

Energy Upgrade Resident Handbook

How to make the most out
of your Retrofitted home



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What is a Retrofit?

Retrofitting is the renovation of a home in order to:

- Improve its energy efficiency
 - Reduce fossil fuels
 - Improve comfort
 - Reduce carbon emissions
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Retrofitting is also referred to as an **energy upgrade**

It is the introduction of new materials, products and technologies into an existing building to **reduce the energy needed to occupy the building**

Retrofit is **not the same** as renovation or refurbishment





What is involved?

Each home will have different needs and so will require different aspects of retrofitting. Typically a retrofit **may** include:

Upgrading the building fabric: adding insulation to the walls, roofs, and floors, new windows and doors.

Reducing drafts and improving ventilation

Upgrading the heating system to improve efficiency

Upgrade measures **may include** some or all of the following:

- Attic insulation
- Replacement windows and doors
- New mechanical extract ventilation
- Removal of gas central heating boiler
- Blocking of fireplace
- Installation of solar panels
- New Air to Water heat pump
- Replacement of existing radiators
- New hot water cylinder



One-Stop-Shop Contractors

Tuath will operate the energy upgrade programme through the use of **One-Stop-Shop Contractors**.

The One-Stop-Shop service provides homeowners and Approved Housing Bodies with a hassle free way to undertake a complete home energy upgrade . With a One-Stop-Shop providing an end-to-end service for homeowners, they offer homeowners all the services required for a complete home energy upgrade including the following:

1. Home Energy Assessment

All One Stop Shops can conduct a detailed Home Energy Assessment, this will give you all the information you need to begin your energy upgrade journey. It will provide you with a list of recommended energy upgrades for your home, helping you understand your home's energy use, the assessment identifies opportunities to improve energy efficiency and reduce energy consumption

2. Grant application

They will apply and accept all SEAI grants for the project.

3. Project management

They will manage all the works at your home and ensure quality checks are carried out.

4. Contract works

They will assign a contractor to carry out the works on your home.

5. Follow up BER

A registered BER assessor will complete your post works BER assessment and publish the certificate.

Types of upgrade measures

INSULATION

It is best to start your home's energy upgrade by insulating against heat loss. A properly insulated home will increase your comfort levels and limit heat loss through walls, doors, roofs and windows.

- **Attic insulation:** Insulating your attic space reduces heat loss by keeping the heat in the rooms below the ceiling. It is an important step in the retrofit
- **External wall insulation:** Insulation board will be fixed to your walls. A render with an acrylic finish is then applied.
- **Internal wall insulation:** Also referred to as dry-lining involves fixing insulation boards to the inner surfaces of your external walls or sloped roofs.
- **Cavity wall insulation:** Installed if there is a cavity between the internal and external concrete blocks. Holes are drilled in the external wall and insulation bead injected into the cavity between the walls.

REPLACEMENT WINDOWS AND DOORS

The energy upgrade may involve replacing windows and doors with new double glazed PVC windows and composite PVC high efficiency doors.

NEW HEATING SYSTEM

Air to Water Heat Pump: As a replacement to your existing heating system, it is our intention to install a highly efficient Air to Water heat pump to heat your water and radiators. Heat pumps are powered by electricity and are more efficient and cheaper to run than traditional fossil fuel systems.

Replace existing radiators: In conjunction with your new heat pump, we will install replacement radiators in your home. These will be newer, larger radiators to allow greater heat output. Radiators will have thermostatic valves which can control the temperature in each room.

New heating controls: As part of the heating system update, zone heating controls will be installed - new time and temperature controls for the new heat pump which controls both hot water and heating.

Timeline and what to expect

The time needed to carry out your retrofit works will vary depending on the type and number of energy efficiency upgrade measures you are having done.

Please take into consideration external factors such as poor weather and delays.

You will be notified when works are due to commence. It is your responsibility to facilitate access to your home for contractors . Delaying access will only prolong works and delay completion.

Timeline of events:

- **Pre-consultation**
- **Initial survey**
- **Scheduling works**
- **Completing works**
- **Post works consultation**
- **Enjoy the benefits**

Works should take between 3-4 weeks or 6-8 weeks with windows and doors installation



Breakdown of Responsibilities

Throughout the retrofit process both Tuath and residents have specific responsibilities to ensure the process runs smoothly, safely and effectively. These are important for the overall success of the project and to ensure satisfaction.



Tuath's Responsibility

- Tuath's main responsibilities throughout the retrofit process are to ensure that the process is conducted smoothly, safely and effectively while minimising disruption to residents.
- These responsibilities include planning, communication, safety and post-retrofit support.
- Tuath is responsible for securing funding for the retrofit and will manage the budget throughout the process.
- Tuath will notify residents of disruptions to services e.g. if the heating or water needs to be turned off temporarily and will ensure that these disruptions are as brief as possible.
- Upon completion Tuath will ensure that residents are properly trained on how to use any new installations or systems e.g. heating systems and smart meters.
- Tuath will organise follow up check-ins with residents to monitor the performance of the upgrades and to answer any outstanding queries.
- Tuath will arrange reimbursement of your gas disconnection fee. Contact your Housing Officer.



Your Responsibility

- You must grant access to your home for contractors, surveyors and other personnel involved in the retrofit. This involves being available during agreed-upon times and not delaying progress.
- You will need to clear spaces in your home where the work will take place, such as moving furniture or clearing the attic for attic insulation.
- Adhere to safety guidelines - you must follow any safety instructions provided by the contractors or by Tuath. This may include staying out of certain rooms while work is being carried out.
- You must stay informed about the schedule and scope of the retrofit works, this will be communicated to you in advance of any work commencing.
- It is **your responsibility to use your energy upgrades properly and as instructed** to ensure longevity and effectiveness, training will be provided which you must adhere to.
- You must report any issues or faults as soon as possible to prevent long term damage.
- Shop around for energy providers, check **bonkers.ie** & **switch.ie**, a pre-pay meter is not recommended for an air-to-water pump.

Why is retrofitting important and how does it affect me as a resident?

- ✓ The refurbishment of homes and buildings is a major challenge. The majority of Ireland's existing building stock requires some level of retrofit to enable us to live and work more sustainably.
- ✓ Retrofitting older properties is essential to reduce carbon emissions, improve energy efficiency and create a more comfortable living situation for residents.
- ✓ The **Climate Action Plan** sets out targets for Net Zero Emissions from buildings by 2050 in Ireland. The plan also outlines ambitious targets to improve the energy efficiency of the Irish housing stock, retrofitting 500,000 homes to at least a BER B2.
- ✓ The average floor area of Irish homes is larger than in other EU member states and the emissions attributable to our homes in Ireland are about **58% more** than the average EU home.
- ✓ Considering these figures, reducing energy use and emissions from the residential sector feature prominently in the Government's Climate Action Plan
- ✓ We all have a part to play and by retrofitting your home you are positively contributing to the climate crisis.

Benefits of Retrofitting

✓ Little interaction needed to run

A major benefit of a retrofit is that you can leave the systems alone to run themselves. When you have it set up correctly to your liking you won't need to set timers or boost it. With a retrofit you will have **on demand hot water**.

✓ Increased comfort and wellbeing

Many Irish homes suffer with cold drafty rooms in winter and overheating in summer, leading to poor home comfort. Retrofitting increases the comfort of your home by addressing drafts, poor levels of insulation and building defects.

✓ Retrofitting your home can make it a healthier place to live

This is especially beneficial for the very young or elderly or for people with underlying health conditions. If your home is not energy efficient you may find it difficult to maintain a safe and comfortable indoor temperature. In the least energy efficient homes, it may not be possible to reach the recommended level of comfort regardless of how much you spend on heating.

✓ Energy and Carbon savings

In Ireland, residential buildings account for roughly 28% of energy consumption. Many homeowners suffer with heat loss due to poor insulation and drafts. By retrofitting your home you will contribute to the reduction of national energy consumption and carbon emissions which will help to mitigate climate change.

Retrofitting reduces carbon in two ways:

- Firstly, insulating your home means that less heat energy is lost through the buildings fabric, meaning you don't need to run the heating for as long, using less energy - therefore your home becomes more energy efficient.
- Secondly, retrofitting reduces your home's greenhouse gas emissions. By switching to systems which use a renewable source of energy, we burn less fossil fuels.

✓ Building durability

By upgrading the building fabric and addressing issues such as poor ventilation and build up of moisture you increase the life expectancy and durability of the building.

How long will the retrofit take?

The duration of the retrofit will vary depending on the number of upgrades taking place to your home. You will be provided with a timeline before the work begins and updated regularly on the progress.

Why is the retrofit being done?

The retrofit is being done to improve the energy efficiency of your home, enhance your comfort levels and reduce the overall environmental impact of the building by lowering carbon emissions.

How will the retrofit affect me?

The retrofit may cause some temporary disruption, such as noise, hot water being turned off or limited access to certain areas of your home. Every effort will be made to minimise these disruptions and you will be informed in advance of what to expect.

What happens after the retrofit is completed?

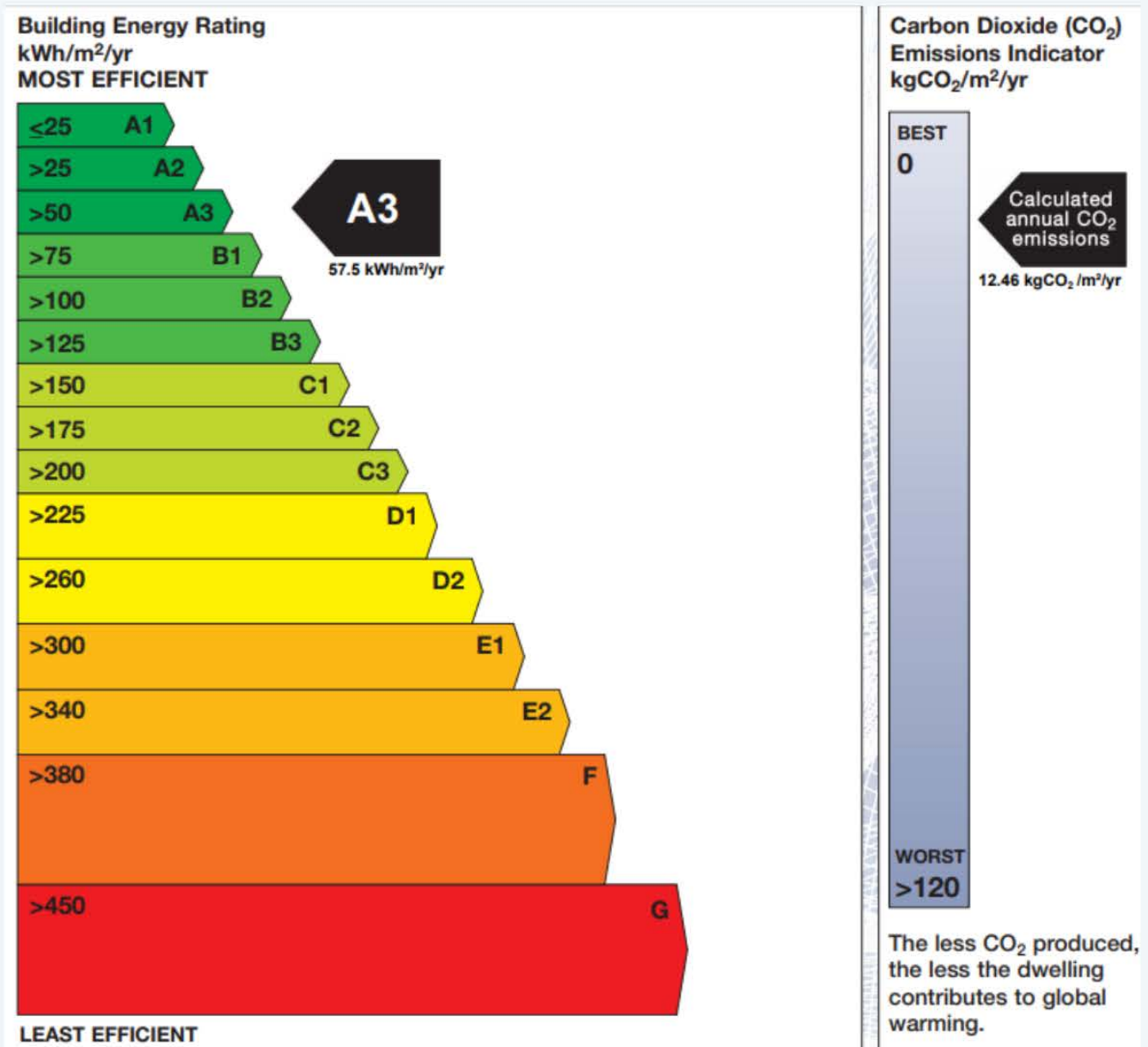
After works are completed a final inspection will be conducted to ensure that everything is in order. You will receive instructions and a demonstration on how to use your new systems.

How will snagging be addressed?

After the retrofit is completed there may be some minor works relating to re-painting surfaces or filling small holes - these are your responsibility to take care of and are not the responsibility of Tuath.

Will my home be cheaper to run?

You will now only have one bill for both heating and electricity, the bills are dependant on usage and will typically be higher in the colder months. We recommend a **level-pay plan** so that you pay the same amount every month regardless of usage fluctuating.



This is an example of the BER Cert you will receive when the retrofit works are complete. A BER cert is a building energy rating provided by a qualified BER assessor, which shows how energy efficient a property is. A retrofitted property will have at least a B2 rating.

Contact Us

If there is a problem with your heating or hot water, get in touch with our team:



Telephone - 01-676 1602



Log a repair on our website - <https://tuathhousing.ie>

If a heat pump has been installed in your home in the last 3 months as part of the energy upgrade works, please contact energyupgrade@tuathhousing.ie. If the heat pump is installed 3 months or over log a repair on our website.

For complete loss of heating out-of-office hours in an emergency contact the helpline by phoning your local Tuath office and dial Option 1.

Disclaimer: Tuath is not responsible for any damage, loss or injury resulting from the use of the heat pump. Users are advised to follow all safety instructions and guidelines provided in the full manual. Use of the product is at the user's own risk.