

## **2030 Vision for the Cambridge sub-region**

### **Housing 2030 session 21 March 2011 – summary**

The UK Government's ambition is to decrease carbon emissions by 80% on 1990 levels by 2050. Domestic housing represents around 27% of total carbon dioxide emissions, of which 73% comes from space and water heating. Meeting this target depends on the nature of existing housing stock in the Cambridge sub-region in terms of its age, type and tenure; the degree to which energy efficiency of dwellings can be improved; and the capacity and willingness of existing households to change their behaviour & adopt energy efficiency measures.

### **Top three constraints to achieving carbon reduction to existing housing**

#### **(i) Financial constraints**

- Need to encourage people to pay for installation costs through demonstrating the potential savings on energy bills and reducing the pay-back period on their investment
- Need financial mechanisms to allow cost recovery of low carbon investments e.g. low interest loans on energy efficient measures; ways to spread the front costs, for instance, through PAYS (pay as you save); and third parties e.g. banks/retailers/local authorities sharing the risk premium.

#### **(ii) Supply chain constraints**

- A complex supply chain exists to bring technologies and practices into the market and greater cooperation is needed among the designers & suppliers of technology/merchants/ manufacturers/ architects/ engineers/ approved installers, with industry knowledge being shared and research not wasted - i.e. a 'retrofit road map'
- Technologies are there, we just need to focus on mass retrofit implementation and roll out innovative solutions which are replicable and economically viable
- Contractors need to accurately price work and provide a warranty on provision i.e. quality control is critical
- Conservatism and vested interests in traditional construction supply chains exist, yet we need to focus on construction material with thermal properties.
- Building skills and tackling labour issues is essential, including changing 'attitudes to people working with their hands'

#### **(iii) Consumer buy-in**

- The carbon footprint of the most well informed generation still increases as a lack of understanding exists with regard to what an individual can achieve e.g savings on electricity bills/return on investment and how a household's use of energy in their home impacts on climate change
- Improving a dwelling's energy efficiency does not necessarily equate to a reduction in energy consumption as a rebound effect can occur where a household spends the savings on increased consumption and domestic comforts
- Upgrading private rented housing results in the renters saving on energy bills but the capital outlay undertaken by owner occupier which creates disincentive effect to act
- Too many voices of reason causes lethargy and inertia and if scientific proof is too complex people loose interest
- Smart meters in each house could make people more energy conscious and accountable

## **How can Cambridge sub-region rise to the carbon-reduction challenge?**

- The sub-region is well suited to local initiatives and could act as an exemplar for other places to follow, e.g. the 'Cambridge brand'.
- There is already a community culture of walking/cycling rather than driving/recycling/switching off appliances on standby etc
- We can draw on our existing entrepreneurial networks - town/gown /businesses/voluntary sectors and funders to pool ideas and actions, therefore create a momentum for change
- A well-networked society in turn aids policy makers' abilities to target their endeavours
- Yet it is important to focus on a few ideas and follow through with them, with the strategy being evidence-based (e.g. prioritising loft insulation)
- We need a simple effective awareness campaign which demonstrates possibilities and leads using examples of cost-effective upgrades
- Retrofit existing homes could be seen as cheaper alternative to moving and so the investment becomes worthwhile
- The initiatives should be delivered at the community/neighbourhood level rather than being seen as an individual building issue, e.g. introduce Local Retrofit Zones across the sub-region
- Benefits from economies of scale and innovation at neighbourhood level would intensify household action
- Streets could be compared to others and given constant feedback on their progress, with barriers to action overcome e.g. having a skip weekend in a street to aid loft insulation and scrappage schemes of old boilers and appliances
- Schools could equally be targeted to educate the next generation and increase children's involvement in 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.

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