



TRUSTMARK
Government Endorsed Quality



A GUIDE TO
**ENERGY SAVING
RETROFIT**



BUILT TO PROTECT

ENERGY SAVING RETROFIT

What is Energy Saving Retrofit?

Energy saving retrofit is the process of installing and/or replacing parts of an existing building in order to make it more energy-efficient. They can be carried out for many different reasons; to ensure the longevity of the building or structure, to reduce the long-term operating costs of heating and cooling, or to reduce the level of CO₂ emissions as a result of heating and cooling. Government efforts to deal with climate change over the past few decades have made CO₂ emissions a key focus for energy saving retrofit jobs.

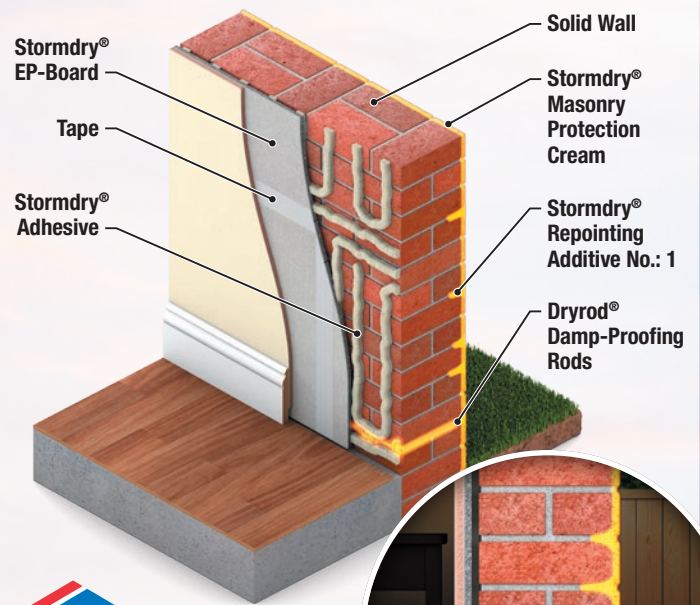
In 2019, the UK government made a commitment to reduce CO₂ emissions to net-zero by the year 2050. This policy was a revision of previous commitments to reduce emissions levels to below 20% of the emissions of the year 1990. As part of the effort to meet this more ambitious target, the government has overhauled and stepped-up its approach to retrofit with a brace of new grants, incentives and a new TrustMark approval scheme. Now is the ideal time to look into energy saving retrofit for your property.

What Measures Can I Take to Save Energy in My Property?

There is a very wide range of different energy saving retrofit methods such as energy-efficient boilers, solar panels and various types of insulation. Each method will present benefits and drawbacks in the form of the total amount of energy saved, installation costs and the total time needed to complete the project. The range of choices available can be bewildering. A good strategy is to choose an energy saving measure that makes large energy savings for minimal outlay.

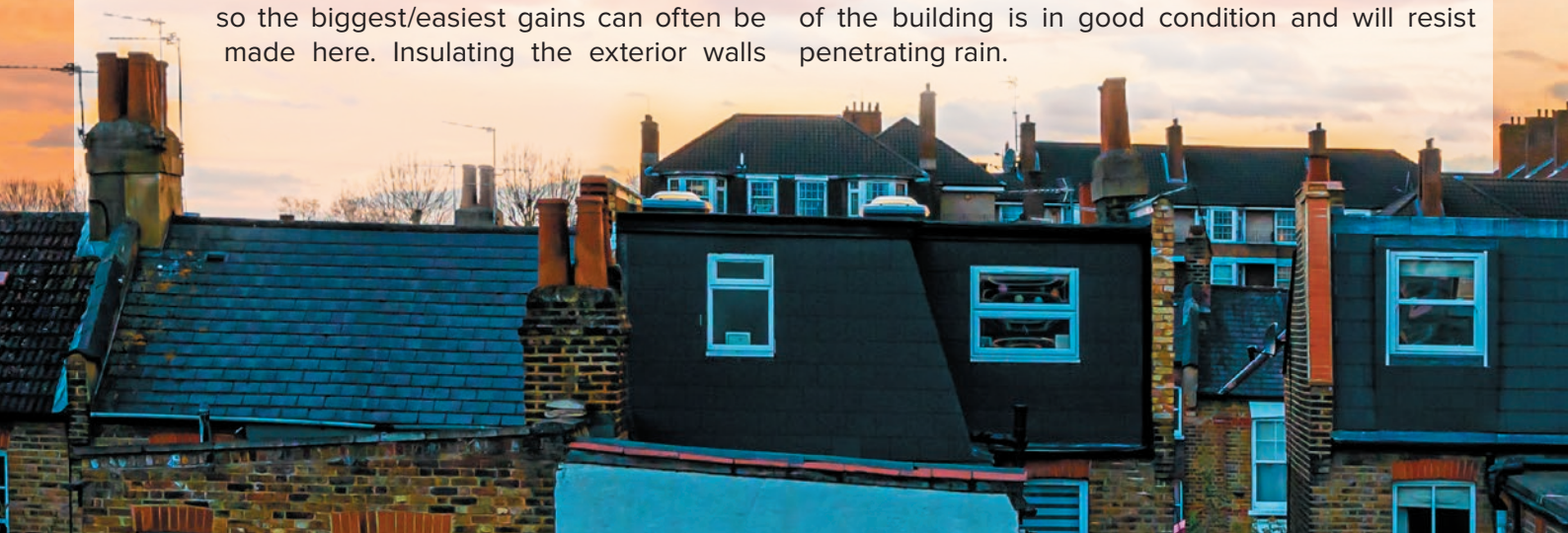
Studies show that over 35% of heat loss in buildings can occur through the exterior walls of buildings so the biggest/easiest gains can often be made here. Insulating the exterior walls

of a property can significantly reduce heat loss and reduce the amount of energy required to heat it. There is still a choice to be made about the specific type of insulation to use but this will most likely be determined by the type of property and the circumstances of the occupiers.



Solid Wall Construction (Conservation Area)

If your property is of solid-walled construction and it is either in a conservation area or is a listed property, the likelihood is that you will not be able to make any significant changes to the structure or to alter the exterior facade of the building. In this situation, internal wall insulation can be installed. It should be noted, however, that internal wall insulation is the type of wall insulation most at risk from moisture, therefore it is important to ensure the external façade of the building is in good condition and will resist penetrating rain.



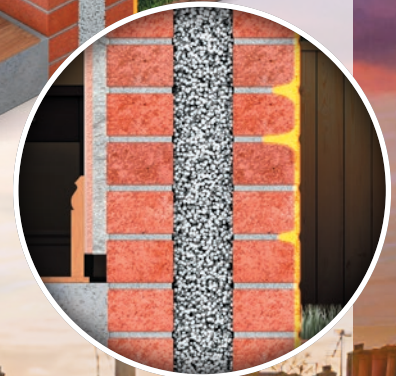
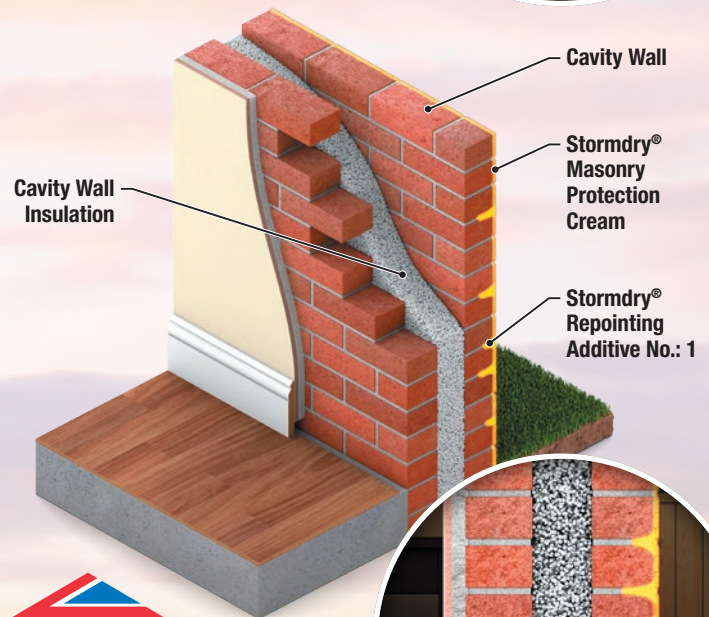
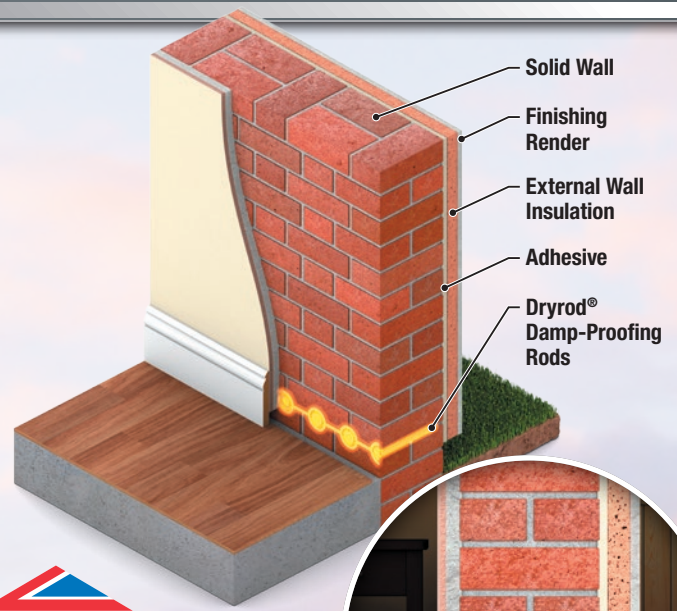
The best option is to install Stormdry® EP-Board internal wall insulation alongside an external application of Stormdry® Masonry Protection Cream. Stormdry® EP-Board is a high-performance thin-line internal insulation board that reduces heat loss through walls whilst remaining breathable. It consists of a 3 mm magnesium oxide plasterboard that is lined with an advanced 10 mm aerogel blanket. It is applied directly to internal walls using Stormdry® EP-Board Adhesive, allows users to retain original service fittings and provides up to 61% U-value reduction when combined with a Stormdry® Masonry Protection Cream treatment.

The exterior application of Stormdry® Masonry Protection Cream helps to protect and enhance the already significant heat-loss reduction provided by the Stormdry® EP-Board. Government research has confirmed the importance of insulation protection and named Stormdry® Masonry Protection Cream as a protection measure. By resisting rain penetration and keeping the wall dry, Stormdry® Masonry Protection Cream improves the thermal resistance of the building materials and reduces the chance of interstitial condensation occurring at the junction between the external wall and the Stormdry® EP-Board.

Solid Wall Construction (Non-Conservation Area)

If your property is of solid-walled construction but is not subject to the same restrictions as listed properties or those in a conservation area then you have a wider selection of insulation types to choose from. As above, internal wall insulation is still a valid and often preferred option but there is also the option external wall insulation.

The main advantage of external wall insulation is that heat-loss reduction can be achieved without having to make any interior decorative changes and without taking rooms out of use during installation. It usually takes the form of insulation panels being attached to the exterior leaf of a structure and then covered with a weatherproof decorative coating.



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If done correctly the heat-loss reduction can be large but it is often more expensive than other forms of insulation. It is also necessary to be aware that external wall insulation will reduce the rate of evaporation on the external leaf and could possibly exacerbate any rising damp issues that may present, pushing the damp higher than it otherwise would be. As such, it is prudent when installing external wall insulation to also make sure that a remedial damp-proof course is installed using Dryrod® Damp-Proofing Rods.

Cavity Wall Construction

If your property is of a cavity-walled construction then you will have more options available to you than those with solid-walled properties. Both the above internal wall insulation and external wall insulation options are valid in this instance. Usually, however, the least disruptive and most viable option on cavity wall structures is to install cavity wall insulation.

Retrofit cavity wall insulation comes in many different forms such as blown mineral fibre, polystyrene beads or urea-formaldehyde foam. It is usually installed by removing small portions of masonry and injecting the insulation material under pressure. It can provide an excellent heat-loss reduction for a relatively small outlay but care must be taken to ensure the external leaf of the wall is in good order and is not overly-porous. If the wall is too porous or has too many defects it can lead to moisture bridging the insulation or the insulation material itself becoming saturated, nullifying the insulative effect of the cavity wall insulation system and possibly causing significant damage to the internal decor.

It is always recommended to pair a cavity wall insulation installation with the Stormdry® Masonry Enhancement Range to protect the insulation from rain penetration. Before carrying out any weatherproofing treatments, it is recommended to prepare the wall by repointing masonry using Stormdry® Repointing Additive No.1.

To stop rain penetration on the wall, an application of Stormdry Masonry® Protection Cream is

recommended. It will stop water from being able to penetrate the masonry, allow residual moisture to evaporate and will enhance the insulative properties of the cavity wall insulation system. For walls with significant networks of cracks up to 0.6 mm, a top coat of Stormdry® CB-Coat Crack Bridging Waterproofer can be applied on top of the Stormdry® Masonry Protection Cream to provide an extra level of protection.

PAS 2035 – Install Confidence as Well as Energy Saving Measures

A revision in government policy regarding CO₂ emissions has resulted in a change to retrofit standards. Previously, as long as the contractor, property and installation in question met certain criteria to receive government funding, the retrofit job could be carried out without too much consideration of the long-term knock-on effects. This old approach had led to an increased number of insulation failures and cases of sub-optimal performance.



The recently introduced PAS 2030/2019 and PAS 2035/2019 standards now mean that all publicly-funded energy saving retrofit jobs must be carried out by a TrustMark approved contractor and overseen by an approved Retrofit Coordinator. The TrustMark scheme ensures that their members are technically competent, have good customer service and have good trading practices. The Retrofit Coordinator ensures that retrofit jobs adhere to a specific project structure and must produce a medium-term improvement plan that assesses the effects the works will have on the building performance for the next 25 years.



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There are many different funding options, schemes and grants available to take advantage of now and, given the government's ambitious CO₂ targets, many more will be available in the future. We are currently in a transitional phase for the PAS 2030/2035 standards. Some schemes are already adopting the requirements but by June 30th 2021 every publicly-funded energy saving retrofit job will need to be compliant. This means that you can initiate projects with the confidence that they will achieve their aims.

What Are My Next Steps?

What you need to do next will depend on what your circumstances are. Whether you're trying to improve your property or trying to find out how to become an approved contractor, now is the time to act as things are picking up speed.

Property Owners

If you're a property owner the best thing to do is to take advantage of the Green Homes Grant that is being issued by the government in the near future. The way that the scheme will work is that they will issue property owners with a voucher to cover two-thirds of the cost of certain energy-efficiency improvements, up to the maximum voucher value of £5000. Certain qualifying low income or benefits receiving applicants will be able to receive a maximum voucher value of £10,000.

There is a list of approved primary energy saving measures that the voucher can be used to carry out and they include various types of insulation including cavity wall insulation, external wall insulation and internal wall insulation. Low-carbon heating improvements are also covered by the voucher.

If at least one of the primary measures is being installed as part of the project then various secondary measures such as damp-proofing, draught-proofing or double/triple-glazing can also be included. The voucher covers two-thirds of the entire

cost of the project, including insulation protection measures such as Stormdry® Masonry Protection Cream and Dryrod® Damp-Proofing Rods.

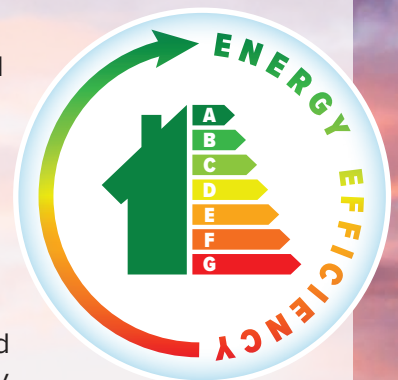
In order to qualify, the energy saving measures must be installed by a TrustMark-approved installer. The voucher is requested by the installer and they will receive the payment from the government. This means that it is very important to find a TrustMark approved installer to get things started. We can provide you with a list of approved installers close to you to help get your energy saving improvements started.

Landlords

As property owners, landlords are also eligible to take advantage of the Green Homes Grant. This enables them to make energy saving upgrades to their property – decreasing energy bill costs, improving the value of the property and making it more attractive to tenants.

Current property rental regulations in the UK, called the Minimum Energy Efficiency Standard Regulations or MEES, state that properties must have an EPC (Energy Performance Certificate) rating of E or above in order to be legally permitted to rent to tenants. Previously, properties with an existing lease or rental contract were exempt from these requirements. As of the 1st April 2020, however, all rental properties must meet the EPC requirements, regardless of the status of any existing leases or contracts.

The Green Homes Grant has come at an opportune time as there are a large number of solid wall properties with an insufficient EPC score. In order to take advantage of the grant, landlords must find an appropriate TrustMark-approved installer to get the process started. We can help you to find that contractor. [Click here to find contractors near you.](#)



Tenants

If you are a tenant in a domestic rental property, there are rights that you have under the Energy Efficiency (Private Rented Property) Regulations 2015 that allow you to make reasonable requests for consent to make energy efficiency upgrades to the property you are living in. If a valid reasonable request is made, a landlord cannot refuse their consent.

The regulations state that a reasonable request must meet certain criteria. Here are some examples:

- *The request must be made in relation to a private rented sector property*
- *The request should not require the landlord to make a financial investment in the improvements*
- *You have more than three months left on the tenancy*
- *You have not made a previous request in the last six months*
- *Your proposed energy efficiency improvements are classified as a qualifying energy-efficiency improvement*

Your request can make use of government grants, subsidies and schemes as long as you, the tenant, qualifies for them. Once you have submitted your request to the landlord they must consider the request and respond to you within one month. Unless they can make the case that the request is unreasonable under the regulations, the landlord must grant you their consent to carry out the improvements.

There is specific guidance for the whole process in the government's Tenants' Rights Guidance Document. The main point is that your request must be well researched and provide your landlord with all the required information. In the best-case scenario, a request proposal will present a solution that is beneficial for both the tenant and the landlord. A good place to start would be to get in contact with a TrustMark-approved retrofit installer.

Contractors

If you're a VAT-registered contractor, you are able to charge reduced 5% VAT rates to your customers for all qualifying energy-efficiency product installations. The products covered under tax guidelines include insulation installations, solar panel installations and applications of Stormdry® Masonry Protection Cream. The 5% VAT is applicable to all labour and materials related to the installation of the qualifying energy-efficiency measure. This makes it possible for you to make the cost of energy-efficiency retrofit installation far more viable to customers than they otherwise would have been.



Given that there is going to be an increasing number of financial incentive schemes from the government in relation to energy-efficiency improvements, it is sensible for contractors to become TrustMark approved installers. The new PAS 2030/PAS 2035 guidelines mean that contractors must be TrustMark approved in order to be eligible for carrying out installations under the Green Homes Grant. Additionally, by 30th June 2021 it will also be necessary for publicly-funded energy saving retrofit projects to be overseen by an approved Retrofit Coordinator. With so many incentives coming in the future and so little time to get qualified, it makes sense to start making preparations now.

To become TrustMark approved, contact the Property Care Association and apply for membership. All PCA contractor members are included in the TrustMark scheme. You will also be included in their searchable database of contractors. If you wish to be able to carry out works under the Green Homes Grant scheme then you will need to become classified as an insulation/energy retrofit contractor within the TrustMark database by contacting TrustMark directly.

To become an approved Retrofit Coordinator, you should sign-up to the Association for Environment Conscious Building Carbonlite Retrofit Training Course. This training course includes specific modules to become an accredited Retrofit Coordinator. Anybody who has already completed the Carbonlite Retrofit Training Course will be able to undertake a specifically-focused module to also become accredited.

Scan the QR code to find contractors near you.



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