



What is Retrofit and its Key Stages

Retrofit is the name given to the process of installing new products and systems to a building with the aim of:

- Reducing energy consumption
- Reducing a building's carbon emissions
- Improving a building's energy efficiency

This can be done to any building, no matter what its use, how it is built, or age. It can range from installing draught-proofing to a whole new heating system, extensive insulation, or **micro-generation**. Retrofitting our existing buildings is important for several reasons and will vary according to owner. The most common are:

- Lower the running costs of the building
- Make a building feel warmer
- Reduce a building's environmental impact/decarbonisation
- Improving the **EPC** rating

When considering whether to retrofit your property, it is important that you are clear what the reasons are for doing this because this will affect the order and type of works that you do to your property; some products and buildings systems will be more appropriate than others for achieving your end goal.

When thinking about undertaking any retrofit project, there are 4 main stages to ensure that it is effective and appropriate for your building (although the order in which you choose to carry these steps out may vary depending on the goals and specific needs of your building):

1. Maintenance – if your building is not in good repair then this will reduce the energy efficiency of the property and may prevent any measures to improve this from

working properly. Any repairs needed to the building must be undertaken first before any other works are carried out.

2. Quick wins – these are small but important and effective measures such as installing draught-proofing, LED light bulbs or loft insulation.
3. **Decarbonisation** – this is looking at your heating system. Changing your heating system is the most effective way of reducing a building's carbon emissions. Replacing your heating system will also have a big impact on any future energy efficiency improvements you might wish to do.
4. **Whole house retrofit** or **deep retrofit** – this is taking a holistic and integrated approach to energy efficiency improvements, looking to implement several measures at the same time and making sure that they are compatible with each other.

This is referred to as the **Retrofit Hierarchy**.

If you would like to improve the energy efficiency of your building it is advised that it is done in the order set out above for it to be the most effective, best value for money and to reduce unnecessary work and waste. Please take a look at our more detailed information on Maintenance, Quick Wins, Decarbonisation and Whole House Retrofit pages.

General Retrofit Advice

Cotswold District Council has produced a [Net Zero Carbon Toolkit](#) which provides a useful introduction to retrofit. However, it is not specific to traditional buildings.

For home owners would want to create a Home Energy Plan or energy efficiency improvements to their property, then you should visit the [Furnow](#) website. Furnow is working closely with Cotswold and Forest of District Councils. Furnow has a specialist team for listed buildings, and properties in a conservation area.

In Cotswold District Council, it is also possible to arrange a home visit from the Council's Retrofit Engagement Officer for tailored advice. For more information, please go to the Council's [Retrofit Engagement Scheme](#) page.

The [Centre for Sustainable Energy](#) has a wide array of independent advice on energy efficiency improvements, retrofit and grants.

The Sustainable Traditional Buildings Alliance's [Knowledge Centre](#) provides detailed guidance on retrofit and is specific to traditional buildings.

Historic England has produced useful and extensive guides on energy efficiency improvements in traditional buildings. A general introduction to this can be found on their [Retrofit and Energy Efficiency in Historic Buildings](#) page.

Cadw and the Government of Ireland have recently produced some detailed guidance on how to retrofit traditional buildings, including how to plan the works, taking a risk-based approach and renewable energy. Although not produced in England, they have been widely commended for being good quality, detailed guides.

[Cadw Technical Guidance](#)

[Government of Ireland Technical Guidance](#)

[Bath and North-East Somerset Council](#) has produced a very helpful supplementary planning guidance on different retrofit measures you might want to carry out, including diagrams to show how the measure is fitted.

Bath Preservation Trust with the Centre for Sustainable Energy produced a very good guide ([Warmer Bath](#)) including details about practical, low-cost measures that can be implemented to improve a building's energy efficiency.