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Retrofitting Social Housing in the West Midlands Combined Authority (WMCA) Area: Overcoming Procurement Barriers for a Net-Zero Future

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Retrofitting Social Housing in the West Midlands Combined Authority (WMCA) Area: Overcoming Procurement Barriers for a Net-Zero Future¹

Executive Summary

The UK's commitment to achieving net-zero emissions by 2050 demands a transformation in the social housing sector. Before that, the UK aims for all social homes to have an Energy Performance Certificate (EPC) rating of Band C or higher by 2030. The local and regional authorities within the West Midlands Combined Authority (WMCA)² area have made notable progress, with 61% of social housing properties reaching this standard by 2024. However, persistent challenges—including limited funding, fragmented supplier markets, and coordination complexities—threaten the pace of retrofitting efforts.

This research, led by Annum Rafique, investigates these barriers, focusing on how innovative procurement practices can facilitate large-scale retrofitting. By addressing key issues such as financial hurdles, quality assurance challenges, and coordination gaps, the study highlights the importance of alternative financing solutions, streamlined procurement processes, and enhanced stakeholder collaboration.

This brief outlines the primary obstacles facing local authorities and housing providers, drawing from industry reports, policy reviews, and initiatives led by local and combined authorities within the WMCA area. It also examines actionable initiatives by the local and combined authority in the WMCA to unlock funding, enhance supply chain capacity, and foster the skills required for energy-efficient retrofits. Central to these efforts is the role of public procurement. Effective procurement strategies ensure the efficient allocation of resources, drive innovation, and foster competition among suppliers, enabling the delivery of cost-effective, high-quality retrofitting solutions.

The overarching aim is to develop robust best practices that empower local authorities to meet energy efficiency targets, improve residents' living conditions, and contribute to the transition towards a low-carbon future. By addressing these challenges head-on, the WMCA and other regional bodies can drive meaningful progress in decarbonising social housing and supporting the UK's net-zero ambitions.

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²The West Midlands Combined Authority area includes Wolverhampton, Dudley, Walsall, Sandwell, Birmingham, Solihull, Coventry and Worcestershire.

Introduction

Despite recent economic growth, Birmingham still faces significant socioeconomic challenges. The drive to increase the energy efficiency of the housing stock in the UK is an admirable but difficult objective. This objective becomes particularly difficult when retrofitting older social housing properties. In 2019, the Committee on Climate Change (CCC) published a report, [“UK Housing: Fit for the Future”](#) to evaluate and assess the readiness of the country’s housing stock for climate change challenges (CCC, 2019). The report underscored the need to reduce emissions and ensure homes are resilient to future climate impacts.

Key recommendations focused on five areas: improving performance and compliance, addressing skills shortages, retrofitting existing homes, constructing energy-efficient new buildings, and securing sufficient funding. The report highlighted the importance of innovative retrofitting solutions and effective procurement strategies to transform the social housing sector into a sustainable, future-proof asset.

Despite progress, areas like the WMCA still face considerable challenges in upgrading their housing stock to meet current efficiency standards. By 2041, the WMCA aims for all homes to be energy-efficient with low-carbon heating (WMCA, 2020). Moreover, the UK government has announced that the target for social housing is to have an EPC rating of at least C by 2030 (Elmhurst, 2024). As of 2013, only 51% of social housing in the WMCA area met this standard, which has risen to 61% by 2024 (ONS, 2024). However, this rate of improvement suggests that, without significant acceleration, WMCA’s social housing will struggle to meet the net-zero target by 2041.

The latest CCC report, [“Progress in reducing emission 2024. Report to Parliament”](#), reflects the slow adoption of energy efficiency measures. Heat pump installations, for example, increased by just 4% in 2023, from 58,000 to 60,000. Encouragingly, applications for the Boiler Upgrade Scheme rose by 62% in early 2024, following a grant increase from £5,000 to £7,500 in October 2023. Since its launch, the scheme has supported 24,000 installations, accounting for one-fifth of the total over two years. However, to meet the government’s target of 600,000 annual installations by 2028, installation rates must grow tenfold, with a significant focus on retrofitting existing homes. For example, only 1% of homes are currently heated by heat pumps, which must rise to 10% by 2030. The success of countries like France shows that rapid scale-up is possible (CCC, 2024).

Public procurement plays a pivotal role in overcoming these challenges, particularly in addressing barriers such as supply chain disruptions, labour shortages, and the complexity of retrofitting older properties. Through innovative procurement solutions, local and regional authorities can drive economies of scale, enforce quality standards, and encourage market innovation.

Retrofitting social housing presents a unique opportunity to explore how procurement strategies can address gaps in funding, skills development, and coordination, paving the way for transformative progress in the housing sector. Integrating public procurement into retrofit strategies ensures both cost-effectiveness and alignment with broader climate and policy objectives.

This brief aims to establish the importance of retrofitting social housing within the broader

IPEC research themes of innovative procurement, economic resilience, and low-carbon transitions in urban areas. Framing the challenges and opportunities in retrofitting within this wider context highlights the issue's relevance for policymakers and researchers. As the discussion progresses, it will delve deeper into specific procurement challenges and their implications for retrofitting. The following sections will examine the financial, quality, and coordination barriers hindering retrofitting efforts and outline the WMCA's innovative approaches to addressing these obstacles. This brief aims to provide insights that can inform policy and practice in the drive towards energy-efficient social housing.

Procurement Challenges in Retrofitting Social Housing: Navigating Complexity for a Sustainable Future

Our investigation into the procurement barriers in retrofitting social housing reveals a complex and challenging landscape. Many obstacles present themselves, especially for local authorities, from navigating limited budgets and ensuring adherence to quality standards to tackling coordination issues and adjusting to policy changes.

Identifying the challenges to procurement is crucial because these barriers often hinder the successful implementation of energy-efficient retrofitting projects. Without a clear understanding of the barriers, developing procurement strategies that effectively address them becomes difficult. However, ***the significance of innovative approaches***

becomes apparent within this intricate landscape. In this section, we explore three key challenges in detail and in the next section, we highlight some specific examples of how local and regional authorities within the WMCA area have approached and addressed these barriers.

1. Breaking the Financial Barrier: Unlocking Funds for Transformative Retrofits

Funding constraints represent a significant hurdle in the pursuit of large-scale retrofitting initiatives. Limited government funding and the high upfront costs associated with sustainable construction practices have led to budgetary constraints and cost overruns (Dyson, 2023; UKGBC, 2020). Registered social landlords (RSLs) heavily rely on government grants, even for single-measure interventions, as their budgets are insufficient to undertake comprehensive retrofit programs. Moreover, the short-term nature of government funding schemes and misaligned bidding processes can further impede progress, delaying action on core housing delivery initiatives. Overcoming these financial obstacles requires exploring alternative financing models, such as project financing or cost-sharing mechanisms, while ensuring that additional cost burdens do not strain tenant relationships (Nanda *et al.*, 2022). The key challenges are:

- a. Meeting tight budgets and getting value for money with limited government funding
- b. Cost overruns exceed budgets due to unexpected delays or changes
- c. Accessing public funding or financing for large retrofit projects

2. Quality Quandaries: Navigating Data Complexities, Fragmented Markets, and Skills Gaps

Ensuring consistent quality across large and diverse housing portfolios presents a formidable challenge. While RSLs have access to modelling tools, the varying data quality on their housing stock hinders a comprehensive understanding of pathways to net-zero emissions and the identification of viable properties for deep retrofit projects (Dyson, 2023; UKGBC, 2020). Additionally, the fragmented supplier market and the complexity of dealing with different property types further exacerbate quality assurance issues. Inconsistent metrics and standards in procurement specifications make it difficult to effectively evaluate and compare retrofit solutions offered by various suppliers and contractors. Compounding these challenges, the cutting and changing of UK government policy has led to a skills gap in housing design, construction and the installation of new technologies (UKGBC, 2020). The lack of retrofit experience and expertise within organisations and the local supply chain hinders the adoption of sustainable building practices and the successful implementation of deep retrofit. Four key challenges are identified in quality assurance:

- a. Ensuring quality across large, varied housing portfolios
- b. Complexity due to property types and fragmented supplier market
- c. Inconsistent metrics and standards in procurement specifications
- d. Lack of retrofit experience in the local

supply chain

3. The Coordination Conundrum: Aligning Stakeholders and Policies for Seamless Retrofitting

Coordinating the numerous stakeholders and contractors involved in large-scale retrofitting projects presents a significant challenge. The lack of joint strategies and poor communication between local authorities and housing providers can hinder the effective implementation of retrofit initiatives (UKGBC, 2020). Additionally, focusing on upfront costs rather than whole life cycle costs in procurement processes can lead to short-term thinking and suboptimal decision-making. Smaller and innovative suppliers often face barriers in accessing procurement frameworks due to excessive paperwork and complex claiming processes. Furthermore, policy shifts and changes in funding guidelines mid-project can disrupt budgets and plans, leading to delays and cost overruns (Nanda *et al.*, 2022). Overcoming these coordination hurdles requires fostering collaborative relationships, streamlining procurement processes, and promoting greater policy certainty to deliver retrofitting solutions successfully. Key challenges are summarised as follows:

- a. Lack of joint strategies across local authorities and providers:
- b. Focus on upfront vs whole life cycle costs in procurement:
- c. Barriers for smaller/innovative suppliers in procurement frameworks:
- d. Policy shifts impacting budgets and plans mid-project

WMCA’s Approach: Overcoming Retrofit Roadblocks

The local and combined authorities in the WMCA area are taking proactive steps to address the funding gaps and support the transition to low-carbon heating sources and energy-efficient homes. The Social Housing Decarbonisation Fund (SHDF) plays a pivotal role, representing a substantial investment by the UK government to upgrade social housing. This initiative aligns with the Green Finance Taskforce’s recommendations on green mortgages and sustainability loans, facilitating retrofits that reduce emissions and improve living conditions.

The area’s involvement in the SHDF program has secured funding to support projects to deliver warm, energy-efficient homes, reduce carbon emissions and fuel bills, tackle fuel

poverty, and support green jobs in the WMCA area. Since the introduction of SHDF, the WMCA area has updated 1,163 homes under Wave 1 and 1,510 homes under Wave 2 (DESNZ, 2024). These homes previously had EPC Ratings below C. Approximately 39% of the area’s 253,000 social homes (98,670 homes) have an EPC lower than C (ONS, 2024).

Figure 1 presents the projected number of homes in the WMCA area reaching EPC Band C based on different upgrade scenarios from 2022 to 2046.

- **Baseline:** It represents the current trend in upgrading homes. Under this scenario, the homes continue to be upgraded according to the baseline trend, with an increase in the number of homes per year due to economies of scale, improved processes, and technological advancements. Under this scenario, the target of 98,670 homes reaching EPC Band C is achieved by 2046.

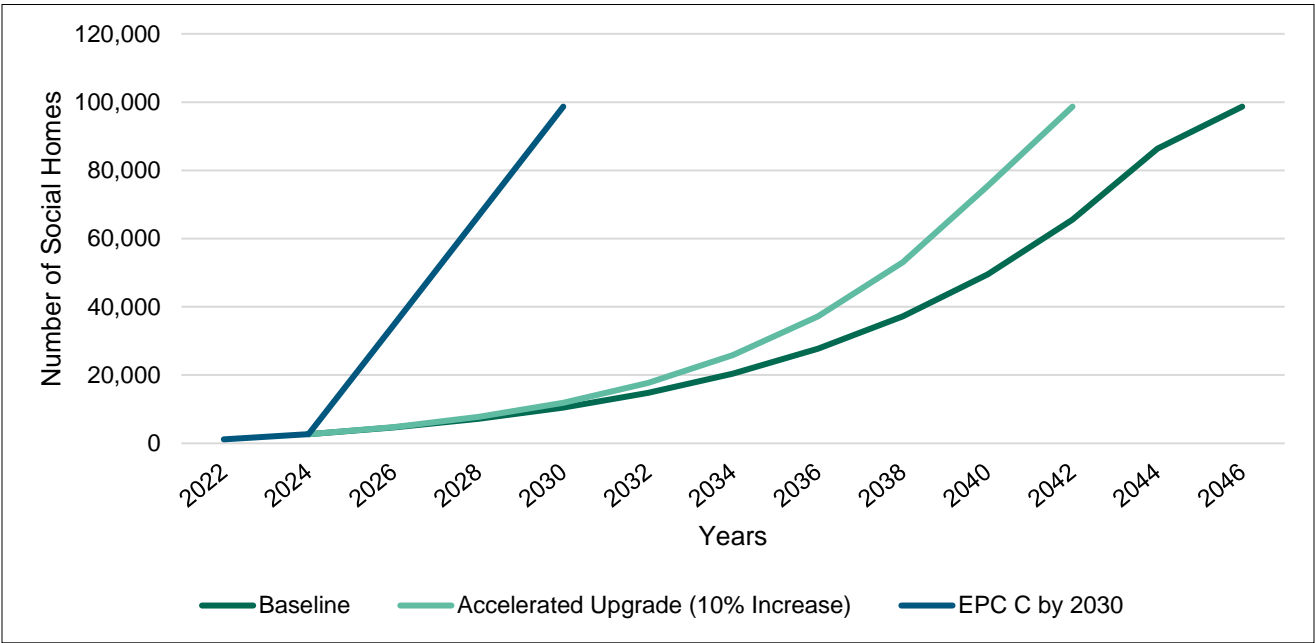


Figure 1: The projected number of homes reaching EPC Band C based on different upgrade scenarios from 2022 to 2046

- **Accelerated Upgrade (10% Increase):** This projects a scenario where the rate of upgrades increases by 10% annually in addition to the baseline increase. This accelerates the timeline, with all homes reaching EPC Band C by 2042.
- **EPC C by 2030:** This represents the target scenario where all homes must be upgraded by 2030. This line shows a steep trajectory, indicating a much faster upgrade rate compared to the other scenarios. The region must accelerate the pace by upgrading at least 16,000 homes annually to meet the target of upgrading all social homes to EPC Band C by 2030.

Building on SHDF progress, the local and combined authorities within the WMCA area have broadened their efforts to ensure long-term sustainability through strategic funding, quality assurance, and workforce development. By securing significant investments and fostering cross-sector collaborations, the WMCA area is accelerating retrofit efforts while establishing a foundation for future advancements in low-carbon housing. Some of the key examples of how local and regional authorities within the WMCA area have implemented innovative solutions to overcome procurement challenges to drive retrofit success are:

- **Securing Funding:** Since 2018, the WMCA area has secured over £700 million in devolved housing and employment land funds from the government, complemented by its own residential and commercial development loan funds (WMCA, 2023a). Leveraging this investment and its expertise in brownfield regeneration, the region is championing the construction of new

homes that adhere to strict specifications for low-carbon emissions, energy and water efficiency, and climate resilience.

- **Ensuring quality:** Quality assurance remains central to the area's efforts to construct sustainable, energy-efficient homes. In 2023, the WMCA published its ["Our Homes for the Future Strategy,"](#) which synergises the area's ambition for building zero-carbon homes with its proven capabilities in advanced manufacturing (WMCA, 2023b). By leveraging the latest digital technologies and construction innovations, WMCA aims to deliver high-quality, energy-efficient, warm, healthy, and sustainable housing stock while fostering new business opportunities, investments, and job creation.
- **Addressing the skills gap:** The local and combined authorities in the area recognise the importance of addressing the skills gap in housing design, construction, and implementing new technologies to support the shift towards a low-carbon future. To build the necessary expertise, the WMCA has partnered with educational institutions and industry stakeholders to launch retrofit bootcamps (WMCA, 2022d). These bootcamps equip engineers and professionals with the skills to install and maintain green technologies like heat pumps, solar panels, and advanced insulation systems. By fostering collaboration between academia and industry, the WMCA is developing a pipeline of skilled workers essential for advancing low-carbon housing initiatives.

- **Holistic Approach to Net-Zero Targets:**

The area's holistic approach to achieving net-zero targets integrates domestic and commercial retrofit programs, the establishment of Net Zero Neighbourhoods (WMCA, 2022c), and Local Area Energy Planning (WMCA, 2022b) to enhance energy infrastructure. These initiatives optimise investments and maximise the co-benefits of low-carbon housing.

- **Fostering Collaboration through Partnerships:**

Understanding that success requires collaboration across sectors, the WMCA founded the Energy Capital partnership—a platform that unites public and private entities to pool expertise, innovation, and financial resources (WMCA, 2022a). This collaborative effort ensures effective delivery of retrofitting projects and accelerates the area's progress towards a low-carbon, sustainable future.

The local and combined authorities within the WMCA area have adopted a comprehensive and innovative approach to overcoming the barriers to procurement for retrofitting social housing. By fostering innovation, collaboration, and investment, the area is advancing its net-zero targets, creating economic growth, and enhancing community well-being across the West Midlands.

Conclusion - Next Steps and Future Outlook

Retrofitting social housing to meet the UK's energy efficiency and net-zero targets is a complex but important challenge. The WMCA area has demonstrated that innovative procurement strategies of sustained investment and cross-sector collaboration are essential to overcoming barriers such as funding gaps, quality assurance, and coordination challenges. By securing substantial funding, fostering workforce development, and leveraging advanced technologies, the WMCA area is paving the way for sustainable, low-carbon housing.

As part of a larger study aimed at identifying and addressing key barriers and challenges in procuring innovative retrofitting solutions for social housing portfolios, the next stage of the research will involve engaging with key stakeholders in the sector to gather feedback.

The primary objective is to develop a set of best practices and recommendations that local authorities can use to overcome these challenges more effectively. We will also aim to identify the factors that encourage local authorities to adopt innovative procurement solutions to overcome the barriers, potentially leading to cost savings, improved quality outcomes, and enhanced efficiency in retrofit project delivery.

The study will also consolidate lessons learned from past and ongoing retrofit projects and will include best practice recommendations, common pitfalls, and strategies to navigate challenges during retrofitting initiatives.

Based on the findings, the project aims to equip local authorities with the resources and information necessary to drive the adoption of innovative retrofitting strategies. These efforts will raise living standards for social housing residents, enhance energy efficiency, and reduce carbon emissions.

Beyond immediate procurement challenges, the study will also explore the broader implications of net-zero retrofitting policies on the regional economy and supply chain. By understanding the economic impacts—such as job creation, skills development, and opportunities for innovation—this research will provide valuable insights into how retrofitting initiatives can contribute to sustainable economic growth and community resilience.

Ultimately, the goal is to support local authorities in delivering energy-efficient, low-carbon housing that improves living conditions, reduces emissions, and accelerates the transition to a net-zero future. Through collaboration, sustained investment, and the adoption of innovative procurement strategies, the West Midlands has the potential to become a national leader in social housing decarbonisation. By addressing procurement barriers head-on and fostering innovation, the WMCA area can set a benchmark for other areas in the UK, showcasing how to balance environmental goals with economic and social priorities effectively.

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