SUSTAINABLE ENERGY AUTHORITY OF IRELAND

Better Energy Programmes

Additional Information for Contractors

Version 1.1 February 2019

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Disclaimer

This document is a reference for Registered Contractors carrying out works supported by SEAI's Better Energy Homes (BEH) programme. It sets out information supplementary to a number of other BEH documents published on www.seai.ie, most notably the SEAI's Domestic Technical Standards and Specifications, the Better Energy Homes Contractor's Contractors Code of Practice and the Better Energy Homes Quality Assurance and Disciplinary Procedures for Contractors.

SEAI and its Agents do not provide any warranty or guarantee concerning the completeness, effectiveness, reliability, accuracy or otherwise of guidance or any work carried out on foot of same. 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 and its Agents accept no liability or responsibility, whether for breach of contract, 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 under the programme. The Contractor is entirely responsible for all such matters.

1 Introduction and General Guidance

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. The Better Energy Homes programme is one of a range of measures and support mechanisms administered by SEAI to improve the quality of the built environment in Ireland.

The Programme provides financial support to existing Customers (Homeowners) for a defined range of remedial technologies and materials, which improve the overall efficiency of their home. The Customer can select Contractors to carry out the measures supported and defined by the Programme from a list of Registered Contractors published and maintained by SEAI. Following completion of the works, the Customer can claim certain levels of grant relating to these measures.

1.1 Purpose of this Document

This document incorporates relevant guidance from previously published newsletters and contractor guides published on the SEAI website.

It generally does not duplicate guidance published in other documents, particularly the SEAI's Domestic Technical Standards and Specifications, the Better Energy Homes Contractor's Code of Practice and the Better Energy Homes Quality Assurance and Disciplinary Procedures for Contractors. However, some of the guidance in those documents is repeated here for emphasis. Obsolete guidance is not included in this document.

1.2 Communicating with SEAI

1.2.1 Maintain and monitor contact details

To ensure that they are kept informed of procedural communications, programme notices and information requests, Registered Contractors are obliged to maintain and monitor an active e-mail address and phone number.

Please ensure you check your email account regularly for SEAI communications and respond when required to do so by SEAI.

Contact details for RGII, NSAI and SEAI

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 address registered with NSAI and RGII.

1.2.2 Better Energy Homes programme contacts

The SEAI website details the relevant contact details for the Better Energy Homes programme: https://www.seai.ie/energy-in-business/contractor-supports

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 1850 927000 contractor@betterenergyhomes.ie

1.3 Eligible Dwellings

1.3.1 Which properties are eligible

Homeowners and landlords of dwellings built and occupied before 2006 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 2011 may apply for funding from the Better Energy Homes programme for heat pump systems and for solar hot water. This is defined as the date of installation of the electric meter. Landlords and owners of multiple properties may also apply; however, they must submit a separate application for each property.

Contractors should confirm the age of the property with the homeowner.

If the home was built before 2006 or 2011, depending on the grant being applied for, and if the homes has an extension built after the 1st January 2006 or 2011, 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.
- In non-typical homes, or older homes with converted spaces and extensions it can be more difficult to determine which areas are eligible for the grant.

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.

1.3.2 Eligible dwelling types

The Better Energy Homes grant is available to all privately-owned dwellings built before 2006. 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 be valid 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 SEAI on 01 8082100.

Local Authority Housing

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

1.4 Grant Application and Levels

Current statistics for applications and completed measures for the Better Energy Homes programme are published on the SEAI website. These figures are regularly updated and show total breakdown by county.

1.4.1 Contractors applying on behalf of Homeowners

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 form from our Call Centre at 01 8082100.

Information on drawing down a grant can be found under the Grants 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.

1.4.2 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.

1.4.3 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 Additional Resources

This section references several additional resources published on the SEAI website. These resources are useful supplementary documents supporting the SEAI's Domestic Technical Standards and Specifications, the Better Energy Homes Contractor's Code of Practice and the Better Energy Homes Quality Assurance and Disciplinary Procedures for Contractors.

2.1 Electrical Works

The SEAI's Domestic Technical Standards and Specifications details the following:

> If 'Controlled Works', as defined by the Commission for Energy Regulation (CER) document entitled 'Definition of the Scope of Controlled Works' are required, a Completion Certificate must be issued. The issuance of a Completion Certificate for 'Controlled works' can only be carried out by a Registered Electrical Contractor or an Inspector of one of the two Safety Supervisory Bodies as defined in Section 2.2 in this CER guidance.

SEAI strongly advises contractors to review the requirements on controlled works and indeed all exempt works. Contractors must make sure when upgrades involve electrical works that they are satisfied that the appropriate personnel are employed and all procedures followed rigidly. Full details at http://www.cer.ie/energy-safety

SEAI's Domestic Technical Standards and Specifications also details requirement relating to electrical works.

Where the earthing/bonding is below the current ETCI National Wiring Rules an 'Electrical safety notice to the homeowner' must be issued as detailed in SEAI's Domestic Technical Standards and Specifications. This is to notify the home owner that their current wiring installation is not to current ETCI rules. See link to notice on website.

2.2 Solar Water Heating

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.

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.

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.

2.2.1 Additional safety information: solar water heating

Earthing

Electro-Technical Council of Ireland (ETCI) rules 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 diagram 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 solar heating installation commences.
- Bonding = 6mm^2: Solar installation can be carried out, but the homeowner should be issued with a written 'Electrical Safety Notice' referenced in Section 2 above.

Unsuitable collector from Pressure Relief Valve

A pressure Relief Valve (PRV) in the solar loop 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:

2.3 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 and/or windows as improvements generally lead to higher temperatures 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).

2.4 Standards, Regulations and Guides

2.4.1 Energy Efficiency in Traditional Buildings

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 on 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.

http://www.ahrrga.gov.ie/app/uploads/2015/07/Energy-Efficiency-in-Traditional-Buildings-2010.pdf

2.4.2 Renewable Installers Register

SEAI develop and maintain a 'Renewable Installers Register' in line with certain requirements of the EU Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

The register provides the details of suitably qualified Installers of the following technologies: Small-scale biomass boilers and stoves, solar photovoltaic, solar thermal systems (Solar Water Heating), Shallow geothermal systems and Heat Pumps.

The objectives of the Renewable Installers Register are to:

- Support homeowners in selecting suitability qualified installers of certain renewable technologies
- Reduce energy use, costs and greenhouse gas emissions
- Build market capacity and competence by driving contractor training standards
- Working towards reaching common ground for the certification of installers of Renewable Energy Technologies through the EU member states.

See link to register on website.

Inclusion on the Renewable Installers Register does not confer eligibility for undertaking works on grant programmes.

The Better Energy Homes programme operates a separate registered contractor list with separate Terms and Conditions for registration.

2.4.3 Home Renovation Incentive (HRI)

The Home Renovation Incentive (HRI) was introduced in Budget 2014. Homeowners can avail of a Better Energy Homes grant and the Home Renovation Incentive. The HRI provides a tax credit of 13.5% for Homeowners on repair, renovation or improvement works carried out on their principal private residence. Details of the HRI are found on www.revenue.ie

To qualify for the HRI, you must have paid Value-Added Tax (VAT) at 13.5% on the work done to the property. Works at the higher VAT rate do not qualify. Take the total investment and deduct the grant amount multiplied by three. Under HRI, Revenue will give tax relief on the VAT amount relating to the remainder.

Any queries relating to the HRI should be directed to Revenue. SEAI encourages contractors to help Better Energy Homes' customers to take advantage of both schemes and urge contractors to review the detailed information on the Revenue website.

2.4.4 S.R. 54: 2014 Code of Practice – methodology for the energy efficient retrofit of existing dwellings

This Standard Recommendation (http://www.standards.ie/cgi-bin/news/ie/NEW276) was developed by the Department of Housing, Department of Communications, Climate Action and Environment, the Sustainable Energy Authority of Ireland and the National Standards Authority of Ireland in conjunction with the Building Research Establishment to provide guidance on the energy efficient retrofit of dwellings.

Technical guidance is provided on the energy efficient retrofit of dwellings having particular regard to fabric and building services, the application of retrofit measures on a whole dwelling basis, general building science and the management of retrofit projects in respect of dwellings.

The intended audience for this Standard Recommendation are building contractors, property managers, facilities managers, engineers, architects, designers, specifiers and installers working on energy efficient retrofit projects for dwellings. This document is of interest to any party considering a retrofit project.

2.4.5 ESB and Bord Gais Notes for external wall insulation installers

Please review the following documents carefully and ensure they are adhered to in all external wall insulation jobs you are undertaking.

Gas and external insulation

Bord Gais (now Gas Networks Ireland - GNI) prepared a Guidance Note for BEH Contractors where external wall insulation is applied to homes supplied by Natural Gas. See link to guidance note on website.

For houses with natural gas installations, GNI must be contacted on 1850 200694. Only GNI is permitted to move the meter box and cabling. It is a criminal offence to move this equipment.

Electricity and external insulation

Appendix 3 of SEAI's Domestic Technical Standards and Specifications details guidance regarding External Wall Insulation: Guidelines for Homeowners and Contractors on ESB Networks requirements and charges.

ESB Networks' personnel are required to move any meter boxes on external walls depending on the circumstances. Accordingly, where electricity wires or cables are attached to external walls or soffits you must contact ESB Networks (phone 1850 372 757) well in advance of the works commencing to arrange for the required alteration. ESB Networks apply a standard charge where the service cables / aerial wires etc. to a domestic house must be altered. This charge, as approved by the Commission for Energy Regulation, is payable in advance.

2.4.6 Technical Guidance Documents to Building Regulations

The Department of Housing, Planning and Local Government publish the Building Regulations. Contractors should reference these and the associated Technical Guidance Documents (TGDs) here: http://www.housing.gov.ie/housing/building-standards/tgd-part-d-materials-and-workmanship/Technical-guidance-documents

The various parts of the building regulations cover a range of areas:

- A: Structure
- B: Fire Safety
- C: Site Preparation and Resistance to Moisture
- D: Materials and Workmanship
- E: Sound
- F: Ventilation
- G: Hygiene
- H: Drainage and Waste Water Disposal
- J: Heat Producing Appliances
- K: Stairways, Ladders, Ramps and Guards
- M: Access and Use

3 Administration and Procedures

3.1 Contractor Registration

Contractors are responsible for ensuring they are registered for the measures they plan to install. You must be registered and active at time of application and at time of works. You can check your profile online to ensure you are registered for the correct measures. The link to the SEAI website for checking your registration details is found on www.seai.ie. This link is the same link homeowners use to find a contractor. If you have not updated your insurance on your TCC, or if you have been deregistered, your company details will not appear on the list.

Full details for registration see https://www.seai.ie/energy-in-business Energy in Business, Register with SEAI.

If you are not registered for the correct measures you must submit a written request from the email address with which you registered to SEAI, requesting that these measures be included on your profile including evidence that you are insured to install these measures. Undertaking installations while you are not registered for that measure result in you being deregistered from the Registered List of Contractors and the homeowner's grant being declined.

3.1.1 Common reasons for contractor deregistration

There are several reasons for contractor deregistration, with full details in the QADP such as:

- Contractor not registered for measure at time of completing the works.
- Failure to undertake reworks or return reworks declaration
- Fraud or the intention to defraud
- Contractors installing gas boilers while not registered with RGII
- Undertaking works without proper insurance cover
- Being in the red zone on the Contractor Scorecard
- Repeated reworks for the same issue

The QADP details the conditions under which deregistration arises and the deregistration process:

> Contractors deregistered because of works carried out under a specific Better Energy Programme are prohibited from carrying out works under other Better Energy Programmes. It is the registered contractor's responsibility to inform their clients of any such disciplinary measures. Where a contractor is de-registered as a result of inspection on a particular measure(s), they are automatically prohibited and de-registered from all other SEAI programmes and measures.

The QADP also details the impact deregistration has on new, ongoing and forthcoming works.

3.1.2 Nominated personnel

The Contractor Registration form and the QADP detail that nominated personnel shall either complete the works or attend the site either to supervise, to inspect and sign off on the Declaration of Works. Nominated personnel must meet or exceed the minimum requirements specified by SEAI under Better Energy Homes Programme. When nominated personnel sign the DOWs, they are confirming that the works meet the required standard.

The sanctions around actions carried out by non-nominated personnel are also detailed in the QADP. It is deemed a breach of the contractor registration Terms and Conditions if people not on your nominated personnel list sign a Declaration of Works form and results in disciplinary action being taken.

Please ensure you keep your list of nominated personnel up to date always and that only those who are completing the works are nominated to sign off grant paperwork. Only those who are competent to install the grant aided measures for which you are registered should be on the list.

Please be aware that all works are subject to verification and quality inspections through which technical penalty points may be accrued. While penalty points may be accrued by different nominated persons, they are logged against your company 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 to comply with the Better Energy Homes standard and specification.

3.1.3 Gas registration requirements

SEAI's Domestic Technical Standards and Specification details the following:

> It is an offence for any person to carry out domestic Natural Gas or LPG works unless he/she is a registered gas installer with RGII. To align with this requirement all registered gas installers on the Better Energy Homes programme undertaking High Efficiency Gas Boiler and Heating Controls upgrade works must be on the RGII list. Detail on how to register with RGII is available at www.rgii.ie

When the Contractor is registered to undertake natural gas or LPG works, the information provided to us by the relevant Contractor is cross-referenced with the information on RGII. This check is repeated when a Contractor is updating their certificate of insurance. The following details are checked and must correspond:

- The name of the company registering with BEH is the same as the name on RGII
- At least one of the nominated personnel listed for BEH, must be either listed under the company name on RGII as the contact person and/or as a registered installer. It is not sufficient for a nominated person to be registered on RGII as a sole trader or linked to another company/Contractor name.

It is up to the Contractor to ensure that the person who signs off on the job is competent and legally permitted to do so.

If the Contractor is not a registered installer (RGII) then gas is removed from the BEH Contractor's profile immediately. Where applicable, the Contractor is emailed to inform them of the change in their profile.

Note: Contractors undertaking High Efficiency Gas Boiler and Heating Controls upgrade works using LPG as the fuel, must be RGII registered as of the 27th June 2011. Please see the following link to RGII legal requirements for person carrying out domestic gas work on Liquefied Petroleum Gas (LPG) appliances/installations: http://www.rgii.ie/news/safety-regulation-of-lpg-gas-work.6588.html.

3.1.4 External Insulation Registration

As detailed on the SEAI website, the following guidance applies to contractors registering to install external wall insulation:

New contractors

Contractors must be registered with NSAI Agrément ETICS as an external wall insulation installer. Information on registering with NSAI is available on the NSAI their website. The Directory of NSAI Agrément registered ETICS Installation Companies can also be viewed on the NSAI website.

Already registered as a Better Energy Homes contractor
If your company is already registered with the Better Energy Homes and you wish to add external wall insulation to your company profile of measures then you should submit a revised Declaration of Insurance form with a cover note requesting that external wall insulation is added to your company details. Please ensure that you include your contractor ID number on these documents.

3.1.5 Model Contract
The Model contract is signed by the homeowner and the contractor and is available on the SEAI website here: https://www.seai.ie/energy-in-business/register-with-seai/contractor

The contract sets out terms under which a registered contractor installs measures in the home being funded by the BEH programme.

3.2 HOMEOWNER INTERACTION

3.2.1 Redirection to Warmer Homes Programme
If you encounter a homeowner who is in receipt of a fuel allowance payment or other forms of Social Welfare payments or who would not be able to fund their portion of the capital investment required, please direct them toward the Better Energy Warmer Homes programme. This programme is targeted at low-income homes at risk of fuel poverty and its helpline is 1800 250 204.

3.2.2 Invoices
SEAI's Domestic Technical Standards and Specifications outlines that 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 deemed necessary 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.

When charging VAT, the following information must be contained on the VAT compliant invoice:
- must be dated
- must have a unique invoice number
- must name the person to whom the service is provided
- must show the VAT amount applied (not a statement that the amount includes VAT)

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

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.

3.2.3 Contracts and completion of forms
It is a requirement of registration that all Contractors have a written contract with homeowners for all works undertaken under the Better Energy Homes programme. Homeowners are therefore required to comply with this requirement and ensure that there is a contract in place between the Homeowner and the Contractor, ensuring appropriate levels of consumer protection. See Section 3.1.5 for the model contract.

Contractors should ensure that homeowners have the relevant forms prior to work starting, and should ensure that all sections are completed on all relevant forms.

3.3 Insurance and Tax Clearance

The QADP mandates that contractors maintain up to date eTax Clearance Certificates (eTCC) and appropriate insurance cover. A current Contractor's Declaration of Insurance (DoI) is required by all Contractors to maintain registration with the Better Energy Homes programme.

It must be completed by a Registered Insurance Broker, Agent or Insurance Company, licensed to issue cover in the Republic of Ireland, as approved by the Financial Regulator. The declaration must state that you are insured for all the measures you wish to install. You must have valid insurance cover always while you are carrying out installations under the Better Energy Homes programme.

When you are submitting a new Declaration of Insurance, please ensure to include your SEAI ID number to allow SEAI to process the paperwork in a timely manner. Carrying out works with inadequate insurance cover results in contractor registration being suspended as detailed in the QADP.

3.3.1 Selecting measures on the Declaration of Insurance

Please note that if you are not currently registered for a particular measure and this measure is subsequently ticked on the contractor's Declaration of Insurance (DoI) Form submitted when updating insurance details, this will not automatically result in you becoming registered for this measure.

Undertaking works when not registered for that measure is considered a serious breach of the Better Energy Homes Quality Assurance and Disciplinary Procedure and results in the homeowner losing their grant and the contractor being deregistered from the programme as outlined in the QADP.

3.4 MARKETING GUIDELINES

The SEAI website details rules around use of SEAI logos, and the terminology allowable on registered contract marketing materials. Breach of these rules can result in sanctions as detailed in the QADP.

4 DOMESTIC TECHNICAL STANDARDS AND SPECIFICATIONS

4.1 Outline

This section provides elaboration and emphasis on several areas in SEAI's Domestic Technical Standards and Specifications (DTSS).

The specification combines the Better Energy Homes programme (BEH), the Better Energy Warmer Homes programme (WHS) and the Better Energy Partners (BEP) programme in one document.

4.2 Heating and Controls

4.2.1 Oil/Gas Boiler and Heating Controls Upgrade

This grant is to incentivise the installation and use of heating controls. There is no grant for installing a high efficiency boiler only. A homeowner is eligible to apply for a grant for either a heating control upgrade only or for an oil or gas boiler with a heating control upgrade.

A minimum solution for heating controls upgrade is required before the grant can be drawn down. This is detailed in the DTSS outlining requirements on zonal time and temperature controls and TRVs. When upgrading the heating controls for a boiler the installer must check that the Better Energy Homes programme control requirements can be met and are appropriate to the installed boiler. Not all boilers are suitable for time and temperature controls and / or boiler interlock. In such cases, the grant is not payable and the homeowner must be advised of this ahead of works.

Are grants available for heating controls for a heat pump or a biomass system?
As outlined in the BEH FAQ, controls associated with these systems are eligible for funding provided there hasn't already been a grant under the Greener Homes Scheme (now closed) for the installation of these systems. This is because controls are an integral part of the system at time of installation.

Combination boilers
Heating programmers, room stat and TRVs are required when installing a combi boiler as part of the Better Energy Homes Heating Controls with Boiler (Oil or Gas) Upgrade. For Combi boilers a boiler interlock is usually achieved by using a room thermostat, please check with the boiler manufacturer that an interlock is installed within the boiler.

Most common causes of reworks on electrical work

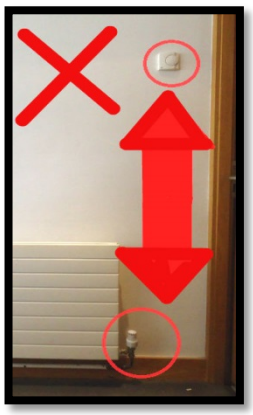
- Boiler incorrectly fused (5amp for oil, 3amp for gas fired boilers)
- Earthing incomplete
- No spur switch visible / poorly located
- 10mm2 earth not present on heating pipework and hot press
- Flow + return not bonded
- Cross bonding in Hot Press incomplete
- No 10mm2 earth fitted to gas supply
- Earth fitted to gas supply is not to ETCI rules

Safety valve and discharge pipework installation

The safety valve is permitted to discharge externally or internally as per the SEAI Domestic Technical Standards and Specification. This ensures the discharge of hot water or steam will not endanger any person or property. Please see the DTSS for further details.

Location of TRVs and room thermostats

Under the DTSS, a room thermostat is the main thermostatic control for the heating system. Therefore, a TRV should never be installed in a room where a room stat is present.



No spur switch visible / poorly located

A fused spur is required to isolate power to the entire heating system so that maintenance can be carried out safely. The location of this is important as it is required for future maintenance. Poorly located isolation points may lead to technicians working on live boilers. It is recommended to fit the spur either beside the boiler; beside the time-clock / programmer; or beside the wiring centre. Both OFTEC and the boiler manufacturer's guidelines should be sought on this. A fused spur / isolation switch is normally required to isolate power to the entire heating system.

Boiler manuals give details of the fuse sizing. A 5-amp fuse must be installed for oil fired systems. Higher fuse ratings can be unsafe and will fail an inspection. A 3-amp fuse must be used for gas-fired systems.

Remote fire valve not fitted / not to standard
The installation of a remote acting fire valve is required for all oil boiler installations on the Better Energy Homes programme. It is required to cut off the flow of oil outside the building in the event of a fire. The use of a fusible head-isolating valve is not sufficient under the Better Energy Homes programme.

4.2.2 Pipe Lagging Standard

As detailed in Part L of the Building Regulations, the size of pipework insulation required for compliance with the Better Energy Homes programme is as follows:

Unless the heat loss from a pipe or duct carrying hot water contributes to the useful heat requirement of a room or space, the pipe or duct should be insulated. The following levels of insulation should suffice:

(a) pipe or duct insulation meeting the recommendations of BS 5422: 2009 Methods of specifying thermal insulating materials for pipes, ductwork and equipment (in the temperature range – 40°C to + 700°C); or

(b) Insulation with material of such thickness as gives an equivalent reduction in heat loss as that achieved using material having a thermal conductivity at 40°C of 0.035 W/mK and a thickness equal to the outside diameter of the pipe, for pipes up to 40 mm diameter, and a thickness of 40 mm for larger pipes.

4.3 Sizing Of Radiators with a Condensing Boiler

The following note should be considered when replacing the heating system i.e. Radiators, boilers etc. This is only a guidance note for information and is not a part of the Better Energy Homes programme requirements. The radiator is sized according to the heat required for a given room.

The heat is measured in Watts (W) or British Thermal Units (BTUs) [1W = 3.412 BTU]

Heat requirement
The heat required for a room depends on two factors: the temperature you want to maintain in the room and the rate of heat loss from that room. The following are recommended temperatures required for rooms depending on their type:

Living areas, e.g. sitting room, dining room, playroom, etc.	18 – 21 °C
Other areas such as kitchen, hall, toilet, bedroom, etc.	16 – 18 °C
Bathrooms (with shower)	22 °C

Heat losses are calculated on a room by room basis. To calculate the heat loss from the room, the area of all floors, walls, windows and doors and their thermal characteristics (U-values, etc.) need to be considered. The Domestic Heating Design Guide, published by the Chartered Institute of Building Services Engineers (CIBSE) provides further information on calculating heat loss.

Once the heating requirement is known, the radiator size can be calculated.

For the example below the room has a heat loss of 350W:

Radiator sizing

Radiator outputs are typically based on a water-to-air temperature difference (ΔT) of 50°C

$$\Delta T = \frac{(\text{Flow temperature} + \text{return temperature})}{2} - \text{Room temperature}$$

The higher the ΔT value, the higher the radiator output will be. Traditional gas or oil non-condensing boilers operate with higher flow and return temperatures temperature, meaning there is a greater temperature difference between the water temperature and the air temperature. Flow and return temperatures are typically in the region of 80°C and 70°C respectively and with a required room temperature of 20°C, the ΔT value is 55°C and so the radiator output is high.

$$\Delta T = \frac{(80 + 70)}{2} - 20 = 55°C$$

Modern condensing boilers operate most efficiently when their return temperature is in the region of 55°C or less and a flow is 65°C. Under typical conditions a condensing boiler would have a temperature difference in the order of 40°C. See example below

$$\Delta T = \frac{(65 + 55)}{2} - 20 = 40°C$$

The temperature difference reduces the output of the same radiator. Many radiator manufacturers supply information for radiator output based on a ΔT value of 50°. The following table is an example of information provided by the manufacturer:

Radiator Height (mm)	Radiator Length		Heat Output at ΔT 50°	
	mm	inches	Watts	BTU
300mm	400	16	186	636
	800	31	382	1305
	1000	39	480	1638
	1200	47	578	1972
	1600	63	774	2641
	2000	79	969	3308

Where radiators are to be installed for different ΔT values, the stated radiator outputs must be multiplied by a conversion factor to account for the different ΔT value. Manufacturers should be asked to provide conversion factors for different ΔT values.

The following table is an example of conversion factors to be applied to outputs quoted at ΔT 50°:

ΔT	Multiply Output by
Δ40°	0.7482
Δ45°	0.8720
Δ56°	1.1587
Δ60°	1.2675

The conversion factor allows the calculation of the radiator output where the operating temperatures result in a ΔT value different to ΔT 50°C. For example, where replacement radiators with a ΔT value of 40°C are being installed, and the stated output at Δ50°C is 480W, multiply by 0.7482 to get the output for the replacement radiators.

e.g. 480 ×0.7482=359W

The radiator output is now 359 W. This may mean you need to increase the size of the radiator to meet the heat requirement of the room depending of the heat loss calculated.

4.4 Manufacturer Warranties

Manufacturer warranties and boiler logbooks must be provided where applicable as outlined in the DTSS and QADP. SEAI requests all contractors to ensure that the appropriate paperwork is provided to the homeowner when the job is complete. SEAI recommends you keep records of these documents in case the homeowner misplaces them. The following are some of the examples from the DTSS:

- As detailed in the DTSS, a system supplier guarantee must be issued for external wall insulation to the homeowner and must be available for inspection by SEAI.
- The DTSS requires that each homeowner is supplied with a warranty (product and labour) of at least 5 years.

4.4.1 Boiler Log Books

The boiler log book is an important document for home owners to keep as it records of the following information:

- Details of the installing / commissioning contractor
- Can be necessary to validate the guarantee for the boiler
- Gives details for future servicing

The name and address of the homeowner must be filled in by the contractor. Failure to do so will lead to a rework.

The following examples show the logbook attached to the boiler to ensure it can be accessed by the homeowner and/or boiler service technician:

On the above gas boiler, the log book is placed inside a transparent plastic holder and securely fixed to the front of the boiler. This could also be placed on the inside door of any boiler enclosure if preferred by the homeowner.

For the oil boiler above, the log book is in a sleeve attached to the inside of the front section of the boiler. It has a retainer (chain) so as it can't be removed from the appliance.

4.5 Partial Solutions and Mixed Measures

The DTSS details the approach to optimum, partial and mixed measures.

The guidance should be reviewed in full by contractors. Some key points as follows:

- All four walls must be insulated.
- Ensure that, an optimal "whole-house" solution is provided.
- In the case of roof / attics the whole surface of the ceiling / roof-space must be insulated as appropriate.
- Where only part-element coverage is achieved, this must be detailed in the Declaration of Works and the Contractor should inform their client that this may impact on their ability to draw down support from the programme.
- Partial solutions are only acceptable in exceptional cases, such as where a small bathroom is tiled. It is not permitted to exempt a kitchen area from internal wall insulation due to hanging cabinets. In this instance the cabinets must be removed and the walls internally insulated or another solution is found i.e. by insulating externally.

Majority / Mixed solution
In cases where the home has different wall types, different insulation methods may be required to ensure the home is insulated to the optimum solution. Where different insulation solutions are required to achieve the required optimum, the measure addressing the majority area is eligible for the Better Energy Homes grant. For example, if one wall is a cavity wall and the others are solid block, it is acceptable to fill the cavity and externally insulate the remaining three. In this case, the grant will be paid for the majority surface area, external wall insulation.

4.6 Roof Insulation

The DTSS comprehensively details the requirements for the roof insulation measures and the relevant standards/practices/U-values to be achieved. Contractors must follow the guidance in the DTSS.

For example, for attic ventilation, wide ranges of considerations are detailed and must be adhered to by contractors such as insulation type, pipe insulation, walkways, hatch insulation, Cold Water Storage Tanks (CWST), electric cabling, maintaining and improving attic ventilation.

Note: attic insulation – woodworm infestation
Woodworm is a problem which can affect untreated timbers and is often present in houses over 10 - 15 years old. Woodworm can cause severe damage to building timbers if not identified and treated appropriately.

Attics are at risk of woodworm infestation as homeowners sometimes store furniture there which is already contaminated with woodworm. The woodworm beetles are attracted to the surrounding timbers in the attic. If woodworm contaminated timbers are covered by insulation, it is likely to increase the activity rate of the infestation due to increased warmth in the insulated timbers.

During the preliminary survey of the attic, Contractors should check for woodworm infestation, easily recognisable by small pinholes and the presence of a fine dust on the timbers. Remedial treatment of the timbers should be carried out prior to the insulation upgrade taking place.

4.7 Ventilation

Proper ventilation of a home is necessary to ensure:

- Adequacy of fresh air for a healthy and comfortable environment for the occupants
- Adequacy of the air supply for safe operation of particular types of fuel burning appliances
- Minimisation of condensation risk
- Avoidance of radon accumulation

The DTSS details all the requirements around provision and maintenance of proper ventilation. Contractors should take all reasonable action to ensure that proper ventilation provisions are installed in the home and that the homeowner is made aware of the proper operation and maintenance of such provisions. The QADP details a number of sanctions arising from inadequate ventilation provision on Better Energy Homes projects.

Ventilation Types

Uncontrolled (and unintended) air infiltration – through the porosity of the building structure or through looseness in detailing or workmanship of openings such as doors and windows - which 'provides' ventilation on an arbitrary basis but is not an appropriate basis on which to rely for ensuring occupant safety, health or comfort.

Purposeful ventilation provision – which may be to varying degrees controlled e.g. MVHR, humidistat actuated extract fans, closable wall vents, trickle vents or uncontrolled e.g. permanent wall vents, in accordance with TGD F to the Building Regulations. Key is avoidance of disturbance to any such proper existing provisions, and making all reasonable effort by way of works execution.

Additional requirements for the installation of external wall insulation
The installation of wall insulation increases the air tightness of the building thereby reducing unintended ventilation in the form of uncontrolled air leakage or draughts in the home. This effect is likely to be most pronounced in the case of external wall insulation system. However, installed ventilation provisions are essential.

Therefore, in accordance the DTSS, SR54, the Building Regulations Part F and the training given by the Agrément ETICS Certificate Holder, the contractor must consider the likely effect of the installation on the home's ventilation and install appropriate options / solutions for the homeowner. Provisions must be made for maintenance of existing wall ventilators and/or suitable new ventilation provided as required by the above-mentioned standards and regulations.

4.8 Wall Insulation

The DTSS comprehensively details the requirements for wall insulation measures and the relevant standards/practices/U-values to be achieved. Contractors must follow the guidance in the DTSS.

The Better Energy Homes programme requires that all homes be left clean and tidy following the installation of grant-aided measures. For External Wall Insulation, it is important to ensure that the outside area is left clean and tidy with all excess materials, packaging, dust and debris being removed from the customer's premises and thereafter properly disposed of. Should any excess materials or packaging stray onto a neighbour's property or public grounds it is your responsibility to clean this up to prevent littering and/or pollution.

Polystyrene external wall insulation
When using polystyrene insulation materials, it is essential that any cutting of polystyrene blocks with saws is done in a properly enclosed area (surrounded by mesh or indoors) to prevent the release of polystyrene debris into the local environment. Use of hot wire cutting is preferred as it is cleaner and produces less waste.

Installing external wall insulation in very cold weather
As winter approaches contractors should note that the installation of external wall insulation can be effected during particularly cold weather as the adhesive used may not bond during cold spells thereby reducing the integrity of the insulation. Contractors should refer to manufacturer's instructions in relation to this issue.

Cavity wall insulation
During very cold spells the water based adhesives used to bond cavity beads together will freeze and so will be ineffective. This affects the integrity of the cavity wall insulation. Please refer to manufacturer's instructions before proceeding with works in cold weather.

5 Declaration of Works

You may only complete the Declaration of Works (DoW) forms after you have completed and been fully paid or entered into a payment agreement for the works undertaken by you. If this requires you to take the DOW forms away with you, then you are expected to act expeditiously and to return the completed forms to your client as soon as physically possible.

5.1 BER

The Pre-Grant Energy Estimate (PGEE) section of all BER DoWs must be completed by the Contractor for each measure installed. You are required to fill in the estimated condition of the house before the works were completed. Failure to complete this section of the form results in grant payment delays, and where homeowners are at the end of their grant offer it may also result in grant expiry.

Contractors are required to complete the relevant sections on the BER Declaration of Works form, identifying the condition of the home (roofs, walls, heating system and heating controls, solar as appropriate) PRIOR to upgrade works. At the time of completing the BER, the BER assessor uses this information to estimate the energy performance of the home before Better Energy Homes upgrade works.

The energy performance data includes, as relevant:

- Estimated U-value of the walls prior to the installation of measures
- The exact surface area covered by new attic and/or wall insulation. Guidance on U-value estimates for wall and roofs prior to Better Energy Homes grant works are provided in the respective DOWs.
- Information related to the heating system controls and the heat source itself prior to Better Energy Homes works being carried out.
- Solar – contractors are required to record aperture area of existing solar panels.

5.2 Calculation of U-Values

The calculation of the correct U-value is a very important task in completing the Better Energy Homes programme Declaration of Works (DoW) form. 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 air temperature difference (W/m^2K). The U-value of a structure, after insulation is installed, can be either calculated directly by the contractor or obtained from the insulation manufacturer's technical team.

Detailed examples of U-value calculations can be found in Appendix A of the Building Regulations TGD to Part L. Once you have the Thermal Conductivity (W/mK) of a material and the thickness of the material 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.

Thermal conductivity figures for some common building materials are given in Table A1 in the Technical Guidance document (TGD) to Part L of the Building Regulations: http://www.housing.gov.ie/housing/building-standards/tgd-part-d-materials-and-workmanship/technical-guidance-documents.

Thermal conductivity figures for common insulation materials are given in Table 12 in the DEAP Manual under www.seai.ie/deap . However, it is preferable that conductivities from technical specifications for the insulation are used (e.g. from Agrément Certificates). Appendix B of TGD Part L includes some useful reference tables for different construction types and varying levels of insulation.

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.

5.3 Completing Declaration of Works

In the Declaration of Works, the section that must be completed by the Contractor is SECTION 2. This is split into three parts, section 2a, where dwelling type and the cost of the work is noted, section 2b where the specifications of the works is noted and section 2c the Contractors declaration. A large percentage of DoWs are returned to homeowners because Contractors have not completed section 2c correctly. Therefore, to avoid this from happening please ensure the following information is always noted in this section:

- The ID number
- The name of the Contractor as listed on Better Energy Homes listing
- ALL declaration boxes are ticked
- The nominated person has signed, dated and put their name in Block Capital Letters
- The nominated person has noted the date that the work was completed

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.

Date of works
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.

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 a detailed explanation is required in the comments of the Declaration of Works form.
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.

Completing Better Energy Homes work and Declaration of Work forms while de-active on the Better Energy Homes registered list of contractors is deemed a breach of SEAI's Domestic Technical Standards and Specifications and is dealt with in accordance with the QADP.

6 Inspections

6.1 Outline

All completed installations may be subject to inspections. Properties may be the subject of a sampling process and homeowners are notified by SEAI prior to such inspections.

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.

The QADP details the different type of sanctions arising from inspections, including different severity sanctions and de-registrations. Contractors are required to respond to rework notifications arising from the SEAI inspections process as outlined in the QADP. The contractor receives a Reworks Notification from SEAI with a deadline of four weeks to complete reworks and return the attached Reworks Form to the stated SEAI address.

Accompanied inspections
SEAI also carries out a training program of Accompanied Inspections for Better Energy Homes contractors. This gives contractors the opportunity to review inspection findings with an inspector on site in a practical one to one mentoring session. While Reworks Notifications may be issued as standard after an Accompanied Inspection, penalty points are not applied.

The following sections outline some of the areas resulting in failures identified during the inspection process. This is not a complete list, and contractors are advised to follow the guidance in the DTSS for all measures being installed under the Better Energy Homes programme.

6.2 Heating and Controls

The following examples are some of the issues recorded during inspection of high efficiency boiler installations and heating control upgrades. The required approaches are covered in detail in the DTSS:

- Condensate pipe to drain not installed properly
- Pipework not sleeved
- Safety valve and discharge pipe not installed to an acceptable standard
- Minimum heating controls upgrade requirement not being met.
- Boiler not meeting minimum efficiency requirements.
- Electrical earthing incomplete
- Boiler log book - none available or not filled in by the contractor
- No automatic bypass valve fitted
- Boiler interlock not working

6.3 Roof Insulation

The following examples are some of the issues recorded during inspection of roof insulation measures. The required approaches are covered in detail in the SEAI Domestic Technical Standards and Specification:

- Cold water tank insulation jacket not installed
- Attic pipe work not insulated
- Attic hatch insulation not installed or not installed as per BEH specifications

- Walk-boards not installed as per BEH specifications
- Adequate U-value not achieved
- Heavy duty cables fully covered by insulation
- Lids and jackets not fitted to tanks in loft
- Hatch insulation carried out without draught proofing

6.4 Wall Insulation

The following examples are some of the issues recorded during inspection of wall insulation measures. The required approaches are covered in detail in the DTSS:

- Inadequate ventilation provided
- Failure to issue NSAI Agrément certificate or Supplier Guarantee to the homeowner.
- Incorrect DoW forms with issues such as partial solutions or U-value does not meet required values.
- Drill holes must be filled in and sealed to prevent leakage as per NSAI certification.
- Failure to implement an optimal whole-surface solution without a justifiable explanation.
- External plumbing fixings not correctly installed (including rainwater downpipes, gulley traps and other external piping/fixings)
- Joints and seals incomplete
- Irregularities and/or visible contours on walls
- ESB service cables not as per ESB guidance note.

7 QADP – Quality Assurance and Disciplinary Procedure

7.1 Outline

The quality of service delivery by contractors registered with the Better Energy Homes programme is central to the reputation and effectiveness of the programme, both for the purposes of achieving energy savings for homeowners and value for public monies. That quality of service has two key dimensions: competence and compliance.

SEAI is responsible for administering the programme and has put in place a Quality Assurance system for BEH contractors and a related disciplinary procedure. Through this system and procedure SEAI maintains a strong focus on monitoring the technical performance and professional conduct of contractors and takes appropriate corrective action where necessary. This policy is designed to serve the interests of clients for BEH services and of all reputable BEH contractors.

The Quality Assurance and Disciplinary Procedure (QADP) details all the associated sanctions, appeals processes and quality assurance methodology for the programme and can be downloaded from SEAI's website under Contractor Supports: https://www.seai.ie/energy-in-business/contractor-supports

It is essential that contractors have studied and understand their obligations as contained in the most current versions of:

- The Better Energy Homes Contractor Registration Form
- SEAI's Domestic Technical Standards and Specifications
- The Better Energy Homes Contractor's Code of Practice
- The Better Energy Homes Quality Assurance and Disciplinary Procedure (QADP)
- SR54
- This document, Additional Information for Contractors

7.2 Penalty Points and Sanctions

Contractors have the right to appeal reworks decisions. Penalty points remain on your profile following reworks rectification.

When appealing technical penalty points please ensure you provide sufficient detail explaining why your appeal should be successful. The appeal must be based on compliance with SEAI's Domestic Technical Standards and Specifications and the rules and processes detailed in the QADP.

All appeals should include any information that you deem SEAI should consider by way of mitigation.

Grounds for Appeal
Acceptable grounds for appeal may include some of the following, where verified:

- Not physically possible to install to the requirements of the Technical Specification
- Detrimental works completed by other
- Inspector error
- Administrative error
- Other

Unacceptable grounds for appeal

- Additional work will be completed to bring the installation to the required standard
- Where reworks are identified then the contractor is required to undertake these reworks, and the applicable penalty points remain on the contractors' profile.
- Do not agree with the requirements of the Technical Specification
- Minor error that will not happen again
- Homeowner did not want to undertake full specification of works

End of document