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CITIES



Liverpool REECH

## Retrofitting green technologies

REECH is a public private pilot project to test green retrofitting in Liverpool city region housing. It aims to cut CO<sub>2</sub> emissions, reduce fuel poverty, enhance wellbeing, and provide training and jobs.

Housing accounts for about a quarter of the UK's CO<sub>2</sub> emissions. In Liverpool City Region, figures from 2005 showed that 22% of CO<sub>2</sub> emissions were from housing; and its 140,000 social housing units, a fifth of the region's housing stock, accounted for 560 kilotons of CO<sub>2</sub> per year. As elsewhere, much of the region's social housing has low energy performance; and many residents live in fuel poverty.

So when new European Regional Development Fund (ERDF) regulations allowed 4% of funding to be used for housing-related energy initiatives, this provided the catalyst for Liverpool city region's collaborative green technologies pilot: Renewables and Energy Efficiency in Community Housing (REECH).

### A mix of technologies

Established in 2011, REECH is designed to test the benefits, scalability and sustainability of retrofitting 14 green technologies, singly or in various combinations, into several thousand social housing units. The pilot includes low rise and high rise properties of various sizes and construction: on estates, curbside and in conservation areas.

Energy saving technologies are REECH's first priority, including: insulation, such as external cladding, internal insulation for conservation areas, and triple glazing; ventilation; LED lighting; voltage optimisers; and gas saver boilers. Renewable energy technologies, such as solar water heating and air source heat pumps, are also being piloted.



REECH has had a dramatic impact. Residents can heat their homes properly. And the estate looks much more attractive. Working with other partners, we've also given training and jobs to local people. It's a win-win all round. Residents can heat their homes properly, and because they are using less energy, save themselves money.



*Sarah Bevan, initiatives director, Villages Housing*

cities in action

June 2015

where: Liverpool city region, UK  
what: environment  
when: 2011+

Promoting behavioural change is integral to REECH. Residents are encouraged to adapt their energy consumption habits; and REECH partners worked with schools and other organisations to create a fun energy board game.

## Working together

REECH is underpinned by a strong partnership between Liverpool city region's six local authorities (Sefton as lead partner, Liverpool, Halton, St Helens, Knowsley and Wirral); nine of the region's social housing providers; Liverpool John Moores University and other educational establishments; British Gas; the UK department of energy & climate change; the UK government office for communities; several trusts; a procurement social enterprise; locally-based suppliers; other local organisations; and residents.

All stakeholders are committed to cooperation, communication, and a willingness to adapt to circumstances. For example, REECH partners worked with Liverpool John Moores University to produce a behavioural change study. A central REECH team provides intensive support to REECH partners. This includes advice on how to comply with ERDF rules on match funding, branding, and the achievement of outcomes such as sustainability, dissemination of learning and complementary activities.

“Fuel poverty is one of our biggest challenges. The REECH project saves people money as well as reducing carbon use. REECH has also boosted low carbon companies to create local jobs. All aspects of REECH are highly transferable to other cities.”

**Alan Lunt, director built environment, Sefton metropolitan borough council**

Community engagement helps ensure each retrofitting scheme runs as smoothly as possible. Residents are kept fully informed, through local events and face-to-face interviews, and their concerns are taken into account.

By working with local suppliers to retrofit green technologies, REECH helps existing companies and new start-ups to deliver jobs, apprenticeships and skills training. One of the



companies has diversified its business offer and almost quadrupled its turnover.

Through REECH into Business, REECH is also piloting 40 SME premises, with free energy efficiency assessments, and grants for green retrofitting and vehicle charging points.

By 2016, REECH investment will total €57million: €19.4m of ERDF funding; €19.4m from national and private match-funding; and €18.2m additional national and private funds.

## A groundbreaking pilot

In 2014, REECH won the EUROCITIES award for cooperation. By 2016, REECH will have retrofitted some 4,000 homes with various combinations of 14 carbon-reduction technologies, saving 22 kilotons of CO<sub>2</sub>. The estimated total saving, over the lifetime of the retrofitted technologies, is 205 kilotons of CO<sub>2</sub>. In addition, REECH will have created 386 jobs, and helped 40 SMEs cut CO<sub>2</sub> emissions.

Research by Liverpool John Moores University into residents' attitudes, energy-related behaviour and wellbeing, found that REECH resulted in less fuel poverty and fewer mental health issues.

REECH local authorities and social housing providers are now sharing best practice with other cities. They are also considering pooling their financial resources to achieve a large scale green retrofit for their social housing portfolio, based on the REECH pilot.

