Climate Change

CUTTING CARBON IN WELSH HOMES

Cut emissions from homes by more than 40%

CO2 reduction

If energy-inefficient homes in Wales were brought up to a decent standard, the carbon dioxide emissions from the housing sector would be reduced by 40% and the number of households in fuel poverty would also be reduced by 40%.

The homes considered are those in the bottom three bands of energy efficiency as measured by the Standard Assessment Procedure; i.e. bands E, F and G of the seven band (A-G) SAP system. The analyses, by the Energy Saving Trust[1,2] on behalf of WWF-Cymru, showed that improving the 728,000 homes in these bands up to a D rating would reduce CO2 emissions by 1.95 Mt/year, bringing the total emissions from the Welsh housing sector down to 5.45 MtCO2/yr which is 40% less than emissions in 1990.

The aim should be to raise the standard above D where feasible.

[1] 'Analysis of costs and carbon savings from tackling the least energy efficient homes in Wales'; Energy Saving Trust for WWF-Cymru; December 2011

[2] ' Analysing the fuel poverty impacts of bringing all properties in Wales up to a minimum EPC rating of D'; March 2012

Impact on fuel poverty

The work would cost in the region of £2.1 billion and would reduce the total annual energy bills by £423 million. This would bring 132,000 households out of fuel poverty[3], which represents a 51% reduction on the current total in E, F and G properties, and a 40% reduction in fuel poverty across the whole housing sector.

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Job creation

In addition, the work would create 6,300 direct jobs (person-years of employment) and 14, 600 gross jobs, when taking into account the multiplier effects of supply chain spending, spending of salaries and re-spending savings on fuel bills.

6,300 direct jobs would be created

Targeting government refurbishment work

Further analysis showed that if improvement measures were targeted at the E, F and G homes belonging to households in the lowest 4 income deciles (270,000 homes), the cost of bringing these to D would be about £780 million. As shown, in figure 1, focusing on these households would be more effective in addressing fuel poverty than working on the homes of those with higher incomes.

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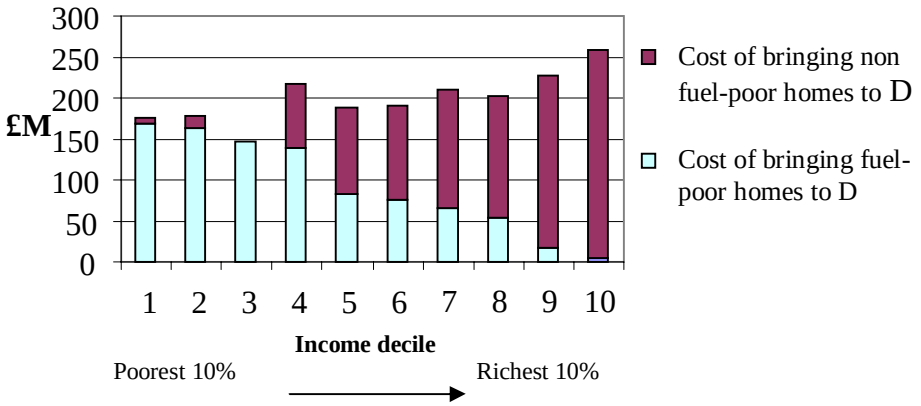
[3] A household is considered to be in fuel poverty if more than 10% of the total income would have to be spent on fuel to maintain a satisfactory heating regime.

Fig 1: Cost of bringing all E, F and G-rated homes to D versus income decile



The height of each histogram shows the total cost for bringing the homes of each income decile up to D, while the lighter portion of each histogram shows the cost of bringing fuel-poor homes to D.

Householders should use the Green Deal financial mechanism

However, it would be wrong to ignore the problems faced by higher income households whose homes have SAP ratings less than D. These homes are, typically, larger than those of lower income households hence the savings in fuel cost and carbon emissions are potentially greater.

Targeting Green Deal promotion

It is suggested that the Welsh Government and Local Authorities should encourage higher income households to use the Green Deal financial mechanism, starting in autumn 2012, to get energy efficiency improvements in their homes with no up-front payment. The cost of the work will be paid back in instalments through their energy bills, and these will be lower than they were prior to the improvements.

Possible approaches which local authorities might choose to adopt, as suggested by the UK Government, are:

- Provide – the Green Deal directly to their local residents and businesses, co-ordinating finance and delivery;
- Partner – Green Deal providers and community groups to facilitate delivery; or
- Promote – by acting as advocates for the Green Deal locally.

Area-based savings

There will be benefits to integrating government-funded refurbishment initiatives with the Green Deal to enable an area-based approach to improving home energy efficiency. This could be 30 to 50% cheaper per house than tackling individual properties.

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Summary

WWF-Cymru suggests that the Welsh Government, in collaboration with the Welsh Local Authorities, should:

- set a target to reduce greenhouse gas emissions from the housing sector by 40% by 2020 compared with 1990 emissions
- aim to bring all homes in Wales up to a SAP rating of at least D
- focus government-funded work on the lowest 4 income deciles
- actively promote the Green Deal initiative for upper income deciles
- seek ways of integrating government-funded home energy efficiency work with work funded via the Green Deal.

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FOR MORE INFORMATION PLEASE CONTACT

Alun James ajames@wwf.org.uk 02920 455 001

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To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.
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