

2030 Vision for the Cambridge sub-region

Topic summary: Housing

The greatest sustainability challenge in the nation's built environment is its existing housing stock. The rate of replacement is so slow that new housing, however efficient, will never begin to compensate for the inefficiency of the existing stock. That is why 2030 Vision restricted its housing study to this aspect. Questions of land use and built form will be discussed next year. The Government's target of an 80% reduction in carbon emissions by 2050 depends to a great extent both on the degree to which the energy efficiency of this existing housing stock can be improved and on the capacity and willingness of existing households to change their behaviour and adopt energy efficiency measures.

Constraints to achieving carbon reduction to existing housing

- **Financial.** Owners are unconvinced that running costs and pay-back periods justify investment in short-term and for on-sale. Financial mechanisms are needed to recover the cost of low-carbon investments eg low-interest loans on energy-efficient measures; ways to spread the front costs eg pay as you save; and risk-premium sharing with third parties eg banks/retailers/local authorities. There is a lack of incentives for private landlords.
- **Supply chain.** There is not enough cooperation among the designers and suppliers of technology/merchants/ manufacturers/ architects/ engineers/ approved installers: knowledge must be shared and research utilised. A 'road map' is needed to focus on a mass-retrofit implementation and a roll-out of innovative, replicable and economically-viable solutions. Contractors need to price work accurately, improve quality control and provide warranties. Traditional construction supply chains must start to focus on thermally-efficient construction materials. Retrofit building skills must be developed and respected.
- **Consumer buy-in.** There is individual lack of understanding of the impact on climate change of their actions as house occupiers and reluctance to abandon labour-saving appliances. Monetary savings on energy use sometimes are spent on goods leading to increased consumption. There is awareness that technology is still developing and severe lack of trust in information on alternative systems, on installers' skills and on long-term support, with concern on replacement costs of new boiler components, double glazing etc. There is uncertainty on planning control implications and a dislike of visual appearance of PV panels, turbines etc. Upgrading private rented housing results in the renters saving on energy bills but at the expense of landlords' capital outlay. Too many 'voices of reason' and over-complex scientific proof create lethargy, inertia and lack of interest. Smart meters in each house could make people more energy-conscious and accountable.

Rising to the carbon-reduction challenge: 2030 vision

- The sub-region is well suited to local initiatives and, drawing on existing businesses, voluntary sectors and funders, could pool ideas and target actions, generating momentum for change
- The culture of walking/cycling rather than driving/recycling is not enough. We must develop an awareness campaign focusing on a few evidence-proven, cost-effective ideas (e.g. loft insulation) and follow them through.
- Recognition is needed of the fundamental difference between low-cost (roof insulation) and high cost (on-site power generation) opportunities and the groups to which they are suited (less well-off/RSLs and better-off home owners respectively). Demonstration projects are required for different budgets and housing types. Information and system controls must be kept simple.
- Retrofitting existing homes should be promoted as a better investment than moving. At a community level, Local Retrofit Zones could be introduced throughout the sub-region. Benefits from economies of scale and innovation at neighbourhood level would intensify household action. Heat-loss images could be made of individual houses; streets and villages could be compared to others and given constant feedback on their progress; blogs maintained and barriers to action overcome eg having a weekend skip in a street to aid loft insulation and scrapping schemes of old appliances.
- Schools should encourage children's pro-environmental behaviour at home.
- Ultimately there needs to be a belief that people can make a difference and that the scale of any domestic change makes a difference to climate change, with the Cambridge sub-region visibly pulling in one direction.