



For the life
you're after

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AIB Sustainability Research
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AIB Homes Retrofit Report

Empowering people to build a sustainable future

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Introduction

With energy costs remaining at a high level and looking towards the future, Irish homeowners are increasingly looking to retrofitting as a solution due to both long-term savings and comfort. Energy efficient home upgrades can save a lot of money on electrical and heating bills over time but do come at an upfront cost. This report aims to:

01

Explain the various elements and costs involved in retrofitting a home.

p.3

02

Highlight the various retrofit grants available to homeowners and who is eligible.

p.7

03

Explain loan options available to homeowners, including green personal loans, green mortgages and the recently introduced SBCI Home Energy Upgrade Loan Scheme.

p.16

04

Introduce findings from AIB's proprietary 2024 consumer survey, which shows almost half of respondents would like to improve their homes' energy efficiency if they could afford it.

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05

Provide an in-depth explanation of the elements of a home retrofit.

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06

Introduce some case studies from both One-Stop-Shop providers and consumers.

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07

Highlight some potential 'Over the Horizon' solutions for retrofits.

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01

The costs and benefits of retrofitting

The costs and benefits of retrofitting

Retrofitting can add to comfort and save money over time, but each homeowner should consider their specific circumstances

Improving the energy rating of a home through retrofitting delivers many benefits - but it also comes with costs.

Energy efficiency upgrades can save a lot of money on electrical and heating bills over time. Energy consumption is reduced as a result of improved insulation, energy-efficient windows, and newer heating systems, which help cut down overall monthly costs. Additionally, a home that has been retrofitted to improve energy efficiency will also improve overall comfort, as it makes it easier to manage the temperature in the home throughout the year. While the financial savings are important, retrofitting is also one of the ways that we can help reduce greenhouse gas emissions and contribute towards achieving our national and international environmental sustainability goals.

However, retrofitting comes with upfront costs that can be substantial, depending on the extent of the work. Installing energy-efficient systems, upgrading insulation, and replacing windows can require a significant financial investment. In order to help with these costs, there is a wide array of government grants and incentives available and there is also a wide choice of 'green' loans available.

When deciding to retrofit, each homeowner should consider their particular circumstances. Some of the factors to take into consideration include the age and condition of the home, the level of energy usage and the financial resources available to the homeowner (such as household savings, Sustainable Energy Authority of Ireland (SEAI) grants and green loans) in order to determine the best approach to retrofitting.

In general, the benefits of retrofitting a residential property can be summarised as follows:

- Create a more energy-efficient home and reduce energy consumption.
- Maintain a constant temperature and improve home comfort and health.

- Transition away from fossil fuels by switching to clean energy.
- Lower energy bills as a result of reduced energy consumption.

Households have several options available for financing, including green loans, green mortgages and grants.

AIB aims to be a leader in Climate Action and to support its customers to live a more sustainable life. This includes enabling customers to retrofit and improve the energy efficiency of their property.

As a result, AIB has recently broadened its suite of 'green' product offerings available to customers. These products offer discounted interest rates when compared to non-green offerings and can be used in conjunction with available grants. Our green product offering includes:

1

Green Personal Loans

These loans typically offer a lower rate than traditional loan products.

2

Green Mortgage rates

Lower fixed rates to choose from if renovating your home once it has or will have a building energy rating (BER) of between A1 and B3.

3

SBCI Home Energy Upgrade Loan Scheme

Low-cost finance to fund energy efficiency improvement and decarbonisation of your home.

This report contains a more in-depth discussion of the various grants available to consumers via the SEAI in Section 2; as well as AIB's various 'green' financial loan products in Section 3.

Elements of a retrofit

Typical retrofit improvements that homeowners undertake include the following:

Attic/ceiling and wall insulation

- Generally, homes lose 20-30% of their heat through their roofs if they are not properly insulated. It is also possible to lose the same amount of heat through walls that are not properly insulated. The loss of heat costs the household more money in the form of higher heating bills, but it also harms the environment by increasing greenhouse gas emissions.
- Insulation is generally the most cost-effective of any energy efficiency upgrade made to a home given the potential cost savings that can be achieved on monthly heating bills.

Heat pump systems

- Heating systems that are inefficient waste energy and are costly to run due to the amount of fuel required to maintain adequate comfort levels. A heat pump system can transform the comfort levels in a home while reducing energy consumption and harmful greenhouse gas emissions by replacing a conventional heating system.
- A heat pump system typically has integrated heating controls, enabling households to adjust space heating and hot water schedules according to the household's working and living patterns. Up to 20% of energy use can be reduced by using the heating controls in a heat pump system.

Solar thermal options and solar panels

- With a solar thermal hot water system, households use solar thermal panels to heat their water. This reduces energy consumption and as a result households can save up to 60% on their annual hot water heating bills. As households will be using their heating less, this will also reduce greenhouse gas emissions.

- Solar panels that generate electricity are called solar photovoltaic (PV) modules. These panels produce electricity when exposed to sunlight. Solar PV is the type of rooftop solar commonly seen on homes and businesses. These solar panels collect sunlight and convert it into the electricity that powers homes.
- On average, a solar PV system can save the homeowner between €200 and €300 per year on the household's electricity bill. Investing in solar PV will also make an impact on the building energy rating of the home and consequently its value. Generating renewable electricity will also reduce the household's greenhouse gas emissions.

These and other options are discussed in more detail later in the report.

Benefits of a retrofit

Benefits are substantial and long-lasting

Retrofitting a home is a major decision. However, the benefits of retrofitting are substantial and long-lasting. Retrofitting should reduce the overall amount of energy being used while also improving the comfort of the home. In the process, it will save money on energy bills, potentially increase the value of the home, and benefit the wider environment. Furthermore, with the aid of SEAI grants, the amount it will cost to retrofit a home reduces greatly. Current payback periods are attractive and start from as little as 4 years 7 months for solar PV panels or 6 years for heat pumps, depending on the size and type of your property.

Costs of a retrofit

The cost of retrofitting a home can be substantial and will depend on the age and energy rating of the house or apartment in question, and the extent of the necessary retrofit.

A whole house energy retrofit involves carrying out a number of energy upgrade measures in one installation in order to achieve a warmer, more comfortable, energy-efficient home with a BER rating of between B2 and A1.

The cost of a whole house retrofit depends on many factors, including the size and age of the house, the type of walls, and what energy-saving work has already been completed. Costs can be high and the work may require a big investment, so SEAI grants are available to help mitigate these costs.

A major but ultimately a beneficial decision

Depending on the age and condition of a home, a different range of upgrades may be needed in order to improve the energy efficiency of the home. In some cases, a home may need only one or two upgrades – a basic retrofit, whereas others may need a full renovation – a deep retrofit.

The cost of a deep (whole house) retrofit depends on many factors, including the size and age of the house, the type of walls, and what upgrades have already been completed. Costs range from €30,000 for a typical house built since 2000 to over €100,000 or more for older, larger or more complex homes.

The deep retrofit will normally include a combination of the installation of a heat pump, wall and attic insulation, replacement of windows and doors, and the possible use of solar panels and other solar photovoltaic options.

Estimated average cost of a basic versus deep retrofit in Ireland

	Basic Retrofit	Deep Retrofit
Examples	Wall and attic insulation, replacement of windows	Combined measures such as heating system upgrade, solar panel installation and smart home energy system.
Approximate Costs	€5,000 to €15,000	€30,000 to over €100,000

Source: AIB analysis based on discussions with industry experts and data from Switcher.ie



02

Retrofit grants available for Irish homeowners

Retrofit grants available for Irish homeowners

The Sustainable Energy Authority of Ireland (SEAI) has a wide range number of grants that cover all the main retrofitting options¹. The main options available to homeowners are:

01

Individual energy upgrade grants

- This option is aimed at those who wish to take a step-by-step approach, carrying out different upgrades over time and to suit their budget.
- The principal scheme available is the **SEAI Better Energy Homes Scheme**, which covers grants available for insulation, heat control, heat pumps, and solar thermal once certain criteria are met. Works are paid for upfront, with grants claimed afterwards.
- You must have grant approval in place **BEFORE** you start works.
- The application process for Solar PV is slightly different.

02

One-Stop Shop service for homes

- A complete home energy upgrade solution for homeowners, with all energy upgrade work completed in one go, and the relevant grants processed on the homeowner's behalf.
- The grants available are the same monetary value as for the relevant elements of individual energy upgrade grants, but are much more wide-ranging and comprehensive, covering additional elements such as rafter insulation, floor insulation, new windows and doors, and mechanical ventilation.
- Additionally, these grants are only available through the list of registered One-Stop Shop providers. These providers are listed in Appendix C.

03

Fully funded energy upgrades

- Available to homeowners who receive certain social welfare payments.
- Eligible welfare payments are:
 - Fuel Allowance as part of the National Fuel Scheme.
 - Job Seekers Allowance for over six months and have a child under seven years of age.
 - Working Family Payment.
 - One-Parent Family Payment.
 - Domiciliary Care Allowance.
 - Carers Allowance and live with the person you are caring for.
 - Disability Allowance for over six months and have a child under seven years of age.
- Eligibility for the scheme can be checked using the SEAI's online application feature or using a paper-based application pathway.

We discuss all three schemes in further detail below.

¹ <https://www.seai.ie/grants/home-energy-grants>

SEAI Better Energy Homes Scheme

Allows the flexibility of a step-by-step approach to suit homeowner's budget

This scheme is for homeowners who wish to complete certain energy upgrades and manage the process themselves. As highlighted above, the scheme gives the homeowner the flexibility to take a step-by-step approach, carrying out different upgrades over time and to suit their budget. With this grant route, applicants select an SEAI registered contractor and pay for the cost upfront before applying for a grant through the SEAI online application system.

The Better Energy Home Scheme covers grants for:

- Attic insulation.
- Solar thermal solutions.
- Heating controls upgrade.
- Wall insulation.
- Solar panels.
- Heat pump systems (grants are available for a technical assessment to be carried out before installing a heat pump).
- A Building Energy Rating (BER) survey after the energy-saving work is carried out.

Note: this scheme does not cover the cost of windows and doors, or the replacement of gas or oil boilers.



Individual grants

Wide range of individual grants available under the Better Energy Homes Scheme and Solar PV Scheme

Homeowners can apply for a wide range of individual energy upgrade grants. This includes the Solar PV Electricity Grant, which is currently capped at €2,100 (as of 2024).²

The average cost of works and average grant received for all homes completed through the SEAI Better Energy Homes Scheme and 2020 Solar PV Scheme is outlined in the following table.

Retrofit measure	Median cost of works	Median grant	Median cost to homeowner
BER	€250	€50	€200
Heat pump	€15,000	€6,500	€8,500
Technical assessment	€500	€200	€300
Solar panel	€11,500	€2,100	€9,100

Average cost of an energy efficiency upgrade partly funded by the Better Energy Homes Scheme was €7,300, attracting an average grant of €3,100. Analysis completed by SEAI. Note: Figures have been rounded and may not reflect absolute values.

Eligibility

To qualify for an individual grant, the homeowner must:

- **Be the owner** of a property built and occupied before 2011, in a case where they are applying for a grant for installing insulation and heating control systems.
- **Be the owner** of a property built and occupied before 2021, in a case where they are applying for a grant for heat pumps and solar PV and thermal solutions.
- **Use a qualified contractor** from the SEAI's registered list.

- **Use newly fitted materials** and products.
- **Meet the required standards for work** done.
- **Have a BER survey carried out after the works have been completed** and use a BER assessor who is on SEAI's National BER Register.

These grants are available to homeowners, private landlords and owners' management companies (OMCs). OMCs manage the common areas in multi-unit developments and are composed of the owners of the properties in the development.

² A full range of SEAI retrofit grants is provided in Appendix A

Individual Energy Application Process

Guidelines to apply for energy upgrade grants

1. Choose your energy upgrade grants

Check if your home has previously received a grant for an energy upgrade. You will not be eligible for the same grant twice.

If your home does not have an existing BER report, and you do not know what energy upgrades to carry out, it is suggested to carry out a BER assessment.

Talk to a building contractor, architect, BER Assessor or energy advisor for advice.

2. Find an SEAI registered contractor

Please ensure your contractor is registered for the type of work they are carrying out. SEAI recommend you shop around to get the best quote.

3. Apply for your grant

Online, by post or through an Energy Partner.

4. Accept your grant offer

You must have grant approval in place BEFORE you start works.

5. Get the works done

Note the 8 MONTH TIMEFRAME between the date of the grant offer to complete the works on your home, return the paperwork and draw down the grant.

Grant application process for solar PV is slightly different

Note for solar PV the application process is slightly different and involves:

- Finding and appointing a registered SEAI solar PV company;
- Applying to the SEAI for a grant offer BEFORE the works are started;
- An application from the installer to ESB Networks before installing the solar PV system. (This application process takes at least 4 weeks/20 working days);
- A post-works BER assessment;
- Submission of evidence of works to the SEAI from the Solar PV company;
- Process of claim from the SEAI.

One-Stop Shop Service

Grants of up to €25,000 available for 'deep' retrofits

One-Stop Shops offer all the services required for a complete home energy upgrade. Grants cover up to €25,000 of the costs for a deep retrofit, which brings a home up to at least a B2 rating. An additional grant of €2,000 is available to those who install a heat pump as part of their retrofit. Energy suppliers also offer customers so-called carbon credits of about €2,000 when work is carried out by a partner company. The SEAI grants must be drawn down within a 12-month period from when work starts and the homeowner hires a retrofitting company. The discounts will be deducted at the start of the job.

One-Stop Shops aim to provide a service that takes the stress out of retrofits and home renovations

Ireland (along with France, Austria and Scotland) is one of the few European countries that offers a one-stop shop home energy upgrade service.

The aim of the initiative is to provide a service that takes the stress out of retrofits and home renovations. Homeowners are offered a free platform that provides them with access to contractors and planners to replace heating systems and provide thermal renovations.

Homeowners planning to upgrade the energy efficiency of their property by 20% or higher, but who wish to have the whole project managed for them, can access the SBCI Home Energy Upgrade Loan Scheme via SEAI approved one-stop shops.

Homeowners can hand over the project management, energy assessment, and grant approval process

A One-Stop Shop will manage the entire home energy upgrade. This includes completing an energy assessment of the home; advising on upgrades necessary to reach a BER of B2 or higher; applying for relevant SEAI grants on the homeowner's behalf; assigning contractors; and managing the works.

The full range of services provided by One-Stop Shops include:

- **Home energy assessment**
A detailed report which outlines the best upgrades in order to bring a home up to a B2 rating or higher, and an estimate for the cost of these retrofit works.
- **Grant application**
Apply for and accept all SEAI grants for the project.
- **Project management**
 - Manage the entire works undertaken on the property.
 - Identify and assign a contractor to carry out the works.
- **Follow-up BER survey and certificate**
A registered BER assessor will complete the post-works BER assessment and produce the BER certificate.



The Home Energy Upgrade Scheme covers grants for:

- Attic insulation.
- Solar thermal solutions and PV panels.
- Heating controls.
- Wall insulation.
- Project management.
- Rafter insulation.
- Floor insulation.
- New windows.
- New external doors.
- Mechanical ventilation.
- Air tightness.
- Home energy assessment.

Average costs for a BER uplift

The costs to bring the energy rating of a property from E to A vary by the size and type of home. For example, the rolling 12 month median cost of retrofitting a home as of mid-2024 ranged from €26,713 for an apartment, to €63,837 for a detached house, while the cost of retrofitting a mid-terrace or semi-D/end-terrace had a median cost of €52,383 and €59,304 respectively.

Grants available

The SEAI grants available can help to offset a good proportion of these costs. For example, the median cost of retrofitting a mid-terrace house is €52,383, which is a significant undertaking for any household. However, through the SEAI, a household would be able to avail of a grant, which for a mid-terrace house averages €19,800. This would bring the overall median cost to the household down to approximately €32,048, i.e. a saving of 38%.

Eligibility for One-Stop Shop Grants

It is important to note that properties which already have a B2 rating will not be eligible for One-Stop Shop grants.

The One-Stop Shop service is available to homeowners, private landlords and Approved Housing Bodies (AHBs) whose property or home meets the following criteria:

- The property or home was built and occupied before 2011.
- It has an existing BER of B3 or lower and must achieve a minimum rating of B2 on work completion, with a 100kWh/m2/year or better improvement on the BER primary energy value.
- The property has not previously received grants for the same home energy upgrades.

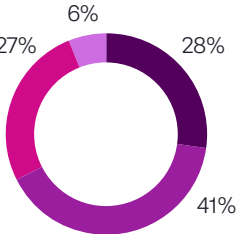


One-Stop Shop service median costs and grants

The following table illustrates the median costs for retrofitting various residential property types, the potential grants available and the energy rating improvements once the retrofitting has been completed

Apartment	Median works cost €26,713	Average BER improvement D2 > A3
	Median grant amount €8,500	Typical upgrades: <ul style="list-style-type: none"> Heat pump Windows and doors Wall insulation
	Median cost to homeowner €18,213	
Mid-Terrace	Median works cost €52,383	Average BER improvement E1 > A2
	Median grant amount €19,800	Typical upgrades: <ul style="list-style-type: none"> Heat pump Windows and doors Wall insulation Ceiling insulation Ventilation
	Median cost to homeowner €32,048	
Semi-Detached/ End terrace	Median works cost €59,304	Average BER improvement E1 > A2
	Median grant amount €22,000	Typical upgrades: <ul style="list-style-type: none"> Heat pump Windows and doors Wall insulation Ceiling insulation Solar panels Ventilation
	Median cost to homeowner €37,800	
Detached	Median works cost €63,837	Average BER improvement E1 > A2
	Median grant amount €23,700	Typical upgrades: <ul style="list-style-type: none"> Heat pump Windows and doors Wall insulation Ceiling insulation Solar panels Ventilation
	Median cost to homeowner €38,058	

Key figures



28%

received energy upgrades at a cost of <€75,000

41%

received energy upgrades at a cost of €50,000-€75,000

27%

received energy upgrades at a cost of €30,000-€50,000

6%

received energy upgrades at a cost of >€30,000

Average BER uplift E1 > A2

Source: SEAI website; data as of December 2023

Fully funded energy upgrades

Upgrades offered under the **Fully Funded Energy Upgrades Scheme** will be recommended by an SEAI surveyor, and will be based on factors such as property age, size, existing heating system and condition. Upgrades offered under the scheme may include:

- Attic insulation.
- Cavity wall insulation.
- External Wall Insulation.
- Internal Wall Insulation.
- Secondary work such as lagging jackets, draught proofing and energy efficient lighting.
- New heating systems and windows are occasionally recommended.

It is important to note there may be more than a 2 year waiting time before upgrades to your home are completed. Applications are dealt with on a first-come, first-served basis.

Eligibility

You need to meet three criteria to apply for the Fully Funded Energy Upgrade Scheme:

- **You must own and live in your own home**
This must be your main residence, where you live most days of the week.
- Your home was built and occupied before 2006.
- You receive one of the relevant welfare payments as set out on page 8 and on the SEAI website.

How the Service Works

1. Read through the guidance notes, including the eligible welfare payments. If you think this applies to you, make an online application.
2. If you do not have a valid BER in place, SEAI will carry out a pre-works BER at no cost to you.
3. If you are eligible, an SEAI surveyor surveys your home to make upgrade recommendations.
4. A contractor is appointed from SEAI's panel to carry out the upgrade works.
5. After the works are completed the SEAI energy assessment team will carry out a BER assessment. There may also be quality inspections on some homes.



The background is a solid purple color with a large, curved, lighter purple band that sweeps from the top left towards the bottom right, creating a sense of motion and depth.

03

Loan options available to Irish consumers

Loan options available to Irish consumers

In addition to SEAI grants, there are several loan options available to Irish consumers who wish to improve the energy efficiency of their home.

These include standard personal loans and mortgage top-ups as well as 'green' personal loans and 'green' mortgage rates.

While standard loans can be easy to process (often in as little as one day via an online application), mortgage top-ups (whether green or otherwise) typically require more detailed paperwork and take longer. 'Green' mortgage rates are available for homes that fall into a

certain BER category (typically B3 or higher) and offer attractive rates when compared with non-green rates. 'Green' personal loans can offer more attractive lending rates once certain criteria are met.

However, some of the most attractive rates can be achieved via the newly introduced SBCI Home Energy Upgrade Loan Scheme.



Green Personal Loans

The AIB Green Personal Loan has a lower rate than standard personal loans.

- These loans allow customers to borrow between €3,000 and €60,000 over a period of up to 10 years as long as the customer plans to spend 50% or more of the loan amount on a green initiative.
- Some examples of what green initiatives a loan could be used for include:
 - Wall, attic, and floor insulation
 - Window and door upgrades and replacements
 - Ventilation systems
 - Renewable energy systems including heat pumps and solar panels
 - Sustainable water systems, boiler upgrades and pipe insulation
 - Installation of energy efficient heating controls
 - Battery electric or plug-in hybrid electric vehicles and home charger units.



Green Mortgages/ Top-Up Mortgages

- AIB offers various Green Mortgages with attractive low fixed-rate options and differing mortgage terms.
 - For customers buying a home, green mortgage rates are available for homes with a Building Energy Rating (BER) of between A1 and B3. AIB will need a BER cert to confirm this.
 - Green Mortgage rates are available to Top-up customers at draw-down for large renovations where planning permission is required and building works are in compliance with nearly Zero Energy Building (nZEB) standards.
 - For renovations that don't require planning permission, home upgrades must be completed and a BER cert provided to avail of the full suite of Green Mortgage Rates.
 - To qualify for Green rates certain eligibility criteria apply which can differ by mortgage product.
- Please refer to the [AIB website](#) or visit your local branch for product terms and conditions.



SBCI Home Energy Upgrade Loan Scheme

What is it?

In April 2024, the government, in partnership with the Strategic Banking Corporation of Ireland (SBCI) launched the new low cost, unsecured Home Energy Upgrade Loan Scheme for homeowners. This €500m scheme is aimed at helping homeowners to invest in energy upgrades, making their homes warmer, healthier, and cheaper to run. With the support of the government, the Irish banks can provide loans that are approximately 2% cheaper.

Who can I borrow with?

AIB is one of the finance providers approved to participate in this scheme.

More information on other finance providers participating in the scheme can be found at www.sbc.gov.ie

With AIB, how much can I borrow from this scheme and over what timeframe?

Customers can borrow a minimum of €5,000 and a maximum of €75,000 per property, with up to three properties the maximum per applicant. The length of loan can be between 1 year to 10 years, with loans less than €30,000 having a maximum repayment time frame of 7 years, and larger loans having a repayment time frame of up to 10 years.

Why should I opt for a Home Energy Upgrade Loan?

The lending terms are very attractive, with favourable Annual Percentage Rates (APRs) when compared to other lending options in the market.

Furthermore, up to 25% of the loan can be used for non energy upgrades. Hence, consumers can use the attractive lending terms to also do other work to their house e.g. kitchens or bathroom renovations, provided the overall loan terms and conditions are met.

What are the criteria for eligibility for the SBCI Home Energy Upgrade Loan?

- The applicant must be the property owner.
- The loan must be used for upgrading the energy efficiency and decarbonisation of residential properties located in the Republic of Ireland.
- The upgrades must result in at least a 20% improvement in the energy performance (BER) of the property.
- The proposed upgrade works costs, net of grants, must account for at least 75% of the loan.
- A full list of upgrade works can be found on the SEAI website, but can include for example: attic and wall insulation; heat pump installation; and heat control upgrades.



The Customer Journey

Step

01

Contact an SEAI registered One-Stop Shop, Energy Partner, or a Community Project Coordinator to plan your home energy upgrade.

Step

02

They will carry out an assessment, provide you with a Home Energy Summary Report and apply for your SEAI home energy upgrade grant.

Step

03

You engage with a participating finance provider for the Home Energy Upgrade Loan Scheme. A list of participating finance providers is available at www.sbc.gov.ie

Step

04

Apply for your low-cost, flexible loan using your Home Energy Summary Report.

(Terms and conditions apply).

Step

05

Once approved for your loan, you can start your home energy upgrade and carry out work.

How do I apply?

- The first step is to have your home assessed and obtain a Home Energy Summary Report.
- This can be provided by any SEAI Registered One-Stop Shop or SEAI Registered Energy partner; or Community Project Co-ordinator.

Is there a cost for the initial home energy assessment summary?

- Yes, there is a cost associated with having an energy assessment for your property. The cost may vary depending on the energy assessor chosen and the size of your home. Although some providers do allow a free initial assessment before the Home Energy Summary Report provision.
- Additionally, there is a Home Energy Assessment Grant of €350. This grant applies only to home energy assessments carried out by One-Stop Shop providers & Community Project Co-ordinators. For more information on the grant please visit www.seai.ie.
- Some but not all providers will allow the transference of Home Energy Assessment surveys from other providers.

Can I apply for an SBCI Home Energy Upgrade Loan and other schemes such as the Vacant Property Refurbishment Grant Scheme?

- Yes, the Vacant Property Refurbishment Scheme can provide an additional funding amount of up to €50,000 to renovate a vacant property.
- However, the usual requirements for application to the scheme need to be fulfilled.



Warning: If you do not meet the repayments on your loan your account will go into arrears. This may affect your credit rating, which may limit your ability to access credit, a hire-purchase agreement, a consumer-hire agreement or a BNPL agreement in the future.

Warning: You may have to pay charges if you pay off a fixed-rate loan early.

Warning: If you do not keep up your repayments you may lose your home.

Warning: The cost of your monthly repayments may increase.

04

AIB Proprietary 2024 Consumer Survey

What consumers are telling us: insights from a recent survey on retrofitting

AIB conducted a proprietary consumer survey in the third quarter of 2024, in conjunction with Amarach, on a nationally representative sample of 1,000 adults. The survey included several questions around retrofitting.

45% of consumers would like to do more to improve the energy efficiency of their home

The clear pattern from the survey was that consumers are interested in doing more to improve the energy efficiency of their homes. While most consumers reported having double glazing and some internal insulation, only 30% have external insulation, and figures for heat pumps and solar panels are also considerably lower.

However, many consumers are considering options in the future, with solar PV a particularly popular consideration, in particular for homeowners with an existing mortgage/loan.

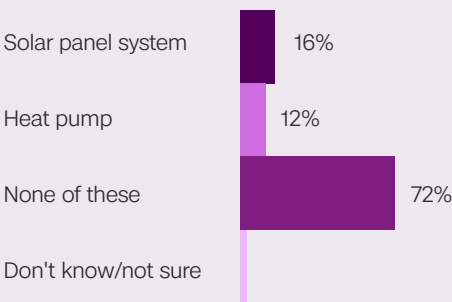
Of those improving energy efficiency, almost 60% of consumers were doing so to save costs and improve home comfort.

In cases where consumers had taken measures to improve the energy efficiency of their home, cost saving was seen as a big reason for the retrofit consideration. However, comfort was also seen as extremely important, if not marginally more important than cost saving.

Figure 1: Retrofit features already incorporated into consumers' homes and additional options being considered ahead of next winter

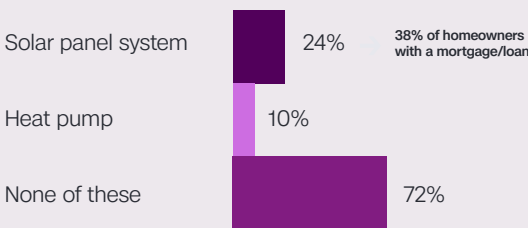
Energy saving features in your home

(BASE: All respondents - 1000)



Plan on getting energy saving features in the future

(BASE: All without either energy saving feature - 720)*



38% of homeowners with a mortgage/loan

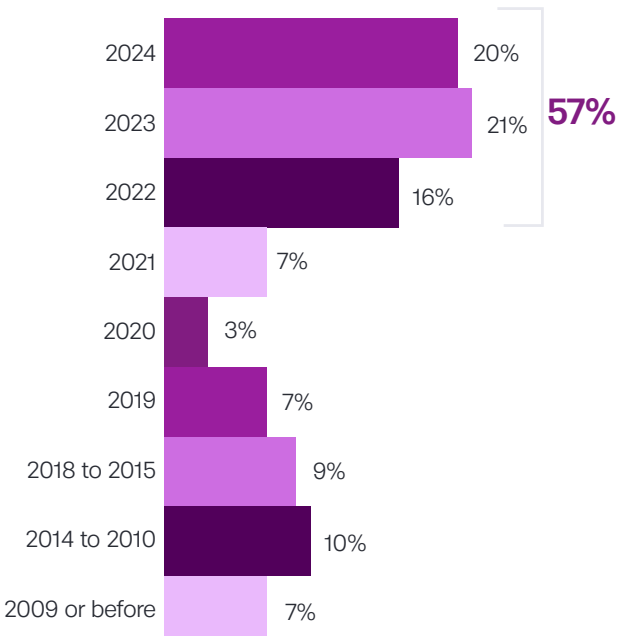
* Multiple responses were allowed

Solar panels have gained in popularity but heat pumps installations peaked last year

The lower penetration of heat pumps and solar panels (including solar thermal and PV) relative to ‘older’ features such as double glazing and internal insulation can be explained by examining trends in the last three years. Over half of all Solar Panel Systems and two-fifths of Heat Pumps were installed in this period. Notably, solar panels have particularly gained in popularity in the last two years. However, the popularity of heat pumps has been declining this year, in line with the trend in other European countries.

Figure 2: When Consumers Installed their Solar Panels or Heat Pump

Year Solar Panel System was installed
(BASE: All have Solar Panels - 143)



Year Heat Pump was installed
(BASE: All have Heat Pump - 93)

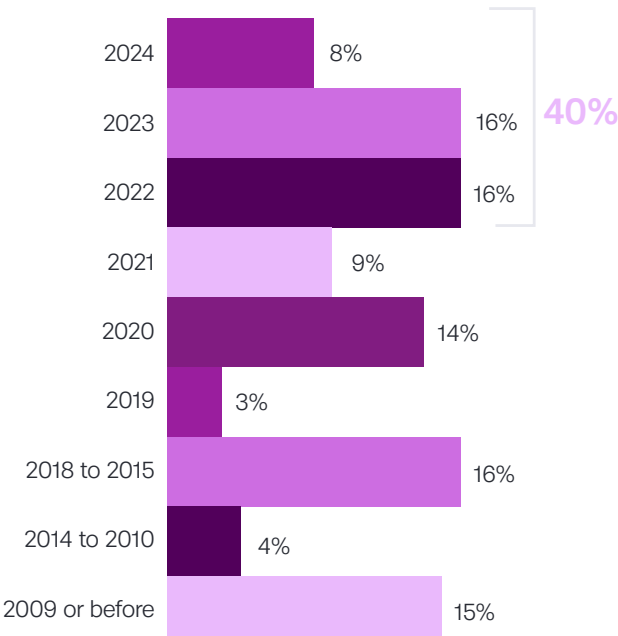
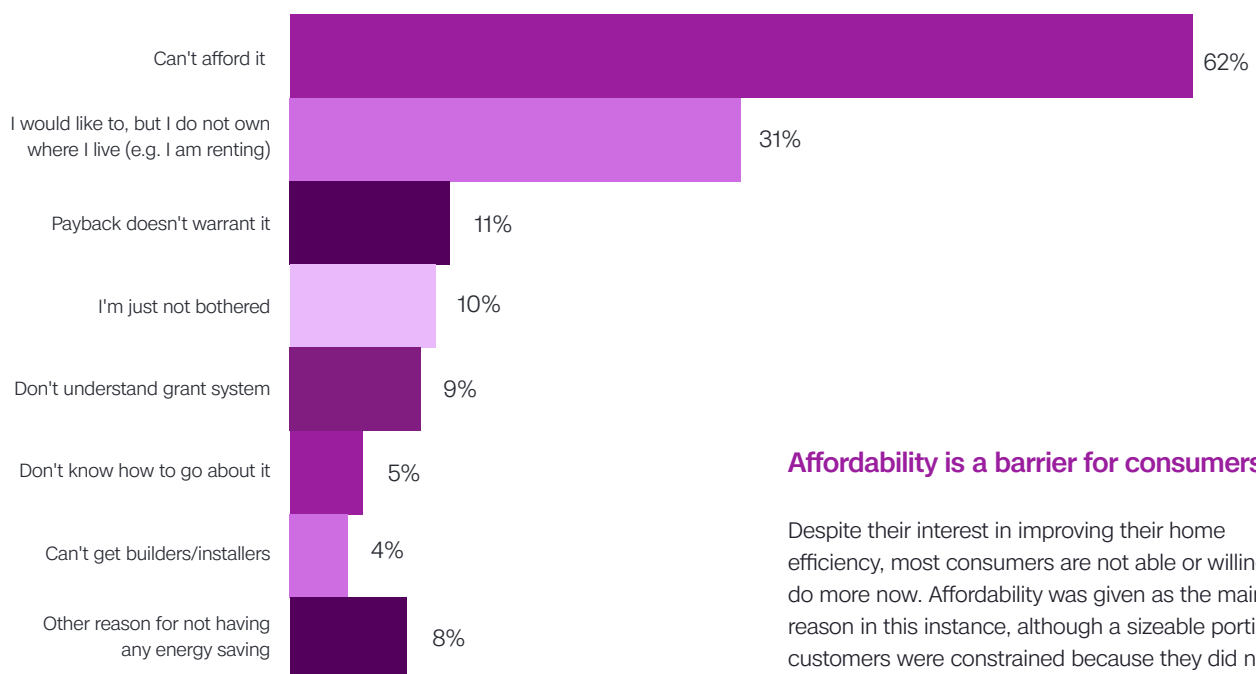




Figure 3: Respondents' reasons for not considering installation of energy saving features in their homes*



Affordability is a barrier for consumers

Despite their interest in improving their home efficiency, most consumers are not able or willing to do more now. Affordability was given as the main reason in this instance, although a sizeable portion of customers were constrained because they did not own their own homes.

* Multiple responses were allowed

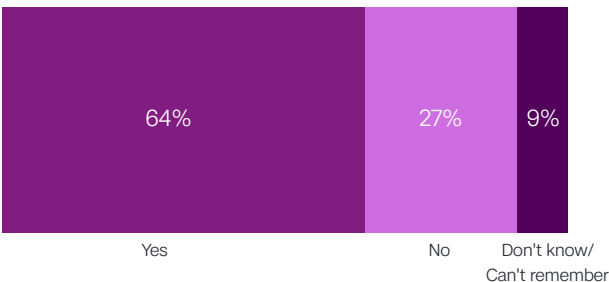
However, consumers may be unaware of available grants

AIB's survey also found that despite the popularity of solar panels (both solar thermal and PV) and heat pumps, a considerable proportion of consumers hadn't applied for an SEAI grant scheme for those features. Only two thirds of customers applied for an SEAI grant when installing their Solar Panel System, and three in ten when installing their Heat Pump. This could suggest that further education on available grants and their conditions of applications would be helpful.

Figure 4: Consumers who applied for an SEAI grant for Solar and Heat Pumps

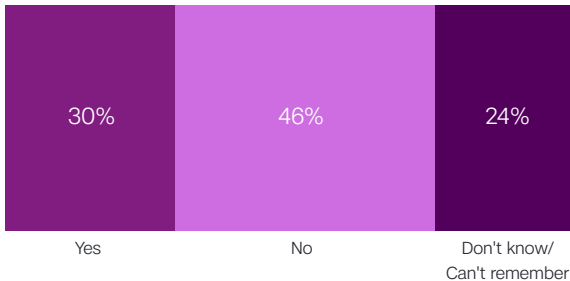
Solar Panel System: Apply for an SEAI grant

(BASE: All have Solar Panels - 143)



Heat Pump: Apply for an SEAI grant

(BASE: All have Heat Pump - 93)



Most consumers are also unaware of their home's BER rating

Only a minority of people (40%) know the BER ratings for their homes. Among those who know their ratings, 46% reported their homes as being A or B rated (the qualification point for a 'green' mortgage with AIB).



05

Elements of a Home Retrofit

An in-depth explainer

Attic/ceiling and wall insulation

Generally, very cost effective but high quality is key

On average, a home loses 20-30% of its heat through its roof. Attic/rafter insulation is generally the most cost effective of any energy efficiency upgrade made to a home, considering the potential cost savings that can be achieved on the monthly heating bills.

However, it is vital to look for high quality when choosing insulation products. The effectiveness of an insulating material is measured using a 'U-value'. This measures how much heat is conducted through a material and how much heat passes out of the home. Insulation should be correctly installed and have a low U-value, meaning that only small amounts of heat will pass through, thus keeping the home warmer for longer.

Homeowners availing of the attic or rafter insulation grants under the SEAI Better Energy Homes programme are required to install insulation achieving the minimum required U-values of 0.16 W/m² K for ceiling level insulation or 0.20 W/m² K for rafter insulation.

Similarly, on average, a home loses 20-30% of its heat through its external walls, if they are not properly insulated. There are three main approaches to wall insulation:

1. External wall insulation

External insulation involves fixing insulation materials to the outer surface of the wall. Although external insulation is an expensive insulation solution, it can also resolve other issues, such as rain penetration, poor airtightness and frost damage.

2. Cavity wall insulation

A cavity wall consists of two rows of brick or concrete block with a cavity or space between them. Injection of insulating product from the outside is the best method for insulating this type of wall.

3. Internal wall insulation

Internal insulation, also referred to as dry-lining, involves fixing insulation to the inner surfaces of the external walls.

	House type	Average cost after grant	Description
Attic Insulation	Apartment	€800	Often the most cost-effective upgrade made to a house.
	Mid-terrace	€1,200	
	Semi-detached	€1,300	
	Detached	€1,500	
Cavity Wall Insulation	Apartment	€700	Cavity walls are injected from the outside with insulation.
	Mid-terrace	€800	
	Semi-detached	€1,200	
	Detached	€1,700	
Internal Insulation (Dry Lining)	Apartment	€1,500	Insulation boards are fixed to the inside of external walls.
	Mid-terrace	€2,000	
	Semi-detached	€3,500	
	Detached	€4,500	
External Wall	Apartment	€3,000	Insulating materials are fixed to the outer surface of external walls.
	Mid-terrace	€3,500	
	Semi-detached	€6,000	
	Detached	€8,000	

Source: SEAI

Heat pumps

Air source or ground source heat pumps offer a more energy efficient way to heat a home, and to heat water for taps and showers.

Importantly, having an optimally sized heat pump is essential to maximise cost savings. With annual maintenance and servicing, the average heat pump can last up to 10-15 years.

Air source heat pumps are the most common type due to lower costs and easy installation

These are generally installed outside. Compact heat pumps can be fitted in apartments and flats, only requiring an 80cm x 80cm cupboard space near an exterior wall. Air-to-air heat pumps are another potential option and are often used to heat smaller properties such as park homes or flats.

Ground source heat pumps yield more energy savings and cool homes in the summer

Ground-source heat pumps can both heat a home in the winter and cool it in the summer. While ground-source heat pumps yield more savings than air-sourced pumps, they are significantly more expensive.

Most optimal energy savings are realised with a heat pump and solar PV installation combined

Heat pumps increase electricity usage which is why experts recommend installing them alongside a solar PV system to offset this additional usage. In addition, some homes may need to replace radiators and underfloor heating to effectively transfer heat within the home.

In Ireland, a minimum level of insulation is needed to qualify for a heat pump grant

For the average Irish home, an air sourced heat pump costs around €15,000, and a ground source costs around €22,500. To assist, SEAI heat pump grants are available up to €6,500. To qualify, a home requires a heat loss indicator (HLI) of less than 2. For homes built prior to 2007, a technical assessment is required to be carried out first with an SEAI registered technical advisor. Grants of €200 are available for this cost once conditions are met. For homes built after 2007, homeowners can choose to complete a technical assessment OR completing and signing a self-declaration form.

Ireland has recently lowered the VAT charged for the installation of heat pumps

The Minister for Finance in Budget 2024 announced that the VAT charged on the installation of heat pumps would be decreased from the standard 23% to a reduced rate of 9%.

Payback periods vary

While payback periods for heatpumps vary depending on the level of insulation in a home and the current heating system in use, there are some quick estimators available online. For most people in Ireland, the payback period will be around 6-11 years, although this could change depending on future energy prices and carbon taxes.

	Heat pump type	Average cost of unit and full install	Available grants & incentives	Energy efficiency requirements to qualify
Republic of Ireland	Air source	€12,000 to €18,000*	€6,500 - SEAI	Heat loss indicator of <2 & built before 2011.
	Ground source	€17,000 to €28,000	€6,500 - SEAI	Heat loss indicator of <2 & built before 2011.

* Source: Switcher.ie, Bord Gais

Solar photovoltaic (PV) system

Homeowners can unlock energy savings, and become more sustainable and independent energy users by installing solar PV.

Solar PV offers attractive energy cost savings, quick installation, and potentially enhances the value of the home. However, high upfront costs, and potential roof-space constraints can present challenges. Payback periods have fallen to below a decade and vary depending on the price of electricity. Most solar PV systems are quite simple to install and operate, and are relatively low maintenance, often lasting up to 25-30 years.

Solar PV generates renewable electricity from the sun. This can power all electrical devices in the home, such as kettles, fridges, showers, TVs and heat pumps.

- Solar PV systems generate electricity during daylight hours only, predominately around the middle of the day. In Ireland, around 75% is produced from May to September. If this electricity is not used in the home, it can be exported to the grid.
- A home solar PV system sized at 20 sq. m (~3kW) and well located would generate around 2,600kWh of electricity a year. That is over 40% of the average annual electricity demand of an Irish home.

To fully realise the potential, the home should be well insulated and the correct solar PV size system installed. As a benefit, planning permission requirements for most domestic solar PV have been lifted, and these systems are VAT exempt. Moreover, households can now sell excess electricity generated back to the national grid, adding to energy savings.

Average costs for a typical Irish home solar system

Costs of solar PV systems are specific to the installation. The table below shows the average cost for a residential solar PV system in Ireland as of Q1 2024 when accounting for SEAI grants. Adding a standard-sized solar storage battery (5.1kWh) would add around €2,400 - €2,800 to the price. This includes the price of the hybrid inverter which is needed to work alongside the battery.

Payback periods

Payback periods for solar PVs vary by property type and solar array size. Current estimates are that for a 6 bed detached home the payback period can be as little as 4 years and 7 months, rising to just over 6 years for a 2-bed terraced house. Payback for an average 3-bed semi-detached home is typically around 5 years 6 months.

	House size	Average cost after grant	Available grants & incentives
Republic of Ireland	2-bed Terrace	€5,900	i. €2,100 - SEAI (Maximum grant for 4kWp). ii. 0% VAT. iii. No planning permission.
	3-bed semi-detached	€6,100	
	4-bed Detached	€6,500	
	6-bed Detached	€7,300	

Solar thermal collectors

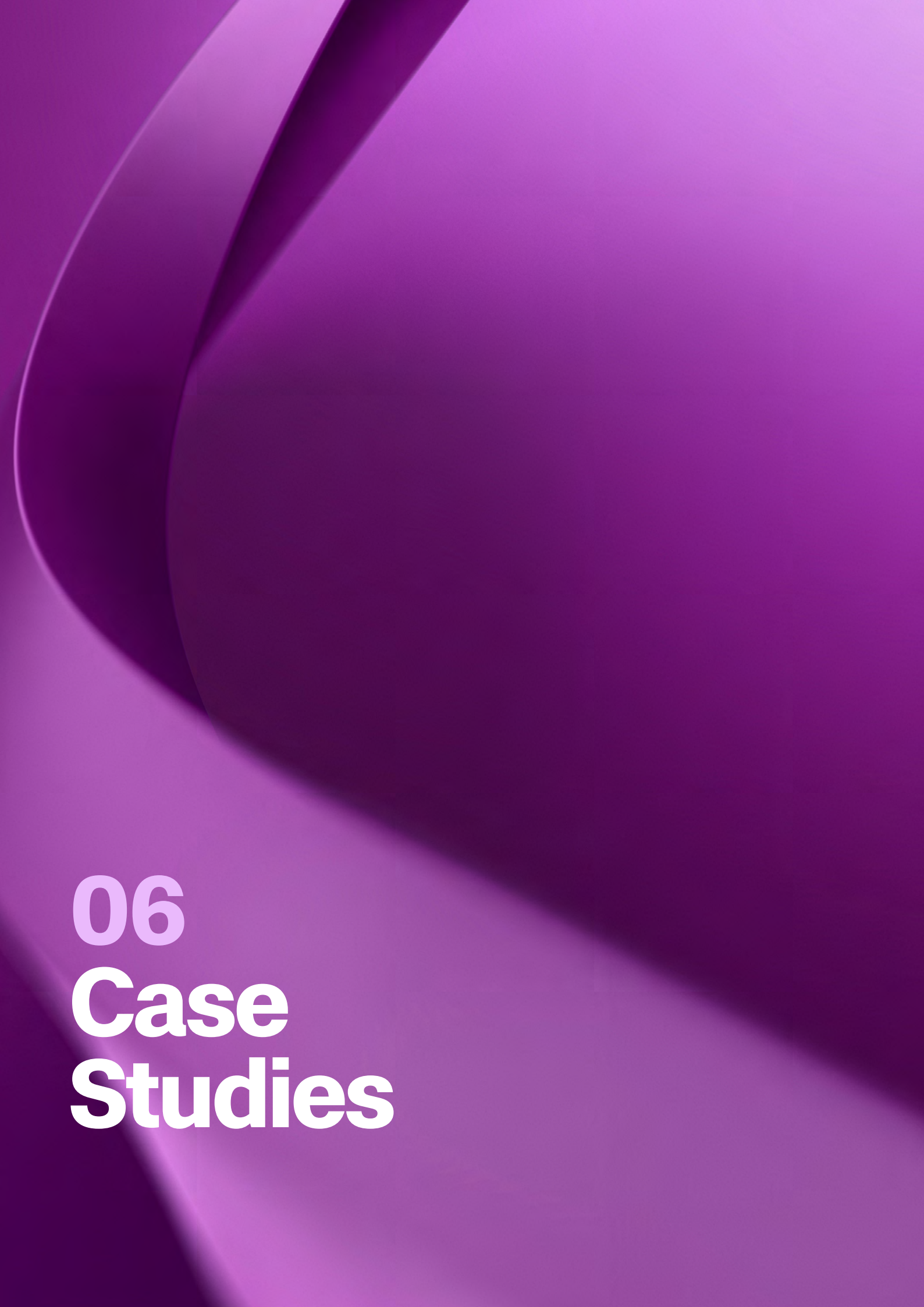
Solar Thermal Collectors can be used to supply 50-80% of hot water demand annually

Solar panels that produce hot water are known as solar thermal collectors or solar hot water collectors. These are different from Solar PV, which as mentioned, produce electricity that can power domestic electrical appliances.

Domestic hot water demand is rather constant all year round. Solar thermal collectors are therefore particularly suited to meet this demand. In countries like Ireland, where the radiation in winter is significantly lower than in summer, such systems can cover between 50% and 80% of the annual domestic hot water demand.

Thermal solar hot water systems generally cost between €800 and €1,300 per square metre. In Ireland, the total solar collector area must not exceed 12 metres squared or 50% of the total roof area. The cost of a system has a significant effect on the payback period. The solar water heating grant from the SEAI is €1,200 which will help in making the installation of thermal solar heating systems more affordable.



The background is a solid purple color with several large, overlapping, curved shapes in varying shades of purple, creating a sense of depth and movement. These shapes are primarily located on the left side of the image, with one large shape curving from the top left towards the center, and another smaller one below it.

06 Case Studies

Findings from conversations with One-Stop Shops

We spoke to several Irish retrofitting companies and found a number of common themes for customers

1. One-Stop Shops process the grants for you

One-stop-shop providers deduct grant values upfront from costs; and process the grant claims on behalf of customers for a smoother experience.

2. Lead times are not long

Current lead times are around 10 weeks from contract to work commencement, with the lead time for windows often being the biggest factor in works commencing. Subsequent work typically takes between 1-6 weeks depending on scale. This excludes houses that may be extending as part of their retrofit.

3. A 'Fabric First' approach is important

Houses are less costly to run if the house is insulated and this should be the first consideration before heat pumps or solar are installed. As a broad rule of thumb a house with a BER rating of C1 or lower would likely not benefit from a heat pump.

Installing solely solar to improve the BER rating of a home may preclude the household from applying from other grants in the future.

4. It is important to size the retrofit appropriately

It is not uncommon for solar and heat-pump sizes to be over-specified for a home. This leads to an unnecessary upfront cost to consumers which is not warranted by potential paybacks.

5. There are limitations for the owners of apartments and listed houses

Generally buy-in is needed from all owners and/or the building management company in an apartment block before retrofitting is viable. For listed houses, restrictions on elements such as rails or coving can limit insulation options. In addition, windows can provide a challenge.

6. Solar Panels can work well when combined with Electric Vehicle charging

Once the two systems are connected, then the EV charger can detect how much surplus electricity your panels generated, and then direct that into your car battery. Some electric vehicles and chargers can also use 'bidirectional charging' which allows the charged battery in an electric vehicle to send power back out to either the grid, a home, or another specific purpose.

7. Heat pumps can last as long as 15 years

While warranties are often shorter (approximately 7 years), once heat pumps are installed properly and serviced every year it is not unusual for them to last much longer.



Case study: Electric Ireland Superhomes (EIS)

Effective project management means that 90% of customers can remain in their homes during retrofitting

Electric Ireland Superhomes charges between €495 and €725 for customers' home energy assessment (net of grant). They believe their engineering-focused approach and ability to project manage so that customers can remain in their home in 90% of cases is a key differentiator from other One-Stop Shop providers. The home energy assessment is specific to EIS and cannot be transferred from other One-Stop shops.

Consistent with other companies, lead times are not significant for EIS, with windows taking the longest time to order (6-8 weeks typically), and an average customer enquiry translating into contract signing within 3-6 months.

Customers can avail of the SBCI Home Energy Upgrade Loan Scheme to finance their home retrofit.

However, EIS believe the consumer may not always be aware of all the advantages the scheme provides - in particular the awareness that 25% of the loan can be used for non-energy upgrades such as kitchen or bathroom renovations. They expect the average loan size to be in the region of €60,000-70,000.

Furthermore, EIS believes that education surrounding grants generally is beneficial for consumers. For example, under current schemes installing solar panels alone can often quickly bring up the energy efficiency of a home. However, in order to qualify for future One-Stop Shop grants, the BER rating of a home needs to be lower than B2, which can in some cases be an issue if solar has already been installed.

For customers considering a retrofit, EIS has the following advice:

1. Good advice is essential

A good retrofitter will listen to the customer's wants and needs; experience is key.

2. Consider the bigger picture

Some piecemeal upgrades will preclude you from other grants. A home energy assessment is a big outlay if your budget for works is already small (less than €15,000).

3. Remember that 25% of the SBCI Home Energy Upgrade Loan Scheme can also be used for non-energy associated costs.



Case studies – Findings from Consumers

Examples of the one-stop shop and single use energy upgrade experience

One-Stop Shop service

A couple built a bungalow in 1999, and as time went by they noticed that there was often a draft, and therefore the house was expensive to keep warm. In addition, they did not wish to use oil to heat their house due to the impact of this on the environment.

The couple decided to opt for the One-Stop Shop service, having heard about it from friends and they found the process quite straightforward with the SEAI One-Stop Shop service provider, taking care of everything.

The service provider assessed the home to see what works needed to be carried out in order to achieve a minimum BER rating of B2, and the company also managed both contractors and grant applications.

This meant that the couple did not need to pay for works upfront as grant values were deducted at the start of the job.

The house needed a full range of upgrades as part of the work, comprising the following:

- Heat pumps
- New windows and doors
- New radiators
- Insulation
- Solar panels
- Mechanical ventilation

As a result of these upgrades, the home became a lot more energy efficient and cost efficient. The couple have since saved over €2,000 on their energy bills during the year, which amounts to roughly 45% of their previous annual energy bills.

Single use energy upgrade - attic, using fibreglass

The owners of a detached house had an annual heating bill of €1,600. This house previously had 100 mm thick fibreglass in the attic, but following consultation with the SEAI, they decided to upgrade to 300 mm fibreglass in order to achieve better attic insulation.

After availing of the Home Energy Attic Insulation Grant, the homeowners achieved a cost saving of over €250 per year on their home heating bill. The cost of this type of upgrade ranges from €700 to €1,000, excluding the SEAI grant.

07

Over the Horizon Solutions

Future technologies of retrofits

01

Smart energy home management systems

Smart Home features integrate smart thermostats, lighting systems, and appliances for greater energy control and convenience. While not as popular a solution in Irish homes as yet, Smart Homes are quite popular in countries such as Germany. Despite the cost of installing a smart system, homeowners can benefit from significant cost savings over time. Appliances and electronics can be used more efficiently, lowering energy costs, and by installing mechanical ventilation systems, homes can enhance air quality and avoid dampness.

02

Installing heat pumps on roofs

In 2022, UK-based residential property developer Bellway installed Great Britain's first rooftop-mounted air source heat pump. In 2024, France's Energy and Industry Minister announced plans to simplify the regulatory and administrative process for installing heat pumps on roofs to drive heat pump installations. Rooftop-mounted Air Sourced Heat Pumps can solve the challenge of size and location of a heat pump by installing the air sourced heat pump into the loft of a home.

03

Balcony solar PV panels

Solar balconies are a piece of the wider energy transition across Europe and are booming in Germany. Austria, France, Italy, Poland, and Luxembourg have all taken an encouraging stance towards balcony solar. Solar balconies are a much smaller system than rooftop solar PV, and therefore only produce around 10% of the energy of rooftop systems. Essentially, the tech consists of one or two panels plugged into an electricity socket. Balcony PV is much easier to install. You can buy the kit online, and don't need an electrician to set it up. However, with the system weighing up to 24kg, safe installation is paramount.

Appendix A: SEAI Retrofit grants available to homeowners in Ireland

SEAI retrofit grants for ROI homeowners	Types of Home	Grant Value
Heat pump systems	All houses	€6,500
	Apartments	€4,500
Central heating system for heat pump	All houses	€2,000
	Apartments	€1,000
Heat pump air to air	All homes	€3,500
Heating controls	All homes	€700
Launch bonus for reaching B2 with a heat pump	All homes	€2,000
Attic insulation	Apartment (any)	€800
	Mid-Terrace	€1,200
	Semi-detached or end of terrace	€1,300
	Detached house	€1,500
Rafter insulation	Apartment (any)	€1,500
	Mid-Terrace	€2,000
	Semi-detached or end of terrace	€3,000
	Detached house	€3,000
Cavity wall insulation	Apartment (any)	€700
	Mid-Terrace	€800
	Semi-detached or end of terrace	€1,200
	Detached house	€1,700
Internal insulation (dry lining)	Apartment (any)	€1,500
	Mid-Terrace	€2,000
	Semi-detached or end of terrace	€3,500
	Detached house	€4,500
External wall insulation (the wrap)	Apartment (any)	€3,000
	Mid-Terrace	€3,500
	Semi-detached or end of terrace	€6,000
	Detached house	€8,000

Appendix B: SEAI home energy schemes

Average cost of works and average grant received for all homes completed through the Better Energy Homes and Solar PV programme for 2023

Measure	Median Measure Cost	Median Grant
BER	€250	€50
Cavity	€2,000	€1,700
External Wall Insulation	€21,483	€6,000
Heat Pump	€14,868	€6,500
Heating Controls	€3,742	€700
Internal Wall Insulation	€8,000	€3,500
Roof Insulation	€2,125	€1,400
Solar Heating	€5,823	€1,200
Technical Assessment	€485	€200
Solar PV	€11,475	€2,400

The average cost of works under the Better Energy Homes Scheme was €7,300, attracting an average grant of €3,100.

Appendix C: List of One-Stop Shop providers

Nationwide providers	Website
Bayview Contracts	https://bayviewcontracts.com/home-energy-upgrade/
Electric Ireland Superhomes	https://electricirelandsuperhomes.ie/
Energyfix	https://energyfix.ie/
Envirobead	https://www.envirobead.com/one-stop-shop-service/
House2Home	https://house2home.ie/one-stop-shop-home-energy-upgrades/
Kingdom Installation Ltd	https://www.kingdominstallation.ie/
KORE Retrofit	https://koreretrofit.com/wholehome-retrofit
Lough Projects	https://lough.ie/
NRG Panel	https://www.nrgpanel.ie/
Retrofit Energy Ireland Limited	https://www.reil.ie/
SSE Airtricity Energy Services Limited	https://www.sseairtricity.com/ie/home/home-services/generation-green-home-upgrade/

Additional providers in Connaught

Churchfield Home Services	https://www.churchfieldhomeservices.ie/
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Additional providers in Munster

Ashgrove Renewables	https://ashgrove.ie/
Energlaze Home Energy Upgrades	https://www.home-energy-upgrades.ie/
Energywise Ireland	https://www.energywiseireland.ie/one-stop-shop/
Insulex	https://insulex.ie/apply/
Leetherm Project Management Ltd	https://leetherm.ie/

Additional provider in Leinster

Churchfield Home Services	https://www.churchfieldhomeservices.ie/
Energlaze Home Energy Upgrades	https://www.home-energy-upgrades.ie/
Home Comfort Retrofits Ltd	https://homecomfortretrofits.ie/
Integrate Home Energy Upgrades	https://www.integratehomeenergy.ie/
Larkrock	https://www.larkrock.ie/
Leetherm Project Management Ltd	https://leetherm.ie/

Source: SEAI website



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