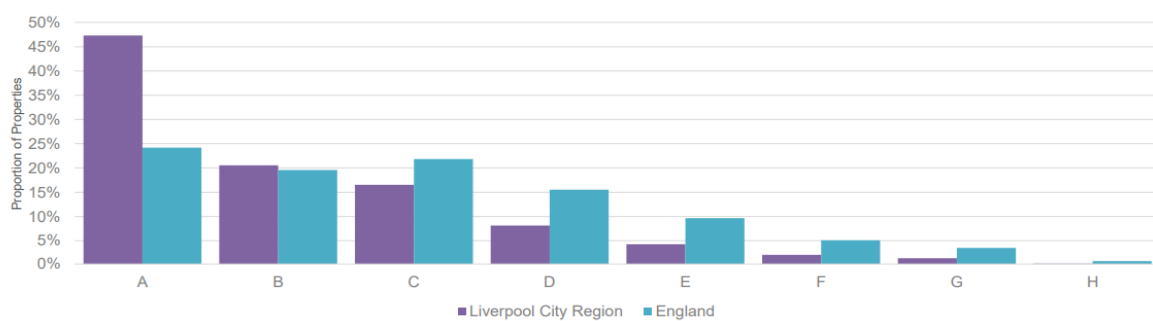


Figure 5: Housing Stock by Council Tax Band, 2020.¹³

¹¹Department for Levelling Up, Housing & Communities (2022) Energy Performance Certificates <https://app.powerbi.com/view?r=eyJrIjoibm90ODk0ODktMDAxMS00NGQ2LWJmYTItMTA2MzA4YjkzMjBjIiwidCI6ImJmMzQ2ODFwLTljN2Q0NDNkZS1hODcyLTl0YTJjM50TVhOCJ9&pageName=ReportSectionabd88355d2a923eae50>

¹² Liverpool City Region Combined Authority (2019)

¹³ Liverpool City Region Combined Authority (2021) Liverpool City Region Plan for Prosperity Evidence Base. <https://www.liverpoolcityregion-ca.gov.uk/wp-content/uploads/Plan-for-Prosperity-Full-Evidence-Base.pdf>

Implications of LCR's housing quality challenge

Poor quality housing is a shared challenge faced by the North of England as a whole. Almost a quarter of all homes in the North (24%) were built before 1919, of which 42% have been found to fall short of the decent homes standard.¹⁴ Moreover, recent analysis by Centre for Cities has identified a distinct North-South divide in terms of housing stock energy efficiency.¹⁵ In nearby Greater Manchester, recent analysis by IPPR North has revealed particular challenges around housing quality in the private rented sector (PRS), with approximately 25 per cent of all PRS homes in Greater Manchester are classed as 'non-decent'. However, for LCR the scale and scope of the city-region's housing quality challenge should now be considered particularly critical, undermining the prosperity, sustainability, and wellbeing of local communities.

Key implications for Liverpool City Region as a result of poor-quality housing stock include:

Poor health and wellbeing

Poor health outcomes represent a significant challenge for Liverpool City Region. The estimated healthy life expectancy at birth within most areas of LCR is around two years below the national average, while one in four people of working age in LCR suffers from a limiting health condition of some sort.¹⁶ Cold, damp, and cramped housing is known to increase the risk of poor health, and illnesses such as asthma and cardiovascular disease.¹⁷ In addition, issues such as damp and disrepair have been highlighted as contributing factors for mental health conditions such as anxiety and depression.¹⁸ Given the context of an increasingly aging society, it will be even more crucial that we ensure our homes, and our housing systems, are designed to promote good health and wellbeing throughout people's lives, from cradle to grave.

Environmental sustainability

Poor thermal and energy efficiency across the city-region's housing stock requires higher rates of energy usage to heat and fuel people's homes, contributing to LCR's carbon emissions and to the global climate emergency. Although carbon emissions from housing have fallen significantly since 2005, the domestic sector still makes up around a third of Liverpool City Region's carbon footprint. Moreover, much of the reduction in carbon emissions from the domestic sector so far has been the result of decarbonising national grid electricity rather than improving the efficiency of homes. Since 2014 emissions from domestic gas have been increasing, suggesting that efforts to phase out domestic gas will also be critical to decarbonising LCR's housing as the city-region moves towards net zero by 2040.¹⁹

¹⁴ The Smith Institute (2016) The hidden costs of poor quality housing in the North. <https://www.northern-consortium.org.uk/wp-content/uploads/2018/10/The-Hidden-Costs-of-Poor-Quality-Housing-in-the-North.pdf>

¹⁵ Rodrigues, G. (2022) The North-South divide of the Energy Price Guarantee <https://www.centreforcities.org/blog/the-north-south-divide-of-the-energy-price-guarantee/>

¹⁶ Liverpool City Region Combined Authority (2021).

¹⁷ Marmot, M. (2020) *Health equity in England: the Marmot review 10 years on*. https://www.health.org.uk/publications/reports/the-marmot-review-10-years-on?gclid=Cj0KCQiA_c-OBhDFARIsAIFg3ezLkuf8jh_H84t5ardOLQHzfjIRJsolGNxM7eKyZ08Nw2JTcJFVXQkaAn87EALw_wcB

¹⁸ Shelter (2017) The impact of housing problems on mental health. https://england.shelter.org.uk/professional_resources/housing_and_mental_health

¹⁹ Liverpool City Region Combined Authority (2021).

Community stability

Poor quality housing has been associated with higher than average population churn rates, undermining longer term neighbourhood sustainability, prosperity, and quality of life. In particular, in areas where there is limited quality and choice in the housing market, processes of 'escalator churn' can lead to households moving on from communities as soon as they are able to, whilst those areas left behind continue to battle against deprivation.²⁰ This kind of disruption can have a particular impact on children, with students who move house frequently during their school years more likely to register lower grades than those who don't. Evidence suggests that there are areas of Liverpool City Region that have seen significant rates of population churn over the last decade (Figure 6).

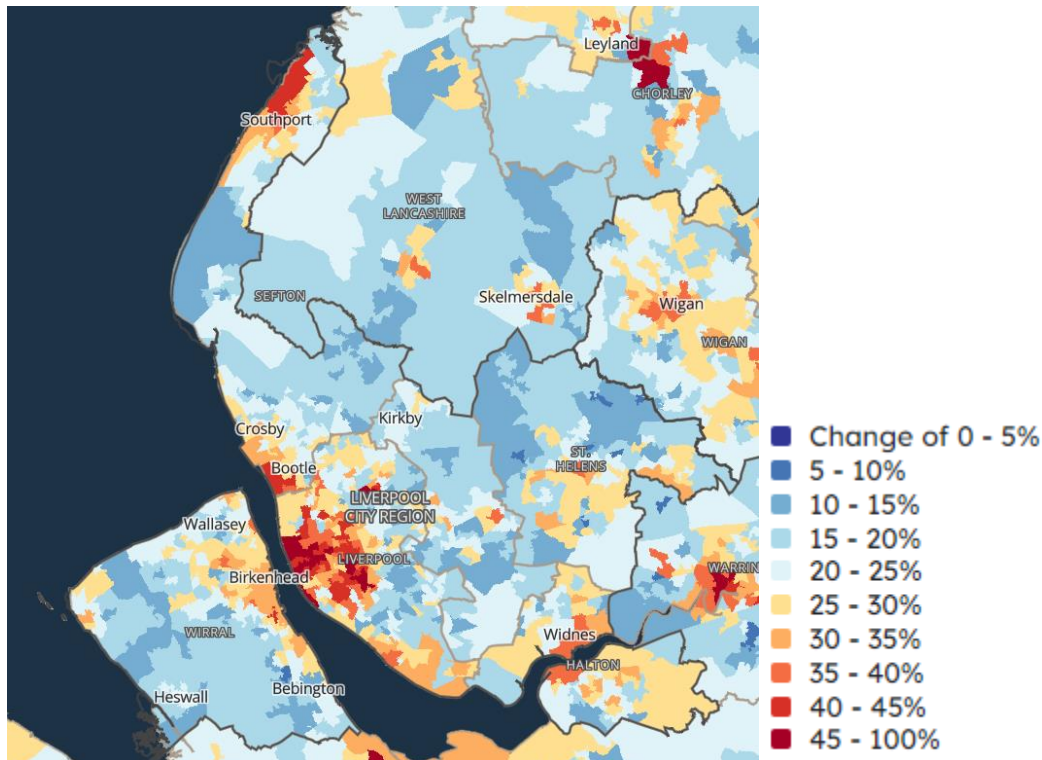


Figure 6: Estimated proportion of households that have changed, 2011-2020.²¹

A barrier to prosperity

Combined, these wider impacts of poor-quality housing can have a significant impact on the economy, both in LCR and the wider UK. By contributing to poor health, substandard housing in Liverpool City Region also drives rates of economic inactivity that are among the highest in the country. Some 32% of all economically inactive residents have reported that this is due to long-term sickness, the third highest share of all LEP areas.²² Health-related inactivity not only

²⁰ Department for Communities and Local Government (2010) Population churn and its impact on socio-economic convergence in the five London 2012 host boroughs.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/6331/5231109.pdf

²¹ Consumer Data Research Centre (2022) Residential Mobility Index (Churn).

<https://mapmaker.cdrc.ac.uk/#/population-churn?d=0101100&m=chn2011&lon=-2.8012&lat=53.4772&zoom=9.89>

²² Liverpool City Region Combined Authority (2021).

limits LCR's productivity and prosperity, it also prevents people from realising their full potential and accessing opportunity.

Meanwhile, the inefficiency of local housing is driving high rates of fuel poverty in Liverpool City Region, particularly in the most deprived areas of LCR. However, in 2020, every district of the City Region recorded a higher proportion of households in fuel poverty than the rest of England (Figure 7). Fuel poverty significantly undermines quality of life for residents, making it more difficult for people to heat and power their homes. High energy costs as a proportion of income also undermine community wealth and help to exacerbate financial insecurity in LCR's most deprived areas.

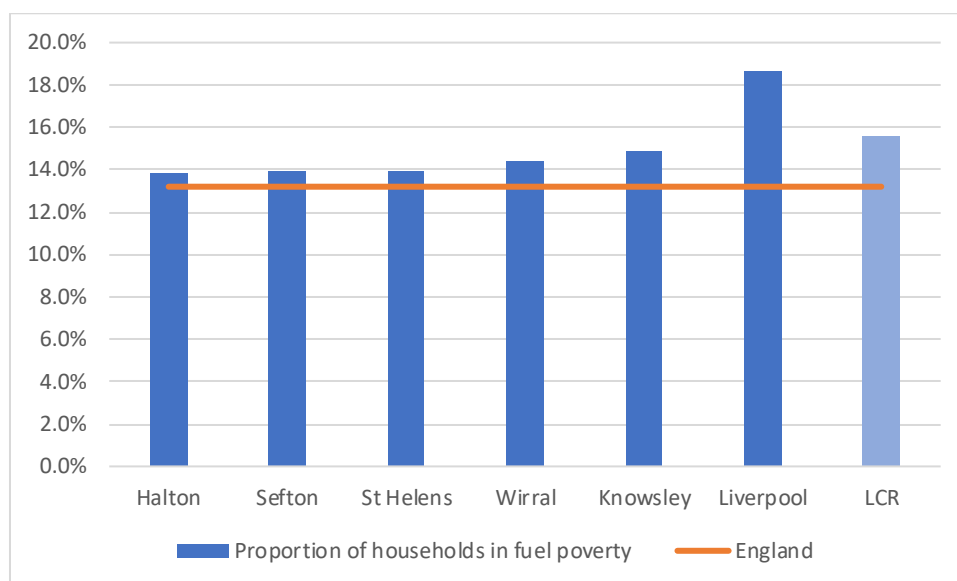


Figure 7: Proportion of households in fuel poverty, 2020.²³

Together, such impacts of the housing quality challenge in Liverpool City Region contribute to growing pressure on public spending. For example, analysis by the Local Government Association suggests that poorly insulated homes will be leaking £12.7 billion of energy over the next two years, with a third of that cost being incurred by the Government under its recently announced Energy Price Guarantee.²⁴ Similarly, poor quality housing in England has been found to be costing the NHS £1.4 billion a year in treatments.²⁵ Urgent action is now required to address this challenge, and improve housing quality.

Retrofit in LCR: barriers and opportunities

The previous sections have identified the particular problems facing housing in LCR. While poor quality, ageing housing is a problem across the UK, LCR's housing stock is particularly

²³ Office for Health Improvement and Disparities (2020) Wider Determinants of Health.

<https://fingertips.phe.org.uk/profile/wider-determinants/data>

²⁴ Local Government Association (2022) Lack of action on leaky homes will cost taxpayers billions – new LGA analysis. <https://www.local.gov.uk/about/news/lack-action-leaky-homes-will-cost-taxpayers-billions-new-lga-analysis>

²⁵ Chartered Institute of Environmental Health (2021) Poor quality housing costs NHS over £1bn a year. <https://www.cieh.org/ehn/housing-and-community/2021/november/poor-quality-housing-costs-nhs-over-1bn-a-year/>

old and energy inefficient. While this clearly represents a significant challenge for the city-region, there are also opportunities for LCR to pioneer a renewed focus on housing quality and the benefits that could derive from investment in the sector. There are, however, significant barriers to what can currently be achieved in retrofitting LCR housing stock to improve quality and energy efficiency. These include:

- *Funding*: funding for social housing retrofit is a major issue for local authorities and housing associations. Private finance is available but unreliable, meaning significant public funding is required for a major retrofit programme.²⁶ The National Housing Federation estimates that £36bn is needed to bring all housing association homes in the UK up to a minimum EPC energy rating of C, and to install clean heat technology (such as electric heating) in all 2.7 million housing association homes.²⁷
- *Capacity*: While there is extensive expertise within the construction sector and scope to scale up the retrofit market, at present there is uneven distribution of construction firms across the UK with capacity to carry out retrofit work. The churn of energy policy over the last decade has created some reluctance among SMEs to invest in the retrofit market.²⁸ Industry bodies have called for better strategic planning to accelerate national preparedness for net zero.²⁹ There are also supply chain issues: for example, 68% of ground source heat pumps currently used in the UK are imported.³⁰
- *Skills*: Linked to this capacity issue, skills within the construction trade will need to be updated to meet the demand for residential retrofit. While many of the skill competences are aligned with traditional construction trades and techniques, the challenge for the construction sector will be to anticipate demand and ensure the workforce is sufficient to meet it.³¹

Many of these issues are discussed in LCRCA's Housing Statement, which sets out the importance of improving existing housing stock as well as promoting development of high-quality new homes.³² LCRCA has secured £11.1 million as part of the Government's Social Housing Decarbonisation Fund, with an initial 1,250 social housing properties set to be retrofitted to improve energy efficiency. In total, the Combined Authority is investing £54.5 million in retrofitting over 5,000 homes. However, as metro mayor Steve Rotheram has recognised, there are over 700,000 homes across LCR and significantly more funding will be required to meet local ambitions.³³ Furthermore, current proposals only target social housing, not privately rented or privately-owned properties. Together, these comprise almost 80% of LCR housing stock. Alongside funding for public retrofit programmes, policy will also need to

²⁶ Shand, W. (2022) 'Social housing retrofit: building a dynamic delivery programme'. *Heseltine Institute policy briefing*. 2 (12). <https://www.liverpool.ac.uk/media/livacuk/publicpolicyampractise/jo/PB,212,combined.pdf>

²⁷ Savills (2021) *Decarbonising the housing association sector: costs and funding options*. Report for the National Housing Federation. <https://pdf.savills.com/documents/Funding-Options-Report.pdf>.

²⁸ Shand (2022)

²⁹ CITB (2021) *Net zero and construction: perspectives and pathways*. <https://www.citb.co.uk/about-citb/construction-industry-research-reports/search-our-construction-industry-research-reports/net-zero-and-construction-perspective-and-pathways>

³⁰ BEIS (2020) *Heat pump manufacturing supply chain research project*.

<https://www.gov.uk/government/publications/heat-pump-manufacturing-supply-chain-research-project>

³¹ Shand (2022)

³² Liverpool City Region Combined Authority (2019).

³³ Liverpool City Region Combined Authority (2022) '£11.1m boost to tackle fuel poverty and boost energy efficiency in the Liverpool City Region's social housing'. <https://www.liverpoolcityregion-ca.gov.uk/11-1-million-boost-to-tackle-fuel-poverty-and-boost-energy-efficiency-in-the-liverpool-city-regions-social-housing/>

incentivise improvements to energy efficiency and housing quality in privately owned sectors of the housing market.

Current retrofit funding available for LCR includes the Green Homes Grant, the Social Housing Decarbonisation Fund, and the Affordable Homes Programme. Earlier this month, the Combined Authority also announced that free energy-saving measures – such as improved insulation, heat pumps and solar panels – are to be provided for around 2,500 low-income households in LCR through the £28.5 million Sustainable Warmth Fund³⁴. The LCR Housing Investment Strategy set out how such funds are to be utilised and co-ordinated to achieve the best value in investment.³⁵ Many of LCR's most energy inefficient homes are in the areas with the highest levels of deprivation. Many of these places are also home to long-standing, established communities with strong local identities and ageing populations. Any programmes to improve housing quality must therefore be sensitive to local needs. Given the age of many of the most energy inefficient homes in LCR, retrofit programmes are likely to be technically challenging and costly. However, there are some recent success stories which demonstrate how retrofit programmes might be scaled up:

Lessons from elsewhere:

A recent Heseltine Institute policy briefing assessed how Camden Council is rolling out retrofit for the 33,000 social rented properties in the borough. Four elements are identified as central to the success of this programme. First, a detailed profile of existing housing stock in the borough is being developed to accurately measure costs and potential carbon savings. Second, procurement for contractors was based on their ability to carry out the necessary work at scale, and provision of local jobs and training opportunities. Third, a full assessment of employment needs was carried out early in the process to align employment advice and local training provision. Finally, governance arrangements have been put in place to ensure strong partnerships with external stakeholders and across council departments.

Shand, W. (2022) 'Social housing retrofit: building a dynamic delivery programme'. Heseltine Institute policy briefing. 2 (12). <https://www.liverpool.ac.uk/media/liverpool/publicpolicyandpractice/ipo/PB,212,combined.pdf>

Germany has recently announced plans to spend €56bn on improving building energy efficiency between 2023 and 2026, with much of this funding set to renovate buildings in the bottom 25% of energy performance.

Edie (2022) 'Germany's €177bn climate budget to focus on building retrofit'. <https://www.edie.net/germanys-e177bn-climate-budget-to-focus-on-building-retrofit/>

In the Netherlands, prefabricated insulated facades are being installed on residential buildings to minimise the costs of large-scale retrofit programmes.

Marx, W. (2021) 'Entire buildings can be wrapped in jackets to save energy'. <https://www.scientificamerican.com/article/entire-buildings-can-be-wrapped-in-jackets-to-save-energy/>

³⁴ Liverpool City Region Combined Authority (2022) Free energy-saving measures available to low-income households across the Liverpool City Region <https://www.liverpoolcityregion-ca.gov.uk/free-energy-saving-measures-available-to-low-income-households-across-the-liverpool-city-region/>

³⁵ Liverpool City Region Combined Authority (2020) Housing Investment Strategy. <https://moderngov.merseytravel.gov.uk/documents/s49751/Enc.%201%20for%20Liverpool%20City%20Region%20Housing%20Investment%20Strategy.pdf>

Current funding arrangements are likely to be insufficient to address LCR's housing retrofit needs. Any major policy proposal to modernise the UK's poor-quality housing stock will need to address privately owned and privately rented homes as well as social housing. However, delivery of these schemes will need to be coordinated and delivered locally to ensure outcomes are aligned with the priorities of existing communities and ensure the benefits of investment are experienced locally in terms of jobs, growth and investment.

Key questions

1. What are the current barriers to rolling out a more extensive retrofit programme in Liverpool City Region?
2. How can Liverpool City Region use its existing powers and resources to retrofit more homes?
3. What additional powers and resources does Liverpool City Region need to achieve this?
4. What role can the private and voluntary sectors play in improving Liverpool City Region's housing stock?
5. What are Liverpool City Region's key asks of government on housing?

About the Heseltine Institute for Public Policy, Practice and Place

The Heseltine Institute is an interdisciplinary public policy research institute which brings together academic expertise from across the University of Liverpool with policy-makers and practitioners to support the development of sustainable and inclusive cities and city regions. The Institute has a particular focus on former industrial cities in the process of regeneration, such as the Liverpool City Region. Through high impact research and thought leadership, knowledge exchange, capacity building, and evidence based public policy, the Institute seeks to address key societal challenges and opportunities pertaining to three overarching themes: 21st Century Cities, Inclusive and Clean Growth, and Public Service Reform.

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