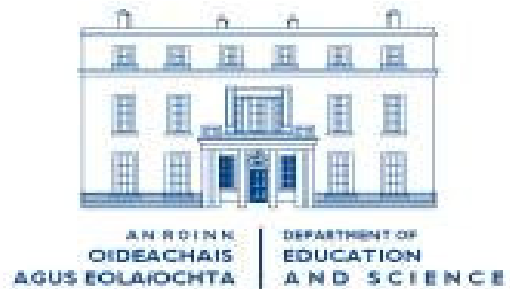


**Document EES 02 rev 2**



TO: PRIMARY AND POST PRIMARY SCHOOL AUTHORITIES

**Devolved Scheme of Capital Grants for Energy Efficiency Works in  
Primary and Post Primary School Buildings**

**Energy Efficiency Scheme 2009**

**Contractors Code of Practice**

**and**

**Standards and Specifications Guidelines**

**(28 April 2009)**



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### GLOSSARY OF TERMS

**Contractor** – Member of the HES Registered List of Contractors maintained by Sustainable Energy Ireland, who are approved to install measures supported by this scheme. The installation of these measures by unregistered Contractors will not be supported by the Scheme.

**School** – An applicant for support from the Scheme who has had one or more of the measures outlined herein installed by a Registered Contractor.

**NSAI Agrément** – the National Standards Authority of Ireland which issues Certificates for certain products and installers. Formerly known as the Irish Agrément Board.

**The Scheme** – Energy Efficiency Scheme 2009

**The funding agency** - The Department of Education and Science

## **DISCLAIMER**

This document is a reference for Registered Contractors who wish to carry out works supported by the Energy Efficiency Scheme 2009 (the “Scheme”). It sets out the general competence, standards and specifications that Contractors should possess, and adhere to, in carrying out works supported by the Scheme.

The funding agency and its Agents or Sustainable Energy Ireland do not provide any warranty or guarantee concerning the completeness, effectiveness, reliability, accuracy or otherwise of such standards or any work carried out on foot of such standards. The provision of goods and/or services by Contractors to Schools in this Scheme is entirely a matter between the Contractor and the School. The funding agency 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 scheme. The Installer is entirely responsible for all such matters.

## **Document Revisions**

Revision Date	Sections Revised
18 May 2009	7.1 Cavity Wall Insulation
12 June	Introduction and Attic Insulation

## **1 INTRODUCTION TO THE SCHEME**

The Minister for Education and Science is pleased to announce details of a new Energy Efficiency Scheme for primary and post primary school buildings, which is being implemented with the assistance of Sustainable Energy Ireland (SEI).

The Energy Efficiency Scheme (EES) is a Devolved Scheme. This means that, school authorities will be provided with funding from the Department to carry out and manage the works, including cost control, with guidance from and minimal interaction with the Department.

Its purpose is to enhance energy performance in existing school buildings by carrying out specific works to improve insulation levels.

The Scheme will allow schools to apply for funding, on a once off basis, to upgrade insulation in attics and the external cavity walls of their school buildings. The works will involve attic insulation and/or injection of insulation into external wall cavities where appropriate.

These measures will improve comfort in buildings, reduce energy costs and contribute to the Government's national targets of reducing carbon dioxide emissions.

It is intended that the works will be carried out during the summer holidays. If a Summer Works Scheme project is being carried out at a school, then the Energy Efficiency Scheme works should be conducted either before or after the school is handed over to the Summer Works Scheme contractor.

The School will be able to select Contractors to carry out the measures supported and defined by the Scheme from a list of Registered Contractors published and maintained by Sustainable Energy Ireland (SEI). In order to successfully claim the grant, the works must be carried out in accordance with the guidance set out in this document.

It will also be a requirement of the scheme that the school submit a completed Display Energy Certificate (DEC) using the Department of Educations Energy Website for the period September 2008 to July 2009 when they are submitting their final request for payment.

The school is not obligated to accept any or all tenders and that the cost of tendering shall be carried by the contractors. The works considered in this tender will not proceed unless the requirements of the funding Authority are complied with. The employer therefore reserves the right to accept or reject any tender received.

The remedial measures funded include:

- Attic Insulation
- Cavity Wall Insulation

## **2 GENERAL REQUIREMENTS**

### **2.1 GENERAL CONTRACTOR REQUIREMENTS**

To successfully register to complete works under this Scheme, the Contractor must meet the general requirements as shown below. The Contractor must also satisfy the specific competency requirements set out under the Competency, Product and Installation standards for each of the measures defined.

Demonstrated failure to satisfactorily comply with the terms and intent of this document may result in the immediate removal of a Contractor from the Registered Contractor list and any of the Contractors nominated personnel where they exist.

Each Contractor must:

- Fully comply with the requirements of the Contractor Registration process/form set out separately
- hold a valid Tax Clearance Certificate
- have Public, Products and Employers Liability insurance cover which meets or exceeds the requirements specified by the funding agency.
- be able to carry out the works in line with the guidelines set out by the funding agency or it's Agents
- submit to performance audits of their works and review of same with schools by the funding agency or their Agents
- has in place with their schools a contract which meets or exceeds the terms set out in this document.

The Contractor must provide a competent workforce to carry out the works. This includes all relevant training and certification as appropriate to each element of works being carried out. All nominated personnel must have relevant professional training or product specific manufacturer training if required to carry out the works as appropriate. Relevant training records and certificates must be maintained by the Contractor and may be subject to inspection by the funding agency and/or its agents.

The specific competency standards relating to each of the measures supported by the Scheme are detailed further in this document.

Contractors who wish to be registered must have regular access to e-mail facilities and must have IT software that is compatible with Microsoft Office software in order to ensure the effective and efficient administration of the Scheme.

### **2.2 GENERAL PRODUCT STANDARDS**

In general, all products used must be fit for purpose, improve the energy efficiency of the building and have no detrimental impact on the structure, viability, quality nor safety of the property.

All insulation products must meet relevant product standards. Adherence to applicable standards must be followed in relation to materials that are used, and their installation.

All aspects of this guidance document will be subject to audit and QA inspection and verification.

The specific product standards relating to each of the measures supported by the Scheme are detailed further in this document.

## 2.3 GENERAL INSTALLATION STANDARDS

Prior to the installation of any measure:

- the property must be assessed to ensure that it is suitable for the measure proposed
- the installation of said measure will not have any detrimental effect upon the integrity and condition of the building
- the installation of the recommended measure is likely to achieve the desired effect in terms of energy efficiency.

**In particular, the design and installation of the recommended works must not compromise the ventilation, air quality, humidity (and the potential for condensation) and quality of school internal environment in the school. Particular care must be given to the potential impact on the school internal environment in the school resulting from any measures installed under the Scheme. It is the duty of the Contractor to prevent any detrimental changes to the school internal environment and to recommend to the School on any measures necessary to ensure that there is no detrimental change to the school internal environment as a result of the works.**

In general, all works should be carried out in accordance with the best practice and technical guidance documents outlined herein and available from the following:

- Building Regulations Technical Guidance Documents [www.viron.ie](http://www.environ.ie)
- The System Supplier/ Product Manufacturer Guidelines
- Department of Education Technical Guidance Documents [www.education.ie](http://www.education.ie)
- NSAI Agrément recognised certificates within the EOTA network. Within this document, where an NSAI Agrément Certificate is required, this extends to NSAI Agrément recognised certificates issued within the EOTA network.
- Irish, British or European Standards Guides [www.nσαι.ie](http://www.nσαι.ie)
- Sustainable Energy Ireland [www.sei.ie](http://www.sei.ie)
- The UK Energy Saving Trust [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)
- The UK Building Research Establishment [www.bre.co.uk](http://www.bre.co.uk)

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

**Where Building Regulations are referred to within this document, it is the most recent amendment to and version of those Regulations which must be adhered to by the Contractor at all times.**

In all instances where the manufacturer, supplier or system supplier supplies a Good Practice Guides, Installation Guidance Notes or a Technical Guidance Document, the works must be installed in accordance with those guidance documents.

## 3 CODE OF CONDUCT

The funding agency expects all contractors to behave professionally at all times and to maintain the high standards expected of the scheme. performance checking, carried out by the funding agency or their agents, will not only establish the quality of physical works carried out under the scheme but also the level of professionalism with which they were completed.

As a minimum level of performance the funding agency expects, under the following areas, that:

#### Professionalism and Behaviour

- Contractors must carry a form of photographic identification (Drivers Licence or Passport). 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 School prior to installation.
- Contractors must maintain a professional appearance and attitude to the School at all times. When communicating with Schools, Contractors should be polite, patient and informative.
- Agreed appointment dates and times must be adhered to (as far as reasonably possible) and the School must be informed as soon as possible in the event that an appointment will be missed. Ongoing missed appointments will be queried by the funding agency or its agents.
- The Contractor is responsible for recommending to the School the most appropriate and optimum solution for their property. As a competent professional, it is a duty of the Contractor to provide the necessary information to a School for them to make an informed decision regarding their property and the practical measures best suited to same. This should extend to contractors recommending to schools where measures they are requested to implement would be inappropriate or unsuitable.
- The Contractor must complete the return form of tender EES 06 to be considered in the tendering process.
- In particular, the Contractor must ensure that, in the case of insulation, an optimal whole-school solution is provided e.g. cavity wall insulation where appropriate and insulation of the whole surface of the ceiling / roof-space as appropriate. Where only part-school coverage is achieved, this must be detailed in the Declaration of Works and the Contractor should inform the School that this may impact on their ability to draw down support from the Scheme.
- The Contractor must inform the school managers of the relative costs and performance standards of their selected products and any limitations which might be relevant.
- As appropriate to the specific measure being installed, the Contractor must be able to supply the school with the relevant warranties and commitment of after sales service.

#### Administration and Responsibility

- The Contractor must, in all instances, provide a detailed 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 school and include all proposed works and associated cost and applicable VAT rates. The Contractor must also agree a procedure with the school managers on any alterations or omissions within the original quotation and the method by which the Contractor will be paid.
- The Contractor must obtain written consent of the school managers and this requirement extends to landlords when carrying out works in privately rented or leased properties.
- The Contractor shall indemnify and keep indemnified the funding agency and their Agents from and against all costs, claims, demands, liabilities, expenses, damages or losses in accordance with the specified insurance terms for registration as a contractor (including without limitation any direct or indirect consequential losses, loss of profit

and loss of reputation, and all interest, penalties and legal and other professional costs and expenses) arising out of or in connection with the Contractor's failure to obtain such consents or their failure in ensuring these consents were in place as appropriate to the works.

- Any installation works shall only be carried out by a suitably qualified and competent employee. This includes all works supported by the Scheme including, but not limited to, working at heights and the operation and storage of machinery and plant.
- On completion of works a detailed invoice, including a copy of the original quotation, and subsequent receipt for payment must be provided to the School along with any other forms deemed necessary by the funding agency.

#### Service Delivery

- All Contractors must make sure that their staff take every reasonable precaution to protect the property on which they are working, and leave the property clean and tidy. All excess materials, packaging, dust and debris must be removed from the School's premises, and any adjacent premises affected by the works, by the Contractor.
- Where works are completed over a number of days, the property must be left in an appropriate condition, minimising the impact to the School and surrounding properties and having regard to all Health and Safety and security Requirements.
- Contractors must make good, to the satisfaction of the School, any accidental damage sustained by a property where this is a direct result of their work or installation.
- All works are to be completed and finished to the School's satisfaction and requirements.
- In the event of a School not being satisfied with the works completed, Contractors must make every reasonable effort to resolve the complaint to the School's and the funding agency's satisfaction.
- The funding agency or its Agent will conduct random quality and performance checks with regard to works supported by this Scheme. In the event of the funding agency or its Agent not being satisfied with the service provided to the School, Contractors must make every reasonable effort to resolve the issue in line with the the funding agency defined process.
- The requirements relating to the installation of the specific measures detailed further in this document must be adhered to by the Contractor.

## **4 HEALTH & SAFETY REQUIREMENTS**

It is the sole responsibility of the Contractor to ensure that they comply with all relevant Health and Safety Legislation, Regulation and appropriate Guidelines and that their staff are appropriately trained to operate to these standards.

In addition to the above it is required that any Contractor performing works which are supported by the Scheme:

- has a current, written Health and Safety Statement available for inspection if required.
- follows safe working practices for both employees, schools and the public at all times in accordance with Health & Safety Authority guidelines.
- uses equipment safely and in accordance with manufacturers instructions and stores materials and equipment properly.

#### Asbestos

Contractors appointed to carry out works must be made aware of and requested to review the school's Safety File to establish the position relating to any health and safety issues, such as the presence of asbestos.

It is critical that the school has had an Asbestos check and that you request to see the register prior to signing the contract.

If the school has not been tested for Asbestos, this must be done prior to a contract being signed.

#### Access to attic services

In every roof space where cold water tanks or other fitted appliances occur, the Contractor must construct a permanent boarded walkway from the roof access point to the tank ball valve position and / or the appliance location. The boarded access walkway shall be constructed of minimum dimensions of 50x50mm soft wood battens laid across rafters, notched over pipes and cable crossings, said battens to be securely screw fixed in place to rafters. 19mm thickness by 450mm wide flooring grade chipboard to be fixed to battens base with screws. This walkway should be supported above the first layer of insulation to prevent any compaction of insulation below the walkway.

## **5 VENTILATION**

Proper ventilation of a school is necessary in order to ensure:

- adequacy of fresh air for a healthy and comfortable environment for the occupants
- adequacy of the air supply for fuel burning appliances
- minimisation of condensation risk
- avoidance of radon accumulation in affected areas

A Contractor must bring to the attention of the school managers any potentially serious ventilation issues encountered during the initial assessment of their school. It is then the responsibility of the school managers to rectify, with or without the involvement of the contractor, these issues before work pertaining to the scheme can commence.

## **6 PLANNING AND PROTECTED STRUCTURES**

In some cases, the building in which the Contractor is proposing to install measures may be subject to specific planning controls, as in the case of Protected Structures. This is where the property is on the Local Authority Record of Protected Structures (RPS), or is proposed to be added to this.

Similarly, there are certain works that may change the external character of a conventional property, not on the RPS, to such an extent that approval may need to be sought from the Local Authority e.g. the installation of external insulation and alteration of the front profile of a property in certain cases.

Where the property may be on the RPS list, or the installation of measures supported by this tender may require approval from the Local Authority, the contractor must inform the School that consultation with the Local Authority should be sought prior to completion of the works.

## **7 SPECIFIC MEASURES – COMPETENCY AND STANDARDS**

The following details the competency and standards expected by the funding agency for each of the specific measures to be supported under this Scheme. A summary list of guides and standards referred to are detailed in Appendix 1.

## **7.1 CAVITY WALL INSULATION**

### **Contractor Competency**

Contractors of cavity wall insulation must be approved by the NSAI Agrément and must agree to carry out the installation to the standards required by this approval and certification.

### **Product Standards & Specification**

Materials to be used in the insulation of a cavity wall must be certified by the NSAI Agrément.

The objective of this Scheme is to put in place materials that will achieve a level of performance in the school, equivalent to the standard required in the most recent update of Part L of the Building Regulations. Thus, the objective for Cavity Wall Insulation is to, in as much as is physically and economically possible, achieve a U-value of 0.27 W/m<sup>2</sup>k for external walls.

The product must be suitable for use in masonry cavity walls so that it does not compromise the property's ability to resist internal fire spread within the structure as per Building Regulations (Amendment) Regulations 2006 (Part B).

The Contractor must ensure that when installed as per the system supplier and manufacturer guidelines, the product will not affect the property's ability to resist weather and ground moisture (Building Regulations – Part C). It must also meet the Building Regulations requirements for materials and workmanship (Part D).

Correct installation will also satisfy the Building Regulations (Part J1) on the maintenance of an adequate air supply for the efficient working of any flue or chimney after installation work. The insulation system shall conserve energy in keeping with Part L of the Building Regulations in as far as is practicably possible.

The installation of fibre, foam or bead insulation systems into the voids of Hollow Block Walls will not be supported by the scheme. The funding agency is specifically excluding this practice from support through this scheme. The system must also be suitable for use on a property and meet the ventilation requirements in the Building Regulations.

### **Cavity Wall Insulation**

All products used in this application must have appropriate Irish Agrément Board certification for use in the insulation in cavity wall construction with cavities ranging from 50mm to 110mm.

Approximately 50% of the Republic of Ireland experience a driving rain index of greater than 5m<sup>2</sup>/sec/year as indicated on the NSAI Driving Rain Map. Therefore in areas with a driving rain index above 5m<sup>2</sup>/sec/year the installation of cavity fill insulation in unrendered brick and blockwork is deemed unsuitable and consequently is not supported in the scheme.

It is critical in areas with a rain index less than 5m<sup>2</sup>/sec/year given the porous nature of unrendered brick exterior walls that the proposed product complies in full with respect to resistance to weather and ground moisture, assessment of exposure based on the topography factor of the school site and the minimum cavity width and height of the school.

If issues of moisture transfer occur after the insulation of cavity walls then this will be a matter for the insulation contractor to rectify at their own expense.

### **Installation Standards & Specifications**

- a. All cavity wall insulation must be installed in accordance with the specifications laid out by the system supplier and in accordance with the relevant system's NSAI Agrément certificate.
- b. A survey of the walls must be carried out prior to the installation by a trained surveyor on behalf of the approved Contractor. A complete survey, including a boroscope survey, report is required and must be provided to the School. This is to ascertain the suitability of the property for the recommended insulation system. Existing buildings should be assessed in accordance with BS 8208: Part 1: 1985.
- c. Any defects recorded in the survey, which may affect the performance of the insulation system when installed, should be notified to, and rectified by, the School with or without the involvement of the Contractor before installation work commences.
- d. Installation must be carried out by the system supplier or manufacturer or a Contractor approved by the system supplier/manufacturer. Approved Contractors are required to carry out a full survey of the property, comply with the system installation procedure specified by the system supplier/manufacturer and at least one member of an installation team must carry an identity card issued by the system supplier/manufacturer.
- e. Cavity filling with expanded polystyrene should not be carried out where PVC-sheathed electrical cables are passing through the cavity but are not protected within electrical conduits.
- f. If the cavity is uncapped, it must be closed at the top of the wall and at the top of any opening in order to comply with the Building Regulations Technical Guidance Document (Part B, 2007). There are a number of different methods for capping of existing walls, which should be discussed with the School prior to completion.
- g. Particular attention should be paid to ensuring that gas, oil and solid fuel appliances are correctly ventilated as per the system supplier's specifications and the Building Regulations (Part J).
- h. Ventilation openings must be checked to ensure there are no obstructions due to the insulant. All flues must also be checked for obstructions using an appropriate test (e.g. smoke test).
- i. An NSAI Agrément Certificate or supplier guarantee must be issued to the school where applicable. Certification is valid once the conditions outlined in the certificate are met.
- j. The Contractor should indicate to the School the methods he intends to use to ensure the successful insulation of the full extent of the cavity wall.

- k. Care must be taken in considering blowing insulation into cavity wall construction which already have partial fill insulation present so that this is not compromised or does not create cavity bridging and voids from displaced insulation boards etc.

**The design and installation of the recommended works must not compromise the ventilation, air quality, humidity (and the potential for condensation) and quality of school internal environment in the school. Particular care must be given to the potential impact on the school internal environment in the school resulting from any measures installed under the Scheme. It is the duty of the Contractor to prevent any detrimental changes to the school internal environment and to recommend to the School any measures necessary to ensure that there is no detrimental change to the school internal environment as a result of the works.**

## **7.2 CEILING LEVEL ATTIC INSULATION**

### **Contractor Requirements & Competency**

Contractors of ceiling level attic insulation must be competent to complete the installation and must agree to complete the work to the standard set out in *Energy-efficient Refurbishment of existing houses* (CE83/GPG155) published by the Energy Savings Trust and installed in accordance with Best Practice Guides/ Technical Guides supplied by the material manufacturer. Where a product is covered by an NSAI Agrément Certificate it must be installed in accordance with this certificate and by such qualified people as specified.

### **Product Standards & Specification**

Materials to be used in the insulation of an attic at ceiling level must be manufactured to a relevant Irish, British or European Standard.

**All attic insulation should be quilted type insulation, blown insulation of any type is not permitted nor will not be funded by the scheme.**

Where insulation already exists in the attic this may be added to, if the existing insulation is not fitted correctly between the roof joists then the contractor must allow for refitting this properly before applying additional new insulation on top. Responsibility for the complete insulation system will rest with the contractor. Finished attics should contain an overall minimum depth of 300 mm of insulation.

**Contractors must ensure that their works maintain any fire barriers and compartmentation that exist including over corridor areas and over areas of special fire risk such as kitchens etc.**

The target U-value for the scheme for attics insulated at ceiling level is, in as much as is physically and economically possible, 0.13 W/m<sup>2</sup>K. Other NSAI Agrément-certified products may also be used. It is the responsibility of the Contractor to ensure that the optimum solution for each School is achieved, within the cost constraints and preference of each School.

The insulation must be suitable for use so that it does not compromise the property's ability to resist internal fire spread within the internal linings and internal fire spread within the structure as per Building Regulations (Amendment) Regulations 2006 (Part B).

When installed as per the system supplier's guidelines, the system should meet the Building Regulations requirements for materials and workmanship (Part D).

The insulation should also be suitable for use on a property and meet the ventilation requirements in the Building Regulations (Part F).

Correct installation should also satisfy the Building Regulations (Part J) where the installation does not increase the risk of the property catching fire through the use of a heat producing appliance.

The insulation system shall conserve energy in keeping with Part L of the Building Regulations.

### **Installation Standards & Specifications**

- a. Attic Insulation should be carried out using materials that are approved by an Irish, British or European Standard for attic insulation and installed in accordance with the relevant Irish, British or European Standards, where available.
- b. Where practicable, all areas of the ceiling are to be insulated to the same depth minimum 300mm.
- c. Mineral wool and other compactable insulation materials should not be compressed as this decreases its effectiveness considerably.
- d. Contractor must maintain a gap at eaves at least equal to a continuous strip 10mm wide to ensure adequate ventilation. In the case where breathable roofing felt is used the eaves gap can be filled.
- e. Installing an airtight membrane at ceiling level is recommended where possible.
- f. To maintain a high level of insulation under any flooring, where flooring is required or is being retained by the School there are two choices:
  - Floor joists are installed on the existing joists at right angles to allow the required thickness of insulation to be laid, with the floor installed above this.
  - Use a solid, closed-cell insulation with a much lower thermal conductivity and install a floor covering on top of this. This results in a lower height of the final floor surface.
- g. It is essential that any heavy-duty cables (e.g. for cookers and showers) are not covered by the insulation material and should instead be left on top of the new insulation, provided there is sufficient slack to do so. Where this is not possible, a gap of at least 75mm should be left either side of the (heavy duty) cables for their entire length within the attic area.
- h. The insulation material shall be retained at a minimum of 75mm from all electrical apparatus penetrating the ceiling, for example recessed lighting fittings. Where necessary a permanent physical restraint shall be used.
- i. Recessed down-lights should be protected in such a way that the insulation does not cover them and that they are adequately ventilated. The Contractor must advise the School of the need to keep the recessed lights clear of insulation.
- j. The Contractor should, where considered appropriate, provide the school with a quotation for the removal and replacement of the stored items to facilitate installation of the insulation material.
- k. The Contractor should identify any form of water penetration in the attic and attic insulation should not be installed if the roof or pipe-work is leaking.
- l. All pipe-work and water storage vessels should be insulated.
- m. No insulation material should be laid below water storage tanks located in the attic space where the underside of the storage tanks is less than 300mm above the finished level of insulation. Where this is the case, the insulation around the water storage tank should continue down to the finished level of the attic to form a skirt around the tank. If the water storage tank is greater than 300mm above the finished

level of the insulation, the insulation should be installed below the tank and the underside of the tank should also be insulated.

- n. The contractor is to insulate the roof access hatch. The insulation is to be fitted to the same thermal value as the main attic and securely fixed to the attic hatch. Where attic access ladders are fixed to the hatch it is recommended to use insulating hoods or a lightweight insulating box where possible.
- o. The Contractor is to draught proof attic hatches.
- p. In every roof space where cold water tanks or other fitted appliances occur, the Contractor must construct a permanent boarded walkway from the roof access point to the tank ball valve position and / or the appliance location. The boarded access walkway shall be constructed of minimum dimensions of 50x50mm soft wood battens laid across rafters, notched over pipes and cable crossings, said battens to be securely screw fixed in place to rafters. 19mm thickness by 450mm wide flooring grade chipboard to be fixed to battens base with screws. This walkway should be supported above the first layer of insulation to prevent any compaction of insulation below the walkway.
- q. Where the attic is used for storage it is strongly recommended that alternative methods for preserving storage space while maintaining high levels of insulation are explored with the School. This would include insulated storage spaces or the provision of storage spaces over rooms least likely to suffer from reduced levels of insulation.

**The design and installation of the recommended works must not compromise the ventilation, air quality, humidity (and the potential for condensation) and quality of school internal environment in the school. Particular care must be given to the potential impact on the school internal environment in the school resulting from any measures installed under the Scheme. It is the duty of the Contractor to prevent any detrimental changes to the school internal environment and to recommend to the School any measures necessary to ensure that there is no detrimental change to the school internal environment as a result of the works.**

#### Final Sign off

The work is specific and straight forward like laying attic insulation and it should be completed within a couple of days. In the circumstances, a consultant is not needed to oversee them. However, an Architect / Engineer/ Building Surveyor is necessary to certify that the works have been properly carried out. Final payment will not issue for the works unless this certificate Document is submitted to the Department.

The Department will cover the cost of a single visit to complete the compliance report up to a maximum of €200.00 plus VAT all inclusive. If due to incompleteness or poor quality of work a second visit is required then this must be borne by contractor and deducted by the school from the final contract payment to the contractor.



MEASURE	Installer Competence	Product Standards & Specification	Installation Standards & Specification
Cavity wall insulation	Irish Agrément Board approved  <a href="http://www.nsai.ie">www.nsai.ie</a>	<ul style="list-style-type: none"> <li>The insulation system must be approved by the NSAI Agrément <a href="http://www.nsai.ie">www.nsai.ie</a></li> <li>Must help achieve a U-value of 0.27 W/m<sup>2</sup>K for external walls ((Building Regulations – Part L) in as much as is physically and economically possible. <a href="http://www.environ.ie">www.viron.ie</a></li> </ul>	<ul style="list-style-type: none"> <li>The insulation system must be installed as per the conditions specified in the NSAI Agrément certificate. <a href="http://www.nsai.ie">www.nsai.ie</a></li> </ul>
Ceiling-Level Attic Insulation	Must be competent to install insulation in accordance with ‘Energy-efficient Refurbishment of existing houses’ (CE83/GPG155) published by the Energy Savings Trust.  <a href="http://www.energysavingtrust.org.uk">www.energysavingtrust.org.uk</a>	<ul style="list-style-type: none"> <li>Must help achieve a U-value of 0.13 W/m<sup>2</sup>K where possible (Building Regulations – Part L).</li> <li>Must not compromise the property’s ability to resist internal fire spread within the internal linings and internal fire spread within the structure (Building Regulations – Part B).</li> <li>Must meet Building Regulations definition of ‘proper materials’ and conform to workmanship standards (Building Regulations – Part D).</li> <li>The insulation should also be suitable for use on a property and meet the ventilation requirements in the Building Regulations (Part F).</li> <li>Installation of the system should not increase the risk of fire in the property due to the use of a heat-producing appliance (Building Regulations – Part J). <a href="http://www.viron.ie">www.viron.ie</a></li> </ul>	<ul style="list-style-type: none"> <li>The insulation must be installed as per ‘Energy-efficient Refurbishment of existing houses’ (CE83/GPG155) published by the Energy Savings Trust.  <a href="http://www.energysavingtrust.org.uk">www.energysavingtrust.org.uk</a></li> </ul>