

## 12. Climate change

### 12.7 Climate change and housing

The domestic sector accounts for 28% of total British energy demand (Department of Energy and Climate Change [DECC], 2009). It is responsible for approximately 30% of Britain's total emissions (Department for the Environment, Farming and Rural Affairs 2001; DTI, 2003; Power, 2008). Over half of domestic carbon emissions are from space heating (53% in 2005), while one fifth comes from heating water. The remainder comprises of appliances (16%), lighting (6%) and cooking (5%) (Department of Communities and Local Government, 2007).

Our homes are responsible for adding greatly to the problem of climate change; emissions from homes must be reduced to mitigate climate change.

The New Economics Foundation's main recommendations for housing are:

- Invest nationally in retrofitting existing social housing with zero-carbon design.
- Build all new social housing to a high quality and with climate change effects carefully considered.
- Plan and implement climate-proofing developments, to include open spaces that provide cooling during hot weather or accommodate flood water; this can transform local communities by providing local facilities, creating space for walking and cycling, and creating green space in urban areas.

<http://neweconomics.org/publications/zero-carbon-britain-2030>

### **Retrofitting**

Investment into retrofitting the existing housing stock to a high, energy-efficiency standard would be a win-win strategy contributing towards emissions reductions, lifting many out of fuel poverty and with the potential to generate jobs and training opportunities.

### **Arbed Strategic Energy Performance Investment Programme**

The Welsh Government established the Arbed programme in 2009. It is designed to bring environmental, social and economic benefits to Wales and coordinate investment into the energy performance of Welsh homes. Phase one of Arbed was the largest programme of its type in the UK, investing £30 million. The Welsh Government worked with social housing providers to make communities in deprived areas of Wales more energy efficient.

They did that by retro-fitting homes with measures including solid wall insulation, solar panels and heat pumps. Phase one schemes leveraged an additional £31m: up to £20m was invested by social housing providers and local authorities. They took advantage of cost savings and economies of scale offered by Arbed schemes to realign/bring forward their budgets for maintenance, housing renewal, neighbourhood support. This investment has enabled homes to receive multiple energy efficiency measures including:

- boiler upgrades and replacements;
- window upgrades;
- roof extensions;
- structural work; and
- energy saving advice.

Phase two of Arbed is underway. The £45m second phase is supported by the European Regional Development Fund and the Welsh Government will match fund it. It will continue to deliver against Arbed's core objectives.

Arbed partners include:

- the Welsh Local Government Association (WLGA);
- Community Housing Cymru (CHC);
- the Energy Saving Trust (EST); and
- the Building Research Establishment (BRE).

Find out more at

<http://wales.gov.uk/topics/environmentcountryside/energy/efficiency/arbed>

## **The Green Deal**

The UK Government is establishing a framework to enable private firms to offer consumers energy efficiency improvements to their homes, community spaces and businesses at no upfront cost, and recoup payments through a charge in instalments on the energy bill. £200m to be used as an incentive for the public to pick up the Green Deal scheme when it is available for homeowners in October 2012. For further information on the Green Deal go to:

[www.decc.gov.uk/assets/decc/legislation/energybill/1010-green-deal-summary-proposals.pdf](http://www.decc.gov.uk/assets/decc/legislation/energybill/1010-green-deal-summary-proposals.pdf)

[www.green-deal-guide.co.uk](http://www.green-deal-guide.co.uk)

There are opportunities for the third sector, in terms of maximise the impact of the Green Deal. Third sector could work to manage the “retrofitting” of homes to make them energy efficient via increasing the uptake of Green Deal on the ground, by acting as trusted advocates in a way that the energy companies cannot. Community groups could get the best deal for householders and make the process of conversion as easy as possible, providing help with practicalities like clearing lofts for insulation. This may be especially so for vulnerable or hard to reach communities.

## **New housing developments**

New developments should be based around walking, cycling and public transport to prepare the way for a low-carbon future.

Sustainable urban drainage systems and green space to counteract heat extremes will be important to help vulnerable groups cope with the future effects of a changing climate.

## **Flooding**

People in poverty are at risk as they live, typically, in worse housing; they have the least access to insurance and the fewest resources to cope with the effects of a changing climate. The unpredictability of what the future holds is far more of an issue for low-income households, as they are more vulnerable with less access to insurance and have fewer resources to fall back on in an emergency.

Communities who are in poverty are also more likely to be located in areas which are more at risk from flooding. There is a strong coastal component to the geography of socio-spatial vulnerability, which is most marked in Wales, where over half of the most socially vulnerable top 10 per cent of neighbourhoods are within 1km of the coast.

## **Further Information**

### **Zero Carbon Britain 2030**

[http://neweconomics.org/sites/neweconomics.org/files/Zero\\_Carbon\\_Britain\\_2030.pdf](http://neweconomics.org/sites/neweconomics.org/files/Zero_Carbon_Britain_2030.pdf)

### **Sustainable Development Commission's Low Carbon Regions**

[www.sd-commission.org.uk/data/files/publications/SDC\\_LowCarbonRegions\\_report\\_web.pdf](http://www.sd-commission.org.uk/data/files/publications/SDC_LowCarbonRegions_report_web.pdf)

**Disclaimer**

The information provided in this sheet is intended for guidance only. It is not a substitute for professional advice and we cannot accept any responsibility for loss occasioned as a result of any person acting or refraining from acting upon it.

For further information contact

The logo consists of a red trapezoidal shape with the text 'WcVA' in white above a horizontal line, and 'CgGC' in white below the line.

**WcVA**  
**CgGC**

Tel: 0300 111 0124  
[www.wcva.cymru](http://www.wcva.cymru)