

Briefing Note: Incorporating Innovative Products in Retrofit Programmes

BACKGROUND

To ensure that the Government and energy-supplier-funded retrofit programmes deliver their desired outcomes in terms of value for money and consumer protection, any Energy Efficiency Measures (EEMs) installed must meet certain requirements. The two primary requirements are:

1. The product's inclusion in the Standard Assessment Procedure (SAP) product databases, which act as the method of determining the efficacy of EEMs.
2. That installers must install the products in line with PAS 2030, which is the specification governing the installation of EEMs

SAP

SAP is the methodology currently used by the Government to estimate the energy performance of homes. SAP is developed by the Building Research Establishment (BRE), along with a simplified version called RdSAP for use when assessing existing dwellings. SAP and RdSAP are broadly equivalent, and this document will use the term SAP to encompass both.

In a home retrofit context, SAP is used to generate Energy Performance Certificates (EPCs), which provide information about the costs of running a property and its energy performance. SAP plays a key role in developing, implementing, and monitoring government policies on energy efficiency, fuel poverty, and heat decarbonisation, and is used across the whole buildings industry.

Data on individual EEMs, used for calculating SAP scores, are held within either the Product Characteristic Database (PCDB) or SAP Appendix Q Database. For innovative products that are not included in either one of these databases, a mechanism called Appendix Q must be used. This is typically used for products that have a greater energy saving benefit than standard or existing products in SAP. Once measures have passed through the Appendix Q process, they will be lodged within the Appendix Q Database, which contains all approved technologies that can be entered and scored appropriately within SAP.¹

PAS 2030/35

PAS 2030 is the industry specification for which all energy efficiency installers must be certified to, and compliant with, when carrying out energy efficiency measures under government policy schemes. This includes the Energy Company Obligation (ECO), Social Housing Decarbonisation Fund (SHDF), Home Upgrade Grant (HUG) and more. It sits within PAS 2035, which is a broader specification governing the totality of a retrofit project from initial assessment to evaluation.

Both standards were authored by the relevant technical committee of the British Standards Institute (BSI). However, BSI does not provide individual interpretation of standards: as the standard for standards BS 0:2021 states that:

Responsibility for interpreting a standard rests with its user, informed where necessary by appropriate expert advice.²

¹ Department for Energy Security and Net Zero, National Calculation Methodology, *SAP Appendix Q Database*, [source](#)

² British Standards Institute, *A standard for standards — Principles of standardisation*, section 4.3.2, [source](#)

All EEMs installed under such programmes must be “lodged” with TrustMark, the Government-endorsed quality scheme covering home improvements in or around the home, who verify compliance with the standard.

The process for innovative products being installed under PAS 2030 is not as formalised as the Appendix Q process set out for SAP. Instead, as it is the responsibility of “the user” to interpret the standards, it is the role of qualified retrofit professionals to apply existing standards as appropriate to new products. This involves selecting the most appropriate existing “measure type” found in PAS 2030 for the innovative product in question, which can be challenging for appropriately installing a solution of this nature.

EXISTING GUIDANCE

ELIGIBLE MEASURES

Both SHDF and HUG provide clear guidance on what makes an EEM eligible for funding:

SHDF: *Eligible measures are any energy efficiency and heating measures compatible with the Standard Assessment Procedure (SAP) that will help improve the energy performance of homes, excluding heating systems which are solely fuelled by fossil fuels.*³

HUG: *Eligible measures are any energy efficiency and heating measures compatible with the Standard Assessment Procedure (SAP) that will help improve the energy performance of homes.*⁴

Both definitions make clear that the key requirement for funding an EEM is that it makes a home more energy efficient and that this benefit is recognised in SAP. By definition, this means that products approved in the SAP Appendix Q Database are eligible for installation in SHDF and HUG projects.

³ Department for Business, Energy and Industrial Strategy, *Social Housing Decarbonisation Fund Wave 2.1 Competition Guidance Notes*, 2022, p24, [source](#)

⁴ Department for Business, Energy and Industrial Strategy, *Home Upgrade Grant: Phase 2 Guidance for local authorities*, 2022, p44, [source](#)

ELIGIBLE INSTALLERS

The requirements for installers are set out in guidance documents for both SHDF and HUG (with only the guidance for SHDF provided here for brevity):

All installers are required to be TrustMark Registered or equivalent, and compliant with corresponding requirements.

All projects must be compliant with “PAS 2035:2019 Retrofitting dwellings for improved energy efficiency. Specification and guidance” (PAS 2035:2019).

Installers are required to have the appropriate certifications for the eligible measures that they are installing on behalf of the Applicants as set out in the application.⁵ PAS 2035 requires that all energy efficiency measures within the scope of the PAS 2030:2019 standards must be delivered by installers who are certified to this standard and all low-carbon heating measures must be installed by a MCS certified installer.

The requirement for installers is clear in that they must be PAS 2030 certified for the installation of a specific EEMs. For innovative measures, there can be initial uncertainty as to which PAS 2030 measure type is most appropriate for a given product. The Department for Energy Security and Net Zero (DESNZ) has provided further clarity that it is the role of retrofit professionals (Retrofit Coordinators and Installers) to determine how this is best achieved:

⁵ Department for Business, Energy and Industrial Strategy, *Social Housing Decarbonisation Fund Wave 2.1 Competition Guidance Notes*, 2022, p22, [source](#)

It is up to retrofit professionals working within the standard to determine if they can install any product compliantly in line with the existing annexes within PAS 2035/2030 and/or their certification schemes/liability insurance.

A common misconception is that approving a product by TrustMark is a requirement for its inclusion in a PAS 2035-compliant retrofit project. This is not the case, and TrustMark set out their role on their website:

Under our function as the Government-Endorsed Quality Scheme for home improvements carried out in and around the home we register trades businesses, Retrofit Assessors and Retrofit Coordinator via our Scheme Providers. Our remit does not extend to the registration or approval of construction products.⁶

CONCLUSION

Guidance published by DESNZ sets out that EEMs approved within the SAP Appendix Q Database or PCDB are deemed eligible measures in both SHDF and HUG. These products can be installed by PAS 2030-certified installers, who can determine the most appropriate installation standards to apply.

⁶ TrustMark, *Frequently Asked Questions*, [source](#)