

Making an impact on your decarbonisation strategy

June 2025



Executive summary

On 3 June 2025, Hugh James convened a cross-sector roundtable bringing together senior leaders from housing associations, developers, funders, and energy providers to discuss how to scale energy efficiency in UK housing. The conversation focused on what's already working, what barriers remain, and how collaboration can accelerate impact.

Key themes

- **Scaling Proven Solutions:** Participants shared real-world examples, such as Octopus Energy's Zero Bills model and Pobl Group's IHP-funded schemes, demonstrating that scalable decarbonisation is already underway. The challenge is no longer invention, but expansion.
- **Overcoming Structural Barriers:** Inconsistencies in planning guidance, procurement constraints, and fragmented regulatory interpretation, especially around the Welsh Development Quality Requirements (WDQR), are slowing progress. There was a clear call for clearer frameworks and aligned policy support.
- **Making the Economics Work:** Affordability remains a core issue. Without clearer cost-benefit evidence and finance-ready retrofit models, long-term investment is hard to secure. Lenders and developers called for better data and RICS Red Book valuations to reflect the increased asset value.
- **User-Centred Design:** Technology only delivers when tenants understand and trust it. Several attendees shared examples of advanced systems being misused or bypassed due to confusion. Simplicity, co-design, and engagement were highlighted as critical.
- **Skills and Supply Chain Capacity:** Delivery is being constrained by a lack of skilled labour and supply-side readiness. Early contractor involvement and greater investment in green skills training were seen as key enablers.
- **Cross-Sector Collaboration:** A standout theme was the value of collective learning. Delegates voiced the need to share both successes and failures across organisations to avoid duplication and accelerate adoption.

Priority recommendations

For Policymakers:

- Provide consistent, long-term planning and decarbonisation guidance across jurisdictions.
- Introduce performance-based funding and innovation grants.
- Establish a national retrofit strategy with standardised models.

For Funders and Finance Providers:

- Develop finance products linked to long-term savings.
- Support trusted retrofit frameworks with quantifiable returns.
- Fund pilot-to-scale transition programmes.

For Supply Chain and Skills Stakeholders:

- Invest in upskilling the retrofit and construction workforce.
- Encourage early collaboration between developers and manufacturers.
- Build capacity through long-term delivery pipelines.

For Housing Providers and Developers:

- Involve tenants early through co-design and communication.
- Prioritise simplicity and maintainability in retrofit solutions.
- Share data and learning across the sector to build collective confidence.

Introduction

This white paper is informed by a multidisciplinary roundtable hosted by Hugh James, entitled Making an Impact on Your Decarbonisation Strategy.

Held on 3 June, the event brought together senior development and sustainability leaders from housing, energy, and legal sectors to explore practical, long-term solutions to energy efficiency in the UK housing sector.

The event came at a critical moment, with the Future Homes Standard approaching implementation in England, and the Welsh Government's focus on net zero targets, the conversation focused on delivery rather than theory. Participants examined real-world projects and partnerships that are already producing measurable results, offering valuable insights for others seeking scalable solutions.

Attendees represented a cross-section of the housing and energy ecosystem:

- **Steve Blake** – Executive Director of Development and Regeneration at Bron Afon Housing Association
- **Mark Harris** – Planning and Policy Advisor for Home Builders Federation
- **Shane Jay** – Regional Technical Director at Lovell Homes
- **Akshita Lakiwal** – Net Zero Engagement Officer at Tenant Participation Advisory Service (TPAS)
- **Sarah Lavender** – Relationship Manager at Principality Building Society
- **Rhian Lees** – Senior Project Manager at Newydd Housing Association
- **Harriet Morgan** – Commercial property partner at Hugh James
- **Rhys Parry** – Director of Development (EAST) at POBL Group
- **Elfed Roberts** – Head of Sustainability and Innovation at POBL Group
- **Rhodri Williams** – Technical Director for Home Builders Federation

The session was chaired by **Caroline O'Flaherty**, Partner at Hugh James. Caroline brought a legal and strategic perspective to the discussion, ensuring that the insights and case studies explored were contextualised within current policy and procurement frameworks.

Three headline talks set the stage for the discussion:

Steve Barley, Partnerships Delivery Director at Edenstone Homes, provided a developer's perspective on integrating Zero Bills homes into private sector delivery. Drawing on Edenstone's 45-unit scheme at Ty Draw Road in Cardiff, Steve outlined how the collaboration with United Welsh and Octopus Energy enabled a pilot of four fossil-fuel-free homes designed to generate 120% of the energy they consume and therefore qualify for the Zero Bills tariff. This model, he noted, is not only environmentally sound but will continue to become more commercially attractive as the cost of the hardware becomes more competitive, offering a blueprint for similar partnerships across the sector. "It's a sustainable model," he explained, "because that surplus energy is sold back to the grid by Octopus which allows them to deliver this tariff".

Victoria Bolton, Director of Development and Regeneration at United Welsh, brought a housing association perspective to the roundtable, sharing her team's experience delivering Zero Bills homes in partnership with Octopus Energy and Edenstone. She outlined the practicalities of implementation, from securing funding and equipment to tenant engagement and long-term performance. "Zero bills for our customers, what a great thing to be able to offer," she said, underscoring the potential of aligned partnerships to support both affordability and sustainability in new developments. Victoria highlighted the need to ensure the figures worked across the scheme and was interested in the tenant power tariff.

Emma Fletcher, Low Carbon Director at Octopus Energy, shared her expertise on how innovation is being scaled across both social and private housing. Drawing on projects ranging from retrofit pilots to new-build schemes, Emma emphasised the importance of simplicity, commercial viability, and tenant usability. Her insights highlighted how Octopus's initiatives, such as the Zero Bills homes and Tenant Power Tariff, are helping housing providers deliver decarbonisation at scale while improving the resident experience.

The current landscape

The housing sector now stands at the forefront of the UK's drive toward net zero, where climate goals, housing demand, and the rising cost of living converge. With residential homes responsible for around 20% of national emissions, improving energy efficiency has become a legal, financial and societal priority.

Regulatory drivers are sharpening the sector's focus on decarbonisation. In England, the forthcoming Future Homes Standard sets a clear benchmark for new homes, aiming to significantly reduce carbon emissions from 2025. Meanwhile, in Wales, the government's net zero strategy requires a sector-wide shift, with particular emphasis on transforming older, less efficient housing stock, most notably within the social housing portfolio.

Yet these ambitions arrive at a time of significant economic and logistical constraint:

- **Retrofitting is complex and costly.** Delivering energy upgrades at scale is expensive, labour-intensive, and often disruptive to tenants.
- **New-build standards are rising.** Developers are under pressure to innovate without pricing homes out of reach for buyers or housing providers.
- **There is a skills gap.** A shortage of professionals trained in low-carbon construction and technology is slowing down delivery.
- **Funding remains a challenge.** Social landlords and developers must balance energy investments with wider cost pressures and competing priorities.
- **Tenant engagement is essential.** The effectiveness of new technologies hinges on their usability and acceptability by residents.

In this landscape, housing providers and developers are looking for models that are not only compliant, but cost-effective, scalable, and proven to work. This roundtable was designed to explore precisely that: what's working in practice, what's scalable, and how we can learn from each other to move further, faster.

The urgency to decarbonise the UK's housing stock is shaped by a convergence of challenges: an ongoing energy crisis, increasingly ambitious climate targets, and rising affordability pressures that impact both tenants and providers. These forces are placing immense expectations on the housing sector to deliver more efficient, lower-carbon homes, fast.

The pace of regulatory change is intensifying pressure on the sector. From 2025, the Future Homes Standard will legally mandate substantial emission reductions in new-build properties across England. In Wales, decarbonisation targets are driving urgent action to retrofit existing homes, especially those in the social housing sector, where outdated stock presents a major obstacle to meeting climate goals.

Meeting these goals, however, is no small feat. Retrofitting existing stock is logistically complex, costly, and disruptive, especially at the scale required. At the same time, the push for more energy-efficient new builds must be balanced with affordability, often within tight financial constraints. Developers and housing associations alike are navigating this shift while also grappling with limited funding opportunities, a shortage of low-carbon skills, fragmented supply chains, and the need to engage tenants meaningfully in the transition.

What's clear is that this cannot be achieved through policy alone. What's needed are replicable, cost-effective delivery models that align environmental goals with tenant outcomes and financial viability. This roundtable sought to identify precisely that, solutions that work, at scale, in the real world.

Key themes

The themes below capture the most prominent topics explored during the roundtable and show how they contribute to a lower-carbon, more efficient housing future.

Scaling what works

Delegates highlighted practical examples where decarbonisation is already underway. Pilot projects like those from Octopus Energy and United Welsh have shown the importance of achieving scalable decarbonisation is already in motion. “We now have a pipeline of 580 homes in Wales rolling out what started as a pilot,” shared Rhys Parry from Pobl, underscoring the move from one-off schemes to strategic rollout.

These approaches demonstrate how innovation can evolve from niche to norm. If replicated across the sector, they could significantly reduce household emissions, alleviate fuel poverty, and accelerate progress towards national decarbonisation targets.

Breaking barriers to delivery

Persistent challenges were discussed including inconsistent planning decisions, regulatory uncertainty, and procurement inflexibility. Delegates raised concerns about the fragmented rollout of the Welsh Development Quality Requirements (WDQR), with Emma Fletcher noting, “The interpretation of WDQR varies hugely between authorities, there needs to be consistency if we’re going to scale solutions and deliver faster.”

Addressing these systemic hurdles could unlock faster project delivery and help establish more consistent decarbonisation pathways across regions, smoothing the road to net zero compliance for both public and private sector developers.

The Cost Conundrum and Funding Models

The pressure to deliver affordability was palpable. “We’re now designing schemes around what funders will support, not what’s best long-term,” said one attendee. Calls were made for standardised retrofit models that lenders can reliably assess.

Sarah Lavender from Principality Building Society noted: “The Society understands that funding decarbonisation within the housing sector can be challenging and we

are exploring ways in which we can assist, whether that be within the Social Housing sector, the Home Mortgage market or in Residential Development where we already have a green product in operation.”

By rethinking funding models and improving visibility of long-term returns, the sector can unlock the finance needed for widescale retrofitting and innovation—paving the way for homes that are both sustainable and economically viable.

Learning from Experience

Attendees were open in sharing lessons learned. Some highlighted pilot homes fitted with advanced technology that tenants either didn’t understand or turned off due to confusion. “Don’t overengineer,” suggested Emma Fletcher. “People just want homes that are warm, easy to control and manage, and cheap to run.” There was agreement that usability and tenant support must be part of any successful retrofit strategy.

Learning from past missteps ensures future decarbonisation strategies are more user-centred and effective, helping avoid wasted investment and ensuring technologies deliver their full carbon reduction potential.

Centred on the Community

Several speakers emphasised that tenant engagement isn’t just a communications task, it’s an operational necessity. Victoria Bolton noted, “We had better results when we brought tenants into the process from the beginning, not just telling them what we’re doing but asking what they need”. Solutions included on-site open days, co-design approaches, and tenant energy champions.

By embedding community engagement at the heart of housing strategy, the sector can ensure greater adoption of energy-saving measures, contributing directly to emissions reduction while building tenant trust and satisfaction.

Key themes

The themes below capture the most prominent topics explored during the roundtable and show how they contribute to a lower-carbon, more efficient housing future.

Bridging the Skills and Capacity Gap

Skills shortages and strained supply chains continue to limit delivery. Attendees called for national investment in green skills training and better collaboration with FE colleges. Lovell and Edenstone shared early contractor engagement as a mitigation strategy to de-risk procurement.

Strengthening the green skills pipeline will enable faster roll-out of retrofit and new-build solutions, ensuring the workforce is ready to meet the rising demand for energy-efficient housing across the UK.

Collaborating for Success

Cross-sector collaboration was identified as the best way to avoid siloed innovation. The roundtable facilitated tangible connections between housing providers, funders, developers, and tech innovators with a view to future partnership.

Collaboration fosters shared learning, reduces duplication of effort, and accelerates adoption of best practices, enabling the entire sector to move further, faster towards a decarbonised housing landscape.



"There is no one fix solution. We need to align and learn together, so we don't keep duplicating effort."

Caroline O'Flaherty
Partner and Head of Social Housing,
Hugh James



Case studies and practical examples

The roundtable showcased projects and partnerships that are already delivering impact, demonstrating how innovation and collaboration can drive meaningful progress. Each case study offers a tangible example of how net zero housing can be achieved in different contexts.

Case Study: United Welsh & Octopus Energy Partnership

Victoria Bolton outlined how United Welsh's collaboration with Octopus Energy has enabled the rollout of 'Zero Bills' homes. These integrate solar PV, battery storage and smart heat pumps, delivering energy bill-free living to residents for five to ten years. United Welsh has focused heavily on tenant engagement, offering demonstrations and aftercare to ensure residents are equipped to use the systems effectively.

This model addresses both environmental and economic sustainability. It offers a template for housing providers looking to meet carbon reduction targets while supporting residents through the cost-of-living crisis.

Case Study: Pobl Group's Innovation Pathway

Pobl Group used the Welsh Government's Innovative Housing Programme to fund a range of tech-forward new builds, from timber frame modular homes to solar-powered flats at Parc Eirin, Tonyrefail and Gwynfaen, Swansea. Rhys Parry emphasised how pilot schemes have informed their long-term strategy: "We've embedded the learnings and now have full-scale delivery plans."

These examples show how iterative, pilot-to-scale delivery helps de-risk innovation. They also contribute directly to Wales's net zero ambitions by embedding energy-efficient technologies in mainstream development pipelines.

Case Study: Tenant Power Tariff

Emma Fletcher discussed the Tenant Power Tariff, a partnership between Octopus Energy and social landlords that offers tenants up to £200 in annual energy savings through solar panel integration.

Landlords benefit through surplus energy sold back to the grid, helping balance their investment case.

This approach aligns financial incentives with environmental outcomes, demonstrating how decarbonisation can work for tenants and landlords alike. It also makes clean energy more accessible to low-income households, supporting a just transition.

Case study: Design efficiencies in private and social housing

Private developers and housing associations shared how they're navigating regulatory pressures and cost constraints. "We're trialling fabric-first approaches before layering on tech," said Rhys Parry from Pobl Group, highlighting a social landlord's strategy to optimise performance before adding complex technologies. Meanwhile, Shane Jay from Lovell described how they're using 'design freeze' points and early planning meetings to avoid downstream costs.

These practical insights show how thoughtful sequencing of design, procurement, and delivery can reduce emissions while maintaining project viability. When combined with better planning consistency, these approaches help mainstream decarbonisation across both social and private developments.



Recommendations

The following recommendations have emerged from the roundtable as tangible actions for advancing energy efficiency across the housing sector. These recommendations aim to align policy, finance, delivery, and community engagement in support of the UK's climate goals.

For policy makers

Polymakers play a pivotal role in establishing the frameworks that shape the pace and quality of decarbonisation. Greater clarity, consistency, and long-term vision are essential to enable strategic investment and confidence across the housing sector.

For polymakers, the below recommendations offer tools to drive systemic change and unlock regulatory and planning efficiencies that accelerate decarbonisation.

- Develop clearer, standardised planning guidance on WDQR to reduce delays and promote consistency across local authorities.
- Introduce financial mechanisms (e.g. innovation grants, performance-based subsidies) to de-risk early-stage projects.
- Establish a national retrofit strategy, incorporating standardised models and long-term funding.

For housing providers and developers

Providers and developers are at the front line of delivery. Ensuring they have the tools, data, and confidence to scale solutions is key to accelerating the transition from pilot projects to full programme delivery.

For housing providers and developers, the following recommendations provide tangible, scalable strategies to accelerate decarbonisation in a resident-focused and financially viable way.

- Embed tenant co-design and energy education from the outset of retrofit and new build projects.
- Base investment decisions on performance data from successful pilots and case studies.
- Develop internal systems for measuring energy outcomes and sharing learnings across the sector.

For funders and financial institutions

The finance sector is critical to unlocking large-scale change. Better data, clearer metrics, and collaborative investment models will be central to mobilising capital towards decarbonisation.

For funders, the following actions help de-risk investment while aligning financial products with environmental performance outcomes.

- Work with government and providers to develop recognised green finance metrics.
- Offer tailored mortgage and loan products to support whole-home retrofits.
- Fund independent monitoring of retrofit and energy technology outcomes to support future investment decisions.
- Lobby change with RICS Red Book valuations to recognise increased worth of energy-efficient houses.

For supply chain and skills stakeholders

Capacity is a defining challenge for decarbonisation. A well-resourced, skilled and resilient supply chain ensures projects can be delivered at scale, to a high standard, and with continuity.

For supply chain and skills stakeholders, the below steps help build capacity and capability for future-ready delivery of decarbonised housing.

- Expand partnerships with educational institutions to deliver accredited green skills training.
- Promote early contractor involvement and joint procurement frameworks to boost efficiency.
- Encourage retention and upskilling through incentives and targeted recruitment programmes.

Conclusion

The roundtable reinforced a powerful and encouraging reality: while the pathway to housing decarbonisation is complex, the solutions are not out of reach. The tools, technologies, partnerships and pilots already exist. What's needed now is the collective will and coordinated action to move from isolated success to sector-wide transformation.

Across housing, finance, energy, and construction, attendees demonstrated not just appetite for change, but a readiness to share what's working, and what isn't. That honesty matters. Real-world progress relies on learning from both failure and success, and this roundtable surfaced a wealth of knowledge on both fronts.

Participants didn't just exchange ideas; they made practical connections and challenged each other to go further. From zero-bills homes and retrofit pilots, to calls for clearer planning guidance and smarter funding models, the conversation focused on solutions that work at scale and in real communities.

Achieving net zero in the housing sector will demand more than innovation. It will require regulatory clarity, tenant inclusion, consistent funding, and, above all, collaboration that extends beyond events like this. We must now embed these conversations into long-term strategic planning and delivery.

Hugh James remains committed to supporting that effort, by convening diverse voices, facilitating practical collaboration, and helping clients navigate the evolving legal and commercial landscape of decarbonisation. This white paper is just one step in a wider commitment to working alongside those driving positive change.

The message from the roundtable was clear: we can't afford to act in isolation. By building on each other's progress, we can accelerate the transition to affordable, energy-efficient, and future-ready homes, delivering on the shared ambition of a net zero housing sector.

"We're all working hard and innovating in parallel, imagine how far we could go if we started building on each other's progress."

Emma Fletcher
Low Carbon Director
Octopus Energy



Final thoughts

Energy efficient technology for homes is moving at a pace. The cost of such technology will reduce with time and in the interim there needs to be a focus on ways in which there can be a return on that investment for developers and landlords to justify the capital expenditure.

The manner in which energy efficient homes are valued are key to this discussion and also energy tariffs that provide an incentive for uptake. The tenants/occupiers need to be brought along on the journey so the technology is easily usable and the financial benefits are understood. Regulation needs to facilitate rather than hinder scalability. Equally there needs to be investment in a skilled workforce to deliver.

There is no one perfect solution – fabric and technology both have important roles to play. The successes of the schemes that have been rolled out under the IHP scheme in Wales and innovative UK wide pilot projects need to be shared to ensure low cost energy efficient homes can be delivered effectively and at scale.

We need to share our knowledge across the housing sector to be able to deliver a product people want and will use with all the associated benefits. It was a privilege to be able to bring together so many different voices at our roundtable.



Caroline O'Flaherty
Partner, Head of Social Housing

caroline.o'flaherty@hughjames.com
T +44(0)29 2274 2115



