

RETROFIT FOR THE FUTURE CONTEXT DOCUMENT

Links to the Heat and Energy Saving Strategy Consultation

1. Housing in the UK accounts for 27% of carbon emissions and 80% of the houses UK citizens will be living in 2050 have already been built. Therefore, to meet the target of an 80% reduction in carbon emissions by 2050 the UK must virtually eliminate emissions from existing housing stock.
2. The Government has recently published its Heat and Energy Saving Strategy consultation that details a radical shift in its ambitions to improve the energy efficiency of homes. Government aims to achieve these ambitions both through its own actions and by ensuring that social housing stock is at the forefront of these changes, as it has been through the Decent Homes Programme¹ and its devolved equivalents, the Fuel Bills Package² announced in the autumn of 2008 and the new £350 million Community Energy Saving Programme³.
3. Announced by the Prime Minister and Lord Drayson on 28th January 2009, the Retrofit for the Future competition will focus on some of the key issues and policies raised in the Heat and Energy Saving Strategy. Retrofit for the Future addresses key objectives including reduced energy bills, reduced UK emissions, secure energy supply and provision of business opportunities for UK business.
4. The Decent Homes Programme and its devolved equivalents, together with CERT⁴ have already done a lot to improve energy efficiency of UK social housing. Taken as a whole, the social sector is now more energy efficient than the rest of the housing stock and it is increasing its energy performance more quickly. Through the Communities and Local Government Select Committee, the Government has committed itself to consider how emissions from social housing stock can be further reduced. It is working with stakeholders to consider the role and contribution of aspirational standards or benchmarks for energy saving and emission reduction for different social property types. Stakeholders, including Registered Social Landlords (RSL) and Local Authorities, have suggested benchmarks would serve to guide them in deploying the most appropriate and

¹ The Decent Homes standard includes a criterion for thermal comfort. As a result, the programme has generated a substantial investment in insulation and other energy efficiency measures at a cost of £5.6 billion since 2001. Overall, the energy performance in the social sector is better than that of the private rented and owner-occupier sectors

² The new £1 billion Fuel Bills Package announced in the autumn of 2008 to provide immediate help for householders who are struggling to pay their fuel bills

³ A new £350 million Community Energy Saving Programme is proposing to offer free and discounted energy efficiency measures including central heating and insulation in around 100 low income communities across Great Britain

⁴ The Carbon Emissions Reduction Target (CERT) whereby energy suppliers have a statutory obligation to achieve an overall carbon emissions reduction target

cost effective technologies that may be used in their own refurbishment and retrofit programmes.

5. Against this background, there is an opportunity for the Technology Strategy Board to connect the future procurement needs of registered social landlords and local authorities, with the capability of innovative suppliers to develop a range of high performance and cost effective demonstrators. To date, the Technology Strategy Board has invested in projects within the construction industry with a value of approximately £100m. The Retrofit for the Future competition offers an additional opportunity to take through some of these often radical innovations into demonstrator buildings. It may also allow those UK companies that have developed innovative solutions intended for other industry sectors to apply them within the construction sector.
6. With its role to promote, support and exploit innovation, the Government's Technology Strategy Board in collaboration with its sponsoring department, DIUS, will lead and deliver the programme. Those Government departments and agencies that are responsible for delivering the Heat and Energy Saving Strategy will sponsor and support the research, namely the Department of Communities and Local Government (DCLG), the Department of Energy and Climate Change (DECC) and the Homes and Communities Agency (HCA). 'Retrofit for the Future' aims to provide practical demonstrations where cross government working can ensure innovative technologies are pulled through to government procurement for the benefit of both UK business and UK society.
7. The Technology Strategy Board through its SBRI programme will invest £10m in consultation with its partners to deliver a minimum of 50 exemplar demonstrator houses that target minimum cuts of 80% in energy consumption compared to existing use. Companies will be invited to bid for contracts to refurbish example buildings within the social housing stock to cover a wide range of housing types and geographic areas, including those within conservation areas and the devolved administrations (Northern Ireland, Wales and Scotland). Contracts will cover design, build and in-use performance evaluation.
8. To create exemplar houses both in terms of energy efficiency and comfort, it is necessary to consider the retrofit of housing in a holistic manner that recognises houses are systems that are interdependent upon the technologies deployed within them and the tenants that occupy them. Retrofit for the Future will therefore take a 'whole house' approach to develop and demonstrate whole house solutions that deliver deep cuts in energy use and carbon emissions, high levels of comfort and attractive costs. This holistic approach will also recognise that adaptation to future climate change is a key requirement of retrofitting existing housing stock.
9. The competition will drive innovation and provide UK companies with the opportunity to show the social housing sector what they can deliver in terms of radical solutions. Evidence of actual in-house performance and costs, means that successful companies will be well placed to bid for future refurbishment contracts. These radical solutions will go beyond loft and cavity wall insulation to include new technologies such as solid wall insulation and micro-generation technologies.