

# Retrofit Action Week with Low Carbon Homes



## Retrofit Action Week with Low Carbon Homes

Retrofitting the current housing stock with energy saving methods is a huge undertaking. VENTI have been exhibiting online this week with Low Carbon Homes to explain the importance of clean air and proper ventilation.



Retrofit action week

During the three-day event the team at VENTI were actively involved with Low Carbon Homes. Low carbon homes are a group that supports and connects people working in the retrofit community. The event is held across three areas in the UK. Liverpool, Birmingham, and Manchester. You can join in with future events [here](#).

## Net Zero Targets and EPC

### Understanding Net Zero Targets and Energy Performance Certificates (EPCs)

The UK's ambitious commitment to achieve Net Zero emissions by 2050 presents a significant challenge, with our existing housing stock requiring substantial retrofitting to decarbonise. Currently, homes account for over 30% of the UK's total carbon emissions, underscoring the critical role of home energy efficiency in meeting climate goals.

**Government Policy and EPC Standards:** To drive this transition, the government mandates that rented properties must achieve an Energy Performance Certificate (EPC) rating of 'C' or higher. This policy is particularly impactful for social housing providers, many of whom are actively upgrading

homes currently rated 'D' through 'G'. The primary objective is to reduce the energy demand for heating and cooling, thereby lowering carbon footprints.

**Addressing Fuel Poverty and Improving Health:** The drive for energy efficiency is also a crucial step in combating fuel poverty, a situation where households spend 10% or more of their income on energy bills. As VENTI's data from Switcher smart thermostats indicates, some tenants in the coldest months resort to minimal or no heating, highlighting the stark reality of the "heat or eat" dilemma.

Beyond Net Zero targets, retrofitting directly addresses the significant societal cost of poor housing. The NHS, for instance, incurs an estimated £2.5 billion annually due to health issues exacerbated by inadequate housing conditions. Furthermore, legislative changes like **Awaab's Law**, introduced in 2024, are now legally obligating landlords to promptly address critical issues such as mould, reinforcing the link between home retrofitting and healthier living environments.

- Latest figures show that approximately [6.5 million UK households](#) are currently experiencing fuel poverty.
- "Meeting Net Zero requires a fundamental shift in how we view our homes – not just as shelter, but as active participants in a sustainable energy system," says Bradley Pallister, Technical Manager at VENTI.

## Liverpool City Region and Combined Authority

During the Liverpool event in March several presenters and companies joined the online exhibition to support on best practice and innovative products. The scale of the retrofit work required is massive. If we take the Liverpool City Region and Combined Authority as the example, we can see the scale of the retrofit is significant:

- 70% of the current housing stock is below an EPC C grade.
- 60,000 homes per year need to be retrofitted.
- Over 4,000 homes are being targeted in 2024 with a spend of £40 million.

When considering all measures need to reach Net Zero goals in the Liverpool Area, Russell Smith stated that:

- "£1.2 Billion will be required to raise properties to EPC C rating.
- £9.6 Billion is needed to reach Net Zero with limited fabric updates.
- 1 Billion is needed to reach Net Zero with all fabric work completed."

You can find more information from the Liverpool City Region and Combined Authority [here](#).

## Retrofit Upgrades

A building that requires a retrofit upgrade must go through an SAP calculation. This is to obtain an EPC score. This outlines the current properties energy costs and what measures can be carried out to improve the property. A retrofit assessor and coordinator will then be involved in the process of planning the installation of the varied measures.

To reduce carbon produced by a property there are several measures that can be installed on each home. These measures have to demonstrate that they have reduced energy usage. There are grants available from Government, social housing, local councils, and some energy companies under ECO4:

- Internal wall insulation (IWI)
- External wall insulation (EWI)
- Solar PV
- Air Source Heat Pumps (ASHP)
- Ground Source Heat Pumps (GSHP)
- Battery Storage
- Smart Hot Water (Mixergy and Solar Assisted Heat Pumps)
- Smart Heating Control Systems
- Replacement Windows and Doors
- Ventilation

VENTI plays an important part in the retrofit upgrade programme. This is to ensure that the air quality is fit for the homeowners. The general term is “build tight ventilation right.” However, when the home becomes very airtight issues begin with condensation, damp, and mould. Air quality is such an important part of our homes and lives.



Low Carbon Homes – VENTI Presentation

[Our Low Carbon Homes Video can be viewed here](#)

VENTI are happy to support all housing sectors to improve their properties on their retrofit journey.