Better Energy Homes Contractor's Code of Practice

Version 1 2019

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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 National Standards Authority of Ireland (NSAI) issues Certificates for certain products and installers. NSAI was formerly known as the Irish Agrément Board. This document details requirements for NSAI Agrément Certification where relevant.

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.

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
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

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.

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, 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 Better Energy Homes 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.

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 on the Contractor Registration process/forms, 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.

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. All nominated personnel must have relevant professional training and/or product specific manufacturer training to carry out the works

as appropriate. The Contractor must maintain relevant training records and certificates and may be subject to inspection by SEAI.

The specific competency standards relating to each of the measures supported by the Programme are detailed further 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.

Information on how to register is published on the SEAI Website: https://www.seai.ie/energy-in-business/register-with-seai/contractor/

2.2 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[1], 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.

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

2.3 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.

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[2], 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
- NSAI Agrément certificates
- NSAI 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 NSAI Agrément Certification should be considered the primary certification and preferred guidance.

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

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.

2.4 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.

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

2.5 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.

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:

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 Special Needs 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 Advices -** 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.

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 three jobs per year, with at least one job completed every six months. When a Contractor is removed from the register for being inactive, they will remain deregistered for a minimum of six months.

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. A "Model Contract" 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 and associated cost and applicable VAT rates. 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.

- **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.

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 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 https://www.seai.ie/energy-in-business/contractor-supports/. 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.

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.

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 following document 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 draft NSAI S.R.50. Additional guidance is available from the SEAI Contractor Support 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 "Model Contract" 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 SEAI Contractor Supports Web page, 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 SEAI Contractor Supports Web page, 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 (see point **Error! Reference source not found.** above)
- 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.

Appendix A

Links to important documentation

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

Better Energy Homes Scheme - Contractors Registration Form (including Terms and Conditions of Contractor's Registration.