https://www.rpsgroup.com/insights/consulting-uki/delivering-net-zero-carbon-in-social-housing-will-it-happen-in-time-and-at-what-cost/

# DELIVERING NET ZERO CARBON IN SOCIAL HOUSING: WILL IT HAPPEN IN TIME, AND AT WHAT COST?

Chris Lavery, Director of Programme Management, discusses the barriers Housing Associations are facing and his recommendations for tackling the decarbonisation challenge ahead.

**5 MINUTE READ**
**CHRIS LAVERY, DIRECTOR OF PROGRAMME MANAGEMENT**

The social housing sector is facing a monumental challenge. The clock is ticking, not only to meet net zero carbon by 2050, but also to achieve a C rating on Energy Performance Certificates (EPC) across all homes by 2030. The volume, type, age and current efficiency of the UK's social housing stock means an enormous retrofit operation will be required to meet these targets. But if this wasn't challenging enough, these targets sit against a landscape of tightening fire safety regulation and cladding retrofit in the wake of the Grenfell tragedy; whilst the housing crisis means the foot needs to stay firmly on the pedal in the delivery of new affordable homes.

What needs to be made clear is housing associations shouldn't be retrofitting for retrofitting sake. A fabric first approach, such as looking at the insulation

of the building, should be implemented as a priority over technology, which is moving at a rapid rate.

The pressure is certainly on. Yet uncertainty remains over how this will be delivered. Questions can be raised over the lack of a Government roadmap to set out expectations, clarity over funding, as well as no sector-wide definition of net zero in social housing. All would be a huge benefit for shared learning and a more developed supply chain.

But what's for sure is the role that Housing Associations must play if the UK is to meet its legally binding climate change target.

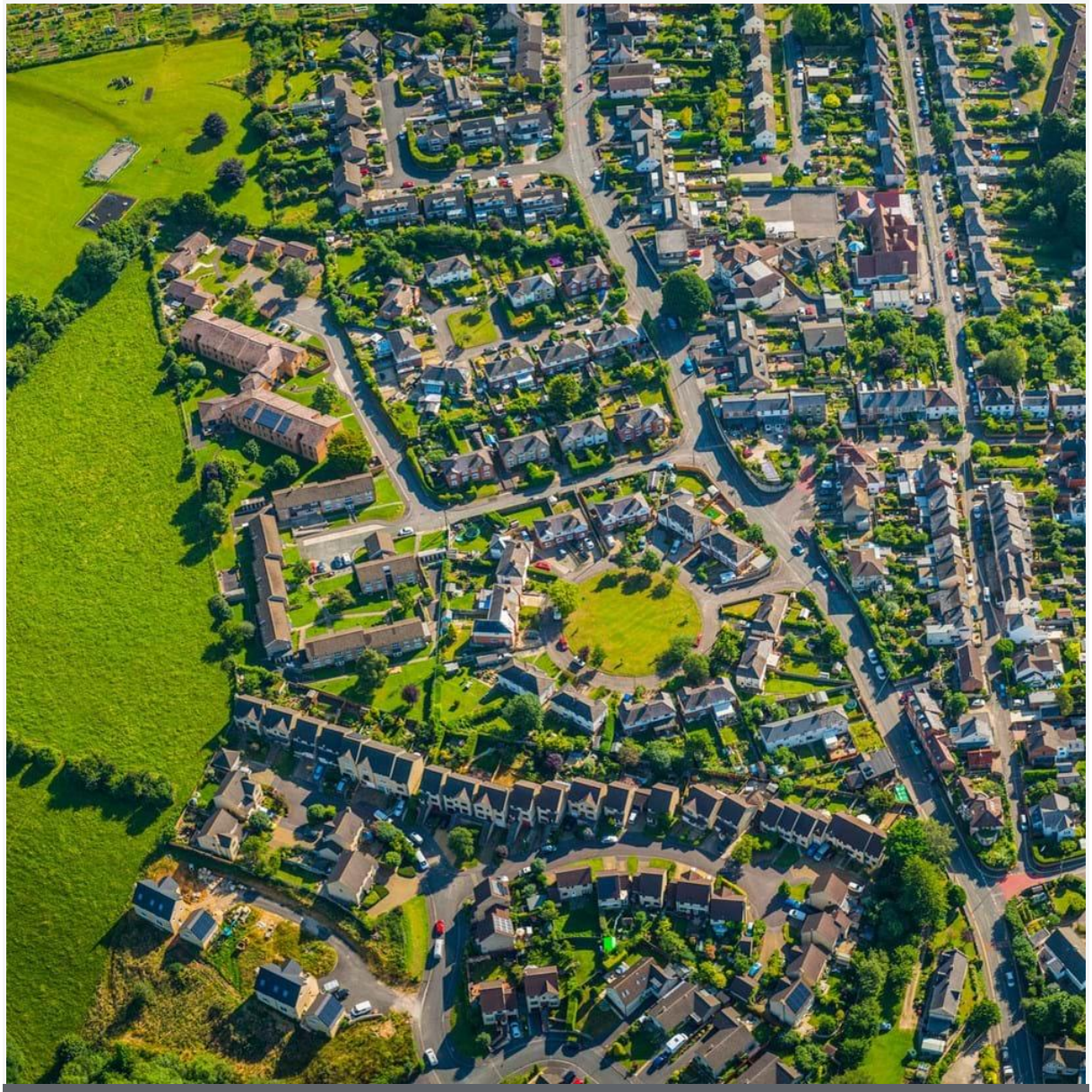
Currently, housing accounts for around a fifth of all greenhouse gas emissions in the UK. This is largely from the oil and gas used for heating and hot water, with around 10% of these emissions coming from the social housing sector.

We explore the challenges and barriers they face and how these can be tackled to help the sector achieve net zero carbon before time runs out.

# The cost of net zero carbon

Based on the average decarbonisation cost per property – provided by 207 social landlords across the UK – Inside Housing has estimated that it will cost £104bn to retrofit all social housing in the UK to zero carbon standards. With responses ranging significantly from less than £3,000 to £70,000 per home, the average cost of decarbonisation per social home came out at £20,742.
But even this somewhat eye watering estimation could still at best be a 'finger in the air' assessment, dependant on how comprehensive the retrofit planning and cost-modelling exercise of each association. The varied factors, such as age and arrangement of stock, and the type of homes – for example, whether high rise, terraced, or have solid walls, all make a reliable estimate particularly challenging.

The Government has promised a £3.8bn Social Housing Decarbonisation Fund (SHDF) over the next 10 years, with £60m pledged for 2020/21, £240m in 2022/23 and £410m in 2023/24. And in the November spending review, £60m was confirmed to retrofit social housing. But many in the sector have raised continuous concern over both the level of funding and the time frame for allocation. The question remains over where the shortfall will come from.



# Problems in place

Housing associations currently own and manage around 2.7 million homes across England. To achieve an EPC C rating by 2030, and become carbon neutral by 2050, significant barriers exist which currently limit the ability of housing associations to retrofit at scale and pace.

Cost is of course a huge concern. But organisational priorities, policy uncertainty, and the lack of capacity and capability in supply chains being able to deliver key retrofitting plans at scale and pace, are just a number of other issues at hand.

Additionally, a huge obstruction is the lack of fundamental data housing associations know about their property stock. Data hasn't been a priority, and with the numerous mergers that have taken place in the housing market, this has further added to the lack of details and clarity. Once housing associations obtain this information, they can build it into their programme management and bring on the specialised teams to design and plan the optimum investment strategy going forward.

# How to tackle the challenge

The key will be identifying archetypes, collecting comprehensive data, building accurate data models, and providing retrofit options that deliver maximum benefits for the least expenditure.

But is it as simple to do as just that? Through our experience gained by working with Housing Associations across the UK, we're sharing our recommendations to help make complex easy.

# Our recommendations for success

**Funding** – The £50m Social Housing Demonstrator Fund is aimed at the best approach to upgrading the energy efficiency of social housing, with a further £60m being rolled out for the next stage of the project in 2021/22. The Department for Business, Energy and International Strategy (BEIS) have written to 16,000 housing associations and 352 local authorities to make them aware of other funding that is available. Along with the National Housing Federation (NHF), both will play a crucial part in advising clients how to best access Government funds.

**Technology** – innovative solutions are being developed on a daily basis, and there are many options available for retrofitting existing properties – but they will come at a cost. Housing associations should be looking into ground source heat pumps and solar PV, whilst carrying out in-depth feasibility studies, and supporting this with funding opportunities. However, installing these creates an ongoing lifecycle to maintain them, which will need qualified people with the correct credentials to manage it. Customers also need to understand the new technologies and how they operate thus education and information programmes need to be rolled out in conjunction with the technology

**Green procurement** – a great starting point for any decarbonisation strategy. Using our extensive market analysis, our Procurement for Housing Framework includes the option to bring in renewable elements. This doesn't necessarily mean the cost increases; but what it does mean is us ensuring we get the best possible price for your energy contracts.

**Stakeholder engagement** - we recommend carrying out a detailed analysis of the stakeholder landscape, including prioritising stakeholders based on their

interest and influence in the specific housing projects. By creating a dashboard to provide a snapshot of the status of key stakeholders, this would enable us to prioritise our engagement strategy and adapt it to address issues as they arise. The ability for Housing Associations to form networks or leverage existing networks will be important initially to develop clear strategies around funding and develop carbon modelling approaches including technical specifications as well as building supply chain, and strength in depth in the marketplace.

# Efficient planning for the future

The scale of this challenge is immense as it is not just applicable to the housing sector. There is retrofit work already underway across the country to improve the energy efficiency of homes, particularly those with low EPC ratings and homes occupied by poor fuel households.

However, it's vital that social landlords start developing decarbonisation cost estimates against their housing stock. This needs to be based on a carbon model that identifies what impact retrofit options can have for each property and at what cost. Not only that, but long-term plans should be made for each of their homes, allowing them to choose cost-effective times to upgrade.

And yet despite leading the way so far, social housing will need to continue to reduce energy demand and lower emissions over the coming years. Reducing the energy bills of those living in social housing through these improvements will have the additional benefit of reducing their risk of living in fuel poverty.

We are now seeing the government come forward with new investment and more detail around their net zero plans, which is very welcome. But sustainable funding and policy clarity are still very much needed.