

Retrofit Road Map Go Green Widcombe



Picture provided by the West of England Combined Authority

June 2024

Who are Retrofit West?

- › Retrofit West is a **Community Interest Company**, funded by the West of England Combined Authority.
- › Created by The Centre for Sustainable Energy in 2023 to address the 'self-funded' market about Retrofitting properties to help with home energy **efficiency** and **reduce** energy in the home
- › **Not-for-profit, free** and **impartial** advice for Homeowners
- › Working with **local** communities to help promote, inform and facilitate the retrofitting of homes in the West of England
- › Facilitate a functioning retrofit supply chain by engaging with Suppliers, contractors and trade professionals.



Why Retrofit your Home?



Reduce
energy
consumption



Reduce
energy costs



Create a
healthier and
more
comfortable
home
environment



Shield from
the impact of
energy
insecurity



Most crucially
help fight
climate
change in a
localised and
impactful way



What does Retrofit West offer?



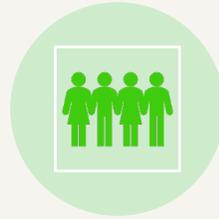
Free online plan builder– gives an overview of measures



Comprehensive website for information on measures and real-life local case studies



Customer **Forum**, linking homeowners and professionals



Professionals' **directory**



Free impartial **Advice** service– at any stage of the journey

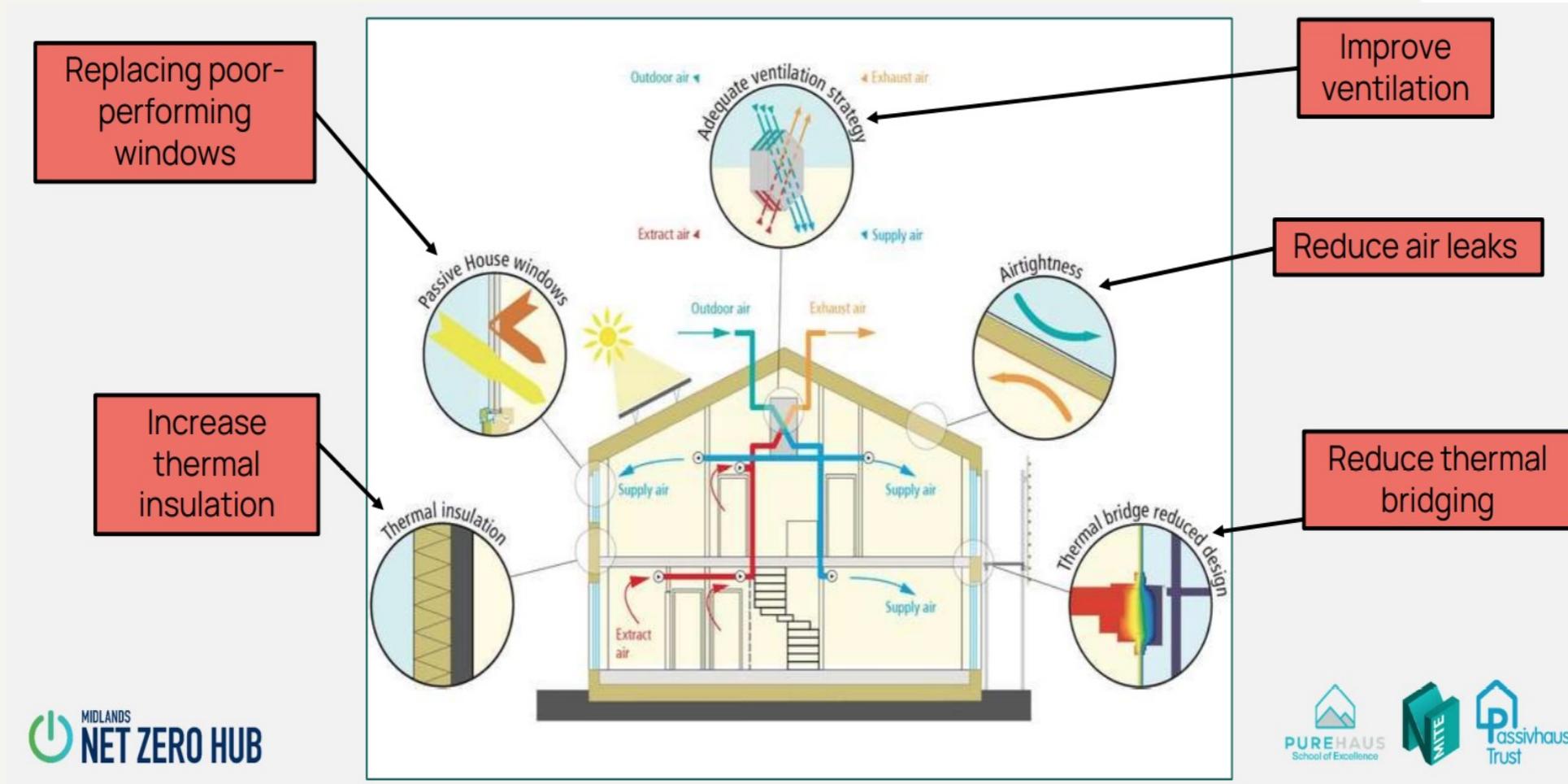


Discount voucher for Home Energy Assessments– up to **£250.00**

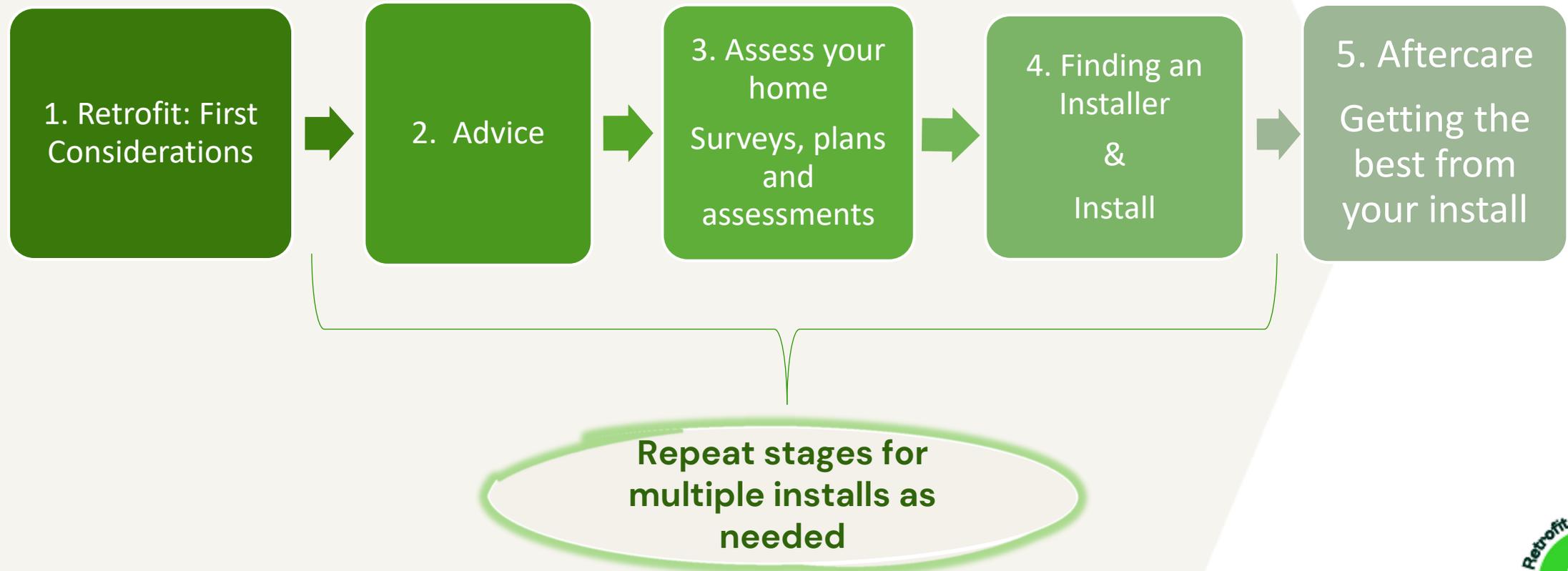


Retrofit Introduction

- › Interventions which reduce energy consumption or decrease carbon emissions. You may also hear terms such as 'domestic retrofit' or 'energy efficiency retrofit'.



Retrofit Journey



1. Retrofit: First considerations

› What is the **objective**?

- › Reduce carbon footprint, reduce bills, modernise/extend home, improve comfort, internal air quality

› What is your **budget** (you could be eligible for a grant)?

› What level of **disruption** are you willing to accept?

› Is there any “**low hanging fruit**”?



Retrofit: First considerations

Measures

- DIY and Draughtproofing
- Low energy Lighting
- Roof Insulation
- Windows and Doors
- Solid Wall Insulation (Internal or External)
- Cavity Wall Insulation
- Ventilation and Air Quality
- Floor Insulation
- Under floor heating
- Solar PV and Battery Storage
- Renewable Heating- Air Source Heat Pump



2. Initial Advice

- ▶ **Start with free, impartial** advice: telephone/email advice with Retrofit West and online plan builder: <https://retrofit-west-advice.planbuilder.co.uk/>
- ▶ **Ask the forum**, a platform for Homeowners to ask questions to Retrofit professionals <https://www.retrofitwest.co.uk/retrofit-forums/>
- ▶ Retrofit West **Knowledge** pages [Knowledge Bank](#) » [Retrofit West](#)
- ▶ Heat Geek (for heat pumps): <https://www.heatgeek.com/about/>
- ▶ CSE factsheets: <https://www.cse.org.uk/my-home/advice/>

Plan Builder
for 4 Berkeley Road, Westbury Park, Bristol, BS6 7PJ - [anything look wrong?](#)

filter to recommended (best **fuel bill saving** measures for **£10,000**)
 filter to your selections

Category Filters

- All Categories
- Basics
- Roof
- Walls & Floor
- Windows & Doors
- Heating
- Renewables
- Others

Showing all possible measures

Measure	Cost	CO ₂ Savings	Status
Room thermostat	£95	0.21 tCO ₂	In plan
Multi zone heating controls	£634	0.54 tCO ₂	Conflicting measure selected
Remove the solid fuel room heater	£330	-0.28 tCO ₂	In plan
Solar photovoltaic panels	£7,145	0.45 tCO ₂	In plan
New gas combi boiler with flue gas heat recovery	£3,360	0.65 tCO ₂	+ add
Draughtproof doors and windows	£192	0.03 tCO ₂	In plan

Summary:
£860 (44%) estimated annual fuel bill saving
0.54 (13%) estimated tonnes CO₂ saved annually

Estimated Cost: £9,917

[Continue](#)

Our calculations are made using the Government's calculation method RdSAP, the latest energy tariffs and cost of measures. Estimates of carbon savings take into account the benefits that renewable energy are bringing to the UK's energy supplies.

Actual costs and benefits will



Grants

› Means tested or postcode specific:

- › Energy Company Obligation (ECO4)
- › Home Upgrade Grant (HUG2)
- › Connected for Warmth (Air Source Heat Pumps)
- › *Common eligibility criteria are EPC of D or lower, income below £36,000*

› Non-means tested:

- › Boiler Upgrade Scheme (BUS) up to £7,500
- › LEAP boiler scheme
- › Smart Export Guarantee
- › Great British Insulation Scheme (GBIS)- Apply through supplier
- › Retrofit West voucher

› Energy Loans available with Lendology up to £20,000, long payback period, low interest

› Grant eligibility can be complex, contact us for advice!

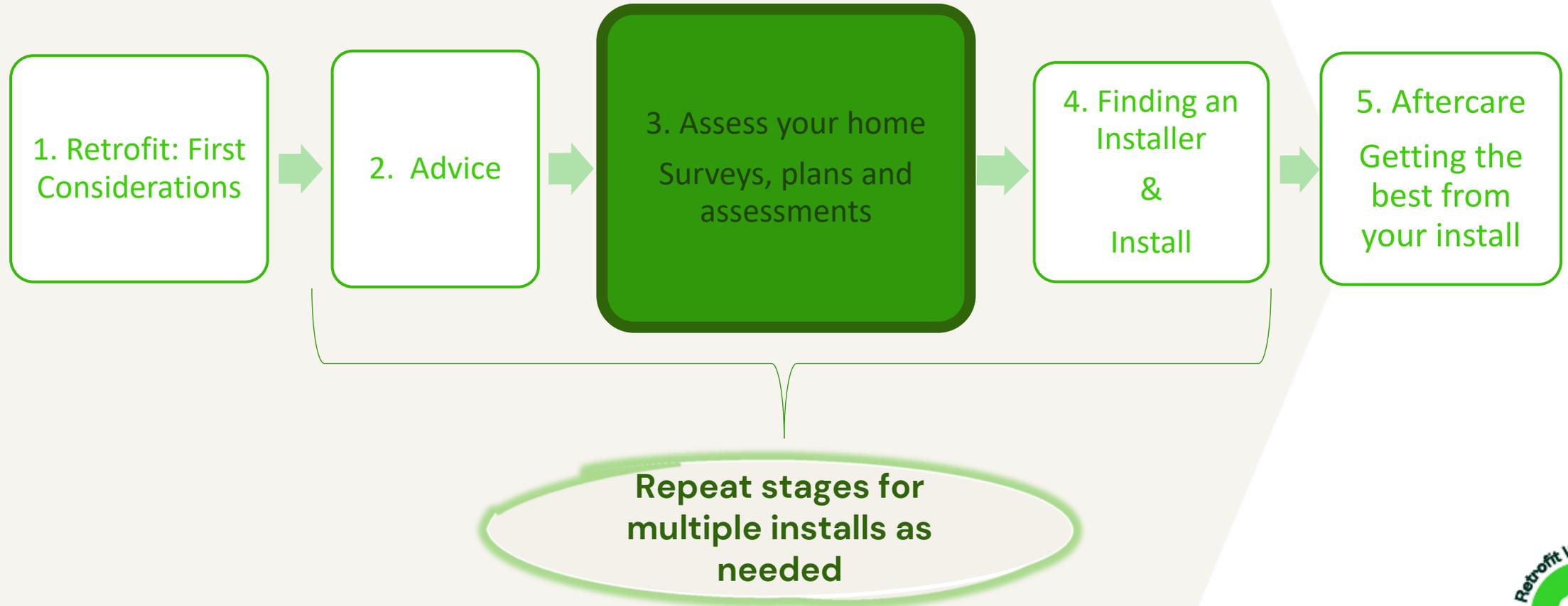


Fabric First: Maintenance

- › Maintaining your home is the first step towards increasing your own comfort and the energy efficiency of the building, because this allows the building to work as effectively as possible.
 - › **Moisture** responsible for vast majority of building problems
 - › A **damp** wall is a cold wall! 30% more heat loss
 - › Fix leaks, roofs and gutters; high ground levels; vents



Retrofit Journey



3. Surveys, plans and assessments

› Unclear on what to prioritise, or what is technically feasible?

- › There are a range of surveys available depending on your objectives

› A Medium term Retrofit Assessment

- › In-depth 'whole house' approach assessment
- › Identify risks (moisture/ventilation, remedial works) and develop a sequence of works and future plan
 - › **Examples:** BWCE Futureproof survey & Chapter 2 Architects

› Home Energy Efficiency Plan (HEEP)

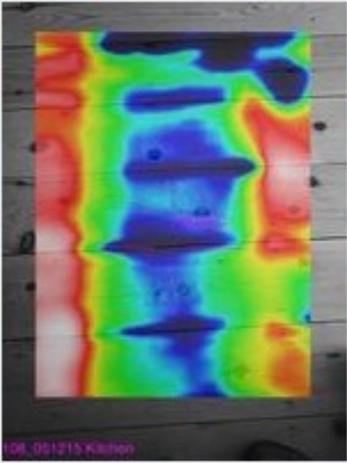
Launching Autumn 2024

- › Low-cost advisory and assessment service that offers high-level retrofit support for homeowners, including a home survey, homeowner questionnaire, property inspection, on-site expert advice, a detailed summary report including cost and guidance on next steps

› Thermography

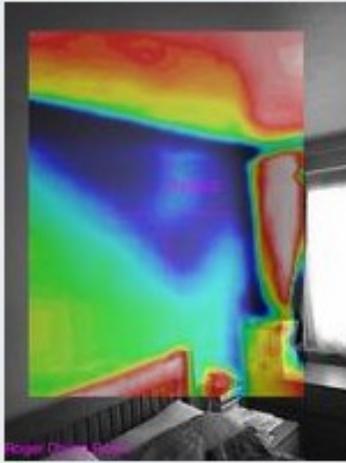
- › Thermography survey for identifying draughts/thermal bridges
- › Can be combined with airtightness testing
- › Can be used throughout installs





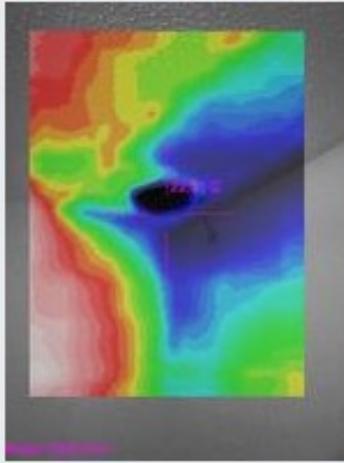
108_051215 Kitchen

Draught between floorboards



108_051215 Kitchen

Missing cavity wall insulation



108_051215 Kitchen

Cold bathroom vent



108_051215 Kitchen

Cold loft entrance



108_051215 Kitchen

Poorly fitted window

Using a blower door
for Air Pressure testing



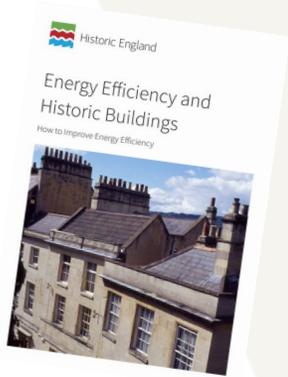
PAS2035

- ▶ British standard for managing and delivering domestic retrofit projects.
- ▶ Adopts Fabric First approach
- ▶ Involves specialist roles: retrofit advisor, assessor, coordinator, designer & installer.
- ▶ Promotes a whole house approach, **ventilation** must be considered
- ▶ Mandatory for **government-funded** retrofit work only. Framework good practice for domestic projects



Planning

- › **Conservation areas:** changes to building aesthetics visible from the road are likely to require planning permission
- › **Listed buildings:** changes to external and internal features may required listed building consent and planning permission.



4. Finding installers

› Accreditation schemes for competent installers:

- › Microgeneration Certification Scheme (MCS) for heat pumps, batteries, solar, biomass
- › National Insulation Association (NIA) for insulation installers
- › Trustmark: government endorsed quality scheme for multiple measures
- › NICEIC for electrical work
- › FENSA for windows

› Retrofit West installer directory- [Find a Retrofit Professional](#) » [Retrofit West](#)

- › Retrofit West on board professionals
- › Qualifications and certifications are checked prior to onboarding

The screenshot shows the Retrofit West website's search results for installers. At the top, a search filter titled "What service do you need?" lists various services with checkboxes: Solar Panel Installation, Cavity Wall Insulation, Windows and Doors, Architect, Product Specialist/Manufacturer, Heat Pump Installation, Floor Insulation, Battery Storage, Structural Engineer, Building Merchant, External Solid Wall Insulation, Loft and Roof Insulation, Smart Home, Energy Assessor, Internal Solid Wall Insulation, Ventilation, Building Consultant, and Retrofit Assessor/Coordinator. Below the filter, it says "Showing 28 results". The main content area features three search results cards for professionals in Bristol, Bath & NE Somerset, South Gloucestershire. The first card is for a "Product Specialist/Manufacturer" (299 LIGHTING) with a description: "We are experts in lighting design and supply, specializing in energy-efficient lighting solutions. Our mission is to reduce energy consumption and make property sustainable & eco-friendly." The second card is for a "Building Consultant" and "Architect" (Askw Architects) with a description: "Askw Architects specialises in contemporary, sustainable architecture, focusing on residential and community projects." The third card is for a "Building Consultant" and "Retrofit Assessor/Coordinator" (EXPERTS) with a description: "We are an award-winning sustainability consulting, testing, and retrofit company. Based in Bristol but operating nationwide, we provide a range of services for housebuilders, property developers, etc." Each card includes a "Send a Message" button and a "Visit Website" link. The top navigation bar includes "Homeowners", "Retrofit Professionals", "Knowledge Bank", "Forum", "About Us", and a "Free Voucher" button. A "Get Free Advice" button is also visible in the top right corner.





Gather multiple quotes, you can discuss quotes with **Retrofit Expert at Retrofit West**



Professionals' **directory**

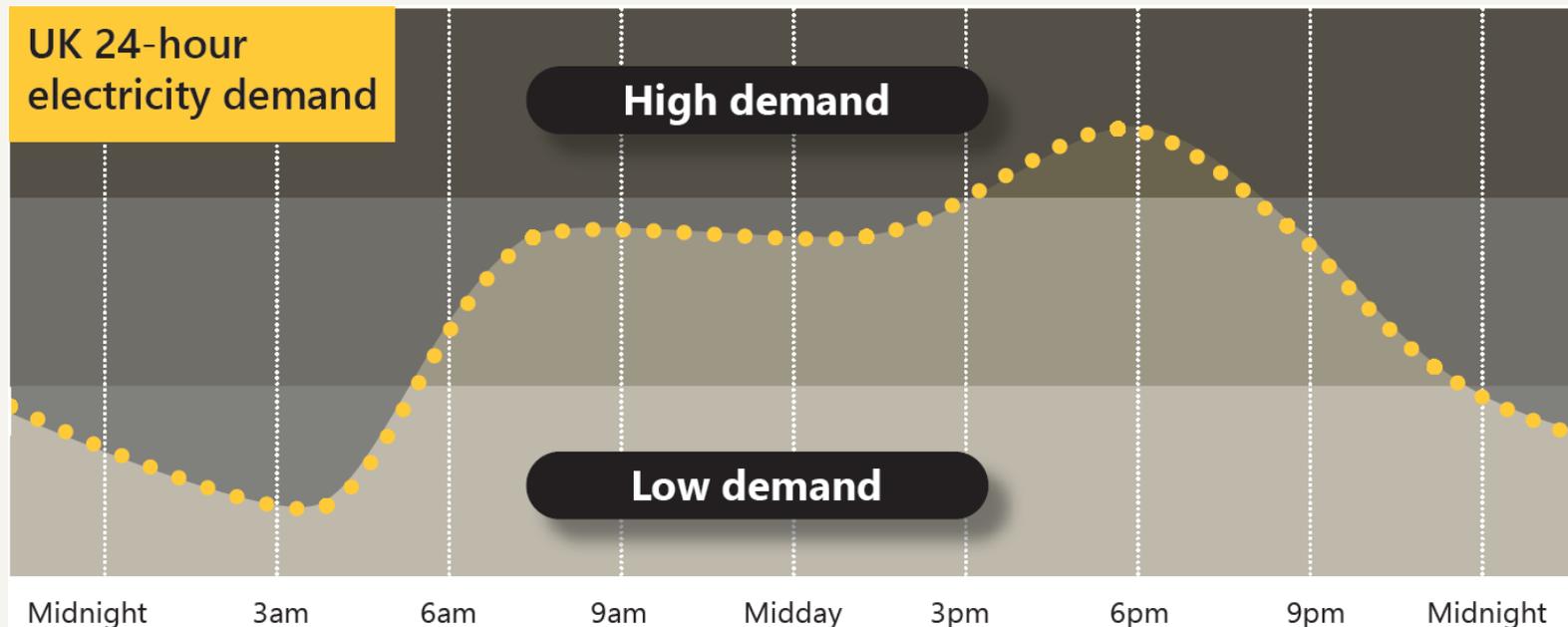


Agree works and price in writing, sign a contract where possible



5. Handover and aftercare

- › Advice on making the most of new installations, e.g. solar panels and heat pumps
- › Lifestyle changes, understanding controls
- › Understanding next steps and complimentary technologies, e.g. battery storage, solar diverters, electric vehicle charging, energy management systems.
- › Support with electric meter and tariff types (import/export tariffs, heat pump tariffs, dynamic tariffs).
- › Maintenance requirements for new measures.



Recap of how the retrofit journey could look



Any questions?

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