

Briefing Document for Our Zero Carbon Reality: Housing

What are the issues with housing and carbon?

- UK has the worst housing stock for thermal performance (energy efficiency) in Europe with millions in fuel poverty.
- Heating our homes accounts for nearly a fifth of UK carbon emissions (not including electricity use)
- To facilitate building more homes successive governments have loosened planning controls, repealed key building legislation and subsidised property ownership. For example, a policy to make all new homes zero carbon was repealed in 2016 to save housebuilders' costs.

"Every year, we have to build 200,000 houses which are crap because they do not meet the standards which they could meet. If they did meet them, they would reduce the cost of housing for everybody who lives in them." Lord Deben, Chair of the government's Committee on Climate Change

How much carbon do we need to reduce from housing in Derbyshire?

- In 2017 CO₂ emissions from housing in Derbyshire accounted for one third of all emissions.
- Emissions from housing in Derbyshire have reduced by around 3% on average a year for the last 10 years.
- The carbon budgets developed by the Tyndall Centre for each Local Authority requires a reduction in greenhouse gas emissions by around 13-15% each year starting immediately.

Is it practical to build zero carbon housing?

- Small developers have been building near-zero carbon homes for less than the cost of conventional ones for at least a decade.
- In 2015 the UK Green Building Council (UKGBC), an industry-led body (which includes some major housebuilders) confirmed that it would be entirely possible to deliver the Zero Carbon Homes policy at scale and at reasonable cost.

What about retrofit?

- The majority of houses are existing homes rather than new ones. Energiesprong is a revolutionary Dutch initiative in which 111,000 homes are being refurbished to net-zero energy levels. The refurbishment is paid for upfront by social housing providers who then recoup the money through reduced maintenance spend and an Energy Service Plan between the provider and their tenants.

What are the benefits of zero carbon housing?

- Improving housing energy efficiency standards would reduce bills for householders and tenants and are estimated to save the NHS £1.3 billion a year nationally by reducing or eliminating cold related illnesses.
- Every £1 invested in building energy efficiency is estimated to return £3.20 to the economy in benefits.

Further reading

- Committee on Climate Change (2019) UK Housing: Fit for the Future? <https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/>
- The Passivhaus Trust has a wealth of information on their website <http://passivhaustrust.org.uk/> Eg Passivhaus Social Housing: Maximising benefits, Minimising Costs
- Green Building Council (2019) Climate resilience and embracing nature: An ambition for the built environment <https://www.ukgbc.org/>
- Energiesprong UK <https://www.energiesprong.uk/>
- Tyndall centre carbon budgets for local authorities <https://carbonbudget.manchester.ac.uk/reports/>