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ECO4 Innovation: Approved Innovation Measures

Overview

Under ECO4, once an application for a product to be delivered as an innovation measure is approved, we are required to publish a description of the innovation measure, the date on which it was approved, and whether it is a standard or substantial innovation measure. When a product already deliverable as a standard innovation measure is approved to be delivered as a substantial innovation measure, we are required to publish the approval of that substantial innovation measure, and the date on which its application was approved. This is to allow other obligated suppliers delivering measures which meet any innovation measure description to notify them as an innovation measure; and to allow suppliers and the supply chain to understand what innovation measures have already been approved under the scheme.

All approved innovation measures that can be delivered under ECO4 are listed below, including key characteristics, date of approval, whether a standard or a substantial innovation measure, additional requirements, and any products that can be delivered as that innovation measure. This list includes innovation measures approved under ECO3 and ECO4.

When we approve an application for a product already listed under a standard innovation measure to be delivered as a substantial innovation measure, we will create a new innovation measure number and description for that product. Any other products that were listed under the standard innovation measure will remain there unless it is demonstrated that they also fall within the measure description of the new substantial innovation measure.

It is the responsibility of each supplier to understand the provisions of the Electricity and Gas (Energy Company Obligation) Order 2022 (the ECO4 Order) and how those provisions apply to them. This document is not intended to be a definitive guide to these provisions.

All innovation measures must be installed in accordance with PAS 2030:2019 or MCS standards and PAS 2035:2019 (unless approved as certified by an organisation accredited

to ISO/ IEC 17065:2012). Additionally, all innovation measures must be lodged with TrustMark (or an equivalent) and delivered by TrustMark (or an equivalent) registered businesses. Innovation measures must be installed in accordance with Building Regulations and any relevant Agrément certificate listed under "Product(s) meeting description" in the tables below. It is the responsibility of the Retrofit Coordinator overseeing a project and installers, to ensure that innovation measures are installed in accordance with required standards and ECO requirements. Approval of any innovation measure does not constitute confirmation that installation method processes and designs provided are fully compliant with the latest requirements as defined in the relevant PAS and any related guidance.

For each innovation measure, we list what evidence suppliers should hold in order to demonstrate that the correct innovation measure has been installed. Typically this will be evidence that a particular product was installed or that a particular process was followed. The evidence outlined within V1.0 is in draft form and may be subject to change in future versions of this document.

Additional information on the suitability of a measure for a given property (eg fire safety testing) or restrictions in the applicability of the measure will be communicated to TrustMark (or equivalent body) and may be stated for that innovation measure below. The Retrofit Coordinator and installers delivering innovation measures are responsible for installations and must satisfy themselves that the measure is suitable for a given property prior to installation. We cannot guarantee any claims made in respect of the innovation measures listed below.

As stated in our ECO4 NMAP Guidance V1.0 (4.11) "Suppliers can apply for products approved as standard IMs to be considered for substantial IM status. For example, ECO3 approved IMs, or ECO4 IMs where additional evidence has been collected to demonstrate a substantial improvement.". An overview of measures which have moved from a standard IM to substantial IM is provided below:

- IM009 has been given a substantial uplift and can now be found under IM017

Innovation Measure Number: "001"

Innovation measure type

External Wall Insulation (EWI)

Date application approved

20/02/2019

Number for notification

001

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The system involves the installation of a new façade, creating a ventilated cavity between the outer surface of the system and the non-combustible blown fibre insulation.

The product is constructed off-site as a kit of parts. The system is designed and manufactured based on a millimetre accurate 3D model generated from a laser scan of the property to which it is being installed.

Product(s) meeting the description

Soltherm Modulus Brick-ID System (KIWA BDA Agrément BAW-21-223-S-A-UK)

Date product approved under IM: 28/11/2022

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Mauer EWI system (KIWA BDA Certificate Number BAW-18-024-S-A-UK) or the Soltherm Modulus Brick-ID System (KIWA BDA Agrément BAW-21-223-S-A-UK).

Evidence type:

1. Photographic evidence mid-install, reflecting new façade and created ventilated cavity.
2. Product/system warranty reflecting ECO household address to which delivered.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "002"

Innovation measure type

Under Floor Insulation (UFI)

Date application approved

22/05/2019

Number for notification

002

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The innovation uses robotics and AI to install underfloor insulation. A robot is inserted into the underfloor void through a small opening in the property. The robot then builds a detailed 3D map of the void space and services. A polyurethane foam is spray applied to the underside of the floor voids, expanding to fill gaps. The robot continuously monitors the thickness of the insulation applied to create a record of each install and to verify installation has been completed correctly.

The installation method reduces disruption for residents and means installation is typically much quicker than traditional methods of under floor insulation.

Product(s) meeting the description

Q-Bot (BBA certificate 17/5440, product sheet 1)

Date product approved under IM: 22/05/2019

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The Q-Bot remote installation has been used to install the insulation (BBA certificate 17/5440, product sheet 1)

Evidence type:

1. 3D map created for individual ECO household address to which measure delivered.
2. Install record and verification for individual ECO household address.
3. Product/system warranty reflecting ECO household address to which delivered.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "003"

Innovation measure type

Smart Thermostat

Date application approved

05/06/2019

Number for notification

003

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The innovation uses GSM connectivity rather than Wi-Fi (which is not universally available), allowing the product to be installed in all households.

The product contains 5 sensors for temperature, motion, light, air pressure and humidity.

The product is a 'fit and forget' product from a resident's perspective. The data collected by the product is compiled with other relevant data to automate and optimise heating settings in a home. The data is also used to provide alerts and KPIs for landlords to support management of the heating needs of their housing stock.

The product includes messaging features allowing landlords to send energy saving tips and advice to residents, schedule appointments, and conduct remote boiler testing.

Product(s) meeting the description

Switchee Smart Thermostats (Gen2 Smart Learning Thermostat and Switchee Econa)

Date product approved under IM: 05/06/2019

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the 'Switchee Smart Thermostat'.

Evidence type:

1. Photographic evidence of delivery of Switchee Smart Thermostat model(s), Gen2 Smart Learning Thermostat and or Switchee Econa, within an ECO project.
2. Product/system warranty reflecting ECO household address to which delivered.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "004"

Innovation measure type

External Wall Insulation (EWI)

Date application approved

01/11/2019

Number for notification

004

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM

Characteristics of innovation measure

The system involves the installation of modular, tongue and groove, pre-primed insulation boards that are mechanically fixed to the property using a rail system. The boards are interlocked and finished with one coat of render that is shower proof in 30 minutes, and can be applied in a range of temperatures from -10°C to + 30°C. The system reduces installation time, and downtime due to inclement weather.

Aerogel is used in window detailing for improved thermal performance.

Product(s) meeting the description

Instaclad (BBA certificate 15/5201, product sheet 1)

Date product approved under IM: 01/11/2019

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Instaclad EWI system (BBA certificate 15/5201, product sheet 1).

Evidence type:

1. Photographic evidence mid-install, reflecting rail system installation and the mechanical fixing of modular, tongue and groove, pre-primed insulation boards.
2. Photographic evidence mid-install, reflecting window detailing employing Aerogel.
3. Product/system warranty reflecting ECO household address to which delivered.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "005"

Innovation measure type

Internal Wall Insulation (IWI)

Date application approved

28/11/2019

Number for notification

005

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The system involves the injection of EPS beads with an adhesive into the cavity between the lath and plaster internal lining and the inner face of the exterior wall of traditionally-constructed properties (or where a property has been refurbished, between the internal plasterboard and the inner face of the exterior wall). A cavity width of at least 50mm is required. Injection holes are drilled in a pre-determined pattern, and the EPS beads are coated with the adhesive in the injection gun.

The system reduces the cost and time taken for installation of IWI. Disruption to the householder is also reduced, and there is no impact on the room size.

Product(s) meeting the description

Energystore Superbead (KIWA BDA cert BAW-19-106-S-A-UK)

Date product approved under IM: 28/11/2019

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is Energystore Superbead injected EPS (KIWA BDA cert BAW-19-106-S-A-UK).

The cavity depth has been measured at several points along each wall to obtain an average insulation thickness and the average cavity depth employed for determining the insulation thickness for measure delivery.

Evidence type:

1. Product/system warranty reflecting ECO household address to which delivered.
2. Retainment of measurements of cavity depth, carried out at several points, reflecting the determined average cavity depth for determining insulation thickness for EPS 200.
3. Photographic evidence mid-install of pre-determined drill pattern prior to EPS injection.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "006"

Innovation measure type

Party Cavity Wall Insulation (PWI)

Date application approved

05/02/2020

Number for notification

006

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The system involves the injection of EPS beads with an adhesive into party cavity walls. Injection holes are drilled in a pre-determined pattern in the exterior wall of the property, with no internal drilling required in the loft space. The EPS beads are coated with the adhesive in the injection gun. The drilling technique uses a lance system, with a 360 multidirectional nozzle resulting in a reduced drilling pattern, allowing deployment in a greater range of properties for which the entry points for standard drilling techniques are obstructed by an object on the exterior wall.

There is less disruption to the householder as no internal drilling is required. The speed of installation is reduced by over 50% compared to standard PCWI, and the EPS beads provide greater thermal efficiency over mineral wool.

Product(s) meeting the description

Climabead Party Wall (KIWA BDA cert BAW-18-043-S-A-UK)

Date product approved under IM: 05/02/2020

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is Climabead party cavity wall insulation (KIWA BDA cert BAW-18-043-S-A-UK).

The loft space in all party cavity walls has been filled.

Evidence type:

1. Product/system warranty, including for loft space associated with filled party cavity walls, reflecting ECO household address to which delivered.
2. Photographic evidence mid-install of pre-determined drill pattern in external wall, reflecting the party wall, prior to EPS injection.

Limitations/ Applicability of IM

This measure is only an innovation measure in properties where the cavity extends to the full height of the gable wall. In other properties it is considered a standard party PWI measure

Innovation Measure Number: "007"

Innovation measure type

External Wall Insulation (EWI)

Date application approved

19/02/2020

Number for notification

007

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The EWI system is comprised of mineral wool insulation slabs which are mechanically fixed to the substrate wall with supplementary adhesive. The mechanical fixing goes through two crossed fibreglass mesh strips which are embedded in the base coat adhesive. The Soltherm cross knot is combined with the clamping ring, and stainless steel centre pin fixings. The fibreglass mesh is also used at corners and insulation ends to reinforce insulation fixing. This fixing method enables an increased resistance to wind loads, and reduces delamination.

The system was subjected to extensive testing to demonstrate a lifetime of 75 years.

Product(s) meeting the description

Soltherm 75 (BBA Certificate 18/5557, Product Sheet 4)

Date product approved under IM: 19/02/2020

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is Soltherm 75 (BBA Certificate 16/5319, product sheet 4).

Evidence type:

1. Product/system 75-year manufacturer's warranty reflecting ECO household address to which delivered.
2. Mid-install photographic evidence, reflecting mechanical fixing of mineral wool insulation slabs through two crossed fibreglass mesh strips.
3. Mid-install photographic evidence, reflecting fibreglass mesh employment at corners and insulation ends.
4. Assessment details determining EPS EWI as unsuitable for the ECO household address.

Limitations/ Applicability of IM

This measure is only an innovation measure in properties for which EPS EWI is unsuitable.

The standard 25-year appropriate guarantee will be sufficient for ECO4 eligibility; however, a 75-year manufacturer's warranty must also be provided to the householder to be eligible as an innovation measure.

Innovation Measure Number: "008"

Innovation measure type

Smart Thermostat

Date application approved

24/03/2020

Number for notification

008

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The product is a smart thermostat with an algorithm that automatically reduces the temperature based on the customer's own requirements, with the aim of setting a more efficient heating schedule. A series of very small adjustments to the scheduled target temperatures are made when the occupant is least likely to notice any drop in temperature. The algorithm runs for a three week period at the start of the heating season, and aims to maintain the more energy efficient heating schedule going forward. Customers are offered the program on their thermostat or phone app and must opt-in to participate. The algorithm learns from any temperature corrections made by the occupant and adjusts the incremental reductions accordingly. Following the implementation of the algorithm, the user retains full ability to overwrite or edit their schedule and set heating points through their thermostat or phone app.

To minimise any risk to households vulnerable to the effects of cold, the algorithm will automatically not be deployed to customers / thermostats where the demand

temperature set by the customer is 18°C or below. The algorithm will also never change the heat setting by more than 1°C.

Product(s) meeting the description

Nest Thermostats with Seasonal Savings algorithm (Nest Learning Thermostat and Thermostat E)

Date product approved under IM: 24/03/2020

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Nest Learning Thermostat or Thermostat E.

Evidence type:

1. Photographic evidence of delivery of Nest Thermostats with Seasonal Savings algorithm model(s), Nest Learning Thermostat and or Thermostat E, within an ECO project.
2. Product/system warranty reflecting ECO household address to which delivered.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "010"

Innovation measure type

Room in Roof Insulation (RIRI)

Date application approved

01/07/2020

Number for notification

010

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

This is a certified room in roof thermal insulation layer envelope and plasterboard lining system, which comprises of a range of flexible and rigid thermal insulation products of various specifications, together with associated fixings, sealant and accessories. The system is for use as a complete thermal insulation envelope of existing room in roof spaces with consideration to the existing buildings ventilation and condensation performance through a pre-design survey.

The thermal roof elements include masonry gable ends, party walls, common walls, dwarf walls, sloping ceilings, flat ceilings above the roof space, dormer window surrounds and residual loft spaces. A water-repellent brick protection treatment is also applied to the outside of masonry gable or common walls. The components used along with a systemised approach provide improved airtightness and thermal performance compared to standard room in roof insulation.

Product(s) meeting the description

MI Systems Design RIRI (BDA Agrément BAR-19-116-S-A-UK)

Date product approved under IM: 01/07/2020

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the MI Systems Design RIRI (BDA Agrément BAR-19-116-S-A-UK).

Evidence type:

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Photographic evidence, reflecting the RIRI completion certificate as being stapled to the loft roof, stating the pre-approval number of the system installation.
3. Documentation reflecting system delivery costings, including the usage of the Stromdry product within the external gable wall of the RIR.
4. Mid-install photographic evidence, reflecting correct sealing of the RIRI system.
5. Post-install photographic evidence, reflecting insulation of the studwork heads.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "011"

Innovation measure type

External Wall Insulation (EWI)

Date application approved

29/07/2020

Number for notification

011

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The system involves an EWI product for which 50% of installations will be subject to independent technical monitoring using the ECO technical monitoring question set, along with the implementation of a planned inspection and maintenance programme.

The EWI is adhesively and mechanically fixed through reinforcement mesh using high performance anchors, with mesh patches applied over the fixing heads and fully embedded. Stainless steel grade components are used for mechanical fixings, starter track, render stop ends and corner beads. Stainless steel base and corner profiles are also used.

The inspection and maintenance programme is conducted by a suitably qualified third party. The first inspection is conducted within the first 12 months following installation. Subsequent inspections are conducted every five years from the date of the last inspection for a 25 year period. Any maintenance or repairs identified

during these inspections will be rectified at no cost to the homeowner, with the exception of wilful / accidental damage and / or vandalism.

These features increase the durability of the product, and quality of installations.

Product(s) meeting the description

Wetherby EWI ("60 years" durability system in BBA certificate 03/4058, product sheet 2 & 3; 09/4625 product sheet 2)

Date product approved under IM: 29/07/2020

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Wetherby EWI ("60 years" durability system in BBA certificate 03/4058, product sheet 2 & 3; 09/4625 product sheet 2).

Evidence type:

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Mid-install photographic evidence, reflecting BBA specified stainless steel anchor fixings being employed and placed through the mesh layer of the system.
3. Mid-install photographic evidence, reflecting BBA specified board fixing sequence for system delivery.
4. Documentation demonstrating at least one carded operative, trained in the specific 60-year lifetime application method, is present on the delivery site for every four operatives.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "012"

Innovation measure type

Boiler

Date application approved

20/11/2020

Number for notification

012

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The product is a domestic sized micro Combined Heat and Power (mCHP) unit that contains a low temperature fuel cell, which extracts hydrogen from natural gas to generate electricity at a lower cost. The waste heat can be used for central heating, or stored in the DHW cylinder contained within the unit. The gas condensing module primarily serves to provide heat during times of peak demand.

The mCHP unit also includes a weather-compensated control unit which can be controlled from the device, or connected to the internet and controlled via a smartphone.

Installations under ECO include a free 10 year service package, which will increase the durability of the product.

These features increase the durability of the product, and quality of installations.

Product(s) meeting the description

Viessmann Vitovalor 300PT2 - E11T/ E19T / E25T / E32T

Date product approved under IM: 20/11/2020

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Viessmann Vitovalor 300PT2 - E11T/ E19T / E25T / E32T.

Evidence type: Photographic evidence

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. MCS certification for individual ECO household address to which measure delivered.
3. Documentation reflecting the ECO inclusive, free 10 year service package, has been provided to householders.

Limitations/ Applicability of IM

Installations under ECO, for this measure, include a free 10-year service package.

Innovation Measure Number: "013"

Innovation measure type

Solar PV

Date application approved

11/02/2021

Number for notification

013

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The system consists of MCS certified monocrystalline PV modules, with optimiser units built in during the manufacturing process to ensure quality and consistency. The optimised panel offers an increase in electricity production, by allowing generation to continue if part of the string or array is shaded, or develops a fault. Systems can be installed using multiple roof angles and orientations. The addition of the optimiser allows PV installations in properties that may previously have been unsuitable due to shading.

The optimiser results in a reduction of any fire risk from the panels, which will be disconnected if the optimiser identifies a fire, or risk of a fire occurring due to a fault. The system will function without the need for any connection to the internet, however, optional connectivity is available so the occupant or landlord can monitor the system remotely, and receive automatic notifications of any faults that occur. The system has a 25 year manufacturer's warranty.

Product(s) meeting the description

UKSOL Optimised PV, model numbers: UKS - 6M30-OP / 6MB30-OP; UKS - 6M-OP / 6MB-OP / UKS-SM144-OPT.

Date product approved under IM: 11/02/2021

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The panels installed are UKSOL Monocrystalline with Tigo optimisers, as visible from the UKSOL/Happy Energy hologram sticker on the inverter.

Evidence type: Photographic evidence

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Documentation reflecting the capacity of solar and the underlying assessment, measured in kWp for ECO household to which delivered.
3. Photographic evidence of product installed in ECO household.
4. MCS certification for ECO household connected to the solar PV array.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "014"

Innovation measure type

Room in Roof Insulation (RIRI)

Date application approved

11/02/2021

Number for notification

014

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The product is a Room in Roof Insulation (RIRI) system comprised of Aerogel insulants to reduce the thickness of the insulation boards, and pre-fabricated insulated services panel to reduce cold bridging around services.

Aerogel insulation is used for the entirety of the RIRI installation, including the pre-fabricated services panel. The low thermal conductivity of Aerogel significantly reduces the thickness required to achieve the appropriate U-value, and increases the range of properties by enabling installation where space is limited.

The pre-fabricated services panel is an 'insert panel' insulated with Aerogel. It is manufactured off-site for socket boxes and switches, with cables running through a protected conduit. The services panel reduces any thermal bridging behind lighting, power, data & TV sockets, and improves the quality of the installation.

Each installation will be also supported by an individual assessment using WUFI® software, which dynamically predicts moisture movement and storage as well as condensation for each location.

Product(s) meeting the description

Smart Fix Systems RIRI (Aerogel) (BBA certificate 16/5290; ETA-11/0471; EN13162)

Date product approved under IM: 11/02/2021

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The RIRI has been insulated with Aerogel and the service panels.

Evidence type:

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Mid-install photographic evidence, reflecting delivery of aerogel insulants in combination with insulation boards, and pre-fabricated insulated service panels.
3. Mid-install photographic evidence, reflecting boards butted together with no gaps at abutments.
4. Documentation reflecting the fabrication of the pre-fabricated insulated service panels for individual ECO households.
5. Documentation reflecting individual ECO household assessment of suitability, employing WUFI® software.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "015"

Innovation measure type

External Wall Insulation (EWI)

Date application approved

22/02/2021

Number for notification

015

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The product is an EWI system with adhesively fixed 'Fire Safe Composite' (FSC) panels with supplementary mechanical fixings, both with a reinforced basecoat and render finishes. The system is designed so that the external layers (basecoat, reinforcing mesh, and render) are permanently connected to the substrate through the mesh and adhesive.

The FSC panels are made up of grey EPS boards adhered together with cementitious adhesive and reinforced with an alkali-resistant glass fibre mesh. The FSC panels are marketed at reducing fire spread across the EWI in comparison to standard EPS, PIR and PUR panels, by compartmentalising any fire which does occur. This is intended to lead to improved quality and fire safety in comparison to standard EPS EWI systems.

Please note the system is not certified for use in high rise buildings, and a suitably qualified operative should satisfy themselves of the suitability of the product in regards to fire safety for low rise buildings.

Product(s) meeting the description

Soltherm FSC (Soltherm P EWI system using FSC panels (BBA certificate 18/5557, product sheet 3)

Date product approved under IM: 22/02/2021

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Soltherm P EWI system using FSC panels, as described in BBA certificate 18/5557, product sheet 3.

Evidence type:

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Mid-install photographic evidence, reflecting delivery of FSC panels, grey EPS boards adhered together with cementitious adhesive and reinforced with an alkali-resistant glass fibre mesh, as specified within BBA certification.

Limitations/ Applicability of IM

The system is not certified for use in high rise buildings, and a suitably qualified operative should satisfy themselves of the suitability of the product in regard to fire safety for low rise buildings.

Innovation Measure Number: "016"

Innovation measure type

Smart Thermostat

Date application approved

24/01/2022

Number for notification

016

Innovation measure type/uplift

Standard innovation measure/25%

Awarded supplier uplift

N/A (ECO3-approved IM)

Characteristics of innovation measure

The product is a smart thermostat with a programmable thermostatic display interface and an app, which can be used via two connectivity modes, WI-FI and Bluetooth Low Energy (BLE). The system detects the communication modes available and automatically connects to the most suitable, without requiring any manual input from the user, thereby enabling the householder to continue to set and change heating schedules and operate heating controls if one connectivity mode drops.

The programmable interface has an unreplaceable battery with a twelve-year manufacturer's warranty, therefore in a similar manner to wired smart thermostats, battery changes are not required throughout the lifetime of the device.

To minimise risks related to system or battery failures, the programmable thermostatic display can be overridden, allowing householders to continue to operate their heating system in a basic on/off manner.

Product(s) meeting the description

Secure Meters C1727 Smart Thermostat

Date product approved under IM: 24/01/2022

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

The product installed is the Secure Meters Smart Thermostat model C1727.

Evidence type:

1. Photographic evidence of delivery of Secure Meters Smart Thermostat model C1727, within an ECO project.
2. Product/system warranty reflecting ECO household address to which delivered.
3. Evidence suitable handover has been carried out with household(s), ensuring they can connect to the Secure Meters Smart Thermostat app via Wi-Fi. This could be demonstrated as part of a handover checklist.

Limitations/ Applicability of IM

None specified

Innovation Measure Number: "017"

Innovation measure type

Cavity Wall Insulation (CWI)

Date application approved

16/12/2022

Number for notification

017

Innovation measure type/uplift

Substantial innovation measure/45%

Awarded supplier uplift

EDF Energy

Characteristics of innovation measure

The system involves the injection of mineral wool insulation into cavity walls in properties over 5 storeys using a rope access installation technique. The insulation is comprised of granulated glass mineral wool fibres, treated with an inert water repellent during manufacture. The rope access installation technique is an alternative to the use of scaffolding, and involves the use of ropes and associated equipment to gain access to and from the required work position on the external wall of the building, and be supported there. The rope access technicians are members of IRATA, and box testing is used to ensure the pressure is correct for adequate fill of each storey. The installation technique has been adapted to enable mineral wool CWI to be installed.

The rope access technique reduces the installation time and costs associated with installing CWI in high rise properties, as scaffolding is not required. The use of mineral wool insulation meets the fire safety regulations for buildings over 18m

high, in line with Building Regulations 2010, Fire Safety Approved Document B, 2019 edition.

Product(s) meeting the description

ARP CWI (BBA certificate 89/2294, product sheet 2. KIWA BDA Certificate Number BAW-17-071-S-A-UK)

Date product approved under IM: 16/12/2022

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

Suppliers to evidence the CWI mineral wool product has been delivered by rope access.

Evidence type: Photographic evidence of delivery, CWI mineral wool product invoices from project delivery

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Photographic evidence of rope access being employed for CWI delivery.
3. Document retention, reflecting building height for which this measure has been delivered.

Limitations/ Applicability of IM

Delivery of measure as an innovation measure only where building block is above 4 stories high.

This measure was previously approved under ECO3 for a 25% uplift. If this measure is installed under ECO4 before the 16/12/2022 it should be notified as IM 009 and will receive a 25% uplift, with no supplier uplift award.

Innovation Measure Number: "018"

Innovation measure type

Solar PV

Date application approved

21/12/2022

Number for notification

018

Innovation measure type/uplift

Substantial innovation measure/45%

Awarded supplier uplift

E.ON Energy

Characteristics of innovation measure

The system connects up to 15 flats with single-phase output connections, with each flat allocated a set proportion of the system's total generated electricity. Each flat is connected behind the meter. The system allocates electricity to individual flats according to real time consumption, up to each flats' allocation, by way of the system housing multiple switches (one per connection), that are controlled by onboard software, that monitors individual energy demand for each flat. Solar energy delivery and optimisation is automated. Householders are able to export excess solar energy.

The system guarantees that there is no possibility of the crossflow of energy between connections behind-the-meter, and it does not allow for faults to transfer between connections behind-the-meter. The system meets grid interconnection standards for the United Kingdom and solar PV systems are MCS certifiable.

The system comes with a 10 year parts and labour warranty. The measure is provided with 10 years fault monitoring at no cost, with any faults associated with the system under correct installation repaired at no cost to the system owner or households connected. Data packages can be offered to the system owner at either a cost or at no cost, and are optional.

Product(s) meeting the description

Allume Energy's SolShare, model number SOLSHARE-3P-XX-YY

Date product approved under IM: 21/12/2022

Suppliers are required to retain evidence that demonstrates this IM has been installed, such as:

Evidence to be held by Suppliers that IM installed

Allume Energy's Solshare system, model SOLSHARE-3P-XX-YY has been installed.

Each flat connected to the system has an MCS certificate that details the exact capacity of solar, measured in kWp, that is attributed to it.

Evidence type:

1. Product/system warranty reflecting ECO household address to which measure delivered.
2. Documentation reflecting the exact capacity of solar and the underlying assessment, measured in kWp, for each individual flat connected to the system.
3. Photographic evidence of product installed in flat blocks.
4. MCS certification for each household connected to the shared solar PV array.

Limitations/ Applicability of IM

To qualify for the innovation measure uplift, the system must connect two or more households.