Text for website seminar archive

Retrofit of existing housing – the key to Manchester’s Carbon Challenge

Manchester has stated its intention for the city to be run entirely on green energy within the next 35 years. This will not be achieved without the comprehensive deep insulation of our existing housing stock and the scrapping of gas heating.

At our well attended seminar on 14th February seminar, our speakers explained the challenges and opportunities that the retrofitting of our existing housing stock represents, discussing both the supporting research and the practical solutions to achieving this on a large scale.

Our chair, Roger Burton of sustainable consultancy nvirohaus, introduced the topic with a short presentation. He noted that a poorly insulated existing housing stock presents a significant challenge to the UK. In terms of the associated health issues, the most recent analysis of the numbers of excess winter deaths, a large proportion of which are the result of poorly heated homes, averaged 9000 per year in the five years to 2015. 2.5 million households in the UK live in fuel poverty. These homes need to be brought up to a higher standard to overcome this tragedy. Coupled with this, the Government’s trajectory to mitigate the affects of climate change requires that 9 million existing homes are retrofitted and brought up to a performance equivalent to Band C by 2035.

For over a decade, Charlie Baker has been undertaking pioneering retrofit projects close to carbon neutrality, has devised retrofit standards, and their management, supply chain, mutual finance and delivery models while evolving a set of replicable, proven details which can be applied to existing housing at scale. His company, red co-op, won the Constructing Excellence NW Innovation Award in 2017 for this work. In a detailed and wide presentation including the latest analysis of global warming by the Tyndall Centre, Charlie demonstrated the need for widescale mitigation measures to be adopted in the built environment with planning and construction starting now and delivering in one to three decades with a parallel ramping up in the provision of zero carbon energy sources. In terms of the existing building stock, those mitigation measures imply a deep retrofit to minimise carbon in both construction and use. With specific reference to the housing stock he presented examples of the deep retrofit of existing properties to demonstrate the successful delivery to the standard necessary for a wholesale roll-out across the sector. He wound up his presentation with a ’10 Point Plan’ to achieve this scale of delivery.