Research

Zero carbon retrofit housing

Over the past few years the research carried out by Professor Lubo Jankovic and his team in the Birmingham School of Architecture has made a significant impact on zero carbon retrofit housing. Following on from experimental research on a unique Birmingham Zero Carbon House, the Retrofit Plus project will showcase how to convert more solid wall houses to zero carbon.

Find out more >>

Background

Retrofit Plus is a £1.2 million externally funded project for scaling up retrofit of the nation's homes. It is collaboratively funded by the Technology Strategy Board and industrial partners Carillion Energy Services Ltd, Lime Technology Ltd and iZdesign Ltd.

The UK's target for the reduction of greenhouse gas emissions is 80% by the year 2050. Domestic buildings are responsible for 28% of the total UK carbon emissions. By 2050, it is estimated that 80% of the houses in the UK will be the houses that exist now, so the principles of zero carbon retrofit are especially important for mitigating the impacts of climate change.

Method

The Retrofit Plus project will drive innovation in energy retrofit of homes, drawing upon academic, technology start-up and private sector expertise.

It comprises a holistic package of approaches designed to increase trust, quality and performance, and reduce the price of retrofit.

Monitoring device fitted to the Birmingham Zero Carbon House

Impact

Professor Jankovic's work has resulted in a book entitled *Designing Zero Buildings Using Dynamic Simulation Methods,* Published by Routledge in 2012. The need to educate a new type of professional that can champion the multi-disciplinary nature of zero carbon retrofit has also resulted in a new MA Zero Carbon Architecture and Retrofit Design course led by Professor Jankovic.

The Retrofit Plus project is targeted at over 6 million homes with solid walls and opens up innovation into a multi-billion pound market.

To find out more visit:
bcu.ac.uk/research/stories

Scan me to watch an exclusive video about this research