

Introduction to domestic retrofit

Scope

- This module is aimed at **HomeWorks** registered tradespeople who will be acting as Low Carbon Ambassadors (LCAs), providing basic energy efficiency advice to homeowners
- It is one in a series of training modules aimed at LCAs:
 - **Introduction to domestic retrofit**
 - What is **HomeWorks**?
 - Understanding an EPC (Energy Performance Certificate)
 - Energy efficiency measures (EEMs):
 - Low/no cost measures
 - Loft insulation
 - Draught-proofing
 - Cavity wall insulation
 - Solid wall insulation
 - Replacement windows
 - Boiler replacement



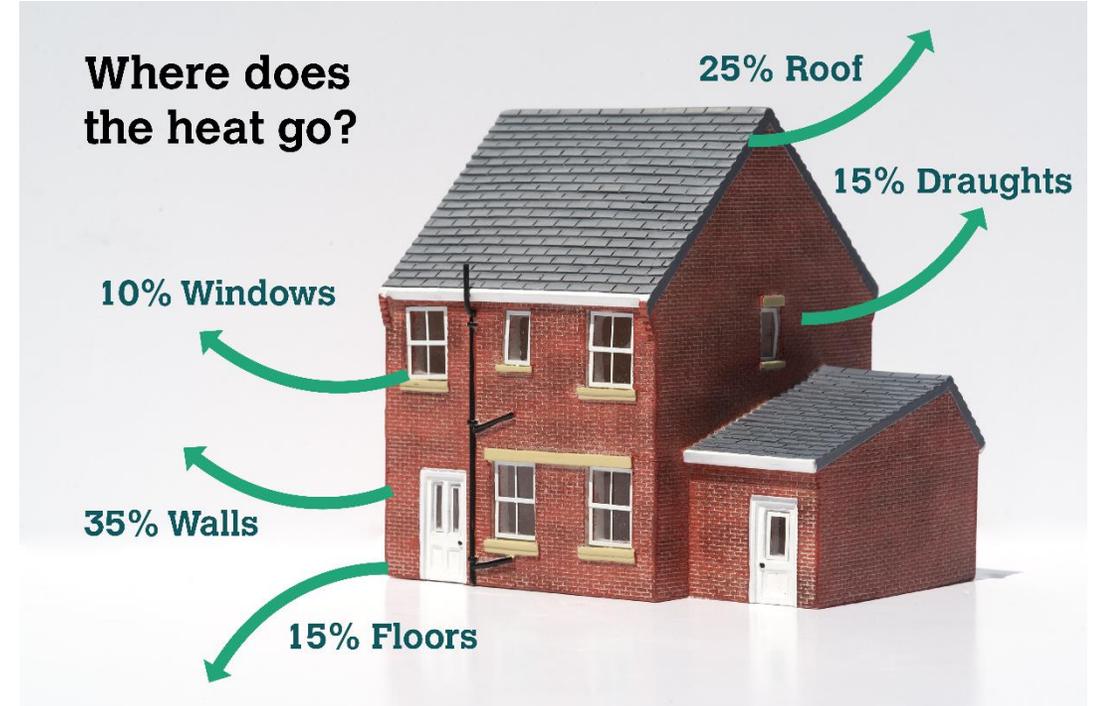
Introduction to domestic retrofit - Learning outcomes

- This training module will help you understand:
 - Key principles and considerations when retrofitting domestic properties
 - Drivers and policies designed to encourage domestic retrofit
 - Standards relating to domestic retrofit, in particular PAS 2035



Background – The drivers for domestic refurbishment

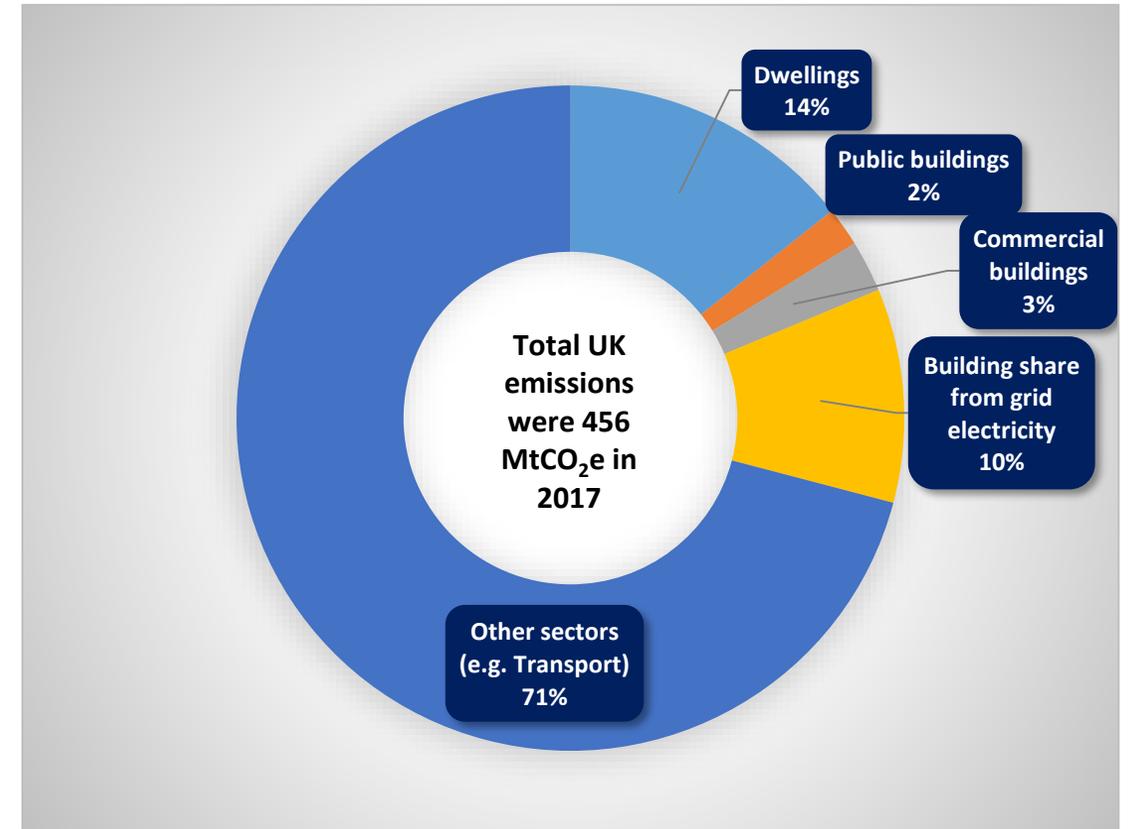
- Many homes are still poorly insulated with heat being lost through the fabric
- Heating systems can be inefficient and lack effective controls
- Many homeowners do not improve their homes because they do not:
 - Understand the energy that is wasted
 - Appreciate what can be done and the benefits it will bring
 - Want the hassle of installing measures



How to reduce these heat loss routes are addressed in the modules describing energy efficiency measures

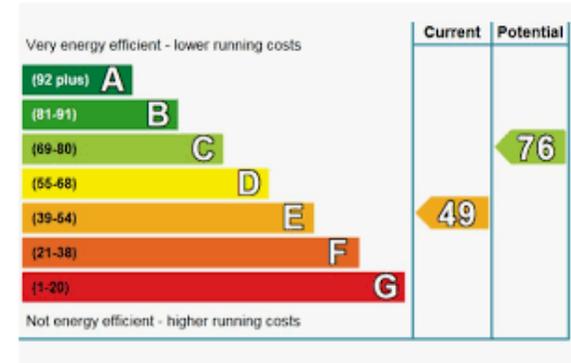
Background – The drivers for domestic refurbishment

- UK has agreed to 100% reduction in greenhouse gas emissions by 2050 compared to 1990 levels
- 14% of carbon emissions come from homes
- Improving the energy efficiency of dwellings also:
 - Reduces fuel poverty
 - Improves householders' thermal comfort, saves money and could increase property value
 - Increases security of supply



Background – Targets and policies

- The government has a target to improve the EPC rating of all homes to Band C by 2035 - see *Understanding an EPC*
- It has various policies to support this:
 - The ECO programme enables installation of insulation and efficient heating systems in low-income and vulnerable households
 - Legal minimum EPC level for privately rented homes
 - Incentives to promote renewable energy
 - Reduced VAT on energy efficiency measures etc.
- **But** - EEMs do not always deliver expected energy savings and could even increase other risks if not designed or installed properly



Standards for Domestic Retrofit

- **PAS 2035:2019**
 - Is key document in framework of standards on installing EEMs in existing dwellings
 - Uses **whole house approach** including **fabric first**, i.e.
 - consider performance of whole dwelling
 - focus on insulating envelope before introducing new building services and renewable technologies
 - Defines qualifications and responsibilities of individual retrofit roles and activities required before and after EEM installation
 - Linked to PAS 2030, which is standard to which all energy efficiency installers must be certificated and compliant
- For further detail see **What is HomeWorks?**



Standards for Domestic Retrofit

- PAS 2035 is supported by other standards
- ECO3 has adopted PAS 2035 to help ensure EEMs are installed properly
- **HomeWorks** also adopts the standard to ensure robustness and confidence
- The role of LCA does not form part of PAS 2035 delivery, so it is important that you pass on information to those qualified through the standard

