

# Green Home Retrofit Finance Principles

# Introduction

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The domestic retrofit market seeks to facilitate and support the retrofitting of homes in the UK to lower the environmental impact of housing through reducing energy consumption and carbon emissions, as well as adapting homes to reflect the need for climate resilience.

**The GHRFPs seek to create an industry-recognised framework of market standards and guidelines, which provides a consistent and transparent methodology for the application of financial proceeds towards the retrofitting of domestic buildings.**

The Green Home Retrofit Finance Principles (GHRFPs) have been developed with a view to supporting the market for financing the improvement of energy efficiency, climate resilience or the reduction of carbon emissions of domestic properties. The GHRFPs seek to create an industry-recognised framework of market standards and guidelines, which provides a consistent and transparent methodology for the application of financial proceeds towards the retrofitting of domestic buildings that achieves verifiable environmental benefits.

The GHRFPs comprise voluntary recommended process guidelines that seek to promote integrity in the development of the domestic retrofit finance market by clarifying the circumstances in which a financial solution may be categorised as a Green Home Retrofit Financing. The GHRFPs may be applied by market participants on a deal-by-deal or product-by-product basis, depending on the underlying characteristics of the transaction. Market participants should determine how best to adopt and apply the GHRFPs within their individual organisations.

The GHRFPs are intended for broad use across the domestic property market, initially focussing on the owner-occupied and private rented sectors. However, it is hoped that the framework will be applied outside of this scope, in order to promote the development of the domestic retrofit market as a whole.

# Green Home Retrofit Financing

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A Green Home Retrofit Financing is any type of financing made available to finance or re-finance, in whole or in part, the retrofitting of domestic buildings (single-family or multi-family) to achieve verifiable improvements in their energy efficiency, carbon emissions or climate resilience.

Green Home Retrofit Financings must align with the four core components of the GHRFPs, as set out below. Green Home Retrofit Financings should not be considered interchangeable with other financial products that are not aligned with the four core components of the GHRFPs. Market participants should determine the appropriate method of aligning with the four core components of the GHRFPs.

## Four Core Components

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The GHRFPs set out a clear framework, enabling all market participants to clearly understand the characteristics of a Green Home Retrofit Financing, based around the following four core components:

- 01. Use of Proceeds**
- 02. Process for Project Evaluation and Selection**
- 03. Management of Proceeds**
- 04. Reporting**

# 01.

## Use of Proceeds

The fundamental determinant of a Green Home Retrofit Financing is the utilisation of the funds for Green Home Retrofit Projects, which should be appropriately described in the finance documents. All designated Green Home Retrofit Projects should achieve verifiable environmental benefits and do no significant harm to other environmental objectives.

Where funds are to be used, in whole or part, for refinancing, it is recommended that borrowers provide an estimate of the share of financing versus refinancing. Similarly, where funds are to be used in part for financing a Green Home Retrofit Project(s), it is recommended that borrowers provide an estimate of the share of funding put towards the Green Home Retrofit Project(s).

# 02.

## Process for Project Evaluation and Selection

The borrower of a Green Home Retrofit Financing should communicate clearly to the lender(s) and/or investor(s) the proposed Green Home Retrofit Project(s) and where possible, how this relates to improvements in energy efficiency, climate resilience or the reduction of carbon emissions of the property.

The GHRFPs provide indicative categories of Green Home Retrofit Projects (see Appendix 1). Market participants are encouraged to use this foundation to develop their own robust criteria, referencing recognised industry standards as relevant. For the avoidance of doubt, the GHRFPs are designed to promote integrity in the development of the domestic retrofit finance market, not to take a position on the green technologies, standards, claims and declarations that are optimal for undertaking a Green Home Retrofit Project.

The GHRFPs recognise that national and international initiatives are considering standards and verification frameworks for the domestic retrofit market (see Appendix 2). These may provide further guidance to lenders, investors and borrowers as to what may be considered an eligible Green Home Retrofit Project, including how to verify resulting environmental benefits. In addition, there are institutions that provide independent analysis, advice and guidance on the quality of different environmental solutions and practices.

# 03.

## Management of Proceeds

Green Home Retrofit Financings should be appropriately tagged in the internal systems of the lender(s) and/or investor(s), in order to maintain transparency and promote the integrity of the product.

# 04.

## Reporting

Evidence of an improvement in the energy efficiency, carbon emissions or the climate resilience of the property should be captured by the lender(s) and/or investor(s), as soon as is practicable. The improvement may be evidenced by an industry-recognised metric or methodology, for example:

- an improvement in Energy Performance Certificate (EPC) rating;
- an improvement in Standard Assessment Procedure (SAP) rating;
- an improvement in other suitable property metrics;
- verification by an external review provider; or
- verification by a Government-endorsed organisation such as TrustMark.

Market participants can consider public disclosure of information related to Green Home Retrofit Financings, where considered appropriate and in compliance with General Data Protection Regulation (GDPR) requirements.

# Appendix 1:

## Directory of indicative categories of Green Home Retrofit Projects

This non-exhaustive directory sets out indicative categories of Green Home Retrofit Projects, listed in no specific order. The GHRFPs encourage market participants to use this foundation to develop their own robust practices, referencing recognised industry standards as relevant. This directory is relevant as of 28 September 2020.

- **Energy efficiency measures:** Including tank and pipe insulation; draught proofing; loft insulation; low-energy lights; insulation to existing envelope components, such as external walls, roofs, lofts, basements and ground floors (including measures to ensure airtightness and reduce the effects of thermal bridges); cavity wall insulation; internal wall insulation; double glazing; insulated render; external wall insulation; energy-efficient external doors; etc.
- **Heating measures:** Including air source heat pumps; ground source heat pumps; micro combined heat and power (micro-CHP); heating controls; replacement of old pumps with efficient circulating pumps; installation and replacement of heating, ventilation and air conditioning (HVAC) and domestic hot water systems, equipment related to district heating; etc.
- **Renewable energy generation:** Including solar hot water; solar photovoltaic; rainfall capture; etc.
- **Resilience measures:** Including BS 851188 standard products to enhance resistance to flooding, such as flood doors and windows, demountable barriers; measures to enhance resilience to flooding, such as resilient wall and floor finishes; resilient insulation; measures to enhance resistance to heatwaves such as external shutters, external insulation; etc.
- **Other considerations:** Including associated carbon; recycling and reuse; future work and destruction; etc.

# Appendix 2:

## Directory of national and international initiatives on standards and frameworks for the domestic retrofit market

This non-exhaustive directory of national and international initiatives, listed in no specific order, sets out those standards and frameworks looking to support improvements in the energy efficiency, carbon emissions and/or the climate resilience of domestic properties. This directory is relevant as of 28 September 2020.

### Frameworks and standards currently operational in the UK

#### 1. Energy Performance Certificate (EPC) and Standard Assessment Procedure (SAP)

An EPC is required for properties when constructed, sold or let. The EPC provides details on the energy performance of the property and what can be done to improve it, containing:

- information about a property's energy use and typical energy costs,
- recommendations about how to reduce energy use and save money.

An EPC gives a property an energy efficiency rating from A (most efficient) to G (least efficient), alongside a numerical score out of 100, and is valid for 10 years.

The SAP is the methodology used to generate an EPC, produced by an accredited assessor registered with a certification body.<sup>1</sup>

#### 2. BREEAM

BREEAM is a sustainability assessment method for master-planning projects, infrastructure and buildings. It provides third-party certification of an asset's environmental, social and economic sustainability performance, using standards developed by the Building Research Establishment (BRE).

Within BREEAM there is a standard that can be used to assess the refurbishment and fit-out of most types and uses of existing buildings, including homes. In the UK, there are separate standalone technical standards for non-domestic and domestic projects.<sup>2</sup>

BREEAM Domestic Refurbishment is a performance-based assessment method and certification scheme for domestic buildings undergoing refurbishment. The primary aim of this scheme is to improve the environmental performance of existing dwellings in a robust and cost-effective manner.

<sup>1</sup> <https://www.gov.uk/guidance/standard-assessment-procedure>

<sup>2</sup> <https://www.breeam.com/discover/technical-standards/refurbishment-and-fit-out/>

### 3. Publicly Available Specifications (PAS)

PAS are fast-track standards, specifications, codes of practice or guidelines developed by sponsoring organisations to meet an immediate market need.

Sponsored by the UK Government, PAS 2035 (PAS 2035:2019: Retrofitting Dwellings for Improved Energy Efficiency – Specification and Guidance) is an overarching document in the retrofit standards framework, covering how to assess dwellings for retrofit, identify improvement options, design and specify energy efficiency measures and monitor retrofit projects. This is the specification for installers to follow when selecting materials, components and methods of installation.

PAS 2030, which was redeveloped in conjunction with PAS 2035, continues to cover the installation, commissioning and handover of retrofit projects.

### 4. TrustMark

TrustMark is the Government Endorsed Quality Scheme covering work a consumer chooses to have carried out in or around their home.

TrustMark was established in 2005 in conjunction with Government, industry bodies and consumer protection groups. In response to the industry-led, Government-commissioned Each Home Counts review, the TrustMark remit has expanded to include all Repair, Maintenance and Improvement (RMI), Energy Efficiency and Retrofit measures.

TrustMark delivers consumer confidence through its network of Scheme Providers and their Registered Businesses. TrustMark Scheme Providers commit to meeting the Framework Operating Requirements, and ensuring their Registered Businesses maintain required standards of technical competence, customer service and trading practices.<sup>3</sup>

### 5. Passivhaus and EnerPHit Standards

Passivhaus is an international low-energy design standard.<sup>4</sup> Passivhaus buildings achieve a 75% reduction in space heating requirements, compared to standard practice for UK new-build. Passivhaus certification is also possible for very low-energy retrofit projects.

EnerPHit relaxes some criteria of the Passivhaus standard, where the existing architecture and conservation issues mean that meeting the Passivhaus standard is not feasible.

### 6. Code of Practice and guidance for property flood resilience – RP1055

Codes of Practice (CoP) are under development on planning for property flood resilience, including CIRIA and BRE's Code of Practice and guidance for property flood resilience – RP1055. The standalone CoP for property flood resilience was launched in February 2020. The associated CoP guidance for property flood resilience and complementary guides for households and businesses as well as local authority planners will be available in Autumn 2020.

Also of relevance is new standard BS 851188, which replaces the previous publicly-available specification for flood protection products and systems, PAS 1188.

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<sup>3</sup> <https://www.trustmark.org.uk/aboutus/what-is-trustmark>

<sup>4</sup> [https://www.passivhaustrust.org.uk/what\\_is\\_passivhaus.php](https://www.passivhaustrust.org.uk/what_is_passivhaus.php)

## 7. Energiesprong UK

Energiesprong is a whole house refurbishment and new build standard, offered with a specialised funding approach.<sup>5</sup> After an Energiesprong retrofit a home is net zero energy, meaning it generates the total amount of energy required for its heating, hot water and electrical appliances. This can be achieved by using new technologies, such as prefabricated facades, insulated rooftops with solar panels, smart heating, and ventilation and cooling installations.

## 8. Climate Bonds Initiative's Low Carbon Buildings Criteria

The Climate Bonds Initiative's Low Carbon Buildings Criteria sets out what building assets are eligible for certification under the Climate Bonds Standard.<sup>8</sup> They are divided into three different types, including residential buildings. This category includes buildings used for housing that includes single family, multi-family, and mixed use where more than 50% of the asset is residential. Subcategories of residential buildings have different emissions performance profiles. Existing instruments such as local building codes, energy rating schemes (e.g. US Energy Star) and energy labelling schemes (e.g. Energy Performance Certificates in the EU) are leveraged as emission performance proxies.

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# Frameworks and standards currently operational outside the UK

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## 1. The Energy Efficient Mortgages Action Plan (EeMAP)

The EeMAP Initiative aims to create a standardised “energy efficient mortgage”, according to which building owners are

incentivised to improve the energy efficiency of their buildings or acquire an already energy-efficient property, by way of preferential financing conditions linked to the mortgage.

EeMAP defines Energy Efficient Mortgages (EEMs) as mortgage products intended to finance the purchase/construction and/or renovation of both residential (single-family and multi-family) and commercial buildings where there is evidence of: (1) energy performance which meets or exceeds relevant market best practice standards in line with current EU legislative requirements; and/or (2) an improvement in energy performance of at least 30%.<sup>7</sup>

## 2. EU Taxonomy for sustainable activities

The EU Taxonomy provides a tool to help investors, companies, issuers and project promoters navigate the transition to a low-carbon, resilient and resource-efficient economy. The EU Taxonomy sets performance thresholds (referred to as ‘technical screening criteria’) for sectors including building and construction. The performance thresholds aim to help companies, project promoters and issuers access green financing to improve their environmental performance, as well as helping to identify which activities are already environmentally friendly.

## 3. Minergie home label – Switzerland

Minergie is a Swiss building label for new and retrofitted low energy consumption buildings, providing quality assurance in planning, construction and operation. Minergie provides three levels of building standards, based on a scale of improvements in comfort and energy.

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<sup>5</sup> <https://www.energiesprong.uk/about>

<sup>6</sup> <https://www.climatebonds.net/standard/buildings>

<sup>7</sup> [https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP\\_EMF-ECBC\\_D6.5\\_Final.pdf](https://eemap.energyefficientmortgages.eu/wp-content/uploads/EeMAP_EMF-ECBC_D6.5_Final.pdf)



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