



# PAS 2035, Roles and Responsibilities. PAS 2030 Certification, PAS 2038 and Trustmark Accreditation

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# Something to think about and why PAS is so important

Did you know, homes in the UK are among the least environmentally friendly in Europe? A lot of this comes down to the age of our buildings; most were built pre 1990s when energy efficiency had no regulations whatsoever. As a result, 'out of the existing 29 million homes in the UK, at the moment only eight million homes meet the highest energy standards.'

# Retrofitting

Home retrofit is the upgrading of homes across the UK to increase their energy efficiency and reduce or remove their reliance on fossil fuels for heating, including:

**Insulating homes:** using a range of techniques such as roof insulation, cavity wall insulation, floor insulation, external insulation and high performance glazing.

**Replacing gas with electric:** removing traditional gas boilers, replacing it with in a heat pump to heat the home. In addition, solar panels and a battery can be added to a home so that it produces its own renewable energy.

**Reduction of energy use:** through technology such as smart sockets or heat recovery systems to prevent wasted energy.

Retrofit can also include measures to improve the climate resilience of a home, such as the installation of external shutters and ventilation systems.

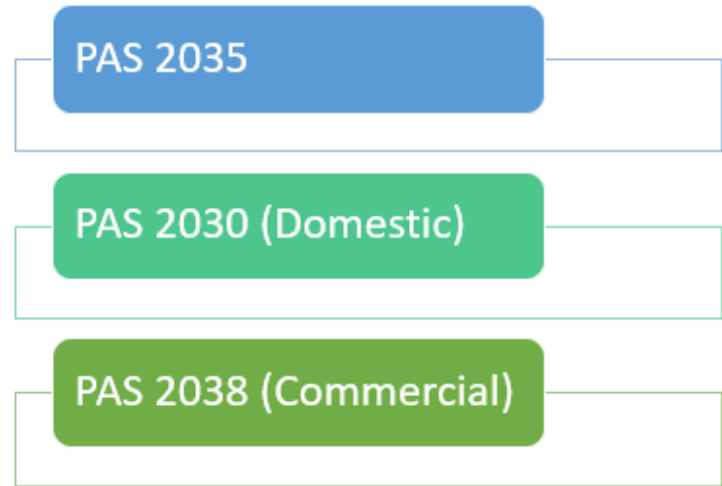


# What is PAS?

PAS (Publicly Available Specification) is a standardisation document that closely resembles a formal standard in structure and format.

PAS 2030 is a British Standards Institute (BSI) standard which sets out the requirements for installing, commissioning and handover of Energy Efficiency Measures (EEM's) in domestic retrofit projects.

The primary objective of PAS is to assist installers to comply with its requirements for EEMs, providing installation specification for a measure specific Annex.



# PAS 2035

PAS 2035 is the British Standard for retrofitting dwellings. First published in 2019, the standard outlines how retrofit projects should be managed and delivered.

A PAS 2035 retrofit is an energy retrofit (on an existing domestic building) that complies with the new framework laid out by the government. The aim of these installations is to make the home low carbon, sustainable and low cost, for years to come. This, in turn, not only helps the government meet their 2050 net zero goal, but also helps the customer lower the cost of their fuel and energy bills.

- PAS 2035 outlines the what, when and who of retrofit projects.
- It introduces several specialist roles and what qualifications and experience those people must have to practise.
  - Retrofit Assessor
  - Retrofit Advisor
  - Retrofit Coordinator
  - Retrofit Designer
  - Retrofit Evaluator





# What are the six principles of PAS 2035?

- 1. Whole house retrofit**  
Looking at the way the house functions efficiently as a whole, not just the individual elements. This doesn't just mean technical elements either, 'whole house' should take the occupants' individual needs into consideration too.
- 2. Bespoke projects**  
Every house is different, so every project's approach should be tailored to fit. 'Whole house' means looking at the house as an individual building too. What works for one, won't work for all.
- 3. Airtight, ventilate right**  
Ventilation is key, especially if you're making the building as draught proof and insulated as possible. Without proper ventilation, an otherwise airtight house will seal in harmful pollutants, like carbon monoxide, as well as moisture that can damage a house and cause toxic mould.
- 4. Quality is everything**  
Buy best, buy once; quality products and skilled workers are vital to ensure minimal defects or disruptions and overall improved efficiency. Both during the installation process and in the years after.
- 5. Professional Accountability**  
A professional should take responsibility for any success/failure.
- 6. Fabric first retrofit**  
The building fabric should be improved before introducing any new energy systems.

# Let's break those specialist roles down

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Retrofit Assessor.




As a regulated qualification, the Level 4 Award in Domestic Retrofit Assessment has some specific eligibility criteria. The minimum requirement for entry to all study methods is a Level 3 Domestic Energy Assessor qualification (DEA).



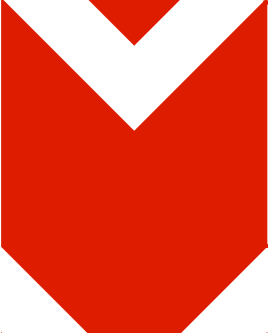
So, to become a retrofit assessor you have to have the DEA qualification which allows you to be able to carry out home assessments which are known as EPC's, Energy Performance Certificates.

# Retrofit Advisor


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Retrofit advisors give independent guidance to homeowners and residents, helping them understand retrofit and which options are available for their homes. They often work alongside retrofit coordinators, providing an important link between the people working on a property and those living in it.



Retrofit advisors are among the first to be engaged when new work begins. They will establish the project's needs and budget, and work with the retrofit coordinator to determine intended outcomes. Many remain involved in resident engagement throughout the assessment, design and planning stages of an installation.



This job is mainly about communication, keeping residents engaged and minimising disruption. In short, they are the eyes and ears on the ground. The AIM Qualifications Level 3 Award in Domestic Retrofit Advice gives you the knowledge, skills and confidence to provide retrofit advice.

# Retrofit Coordinator

- To comply with PAS 2035 every domestic retrofit project will need to be managed by an approved Retrofit Coordinator. A Retrofit Coordinator is the individual who will be responsible for overseeing the assessment of dwellings as well as the subsequent specification, monitoring, and evaluation of energy efficiency measures, in accordance with PAS 2035.
- A Retrofit Coordinator will manage a retrofit project from inception to completion, and will need to liaise with building owners, Retrofit Assessors, Retrofit Designers and Retrofit Installers to ensure effective end-to-end project management.

## What do you need?

- Hold 12 Level 3 credits in a built environment subject
- Display built environment professional competencies as defined by PAS 2035 (e.g. project management, risk assessment etc)
- Have a minimum of 2 years of experience working on retrofit or energy efficiency projects (as evidenced by a CV or letter of endorsement from your employer)



# Retrofit Designer

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Outlined in the PAS 2035 process, the expertise of a qualified Retrofit Designer is key, as they craft comprehensive documentation tailored to each dwelling, specifying the materials, products, and systems essential for installing energy efficiency measures effectively

## Who can be a Retrofit Designer?

Chartered Architects, Architectural Technologists and Technicians (ARB, MCIAT, FCIAT, CIAT), Chartered Building Surveyors (MRICS, FRICS) or Professional Members of the Chartered Institute of Building (MCIQB, FCIQB)



# Retrofit Evaluator

- Person qualified to monitor and evaluate the effectiveness of a retrofit project and provide feedback to the client / and or the project team.
- Evaluator/Assessor
- As a regulated qualification, the Level 4 Award in Domestic Retrofit Assessment has some specific eligibility criteria. The minimum requirement for entry to all study methods is a Level 3 Domestic Energy Assessor qualification.

# What is the difference between PAS 2030 and PAS 2035?



## PAS 2030



When the government retrofit funding scheme started, PAS 2030 was created as a way for businesses to prove they have complied with the specified standards for their



To be awarded funding, PAS 2030 must be applied for and proven with supporting documentation.



## PAS 2035



PAS 2035 on the other hand, is not a certification: it's an industry standard that lays out the specifications retrofitting must meet to be compliant with funding

So those were the aims and objectives of PAS 2030 but what do they cover?

PAS 2030 covers three primary types of insulation





# BFM – Building Fabrics Measures

13 measures – Annexes B1 to B13

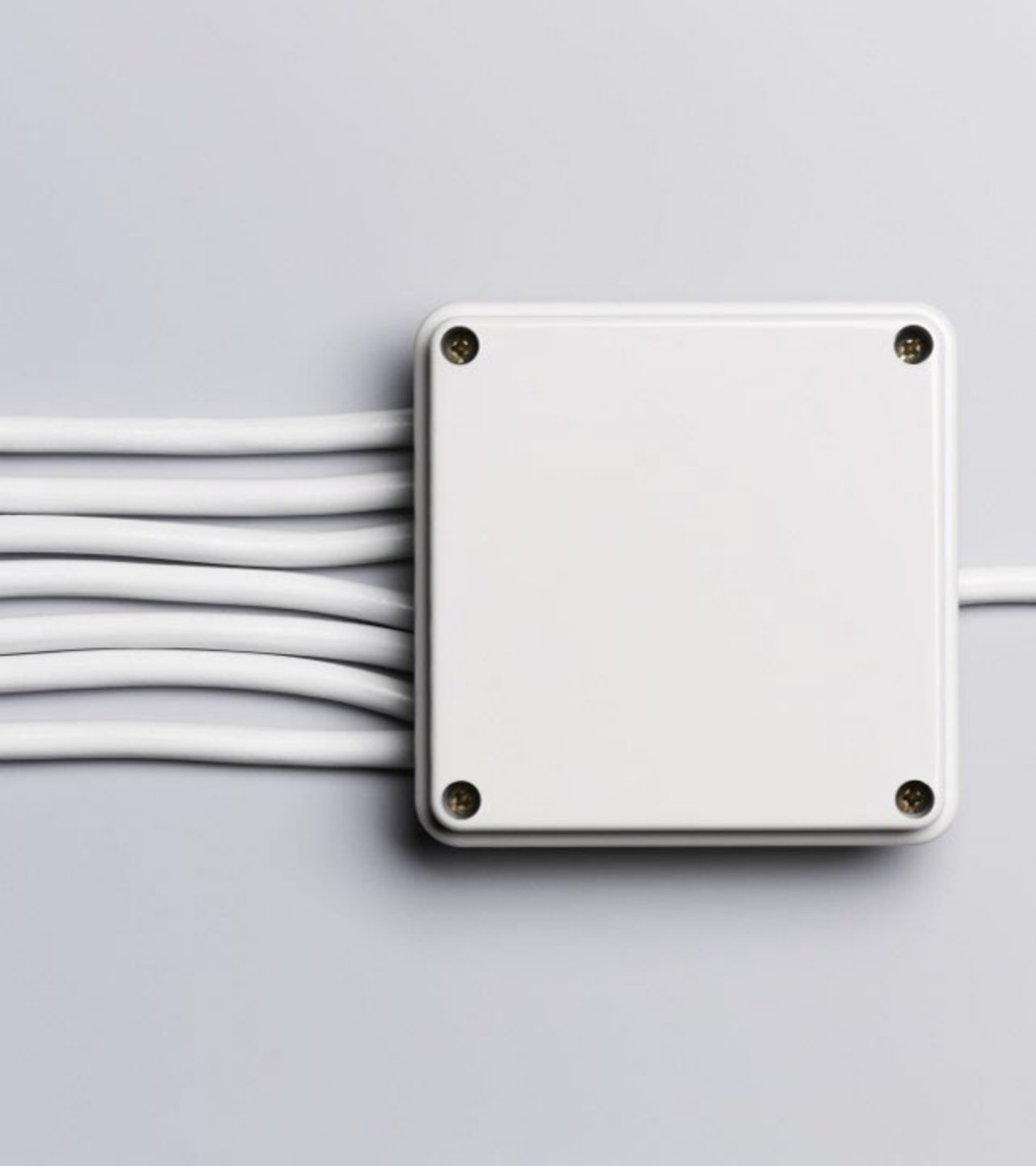
- Cavity wall insulation
- Draught proofing
- Energy efficient glazing and doors
- External wall insulation
- Flat roof insulation
- Floor insulation
- Hybrid wall insulation
- Internal wall insulation
- Loft insulation
- Pitched roof insulation
- Solar blinds and shutters
- Room-in-roof insulation
- Park Home insulation

# BSM – Building Services Mechanical

10 measures – Annexes C1 to C10

- Gas-fired condensing boilers
- Oil-fired condensing boilers
- Flue-gas heat recovery
- Heating system insulation
- Heating and hot water controls
- Hot water systems
- Mechanical ventilation heat recovery
- Under-floor heating
- Warm-air heating
- Water-efficient taps and showers





# BSE – Building Services Electrical

Annexes D1 and D2

- Electric Storage Heaters
- Light Fittings
- Lighting Systems
- Lighting System Controls
  
- Microgeneration – Solar PV, Solar Thermal, Heat Pumps etc. (These measures require MCS Certification & MCS 023)

# So, first, what are the benefits of PAS 2030?

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Win more business



Demonstrate competence in tenders



Accredited, industry standard credentials



Meet the requirements for Green Deal and ECO installations



Instil confidence in customers and stakeholders



Access funding for customers (including Affordable Warmth)



Become a recognised Eco-Installer



Become Trustmark registered

# In order to apply for PAS 2030 certification, you must demonstrate that your business has:

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Quality Management Systems

Suitable contracts

Evidence of appropriate training and competency within your team

Continual professional development plans for your team

Continual improvement plans for your products, service, processes and performance

Records of historical installations

Evidence of stored documents

Health & safety policy statement

Evidence of specialist equipment standards

Complaint procedures

Customer engagement procedures

Customer handover procedures

# PAS 2038

- PAS 2038 is a set of guidelines for those involved in the retrofit of commercial buildings in England and Wales to follow. It explains the different roles included in the process, as well as the different standards and competencies required.
- PAS 2035, will require retrofit professionals to follow PAS 2038 in order to access funding. Therefore, it is recommended that those involved in retrofit have a good knowledge of PAS 2038 in order to gain access to more commercial opportunities.
- Only qualified Non-Domestic Energy Assessors (NDEAs) can become Lead Assessors or Lead Professionals. This puts NDEAs in a great position to take advantage of this opportunity and train to carry out work to PAS 2038 standards.
- Retrofit Assessors and Coordinators who are not also qualified Non-Domestic Energy Assessors will not be able to carry out work in accordance to PAS 2038.

## Role differences from PAS 2035



What are the roles?



The Lead Professional acts as the project manager, much like the Retrofit Coordinator in PAS 2035. they manage a project from start to finish, and will review the objectives and anticipated or desired outcomes.



The Lead Professional Assessor Leads the assessment of the building, which includes its use, condition and energy performance.

## What do they do?



# TrustMark

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Becoming TrustMark registered enables a company or sole trader to show their continual commitment to providing a superior service to all their customers. The TrustMark brand is recognised across the UK and is associated with high quality work and consumer confidence. When you register as a TrustMark trader, you unlock a wealth of benefits.

## Reasons why you should join TrustMark

- Committed to Quality, Quality Assurance
- High standards of competence, customer service and trading practices
- Driving up standards across all trades and access to new work opportunities
- Working with third parties to create new work opportunities
- Exclusive finance and cashback options for your customers from leading financial institutions
- Recommended by RESI, one of the UK's leading architectural practices for everyday homeowners
- Consumer Protection, Give your customers confidence that they're protected
- Help for you and your customers if things go wrong
- Access to support, training and an independent Ombudsman to help you resolve difficult complaints
- ECO and Government Funding
- Access Government funded schemes including Energy Company Obligation (ECO), Home Upgrade Grant (HUG), Local Authority Delivery (LAD) Scheme.

Once you are a relevant scheme member you can apply for both PAS Certification and TrustMark Accreditation.

Once you are ready to go here are some of the funding streams available for those delivering EEM (Energy Efficient Measures) through PAS/TrustMark certification and accreditation.



# Funding Streams

Several funding schemes require those delivering EEMs to be [TrustMark](#)-registered and [PAS 2030](#)-certified. Specifications/ designs must comply with [PAS 2035](#) and be installed as per [PAS 2030](#) to receive funding. These include:

- [Energy Company Obligation Funding \(ECO4\) – England, Scotland and Wales.](#)
- [Great British Insulation Scheme \(GBIS\) – England, Scotland and Wales.](#)
- [Home Upgrade Grant \(HUG\) – England.](#)
- [The Social Housing Decarbonisation Fund \(SHDF\) – England.](#)
- [Warmer Homes Scotland.](#)
- [Optimised RetroFit Programme – Wales.](#)
- [New Warm Homes Programme – Wales.](#)

# Where to find help?

- The [Association for Environment Conscious Building \(AECB\)](#) – provides retrofit training aligned with [PAS 2035/2030](#)
- [Carbon Co-op](#) – retrofit advice for people and communities
- [Energiesprong UK](#) – an innovative standard and funding approach for whole-house refurbishment
- The [Passivhaus Trust: Passivhaus Retrofit](#) – information on the Passivhaus retrofit standard EnerPHit
- [People Powered Retrofit](#) – support for householders and communities with the delivery of domestic retrofit projects~
- The [Retrofit Academy](#) – providing retrofit training that can lead to qualifications required by [PAS 2035](#)
- [Social Housing Retrofit Accelerator](#) – assistance for social housing providers across England to bid into the [Social Housing Decarbonisation Fund \(SHDF\)](#)



# It's a process, but there is lots of help and advice available

- Here are the PAS documents for further in-depth reading
- <https://retrofitacademy.org/knowledge/pas-2035/>

The Retrofit Academy is the go-to site for all things Energy Efficiency