SUSTAINABLE ENERGY AUTHORITY OF IRELAND | ÚDARÁS FUINNIMH INMHARTHANA NA HÉIREANN

Better Energy Homes Contractor's Code of Practice

Version 1.12 2025

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Glossary of Key Terms

Contractor: Individual or company carrying out energy upgrade measures supported by one or more of the programmes referenced in this Code of Practice. Contractor registration requirements are detailed on the SEAI website.

Customer: In this document, the Customer typically refers to the Homeowner who has had one or more of the measures outlined herein installed by a Contractor meeting the registration requirements. This Customer/Homeowner is also the applicant for support from the Better Energy Homes Programme.

Agrément: The Irish Agrément Board (IAB) issues Certificates for certain products and installers. This document details requirements for Irish Agrément Certification or equivalents where relevant.[1]

Earthing / Bonding: is the electrical connection of all exposed metallic building elements, e.g. pipework, to prevent electric shock from one of these elements in the event of an electrical fault. Earthing / bonding must be carried out in accordance with the applicable National Rules for Electrical Installations.

Energy Partner: Contractor who is registered to both carry out works under the Better Energy Homes Programme and authorised by SEAI to submit grant applications on behalf of homeowners.

U-value: a measure of thermal efficiency of fabric, doors or windows. It is the rate at which heat passes through a building component or structure e.g. roof or wall. A lower number indicates better insulating properties. It is expressed in units of Watts per square metre per degree of air temperature difference [W/m^2K]. U-values are calculated according to the standards detailed in the DEAP methodology, TGD Part L and BR 443 "Conventions for U-value calculations" published by BRE.

[1] "Equivalent" means "certified to an alternative national specification of any State which is a contracting party to the Agreement on the European Economic Area, which provides an in use level of safety and suitability"

Key Acronyms

ACM	Asbestos Containing Materials
BEH	Better Energy Homes
BER	Building Energy Rating
BRE	Building Research Establishment
BRE	Building Research Establishment
CER	Commission for Energy Regulation (now called the CRU)
CFL	Compact Fluorescent Lamp
CIBSE	Chartered Institution of Building Services Engineers
CRU	Commission for Regulation of Utilities (previously called the CER)
DEAP	Dwelling Energy Assessment Procedure
DGF	Decorative Gas Fire
DHPLG	Department of Housing, Planning and Local Government
DHW	Domestic Hot Water
DOW	Declaration of Works
DTSS	(SEAI) Domestic Technical Standards and Specifications
EOTA	European Organisation for Technical Assessment
ETCI	Electro-Technical Council of Ireland
HARP	Home-heating Appliance Register of Performance
IAB	Irish Agrément Board
LED	Light Emitting Diode lamp
MVHR	Mechanical Ventilation with Heat Recovery
NPWS	National Parks and Wildlife Service
NSAI	National Standards Authority of Ireland
QADP	Quality Assurance and Disciplinary Procedure
RECI	Register of Electrical Contractors of Ireland
SEAI	Sustainable Energy Authority of Ireland
SPF	Seasonal Performance Factor
TGD	Technical Guidance Document
VAT	Value Added Tax

Purpose of this document and recent changes

The principal purpose of this document is as a reference for Contractors wishing to carry out dwelling energy upgrade works supported by SEAI's Better Energy Homes (BEH) Programme. It sets out the programme-specific requirements of Contractor's practices in carrying out works supported by the Programme. Homeowners may also wish to refer to this document when works are being carried out.

This document must be followed in conjunction with the Domestic Technical Standards and Specifications (DTSS), which sets out the general competence, standards and specifications that Contractors should possess, and adhere to, in carrying out works supported by the SEAI.

Summary of revisions of this document

Version	Date	Summary of changes from previous version
1	March 2019	
1.1	February 2020	• Addition of content from old document "Additional Information for Contractors" (old newsletters) • Addition of section 5.3 Heating Controls • Addition of section 5.4 Solar Water Heating • Clarifications on Contractors' Requirements
1.2	January 2022	• Amendment to section 5.3 Fully Integrated Heating Controls to include updated Declaration of Works checklist. • Change to Contractor registration queries phone number
1.3	February 2022	• Updated eligibility rules Section 2.8 • Removal of text regarding bonus payments Section 3.2
1.4	May 2023	• Clarification on references to NSAI Agrément/Irish Agrément • Additional footnote re equivalent certification
1.6	July 2023	• Addition of content related to HO being allowed nominate CO's bank account. Section 2.1 & 3.2
1.7	August 2024	• Amendment to section 3.6
1.8	February 2024	• ESB Service Alteration – Section 2.5 and additional safety information at Section 2.9.3
1.9	April 2024	• Update to Section 3.6
1.10	October 2024	• Addition of new Section 5.2 Roof Insulation – (Whole Surface-Solution & Ground floor Apartments) • Amendment to Section 2.1 Links for Contractor Registration Form and Contractor T&Cs
1.11	December 2024	• Included link to Heat Pump System in dwelling SR 50
1.12	March 2025	• ESB Service Alteration – Re-Clipping requirements update

Disclaimer

Contractors must carry out works in accordance with this Code of Practice document and in conjunction with the SEAI Domestic Technical Standards and Specifications (DTSS). Registration of Contractors on the SEAI Registered Contractor List is mandatory for the BEH Programme. Please see section 2.1 below for further information on registering as a Contractor with SEAI.

The information contained in this BEH Code of Practice does not purport to be legal, professional or commercial advice or a definitive interpretation of any law.

While every care has been taken to provide accurate, complete, reliable and effective information on standards in this BEH Code of Practice, SEAI gives no guarantees, undertakings or warranties in this regard. SEAI accepts no liability for the content or accuracy, completeness, reliability or effectiveness of the information provided herein or for any loss or damage caused arising directly or indirectly in connection with reliance on the use of such information.

The provision of goods and/or services by Contractors to customers of this Programme is entirely a matter between the Contractor and the customer. SEAI accepts no liability or responsibility, whether for breach of contract, breach of duty, negligence, health and safety violations or otherwise, in respect of any dispute, claim or cause of action arising out of, or in relation to, any product, equipment, work, alteration (including unclipping, replacement or reinstatement) of service cables / aerial wires to a domestic house, system or installation supplied or carried out by the installer or Contractor under the Programme. The Contractor is entirely responsible for all such matters.

The information contained in this Code of Practice may be updated from time to time. SEAI accepts no responsibility for keeping the information up to date or any liability whatsoever for any failure to do so.

Where SEAI provides links to external websites, these are provided for convenience only and such provision does not constitute an endorsement of any company, product, process or content. Please note that SEAI has no control over external websites and assumes no responsibility or liability for same.

1 Introduction to the Better Energy Homes Programme

The Sustainable Energy Authority of Ireland (SEAI) is Ireland's national energy authority with a mission to promote and assist the development of sustainable energy and was established by the Government pursuant to the Sustainable Energy Act 2002. Contractors carrying out works on dwellings funded by the Better Energy Homes (BEH) Programme must adhere to the regulations, standards and requirements for installers, products and installation detailed in the Domestic Technical Standards and Specifications (DTSS).

Specific eligibility requirements for dwellings (e.g. dwelling age) and Contractors (e.g. Contractor Registration) are detailed on the SEAI website.

The BEH Programme provides financial support to Customers for a defined range of technologies and materials to improve the overall efficiency of their home. The Customer must select a Contractor or Contractors from a list of Registered Contractors, published and maintained by SEAI, to carry out the measures supported and defined by the BEH Programme. Following completion of the works, the Customer can claim fixed grants relating to these measures.

The BEH Programme provides grants to homeowners who invest in the energy efficiency improvement measures shown in Table 1.

The Programme is detailed further on the Homes Energy Grants page, on the SEAI website.

Table 1: Measures covered by SEAI funding under BEH

Measure	Better Energy Homes
Cavity Wall Insulation	✓
External Wall Insulation	✓
Internal Wall Insulation	✓
Ceiling Level Attic Insulation	✓
Rafter level attic insulation (warm roof) and flat roof ceilings	✓
Fully Integrated Heating Controls	✓
Heat Pumps Systems	✓
Solar Water Heating System	✓

2 General Requirements

This document makes use of the terms 'must', 'shall' and 'should' when prescribing requirements and procedures. In this document:

- terms such as "must", "shall", "required", "requirements" etc. are for mandatory conditions to be complied with in full when implementing measures described in this document unless otherwise stated in the text describing the condition;
- terms such as "should" and "recommended" are for conditions that are intended to be complied with when carrying out measures, unless reasonable justification can be given as to why the recommendation was not carried out.

2.1 General Contractor Requirements

Contractor registration is mandatory for the BEH Programme. Contractors may only complete works for the measures for which they are registered with the BEH Programme.

Information on how to register is published on the SEAI Website: Support for Contractors | Grants | SEAI

To successfully register as a Contractor and to complete works under the BEH Programme, the Contractor must meet the following requirements:

- hold a valid Tax Clearance Certificate,
- have Public, Products and Employers Liability insurance cover meeting or exceeding the requirements specified by SEAI in the Contractor Registration form,
- fully comply with all other requirements and Terms and Conditions as part of the contractor registration, and
- satisfy the specific competency requirements set out under the Competency, Product and Installation standards for each of the relevant measures as defined in this document and the DTSS document.

In addition to the above, Registered Contractors operating under an Energy Partner/Counterparty agreement must comply with the following:

- Contract with the Energy Partner/Counterparty,
- Operational guidelines for the Energy Partner/Counterparty,
- All other programme documents (i.e. Homeowner's Application Guide, Homeowner's Application Form, Better Energy Homes programme's terms and conditions)

Contractors must not purport to be registered with Better Energy Homes, or enter in agreement with homeowners for the provision of Better Energy Homes grant services if they are not on the published Contractor Register (https://hes.seai.ie/GrantProcess/ContractorSearch.aspx). This may be the case, for example, during periods of deregistration. Failure to comply with this requirement may render contractors ineligible under the Scheme and unable to re-register with Better Energy Homes after a period of deregistration.

Please not that Contractors can offer the Homeowner the cost of works net of the grant amount. To do this, the Contractor can ask the Homeowner to nominate the Contractor's preferred bank account with bank details on the SEAI Request for Payment form.

Non-compliance with the terms and conditions of the BEH Programme, with the Domestic Technical Standards and Specifications, with this document and all other directions from SEAI are dealt with as per SEAI's Quality Assurance and Disciplinary Procedure (QADP).

The Contractor must provide a competent workforce to carry out the works. This includes providing all relevant training and certification as appropriate to each element of works being carried out. The Contractor must maintain relevant training records and certificates and may be subject to inspection by SEAI.

Only "Nominated Personnel" included in the Better Energy Homes Contractor's profile may sign off on work completion in the DOW form, and on rework completion in the Reworks Declaration form. When nominated personnel sign these documents, they are confirming that the works meet the required standard on behalf of the Registered Contractor.

Nominated Personnel must:

- have relevant professional training and/or product specific manufacturer training to carry out the works as appropriate,
- either complete the works or attend the site either to supervise or inspect the works and sign off on works,
- meet or exceed the technical competency requirements specified by SEAI for the measure they are signing for.

Registered Contractors must keep their list of nominated personnel up to date at all times.

Registered Contractors must note that all works are subject to verification and quality inspections through which technical penalty points may be accrued. While penalty points may be accrued due to sign off by different Nominated Personnel, they apply to the Registered Contractor's profile, so it is important to ensure all staff are aware of the current technical and administrative requirements of the programme and to ensure all works are carried out in compliance with the Better Energy Homes requirements.

The specific competency standards relating to each of the measures supported by the Programme are detailed in the SEAI's Domestic Technical Standards and Specifications.

Registered Contractors must be computer literate, have regular access to e-mail facilities and must have IT software compatible with Microsoft Office to ensure the effective and efficient administration of the BEH Programme.

2.2 Contractor's and SEAI contact details

To ensure that they are kept informed of procedural communications and programme notices, Registered Contractors are obliged to maintain and monitor an active e-mail address and phone number. SEAI may request information for grant administration and quality assurance purposes from Registered Contractors. Contractors must respond to these requests promptly.

SEAI communicates with Contractors through the contact details provided in the Contractor Registration form. Please ensure you check your email account regularly for SEAI communications and respond when required to do so by SEAI. When contacting SEAI by e-mail, please ensure that you use the e-mail address that you have provided to SEAI.

Name and Contact details for your Company

Please ensure that your Company name and address on your Contractor registration form, Declaration of Insurance (DOI) and electronic tax clearance record (eTCC) match the name and address on the Companies Registration Office (CRO), on the NSAI or equivalent registers, and/or any other registers as may be required.

Contact details for SEAI

The SEAI website details the relevant contact details for the Better Energy Homes programme:
Support for Contractors | Grants | SEAI

Homeowner queries:	**Contractor technical queries**
Customer Care Centre 01 8082100 info@betterenergyhomes.ie Better Energy Homes Sustainable Energy Authority of Ireland P.O. Box 119 Cahersiveen Co. Kerry	**Contractor Technical Helpdesk** 01-2776977 inspections@betterenergyhomes.ie
	Contractor registration queries Customer Care Centre 01 8082004 contractor@betterenergyhomes.ie

2.3 General Material and Product Standards

All materials / products used must be new, fit for purpose, improve the energy efficiency of the building and have no detrimental impact on the structure, viability, quality or safety of the property. All products must meet relevant material / product specifications, standards and regulations detailed in the Domestic Technical Standards and Specifications. Adherence to applicable standards must be followed in relation to the materials used, and their installation.

All aspects of this guidance document are subject to audit, quality inspection and verification. The requirements for each measure are detailed further in this document and the DTSS. The quality and other Quality Assurance (QA)/Quality Control (QC) processes are detailed in SEAI's Quality Assurance and Disciplinary Procedures (QADP). All documents are published on the SEAI website.

Equivalence of Prescribed Standards and Specifications

While acknowledging that the DTSS document sets out Standards/Specifications of products/systems or Certification requirements for Contractors, it may be possible for a manufacturer, supplier or Contractor to participate in SEAI programmes where they can clearly demonstrate full equivalence to those requirements.

When pursuing this equivalence route, it is vital that the supplier or Contractor contacts the SEAI Technical Team[2], demonstrating equivalence to SEAI's satisfaction. This must be done BEFORE any works are undertaken with the subject system or by the subject Contractor. It is the sole responsibility of the manufacturer, supplier or Contractor, as applicable, to justify the equivalence of standards, specifications and certifications with SEAI requirements, as appropriate. Failure to first secure written confirmation from SEAI of said equivalence may result in revocation of a Homeowner's grant approval and possible sanction for the Contractor in accordance with QADP. SEAI is not responsible for any delay, or consequences thereof, in determining the equivalence or otherwise of any standards, specifications or certifications with SEAI requirements.

Nothing in the above allows SEAI to subvert legislation, regulations, procedures or institutional arrangements which would have SEAI act beyond its statutory remit.

2.4 General Installation Standards

In general, all Better Energy Homes measures must be applied as a whole-house solution, and include all the habitable buildings at the specific MPRN address. For further details, please refer to Section 5.

The property must be assessed by the Contractor before installation of any measure to ensure that:

- it is suitable for the measure(s) proposed;
- the measure(s) will not harm the structural integrity or condition of the building or any other services in place; and
- the measure(s) is/are likely to achieve the desired effect in terms of energy efficiency.

The design and installation of the recommended works must not compromise the ventilation, air quality, humidity (and the potential for condensation) and quality of living environment in the home. Consideration must be given to the potential impact on the living environment in the home resulting from any measures installed under the BEH Programme. The Contractor must prevent any detrimental changes to the living environment and recommend to the Customer any measures necessary to ensure there is no detrimental change to the living environment as a result of the works.

[2] See the "Contact Us" section on the SEAI Contractor Supports page

All works should be carried out in accordance with this Code of Practice, the Domestic Technical Standards and Specification document, and best practice and technical guidance documents outlined herein[3], which include, but are not limited to, the following:

- S.R. 54:2014 *Code of practice for the energy efficient retrofit of dwellings*
- Building Regulations Technical Guidance Documents (Latest updates of Part L, Part B, Part C, Part D, Part F, Part J, Part M in particular).
- The System Supplier/ Product Manufacturer Guidelines
- Irish Agrément certificates or equivalent
- Irish Agrément recognised certificates within the EOTA network
- Irish Standards (I.S.), British Standards (B.S.) or European Standards (EN) or Guides

Most of the technical guidance documents and standards can be found from the following sources:

- The Department of Housing, Planning and Local Government (DHPLG) publish Building Regulations and associated Technical Guidance documents: www.housing.gov.ie
- The Sustainable Energy Authority of Ireland (SEAI) www.seai.ie
- The National Standards Authority of Ireland (NSAI) www.nsai.ie
- The UK Energy Saving Trust www.energysavingtrust.org.uk
- The UK Building Research Establishment (BRE) www.bre.co.uk
- All British Standards (annotated B.S.) are on http://shop.bsigroup.com
- All Irish Standards (annotated I.S.) are on https://shop.standards.ie
- Commission for Regulation of Utilities (CRU) www.cru.ie
- Chartered Institution of Building Services Engineers (CIBSE) www.cibse.org

A list of the primary Best Practice Guides and where they may be obtained are referenced in Appendix 1 of the DTSS document. In each case, the Irish Standard or Irish Agrément Certification should be considered the primary certification and preferred guidance.[4]

Where Building Regulations are referred to in this document, and where not otherwise specified, the Contractor must adhere to the current version of those Building Regulations.

Works must always be installed in accordance with manufacturer's, supplier's or system supplier's specifications.

The Customer may specify additional works or energy efficiency measures outside the scope of the Better Energy Homes grants, which they may wish to be installed at the same time. Where this is the case, it is the responsibility of the Contractor to:

- assess the cumulative effect of all measures and works carried out on the home, taking into account the existing construction elements, equipment and installations,
- inform the Customer of the cumulative impact of all works and energy efficiency measures being carried out,
- check that the cumulative effect of all works carried out on the home is in line with the overall objectives of energy efficiency and carbon reduction, and
- explain to the Customer the interaction between measures as well as possible resulting effects on performance.

[3] The applicable versions of these documents are the versions in being at the time the works are carried out, unless indicated otherwise.

[4] "Equivalent" means "certified to an alternative national specification of any State which is a contracting party to the Agreement on the European Economic Area, which provides an in use level of safety and suitability"

2.5 Completing Declaration of Works (DOW) forms

As part of the Contractor Registration for Better Energy Homes, Contractors have agreed to give undertakings and vouch for works undertaken. When completing the Declaration of Works form, Contractors are signing off on compliance of the works with the grant requirements. These declarations will be used in support of requests for cash grant payment to SEAI. Please note that in all cases compliance must be achieved prior to signing DOW forms. Commitments to return to complete works after DOWs have been submitted are not acceptable in any circumstances.

In the Declaration of Works, the section that must be completed by the Contractor is SECTION 2. A large percentage of DoWs are returned to homeowners because Contractors have not completed this section correctly. To avoid this from happening, Contractors and their Nominated Personnel must ensure they read all the text and provide all the required information.

When undertaking grant aided work, it is the Contractor's responsibility to ensure that the grant has been offered and is correct for the energy efficiency measures agreed with the homeowner. It is particularly important when filling out the Declaration of Works form that you confirm that it correctly represents the measure installed.

Dates
It is very important to ensure you put the correct date of works on the Declaration of Works form. The 'date work completed' is the date the works **grant aided** by SEAI are completed and not the date on which the any larger job was completed. This date cannot be filled out prior to job completion.

All the dates beside the signatures must be entered at the same time as the signature is put on the form.

Comment box
A "Comment" box is provided in the DOW form to provide further details on the grant works, and their compliance with the grant requirements. Contractors must make use of this comment box, and include any other documentation in cases where this is required to clarify or demonstrate compliance. Any doubts on compliance must be clarified prior to the works being carried out with the Technical Helpdesk (see section 2.2 for contact details).

Please note that including supplementary information in the comment box or providing additional documentation with the DOW does not eliminate or diminish the obligation on Contractors to adhere to the requirements of the programme.

Signing off on non-compliant works
When signing the DOW Contractor Declaration, the Nominated Personnel are vouching for work compliance on behalf of the Contractor. Signing off on non-compliant works must be an exceptional occurrence. In cases where non-compliances are identified during an inspection, remedial works must be completed, in compliance with the Reworks process detailed in the Quality Assurance and Disciplinary Procedures (QADP). Contractors found to be repeatedly signing off on non-compliant works and incurring in reworks for the same issues on the QADP checklists may be deregistered. When repeated occurrences of signing off on non-compliant works continue after a period of deregistration, this may result in indefinite periods of de-registration and in SEAI refusing a Contractor's application to re-register.

Common issues/failures on DoWs
The following list shows some of the common issues identified with DoWs. Issues such as these can result in delayed processing of grant payments:

1. The date of works must be after the application date.
2. The type of insulation used must be indicated on the form.
3. The percentage of roof insulation refers to the surface area of roof and not the depth of the insulation.
4. If the percentage of the roof/wall area insulated is less than 100% a detailed reason must be entered in the

comments section of the form.
5. If you topped up the insulation in the roof please note this on the declaration of works form.
6. The form requires the calculated U-value of the element (e.g. wall, roof) before and after works and not the thermal conductivity of the insulation product used.
7. If the desired U-value is not achieved, the grant cannot be paid. Contractors must consult with our Technical Helpdesk before works are agreed and started.
8. On the Heating Controls Declaration of Works, the question of whether the heating controls upgrade meets or exceeds the minimum requirements of the programme must be answered correctly.

Contractors completing Better Energy Homes work and Declaration of Work forms while de-active on or de-registered from the Better Energy Homes Registered List of Contractors may be refused an application to re-register.

2.6 Provision of evidence for BER Assessors

The BEH Terms and Conditions require a post-works Building Energy Rating (BER) assessment to be carried out[3] on the dwelling by a registered BER Assessor. The Contractor must provide complete, accurate and verifiable documentation to the BER Assessor as may be required. The BER results will not reflect the benefits of the energy efficiency measures carried out by Contractors if the BER Assessor cannot prove retrofit works in fact have been carried out.

In general, the BER Assessors must use conservative default values where insufficient evidence is available from their BER site survey or from acceptable documentation. The DEAP methodology, particularly the DEAP Survey Guide and DEAP Manual, detail the requirements for proof of dwelling energy efficiency upgrades from site survey and documentation.

As an example, if an existing attic is insulated, the BER Assessor requires detail of the insulation make/type on the insulation upgrade receipt so they can derive an accurate U-value calculation (assuming they can access the insulation to determine thickness and area of insulation installed on site). The dwelling address and date of installation must be shown on the receipt or invoice. It is not enough for the BER Assessor to simply use a U-value stated by a Contractor or Architect without verifying the U-value is calculated according to the relevant standards and guidance in the DEAP Methodology. U-values are calculated according to the standards detailed in the DEAP methodology, TGD Part L and BR 443 – *Conventions for U-value calculations.*

As another example, the BER Assessor must rely on conservative default efficiency values for heating systems if they cannot identify the newly installed heating system against a certified data source such as:

- The HARP database for high-efficiency boilers;
- Eco-design technical documentation for heat pumps;
- Other sources as specified in this document.

2.7 U-value calculations: Further Information

Calculation of the correct U-value is essential in determining if specified targets have been met and in completing Declaration of Works (DOW) forms. Prior to commencing insulation work, consult with the insulation product manufacturer or supplier to establish the best product to use for the given construction type to achieve the required U-value.

Thermal transmittance (U-value) relates to a building component or structure, and is a measure of the rate at which heat passes through that component or structure as calculated when there is a temperature difference of 1 degree in the internal and external air temperature (W/m^2K).

Detailed examples of U-value calculations can be found in Appendix A of the Building Regulations TGD Part L. TGD L and Annexes A, B and C of S.R. 54 "Code of practice for the energy efficient retrofit of dwellings" also give indicative values that can help determine the likely depth and type of required insulation. These indicative values are not considered acceptable proof of U-value in an actual retrofitted dwelling.

Once the Thermal Conductivity (W/mK) and thickness of the material are identified, a U-value can be calculated. When more than one material is being used (i.e. as in a common wall construction which might have insulation, block and render – each with different thermal conductivities), the overall U-value is calculated based on the total of all the resistances of the combined materials. The resistance of a material is the inverse of the U-value. See BR 443 – *Conventions for U-value calculations* and the DEAP Manual for applicable data sources, standards and calculation methods.

Sample calculation of wall U-value:

Internal Dry-lining insulation
215mm solid block (medium weight) wall is insulated with **72mm of insulated plasterboard with a thermal conductivity of 0.023 W/mK**. The wall also has 19mm external render and 13mm lightweight plaster on the internal wall. The following tables outline the U-value calculation for this structure and show the effects on the wall U-value when the insulation is installed.

Before insulation:

Surface	Thickness (m)	Conductivity (W/mK)	Resistance (m^2K/W)
External Surface			0.040
External Render	0.019	0.57	0.033
Concrete Block	0.215	0.57	0.377
Plaster	0.013	0.18	0.072
Internal Surface			0.130
Total Resistance			0.65
U-Value of Structure = 1/0.65 = 1.53 W/m^2K			

After 72mm of insulated plasterboard installed:

Surface	Thickness (m)	Conductivity (W/mK)	Resistance (m^2K/W)
External Surface			0.040
External Render	0.019	0.57	0.033
Concrete Block	0.215	0.57	0.377
Plaster	0.013	0.18	0.072
Insulation	0.072	0.023	3.130
Internal Surface			0.130
Total Resistance			3.78
U-Value of Structure = 1/3.78 = 0.26 W/m^2K			

NOTE: If insulation work is a "top up" on existing insulation, for example pumped insulation into a cavity with existing insulation or 200mm of quilt insulation in a roof with 100mm quilt insulation already present, you must detail this in the Declaration of Works form. Failure to complete this leads to the Declaration of Works being returned to the homeowner.

[3] In some cases, the homeowner will also require a pre-works BER.

2.8 Grant Applications

2.8.1 Which properties are eligible

Homeowners and landlords of dwellings built and occupied before 2011 may apply for funding from the Better Energy Homes programme for insulation and for heating controls. Homeowners and landlords of dwellings built and occupied before 2021 may apply for funding from the Better Energy Homes programme for heat pump systems and for solar hot water.

If the home was built before 2011 or 2021, depending on the grant being applied for, and if the homes has an extension built after the 1st January 2011 or 2021, then only the work associated with the portion of the home built before that time is eligible for consideration. In all cases a whole house solution must be provided to the homeowner, including the extension, to be eligible for grant support.

When determining what areas of the dwelling are eligible for the Better Energy Homes programme the **rule is that if the area is considered part of the dwelling when undertaking a Building Energy Rating (BER)** then it is eligible for a grant (except a new extension as mentioned above).

The dwelling area consists of all building elements separating the dwelling from the external environment, adjacent buildings and unheated spaces.

- In a typical home, the eligible area of the home is the total floor area of buildings for the MPRN used in the application.
- In some non-typical homes, or older homes with converted spaces and extensions it may be more difficult to determine which areas are eligible for the grant. If in doubt, please contact the Helpdesk to clarify.

The Better Energy Homes grant is not applicable to any works undertaken to improve the insulation or to convert the following areas into habitable spaces:

- Areas not already part of the dwelling area
- Non - habitable areas
- Areas not heated by the main heating system of the home

Where insulation is being installed in the dwelling area and non-dwelling areas described above then only the portion of the work applicable to the dwelling area is eligible for consideration for a grant.

2.8.2 Eligible dwelling types

The Better Energy Homes grant is available to all privately-owned dwellings built before 2011. A dwelling, as defined in the Dwelling Energy Assessment Procedure (DEAP), is a self-contained living unit with a minimum of bathroom, kitchen and living / sleeping area. The DEAP methodology and software is applicable to the following dwelling types:

- Apartments
- Houses
- Maisonettes

Domestic BER assessors are only permitted to publish BERs for dwellings. A bedsit or common area in an apartment building does not satisfy the criteria of a dwelling definition. Only properties for which a valid BER can be published are eligible to apply to the Better Energy Homes programme where it meets all other criteria. Where a house is separated into bedsits, the house as a whole, is eligible for a single grant. A house must have an individual MPRN number to qualify for grant support.

Non-eligible building types:

- Bedsits
- Hallways
- Landlord areas
- Offices
- Mobile homes or caravans
- Nursing homes
- Houseboats

If you are unsure if a dwelling type is eligible for grant support please contact the Better Energy Homes Helpdesk.

Local Authority Housing
Local Authority Housing tenants are not eligible for grant aid under the Better Energy Homes programme.

2.8.3 Grant refusals for works done prior to grant offer

Works must not be carried out prior to the homeowner receiving the grant offer from SEAI. For Contractors operating with Energy Partners under the Counterparty Agreement, it is the Contractor's responsibility to ensure that there is a customer agreement/waiver and grant offer in place before they start works. In all other cases, it is the responsibility of the homeowner to ensure that they have a valid grant offer before commencing grant related works. However, we encourage contractors to ask the homeowners to see the Declaration of Works forms before they commence works. If a homeowner has not already applied then they should be alerted to this condition for grant payment.

2.8.4 Approach to internal / external wall insulation

Grants for external wall insulation and internal dry lining insulation are based on the house type. The grant amounts reflect the typical external wall area associated with the different house types. It is imperative that the correct house type is noted both during the application stage by the homeowner and on the Declaration of Works form (highlighted below) by the Contractor to ensure the correct grant amount is paid.

Total Cost of External Wall Insulation (incl. labour and VAT)			**€**
Please confirm dwelling type	Detached House ☐	Semi-detached ☐	End of terrace ☐
	Mid Terrace ☐	Apartment (any type) ☐	

If incorrect grant was applied for and subsequently confirmed by the Contractor, this may result in the Contractor being deregistered from the programme.

2.9 Important Safety Information

2.9.1 Electrical Works

Section 3.2 of the DTSS contains important requirements for electrical works. These requirements may be applicable for any measures, but are particularly relevant under Better Energy Homes for Heat Pumps, Heating Controls, and Solar Thermal.

Where existing earthing and equipotential bonding are not in accordance to the applicable National Rules for Electrical Installations, they must be generally rectified to meet this standard **before grant works are started.** Registered Contractors must read carefully section 3.2 "Important guidance notes for Electrical works" of the DTSS.

The National Rules for Electrical Installations require all metal pipework to be bonded to each other and to the main earthing terminal by copper wire no smaller than 10mm^2 (typical domestic installation). The picture below shows correct bonding of pipework:

Older houses often have bonding wires of 6mm^2, 4mm^2, 2 mm^2 or even no bonding at all.

- Bonding < 6mm^2: **Must be upgraded before any grant works commence**.
- Bonding = 6mm^2: Installations may be carried out, but **the homeowner must be issued with a written 'Electrical Safety Notice'**. This can be found on the Contractor Supports page: https://www.seai.ie/grants/supports-for-contractors/

2.9.2 Unsuitable collector from Pressure Relief Valve

A Pressure Relief Valve (PRV) must discharge into a suitably sized, open container. This must not be sealed to pipework and be suitable to deal with high temperatures.
Note:

- Discharge from the PRV must be channelled into a container capable of withstanding high temperatures and capable of containing the total collector volume.
- Standard plastic bottles are not heat-resistant.
- The container should be secured so it cannot be removed or contents spilled.
- The PRV should not drain into the normal water course.

The container shown here is not fixed and is incapable of withstanding high temperature:

2.9.3 Electricity Cables Service Alteration for External Insulation Works

A pre-works site survey must be completed for all External Wall insulation works. The survey must identify electricity cables/wires which will require a service alteration by ESB Networks.
Works must not commence until the necessary pre-installation alterations (e.g. unclipping and other preliminary works) have been completed by ESB Networks.

Service alteration arrangements, where required, must be included in the terms of your contract with the Customer, including agreements on any associated fees payable to ESB Networks.
This is what you need to do:

- Contractor identifies service alteration requirements during the pre-installation survey or at time of quotation.
- Where a service alteration is required, the customer contacts ESBN by telephone or email and requests Service Alteration (unclip) and pays for same.

Alternatively, the customer can notify ESBN giving authorisation to the contractor to request a service alteration on the customer's behalf.

- Contractor includes these arrangements in the contract with the homeowner.
- ESB Networks is contacted well in advance of works commencing to avoid delays.
- Once the site is ready for reclipping by ESBN, contractor makes sure the customer has evidence of the Better Energy Homes Service Alteration Safety Notice, and the ESBN Service Alteration Request.

Contractors must ensure that ESB Networks are contacted to perform the service alteration well in advance of any proposed works.

Contractors must not sign Declarations of Works (DOWs) until they have ensured that site-readiness for the final service alteration has been achieved in accordance with the requirements outlined in the Domestic-Technical-Standards-and-Specifications, Appendix 3.

In addition, prior to signing DOWs, a contractor must:
1. Ensure a request has been submitted to ESB Networks to complete the reclipping and leave evidence of same with the homeowner;
2. Provide the homeowner with a copy of the Better Energy Homes Service Alterations Safety Notice which can be downloaded from the Contractors Support webpage here. Contractors are responsible for accurate completion of the Safety Notice.

Note: **Both** of the above must be available to the inspector in the event the home is selected for an inspection.

Contractors must never move, handle or in any way interfere with electricity supply cables/wires. For health and safety reasons (including fire safety), external insulation must never be installed over electricity supply cables/wires or other electrical fixtures. Please see the Domestic-Technical-Standards-and-Specifications, Appendix 3 for exact requirements.

2.10 Ventilation

The SEAI's Domestic Technical Standards and Specifications section on Ventilation details that ventilation must be installed in every room at the same time as improvements to the thermal envelope, such as wall insulation measures. These improvements generally lead to higher air tightness and ventilation is critical to maintain or achieve good indoor air quality within the building.

Wet rooms: The Customer must be advised on the most suitable option as part of the specification process ahead of installation commencement. Customers may refuse to have mechanical extract ventilation installed in wet rooms before the installation of wall insulation. Contractors/Customers sign the relevant warning notice. See link to notice on website.

The form details the discussion that must take place between the contractor and homeowner regarding installation of Mechanical Extract Ventilation- MEV (where it does not exist).

2.11 Energy Efficiency in traditional buildings

Buildings constructed prior to the 1940s are typically built with "single leaf" walls and traditional materials such as stone and bricks. Improving the thermal performance of such buildings may pose additional challenges in terms of avoiding risks such as interstitial condensation. In some cases, it may be challenging to achieve the target U values required for insulation works to qualify for the grant, in accordance with the DTSS. If Contractors have concerns in this regard, they need to consult with the Technical Helpdesk **to confirm grant eligibility before proceeding with works.**

The Department of Environment, Heritage and Local Government (now called the Department of Housing, Planning and Local Government, DHPLG) publication 'Energy Efficiency in Traditional Buildings is available at the link below.

The main objective is to address how the thermal efficiency of traditionally built buildings can be improved while respecting the architectural heritage. The booklet explores ways of improving energy efficiency while maintaining architectural character and significance. The intention is to show how to improve the quality of the architectural environment while maintaining the historic fabric of traditional buildings.

https://www.seai.ie/publications/Energy_Efficiency_in_Traditional_Buildings.pdf

3 Code of Conduct

SEAI Better Energy Contractors must always perform diligently, professionally and maintain the highest standards expected of the SEAI BEH Programme. Audits, quality inspections and verifications carried out by SEAI or on behalf of SEAI, may not only establish the quality of physical works carried out by Contractors, but also the level of professionalism with which they were completed.

As a minimum level of performance SEAI requires the following from the registered Contractor:

3.1 Professionalism and Behaviour

- **Photo I.D. -** Contractors must carry a form of photographic identification (Drivers Licence, Passport or professional registration cards). This must concur with the contact name provided by the Contractor when initially arranging the works or site visit. Full contact details (business address and telephone number as a minimum) for the Contractor must be provided to the Customer before installation.

- **Professional Image -** Contractors must always maintain a professional appearance and professional attitude to the Customer. When communicating with Customers, Contractors should be polite, patient and informative.

- **Appointments with Customers -** Agreed appointment dates and times must be adhered to (as far as reasonably possible) and the Customer must be informed as soon as possible if there are any changes to the agreed appointment. Ongoing missed appointments will be queried by SEAI.

- **Dealing with vulnerable homeowners and/or special seeds persons -** Contractors may be required to deal with special needs / vulnerable Homeowners from time to time. In such instances, Contractors must ensure that their representatives are trained to deal with special needs / vulnerable Homeowners. Contractor's representatives must be able to explain the terms of an offer clearly, the full implications of the works proposed and give appropriate information in writing.

- **Warranties and After-sales Services -** The Contractor must be able to supply the Customer with the relevant warranties and commitment of after-sales service.

- **Offer Professional Advice -** The Contractor is responsible for recommending to the Customer the most appropriate and optimum solution for their property in accordance with this Code of Practice and the DTSS. As a competent professional, Contractors must provide the necessary information to a Customer for them to make an informed decision regarding their property and the measures best suited to same. Where applicable, this includes advising customers against implementation of measures they request, where these measures would be inappropriate or unsuitable, or where the requested measures would not have the effect anticipated by the Homeowner.

- **Value Engineering -** The Contractor should inform the Customer of the cost of various solutions and the respective benefit of those solutions to the Customer, e.g. the costs of dry-lining walls with different thicknesses of insulation, the respective benefits and cost comparisons of each.

- **Provide clear information to Customers -** The Contractor must inform the Customer of the relative costs and performance standards of their selected products and any limitations which might be relevant.

3.2 Administration and Responsibility

Provide Competent Workforce - All installation works shall be carried out by a suitably qualified and competent person. This includes all works supported by the BEH programme including, but not limited to, electricity, plumbing, working at heights and the operation and storage of machinery and plant.

Maintain Proper Communications - To ensure that they are kept informed of procedural communications, programme notices and information requests; Contractors are obliged to maintain an active e-mail account for communication purposes.

Complete Online Application as per SEAI requirements - Unless authorised through SEAI's Energy Partner processes, the Contractor **shall not** complete an online BEH Programme application for a Customer, nor let the Customer use their e-mail address in an application to the BEH Programme.

Contract with Customers – The Contractor should enter into a written contract with the Homeowner. The Contract with the Homeowner must clearly state that the works will comply with the grant requirements and will cover the cost of potential reworks, where these are required by SEAI to remedy any non-compliance and the liability of the Contractor in respect of the works. "Template Contract Guidance" is available from the SEAI Website.

Provide Detailed Quotations - The Contractor must, in all instances, provide a detailed written quotation specifying all costs of works including making good. This quotation must be laid out in a clear, concise and specific manner using language that can be readily understood by the Customer and include all proposed works, cost of itemised materials, labour and VAT. The Contractor must also agree a procedure with the Customer on any alterations or omissions within the original quotation and the method by which the Contractor will be paid.

Interfacing with other trades - Where specific ancillary works / interfacing of works are required but will not be done by the Contractor, these should be clearly specified to the Customer and inform them as to how the completion of these works should be provided. For example, where the installation of internal insulation requires the temporary removal and re-fitting of a fitted kitchen or where electrical switches and sockets must be removed and repositioned and this will be provided by another party.

Obtain Permissions for works - The Contractor must obtain any necessary approvals from the Customer, management company, local authority or appropriate third party where applicable for the works before installation. The Contractor must inform the Customer, to the best of their ability, of the Customer's responsibility to obtain for the Contractor any approvals, permits and permissions required, where applicable to the works.

Indemnity Insurance - The Contractor shall ensure that it has appropriate indemnity insurance in place as is required of SEAI registered contractors.

Invoicing and Payments - On completion of works, a detailed invoice, including a copy of the original quotation, and subsequent receipt for payment must be provided to the Customer along with any other forms as may be deemed necessary from time to time by SEAI. Homeowners are required to retain their invoices and receipts for all works undertaken and to have them available for presentation to SEAI personnel or its agent / inspector should their home be selected for QA inspection or for audit by SEAI.

Please note that registered Contractors can offer the Homeowner the cost of works net of the grant amount. To do this, the Contractor can ask the Homeowner to nominate the Contractor's preferred bank account with bank details on the SEAI Request for Payment form

The detailed invoice must contain the cost of itemised materials, labour and VAT. When charging VAT, the following information must be contained on the VAT compliant invoice:

- correct date,
- unique invoice number,
- name and address of the person to whom the service is provided, and
- VAT amount applied (a statement that the amount includes VAT is not sufficient).

It is recommended that the invoice also includes the installation address for the grant works.

For Contractors operating with Energy Partners under the Counterparty Agreement, the invoice must also contain, in addition to the above, the value of the energy credits, the cost of the BER, and the value of the grant for the measure(s) and for the BER.

Failure to provide a valid invoice results in the homeowners' payment being held until such a time as it can be resolved. If it is not resolved within a reasonable period, the grant is declined. Refund of the grant payment may also be sought if the invoice does not satisfy the minimum requirements above.

Declaration of Work (DOW) forms – The Contractor declaration in the DOW form must be fully completed and signed by one of the Nominated Personnel listed in the Contractor's profile. This declaration is an important confirmation on the part of the Contractor that they have completed all works in compliance with the grant requirements. All fields related to the works carried out must be completed correctly, as explained in Section 2.5.

Marketing and use of SEAI logo - The use of the SEAI logo on marketing and sales material is not allowed unless expressly authorised. For clarity, this includes but is not limited to the use of the SEAI logo on vehicles, high-visibility vests, advertisement banners, order forms, invoices, and websites. The SEAI website details rules around the use of SEAI logos, and the terminology allowed on registered contract marketing materials. Breach of these rules can result in sanctions as detailed in Appendix 1.

3.3 Service Delivery

Clean-as-you-go Policy - All Contractors must make sure that their workers / subcontractors take every reasonable precaution to protect the property on which they are working, and leave the property clean and tidy on a daily basis. All excess materials, packaging, dust and debris must be removed from the Customer's premises, adjacent premises and any other areas affected by the works, by the Contractor.

Maintain Health & Safety and Security Standards - Where works are completed over a number of days, the property must be left in an appropriate condition, minimising the impact to the Customer and surrounding properties and having regard to all health, safety and security requirements.

Make Good Damages (If any) - Contractors must make good, to the satisfaction of the Customer and/or SEAI, any damage to the property resulting from their work or installation.

Complete Works with Customer / SEAI Satisfaction - All works must be completed and finished to the satisfaction of the Customer and SEAI's requirements.

Resolve Complaints - If a Customer is not satisfied with the works completed, Contractors must make every reasonable effort to resolve the complaint to the Customer's and SEAI's satisfaction.

Installation Standards - The requirements for installation of the specific measures detailed further in this document and the DTSS must be adhered to by the Contractor.

Demonstration of Operational Controls to Customers - In the case of heating controls and heating systems, the Contractor must ensure that the Customer has a full working knowledge of the impact the measures may have on their home and how to operate these measures in accordance with manufacturers' instructions. The Contractor must demonstrate the various working conditions, zoning, controls and limitations of these systems and measures to the Customer and provide any relevant user instructions and full documentation in English.

Quality Assurance System and Disciplinary Procedure (QADP) - SEAI have put in place a Quality Assurance System, the key elements and processes of which are outlined in the document Quality QADP available on Support for Contractors | Grants | SEAI. The QADP details all penalty points, sanctions etc. applicable under Better Energy Programme.

Removal from Register - SEAI reserves the rights to remove any Contractor from the SEAI Registered Contractor List in accordance with the Terms and Conditions and the QADP.

3.4 Contractors applying on behalf of Homeowners

The application process for Better Energy Homes grants involves the homeowner agreement to the grant's terms and conditions. The application must be submitted by the homeowner.

Unless operating under an Energy Partner/counterparty agreement, Registered Contractors must NEVER:

- Apply for a grant on behalf of a homeowner or complete an online Better Energy Homes grant application for a homeowner
- Let the customer use their own, company or other member of staff's e-mail address in a grant application
- Create a spurious email address for the homeowner with which they can apply for a grant

In all instances where a homeowner does not have an email address, a computer or internet access, the homeowner should request a paper application form from our Call Centre at 01 8082100.

Information on applying for a grant can be found under the How To Apply For a Grant section of the SEAI website.
When submitting a grant claim, the Customer must submit all documents (Declarations of Work and Request for Payment forms) together to SEAI.

3.5 Homeowner Grant refusals for works done prior to grant offer

Works must not be carried out prior to the homeowner receiving the grant offer from SEAI. While SEAI acknowledges that it is the responsibility of the homeowner to ensure that they have a valid grant offer before commencing grant related works, we encourage contractors to ask the homeowners to see the Declaration of Works forms before they commence works. If they have not already applied then they should be encouraged to do so before the works commence, alerting them to the risks otherwise.

3.6 Commitment to the Better Energy Homes Programme

In order to remain registered Contractors must remain active and demonstrate a minimum level of commitment to the Programme. When contacted by Homeowners in connection to the design and installation of energy efficiency measures, the Contractor's sales and business practices should reflect the SEAI objective of providing grant support for qualifying measures.

If Contractors do not carry out a sufficient number of SEAI supported (grant-related or other) jobs, they may be removed from the SEAI Registered Contractor List in accordance with the Terms and Conditions and the QADP. The minimum required to be considered active is five jobs per year, with at least one job completed every six months. When a Contractor is removed from the register for being inactive, they can contact contractor@betterenergyhomes.ie to request re-registration. Please refer to section **2.7 Re-registration** in the Better Energy Homes QADP for full details.

4 Health and Safety Requirements

It is the sole responsibility of the Contractor to comply with all relevant Health and Safety legislation, regulations and appropriate guidelines and to ensure that their staff / subcontractors are appropriately trained to operate to these standards.

The HSA (Health and Safety Authority) provides links to or information on relevant regulations, legislation and guidance on its website:

- Safety, Health and Welfare at Work Act 2005
- Safety, Health and Welfare at Work (General Application) Regulations 2007
- Safety, Health and Welfare at Work (Construction) Regulations 2013
- Further information for the construction sector
- Further information for small businesses
- Further information for working at height

5 Further requirements applicable to measures for the Better Energy Homes Programme

5.1 WALL INSULATION

The Contractor must ensure that, in the case of insulation, an optimal whole-surface solution is provided where physically and economically feasible. When dealing with walls, this comprises insulation of all exposed walls. Before commencing internal dry-lining works, the Customer must be made aware of the effect on room sizes, services and decoration.

The economic feasibility refers only to the economic performance of the installation itself and not to the Customer's ability to fund their portion of the capital cost for a conventional installation. In some circumstances, a home may require significant additional modifications for the installation of the energy efficiency measures, such as replacing the tiling on a wall, built-in furniture, or kitchen cabinets. This could make the additional initial investment in the insulation solution inappropriate compared to the benefit the Customer will get from the investment. Only in some exceptional cases (e.g. due to the location of kitchen cabinets or wall tiles), part-home coverage is allowed, provided a minimum of 85% of the total wall area meets the required standards as specified in the DTSS. This must be clearly detailed in the comment section in the DOW, and must include reasons and measurements of wall areas. Depending on the wall areas involved, the Contractor must inform the Customer at quotation time that this may impact on their ability to draw down support from SEAI.

Important Note on Mixed-measures

Where mixed-measures have to be implemented (e.g. part cavity, part External Wall Insulation), mixed-measure solutions must be detailed in the comment section of the DOW form, and must include the measurements of wall areas. In this case, the grant application must be for the greatest measure, by wall area, and only this measure will be paid.

Where a new extension is being constructed, or walls built from 2011 onwards are also being insulated in conjunction with the grant works, those ineligible areas are not considered when calculating the greatest wall area for mixed-measure solutions.

If some walls have already been insulated, the grant can still be awarded for further insulation measures provided total wall coverage is achieved and the walls already insulated meet the U values specified.

If the dwelling was built before 1940, you may wish to consult a conservation architect for advice, particularly for stone walls, single leaf or composite construction. Heritage buildings require special retrofitting considerations and modern methods of insulation may not be appropriate. Novel breathable insulation materials may be required with traditional construction types. It should be noted that some of these methods of insulation may not qualify for the grants and this should be discussed with the Homeowner.

The followingdocument provides useful guidance on insulation of older buildings:
https://www.seai.ie/resources/publications/Energy_Efficiency_in_Traditional_Buildings.pdf

5.2 HEAT PUMP SYSTEMS

Contractors must be familiar with the minimum requirement for the energy performance of the building fabric (Heat Loss Indicator), detailed in the DTSS. The Contractor must bring any concern in relation to the ability of the dwelling to meet this pre-requisite to the attention of the Homeowner.

It is particularly important that the Homeowner is made aware at the time of contract setup of features and characteristics of the heat pump system, such as the low temperature heat distribution, the noise level of fans, compressors, pumps, and any other detail that may have an impact on their choice.

Specific requirements

a. The grant specifications require the **design of the whole heat pump system**, including sizing of the distribution and heat emitters. The design must be based on the heat loss calculation based on an acceptable standard, such as the CIBSE Domestic Heating Design Guide, or the NSAI S.R. 50-4:2021. Additional guidance is available from the Support for Contractors | Grants | SEAI page. The result of the heat emitter sizing must be entered in the Heating Design tab, which must be submitted with the DOW.
b. In cases where a heat pump system includes more than one type of heat pump, this must be explained in the Comment box provided in the Declaration of Works form. The type with the highest Rated Heat Output should be selected in SEAI grant applications, and this must provide space heating.

Documentation requirements

As a minimum, the Contractor shall provide the following documentation to the Homeowner.

Before installation:

Written quotation for the heat pump systems including details of the system design specifications and terms and conditions as set out in the "Template Contract Guidance" available from the SEAI Website. The quotation must also include:

- The cost of any additional works (e.g., electrical works, earthing, wiring) necessary to satisfy the applicable requirements of the heat pump system, such as RECI certification
- Costs for required maintenance schedules, service agreements and spares, particularly when the guarantees are dependent on these.
- Where applicable, the Homeowner must be made aware of obligations under the F-Gas regulations for the equipment being installed and of any cost implications.

After completion of works;

DOW documentation to be left with the Homeowner:

- DOW form completed in all parts, including comments as required,
- DOW supporting documents for the heat pump system installed (two copies must be provided to the Homeowner). For the following items, one copy must be sent with the DOW by the Homeowner to SEAI,

the other copy must be kept by the Homeowner with the heat pump system documentation for inspection purposes, which must include:

- Ecodesign datasheet (max 5 pages)
- Completed Designer/Installer spreadsheet as per template available from the Support for Contractors | Grants | SEAI, including the Domestic Hot Water (DHW) and Heat distribution design and specifications (radiator, underfloor sizing, air-to-air)

Heat Pump System documentation to be provided to the Homeowner, and to be available for inspection:

- Ecodesign datasheet (max 5 pages)
- Completed Designer/Installer spreadsheet as per template available from the Support for Contractors | Grants | SEAI, including the DHW and Heat distribution design and specifications (radiator, underfloor sizing, air-to-air)
- Commissioning certificate completed in all relevant parts
- Safe Electric Completion certificate, completed in all relevant parts
- Details of F-Gas Certified Company and sign-off
- Where applicable, documentation of Ground and Water collector design and installation
- User and Installation Manuals

The heat pump installer must also provide all required data and information to the BER Assessor carrying out the post-works BER assessment. If required, the heat pump system design data must be provided for early assessment, before works are carried out.

5.3 FULLY INTEGRATED HEATING CONTROLS

The technical standards and specifications for this measure are as per section 6.7 of the DTSS.

The grant for Heating Controls is based on the energy efficiency and carbon savings that can be achieved by installing "Fully Integrated Heating Controls" in a home that previously had no or very basic heating controls installed.

Due to the variety of existing heating control levels in the Irish building stock, the following instructions must be followed to verify that the installation qualifies for the Heating Controls grant.

To comply with requirements for the heating controls grant, a minimum of 6 items is required to be newly installed by you and not be pre-existing, as indicated in the following list:

Item	**Pre-existing**	**Installed as part of grant works**	**N/A**
Separated pipework for Space Heating and Domestic Hot Water* (N/A for combi Boilers)	☐	☐	☐
Boiler interlock arrangement*	☐	☐	☐
Thermostat controlling 1 Space Heating zone and wiring*	☐	☐	☐
24hr/7day programmer with minimum 2 channels*	☐	☐	☐
Time clock for immersion heater* (N/A for combi Boilers)	☐	☐	☐
Cylinder thermostat and wiring* (N/A for combi Boilers)	☐	☐	☐
Additional space heating zone(s):			
Separated pipework for two Space Heating zones (e.g., downstairs/upstairs) *	☐	☐	☐
Thermostat controlling an additional space heating zone and wiring*	☐	☐	☐
Thermostatic Radiator Valves (TRVs) *	☐	☐	☐
The items listed below do not contribute to the requirement to have 6 newly installed items.			
The following items must be in place with heating controls where applicable. Please indicate if they are pre-existing or newly installed as part of heating controls grant works.	**Pre-existing**	**Installed as part of grant works**	**N/A**
Hot water cylinder insulation (factory applied if new cylinder)	☐	☐	☐
Auto by-pass	☐	☐	☐
Compliant earthing and equipotential Bonding	☐	☐	☐

Important note:
*** At least six of these items have to be newly installed as part of the grant works and must not be pre-existing.**

In the DOW, you will now be asked to fill out a checklist to confirm which items were pre-existing and which were newly installed by you. **Please note that the grant does not cover replacement of existing heating controls equipment, even if this is old and/or no longer working.** Where a combi boiler is present in a home a number of heating control items, as indicated in the above list, are not applicable. These items must be ticked N/A on the DOW.

Please note that your declarations in the DOW are used to confirm compliance for grant payment. Contractors failing to represent the pre-existing and installed heating controls correctly may be deregistered in accordance with our QADP.

We are including two examples:

1. A home with only an analogue time clock for space heating and another time clock for the immersion heater, without separated pipework for space heating and hot water **does qualify** for the Heating Control grant as six or more items are required to bring it up to the desired performance specification.

Item	Pre-existing	Installed as part of grant works	N/A
Separated pipework for Space Heating and Domestic Hot Water* (N/A for combi Boilers)	☐	☑	☐
Boiler interlock arrangement*	☐	☑	☐
Thermostat controlling 1 Space Heating zone and wiring*	☐	☑	☐
24hr/7day programmer with minimum 2 channels*	☐	☑	☐
Time clock for immersion heater* (N/A for combi Boilers)	☑	☑	☐
Cylinder thermostat and wiring* (N/A for combi Boilers)	☐	☑	☐
Additional space heating zone(s):			
Separated pipework for two Space Heating zones (e.g., downstairs/upstairs) *	☐	☐	☐
Thermostat controlling an additional space heating zone and wiring*	☐	☐	☐
Thermostatic Radiator Valves (TRVs) *	☐	☑	☐

2. A home with separate control of one space heating zone and hot water, 24-hour/7-day programmer, one room thermostat and boiler interlock arrangement **does not qualify** for the Heating Controls grant, as less than six items are required to bring it up to the desired performance specification. Replacement of existing heating controls equipment, even if this is old and no longer working, does not qualify.

Item	Pre-existing	Installed as part of grant works	N/A
Separated pipework for Space Heating and Domestic Hot Water* (N/A for combi Boilers)	☑	☐	☐
Boiler interlock arrangement*	☑	☐	☐
Thermostat controlling 1 Space Heating zone and wiring*	☑	☐	☐
24hr/7day programmer with minimum 2 channels*	☑	☐	☐
Time clock for immersion heater* (N/A for combi Boilers)	☐	☐	☐
Cylinder thermostat and wiring* (N/A for combi Boilers)	☐	☐	☐
Additional space heating zone(s):			
Separated pipework for two Space Heating zones (e.g., downstairs/upstairs) *	☐	☐	☐
Thermostat controlling an additional space heating zone and wiring*	☐	☐	☐
Thermostatic Radiator Valves (TRVs) *	☐	☐	☐

As part of the DOW for Heating Controls, you will also need to include the cost of the Heating Control works and materials. If you are carrying out other works at the same time (e.g., boiler replacement or repairs), the declared cost must **exclude** these. This amount must only include costs for heating controls materials and labour, including the VAT. The detailed invoice that you are required to present to the homeowner or Energy Partner must include a breakdown of the cost for the different heating control items.

The following items have been added to the DOW checklist as a reminder. **These items are required for compliance of the Heating Controls measure.** There is no issue with these items being pre-existing. When not pre-existing and required, these items must be installed by you. **These items do not count as part of the 6 minimum items required.**

The items listed below do not contribute to the requirement to have 6 newly installed items.			
The following items must be in place with heating controls where applicable. Please indicate if they are pre-existing or newly installed as part of heating controls grant works.	**Pre-existing**	**Installed as part of grant works**	**N/A**
Hot water cylinder insulation (factory applied if new cylinder)	☑	☐	☐
Auto by-pass	☑	☐	☐
Compliant earthing and equipotential Bonding	☐	☑	☐

Important note:

These items may be pre-existing or installed as part of the grant where required.

We remind Contractors that this measure ("Fully Integrated Heating Controls") does not require the programmer to have remote access. When Contractors propose to install a programmer with "remote access", they must ensure that the homeowner is aware of this and that they have agreed to it. If there are charges, including any future charges, for the "remote access" through a smart phone app or through the Internet, the Contractor must include these in the homeowner's written quotation.

Adding "remote access" to a home where heating controls are already in place does not qualify for the grantfor Heating Controls, unless all the compliance elements for "Fully Integrated Heating Controls" are satisfied.

5.4 SOLAR WATER HEATING (THERMAL)

5.4.1 Solar Thermal Commissioning Report

Contractors installing solar thermal panels are required to provide a completed copy of the Solar Commissioning Report to the homeowner and retain a copy on file. This can be requested during an inspection of the measures at that property. See link to notice on website.

5.4.2 Solar Compliance Note and Calculator

SEAI has prepared additional technical support for solar installers. These are available on our website. The technical support is in two parts:

1. A technical guidance note setting out the calculation methodology for achieving compliance with the solar grant requirements. See link to notice on website.
2. A Solar Hot Water Compliance Calculator to assist with the specification of works to meet the BEH grants requirements: See link to notice on website.

This Calculator ensures the proposed installation meets minimum performance requirements of the Better Energy Homes programme. It is a Microsoft Excel version of the solar contribution formula included in DEAP. It is not a solar installation design tool or sizing calculator. This calculator must be used in conjunction with the technical guidance note above.

It is very important that before a system is sold to a homeowner, or a contract of works is entered into, that the proposed system is compliant with the grant requirements. The above calculation must be done to ensure that the system is sufficiently sized to attract the grant, where the contractor knows or expects that the homeowner has applied for a solar grant.

The QADP details applicable sanctions where the system is not designed/sized correctly and does not meet the SEAI specification requirements.

Where the system is used for both space and hot water heating, Appendix Q of the DEAP manual should be used to calculate the energy yield of the solar panels. Both the DEAP manual and software can be downloaded here: www.seai.ie/DEAP.

Note: Contractors who recommend the use of solar panels for space heating in conjunction with hot water heating must provide Customers with detailed evidence of the payback period using DEAP software as the payback period may be long.

5.4.1 Solar water heating safety notice

The SEAI's Domestic Technical Standards and Specifications details safety requirements and use of TMV2 type mixing valve for solar water heating installations. Requirements on minimum water storage temperatures for legionella prevention and mixed hot water maximum temperatures are also detailed. The solar water heating safety notice **must be signed** by the homeowner and contractor when the TMV2 type mixing valve has not been installed in a solar water heating system. See link to notice on website.

5.5 ROOF INSULATION

5.5.1 Achieving Whole-Surface Solution

The Contractor must ensure that, in the case of insulation, an optimal whole-surface solution (100% coverage) is provided where physically and economically feasible. For example, when dealing with roof insulation, this comprises insulation of the whole surface of the ceiling/roof-space as appropriate. This includes all heat loss roof elements of habitable rooms in the dwelling, which is availing of the roof insulation grant including (but not limited to) extensions, flat roofs, room-in-roofs. Prior to quotation and commencement of works stage, all roof elements must be surveyed by the Contractor to determine the extent of works required to achieve a whole-surface solution and the Customer must be made aware of the same.

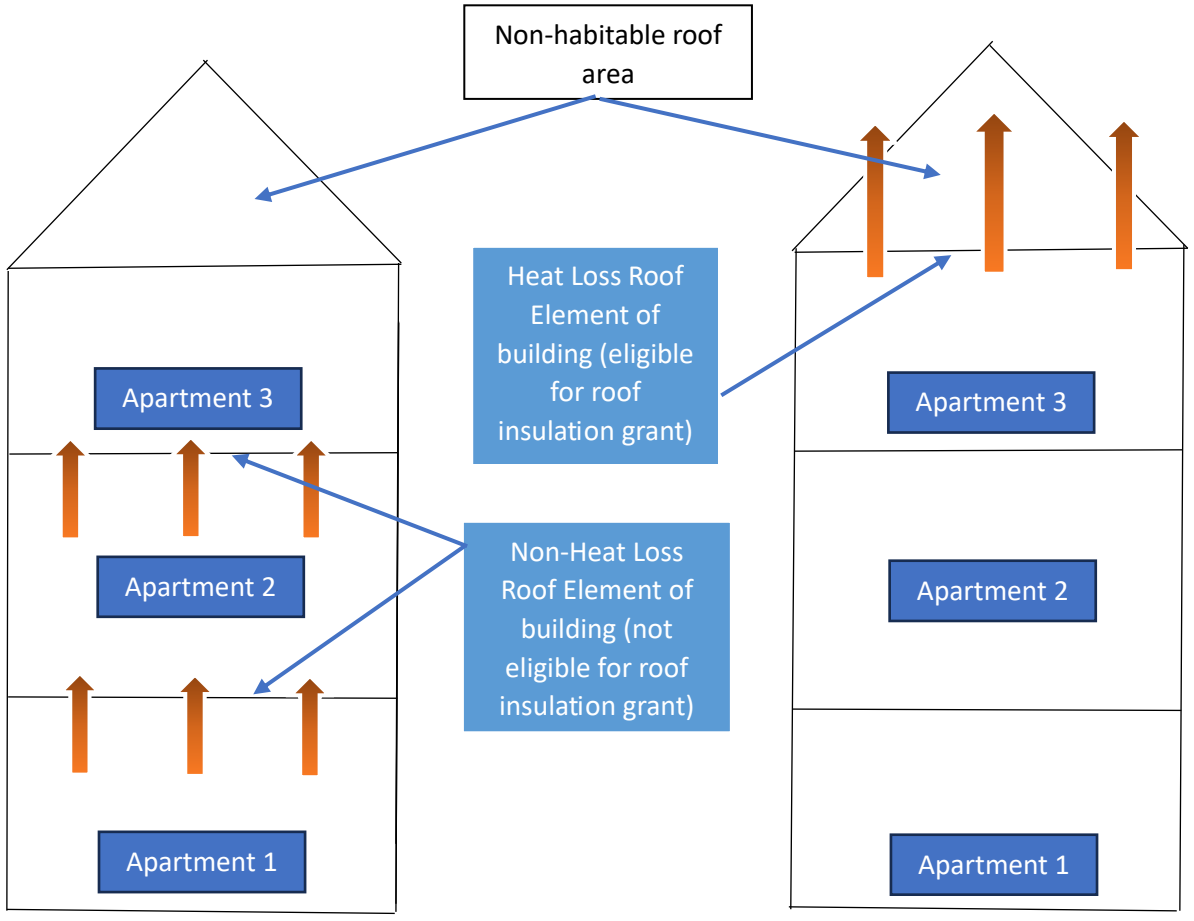
The economic feasibility refers only to the economic feasibility of the installation itself and not to the Customer's ability to fund their portion of the capital cost for a conventional installation. In some circumstances, small portions of a dwelling's roof element may require significant additional modifications for the installation of the energy efficient measure, such as having to insulate behind a small section of a plastered flat roof or topping up pre-existing insulation within a flat roof extension. Only in some exceptional cases, like the ones previously mentioned, part-home coverage is allowed, provided a minimum of 85% of the total heat loss roof elements of the house meet the required standards as specified in the DTSS.

Where an instance such as this occurs, this must be clearly detailed in the comment section on the roof insulation DOW and reasons and detailed measurements of the roof insulation installation must be included. Depending on the heat loss roof elements involved, the Contractor must inform the Customer at quotation stage and before works commence, that this may impact their ability to draw down grant support from SEAI.
If some sections of the heat loss roofs have previously been insulated, outside of receiving grant support, the grant can still be availed of for roof insulation provided a whole-surface solution is achieved (where physically and economically feasible) and the sections of roof already insulated meet the U-values specified in the DTSS.

5.5.2 Ground-Floor Apartments

When availing of a roof insulation grant through SEAI, this grant is to contribute towards the insulation of heat loss roof elements of the property. This installation must be completed to achieve a whole-element solution as described in Section 5.5.1 above.

Where an apartment wishes to avail of a roof insulation grant, this must be a top-floor apartment or an apartment where the roof is a heat loss element i.e. the heat escaping from the apartments roof is escaping to the outside. An apartment which has other separate apartments located directly above is not eligible to avail of the SEAI roof insulation grant as the roof in this apartment is not considered a heat loss roof element for the building.



Eligible apartments (heat loss roof) for roof insulation grant v. non-eligible apartments (non-heat loss roof) for roof insulation grant.

Appendix A

Links to important documentation

Better Energy Homes Programme - Contractors Registration Form (including Terms and Conditions of Contractor's Registration) https://www.seai.ie/register-with-seai/contractor/
Domestic Technical Standards and Specifications (DTSS) https://www.seai.ie/grants/supports-for-contractors/
Quality Assurance and Disciplinary Procedures (QADP) https://www.seai.ie/grants/supports-for-contractors/
Homeowner Guides • Home Grant Application Guide (including Terms and Conditions for the BEH grants) • Homeowner's Guide to Attic and Rafter Insulation • Homeowner's Guide to Wall Insulation • Homeowner's Guide to Ventilation • Homeowner's Guide To Heating Controls • Homeowner's Guide To Solar Thermal For Hot Water • Homeowner's Guide to Heat Pump Systems