UK GBC

The voice of our sustainable built environment

RETROFIT
EXPLAINER GUIDE

This Explainer Guide covers the key principles of retrofitting in the built environment.

What is retrofitting?

Retrofit is the 'directed alteration of the fabric, form or systems that comprise the built environment to improve energy, water and waste efficiencies' and adaptation to overheating. Common building retrofit techniques involve improving insulation and/or airtightness, implementing water conservation strategies, updating heating or cooling systems, and installing renewable energy systems.

Why is it important?

The places where we live and work, and our schools, hospitals and public buildings are too often dangerously cold in winter and hot in summer, as well as often having poor indoor air quality. Heating our buildings, largely with gas, is the second biggest source of climate change emissions in the UK. We can't meet our climate goals, keep people safe and well at home and work or eradicate fuel poverty without retrofitting buildings. Retrofitting can cut energy waste, improve indoor environments and enable the switch to low-carbon heating systems.

DID YOU KNOW...

The UK has one of the oldest housing stocks with the most heat leakage in western Europe, possibly in the world!? Retrofitting is a key way to tackle cold homes.

By making improvements to our existing buildings, homes, and infrastructure we can reap the rewards of a variety environmental, social and economic benefits. The UKGBC Whole Life Carbon Roadmap shows how a nationwide retrofit effort could reduce a household's annual energy bill by hundreds of pounds, create at least 500,000 high skilled jobs across the country and prevent 6,000 avoidable deaths each year, due to increased thermal comfort!

What is the role of the built environment?

It is estimated that 80% of the homes that will exist in 2050 have already been built. What this means is that if the UK is to reach its legally enshrined commitment to be net zero by 2050, it is mission-critical to focus on improving the carbon efficiency of existing buildings, homes, and infrastructure. In addition, 71% of UK built environment emissions are produced from operational emissions (from energy needed to heat, cool and power our buildings). With just under two-thirds of the nation's homes rated an EPC rating 'D' or below, we have a sizeable housing stock that is wasting precious energy on a daily basis. Retrofitting provides an answer to all of these issues and is therefore essential for our buildings and communities to have a sustainable future.

FURTHER RESOURCES

- UKGBC Home Retrofit
- UKGBC The Retrofit Playbook
- UKGBC Commercial Retrofit
- WorldGBC Build Upon 2