

Renewable Energy Select Committee – Topic Paper - Sustainable Homes 1 - Retrofitting

The energy used in our homes represents about 25% of UK carbon emissions and, since it has been said that the homes that exist now will still represent 70% of the housing stock in 2050, retrofitting those homes to be more energy efficient and less reliant on fossil fuels makes sense in both energy efficiency and cost-saving terms.

Energy efficiency work can result in multiple benefits, by providing a significant number of jobs, particularly those in manufacturing and installation; while also contributing to better health, a better environment and more sustainable communities.

The UK Low Carbon Transition Plan (2009) set out how a cut of 34% in 1990 emissions could be achieved by 2020 and predicted that by then:

“7 million homes will have benefited from whole house makeovers, and more than 1.5 million households will be supported to produce their own clean energy. Around 40 percent of electricity will be from low-carbon sources...”

The DCLG’s Warm Homes, Greener Homes: A Strategy for Household Energy Management report, published in March 2010, highlights the need to raise energy efficiency standards in private rented homes. It also follows up on the Decent Homes Standard with a new Warm Homes Standard applicable to the social housing sector.

KCC Retrofitting project

KCC’s Sustainability and Climate Change Team are involved in a project which will contribute towards the carbon reduction aims of National Indicator NI186 (Kent-wide carbon reduction). This retrofitting project, the first phase of which began in April 2010, will run for one year and has initial funding of £100k.¹

The project will focus on one area of Kent identified as fuel poor and one where there is high energy use. Accredited (KCC) surveyors will assess households and carry out follow up work directly with householders, providing one point of contact. In addition to the funding of £100,000, further grant funding will be levered in from available sources, including ‘Warm Front’ in the case of fuel poor households.

Surveyors will also be able to provide guidance on behavioural issues affecting energy efficiency. Work to be carried out could include controls, thermostats as well as cavity wall and other insulation as well as water efficiency work. The success of the work in terms of energy reduction will be monitored via fuel bills.

A media campaign (with separate funding) will raise awareness about the project which is being carried out in partnership with energy efficiency product and service providers and there will be outreach to communities from a suitable focal point.

¹ Lucy Breeze, Climate Change Project Officer

Government Incentives

LCBP, FIT, RHI

The Department of Energy and Climate Change (DECC) Low Carbon Building Programme (LCBP) grant scheme, which was the main source of subsidy for renewable energy systems installed by homeowners, the public sector and businesses began to be phased out in February 2010 pending the start of the Feed in Tariff (April 2010) and the Renewable Heat Incentive (April 2011). The LCBP scheme was itself preceded by the DTI's Clear Skies and solar PV grant programmes.²

Householders may still apply for grants from LCBP for heat generating technologies (solar thermal, ground and air source heat pumps, biomass heating) up to the limit of funding until later this year. The grants programme for renewable electricity generation (solar PV, wind energy, small scale hydro) has ended.

Funding for less well-developed micro-generation technologies such as fuel cells and CHP (renewable or non-renewable) may be available but certification of either products or installers qualified to MCA standards is unlikely yet to have taken place. MCA certification is now compulsory for installers/products used if householders wish to claim Feed-in Tariff payments for renewable electricity generation.

CERT

Funds arising from a levy on energy suppliers are available to householders in the form of insulation grants through the CERT (Carbon Emissions Reduction Target) scheme. The scheme enables all householders to access low cost loft and cavity wall insulation and certain other measures, which are fully funded by CERT for families with children under 16, people over 70 or those receiving certain state benefits.

Survey

A baseline survey of behaviour and attitudes to energy and water saving was carried out in Ashford by Creative Environmental Networks (CEN) in 2009. The survey found that for those people sampled, double glazing was the most likely energy efficiency measure to be taken (18%), followed by loft insulation (15%) and installing a new boiler (13%).

The importance of, and benefit to be gained from, receiving advice on the effectiveness of energy saving measures was demonstrated by the changed preferences of survey respondents after receiving appropriate information; who then chose as their top three measures: cavity wall and loft insulation (25% each) and new boiler (17%). Space heating accounts for 60% of the average household energy bill.³

² *Renewable Energy: Information Paper* – 1st Edition, RICS (2009)

³ *Heat and Energy Saving Strategy*, DECC (2009)

Older residents and people who rented their properties were found in the study to be the least willing to invest in energy efficiency measures.

The full report is attached to this paper as Appendix 1.

KCC Low Carbon Challenge Fund

Community Groups can benefit from a share in KCC's £10,000 Low Carbon Challenge Fund. When the fund was launched in 2008, the first communities to benefit were Elham and Hadlow who each received £4,000; Eastchurch and St Margaret's-at-Cliffe, each received £1000 towards implementing their projects.

Further reading:

Residential Case Studies are available from DCLG at:

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/1490945.pdf>

The UK Low Carbon Transition Plan can be found at:

http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx

The Warm Homes, Greener Homes Strategy can be found at:

http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/saving_energy/hem/hem.aspx

Guidance on sustainable refurbishment is available from the Energy Saving Trust at:

[Sustainable refurbishment / Publications / Global Data / UK Home - Energy Saving Trust](#)

Case studies relating to non-traditional homes are available from the EST at:

http://est.custhelp.com/cgi-bin/est.cfg/php/enduser/fattach_adp.php?p_tbl=9&p_id=799&p_faqid=799&p_create_d=1241188601

Individual case studies in relation to the Low Carbon Building Programme are available at:

[Stream 1 householders / Case Studies and Statistics / Low Carbon Buildings Programme - Phase 1 / UK Home - Low Carbon Buildings Programme](#)

Information to assist communities, including an online toolkit can be found at:

http://www.kent.gov.uk/environment_and_planning/environment_and_climate_change/climate_change/what_your_community_can_do.aspx