Guidance

Energy Company Obligation (ECO4) Guidance: Delivery V1

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This guidance sets out Ofgem's procedures for administering the Electricity and Gas (Energy Company Obligation) Order 2022.[1] ECO places legal obligations on energy suppliers to deliver energy efficiency measures to domestic premises. Each supplier has an obligation target based on its share of the domestic energy market in Great Britain.

Guidance on the ECO4 scheme is provided in the following documents: The ECO4 Guidance: Delivery, ECO4 Guidance: Supplier Administration, ECO4 Guidance: Local Authority Administration, ECO4 Guidance: New Measures and Products, and ECO4 Guidance: Monitoring. The ECO4 Guidance: Delivery is aimed at suppliers and the broader supply chain, describing how to deliver measures that are eligible to count towards the ECO target. It details how a supplier achieves its obligation and which measures are eligible under ECO, as well as the criteria that must be met for each measure. Information on how ECO savings are determined, how to notify completed measures and the monitoring process is also included.

[1] Referred to in this guidance as the 'ECO4 Order'.

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About this Guidance

Energy efficiency and decarbonisation of domestic homes is a key Government policy for reducing the United Kingdom's (UK) carbon emissions. This policy contributes to the Government's strategy to reach net zero by 2050.[2]

The Energy Company Obligation (ECO), first introduced in 2013, is an energy efficiency scheme for Great Britain. ECO places legal obligations on energy suppliers to deliver energy efficiency measures to domestic premises. It focuses on low-income and vulnerable and fuel-poor consumer groups through the installation of insulation and heating measures. ECO aims are as following:

a) help alleviate fuel poverty and accelerate progress to meet fuel poverty targets

b) contribute to carbon reduction targets in the domestic sector

c) reduce the costs of meeting the UK's renewable energy target through promoting more efficient energy use, and

d) encourage innovation in the industry

An obligation has been outlined under the Electricity and Gas (Energy Company Obligation) Order 2022 (referred to in this guidance as the 'ECO4 Order'), and the scheme that runs during this period is called 'ECO4'. The ECO4 scheme, which will run until 31 March 2026, will focus on low income and vulnerable households and improving the least energy efficient homes, helping to meet the Government's fuel poverty and net zero commitments.

Ofgem (the Office of Gas and Electricity Markets) is the administrator of the ECO scheme. This document provides guidance on how Ofgem ('we', 'our' and 'us' in this document) will administer the scheme, in line with the requirements of the ECO4 Order.[3] **This guidance applies to all measures installed under ECO4 from 1 April 2022.**

The ECO4 scheme consists of two sub-obligations and energy suppliers must achieve a total of £224.3 million in annual bill savings under the Home Heating Cost Reduction Obligation

[2] Net Zero Strategy: Build Back Greener (October 2021) https://www.gov.uk/government/publications/net-zero-strategy
[3] For the ECO4 Order see https://www.legislation.gov.uk/uksi/2022/875/contents/made

(HHCRO). The target is divided between suppliers based on each supplier's relative share of the domestic gas and electricity market.

The HHCRO target must be achieved no later than 31 March 2026.

To help users of our guidance, we have split it into six parts:

a) **ECO4 Guidance: Delivery** – aimed at suppliers and the broader supply-chain, describing how to deliver measures that are eligible to contribute towards meeting the ECO targets. Suppliers can use the ECO4 Guidance: Delivery for information on ECO4 Flex.

b) **ECO4 Guidance: Supplier Administration**[4] – aimed mainly at suppliers, describing the processes that suppliers and Ofgem follow to meet the requirements of the ECO4 Order.

c) **ECO4 Guidance: Local Authority Administration**[5] – aimed at Local Authorities and Devolved Administrations, describing how to identify and refer households for the ECO4 Flex scheme, publish Statements of Intent and submit Declarations.

d) **ECO4 Guidance: New Measures and Products**[6] – aimed at suppliers and the broader supply chain, describing how to apply for and deliver standard alternative methodologies, data light measures, and innovation measures.

e) **ECO4 Guidance: Draft Interim Delivery**[7] - aimed at suppliers and the broader supply chain, describing how measures were able to be delivered during the interim period between ECO3 and ECO4 according to this policy to count towards the ECO4 Obligation.

[4] https://www.ofgem.gov.uk/cy/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents
[5] https://www.ofgem.gov.uk/publications/eco4-guidance-local-authority-administration
[6] https://www.ofgem.gov.uk/publications/energy-company-obligation-2022-26-eco4-guidance-new-measures-and-products
[7] https://www.ofgem.gov.uk/publications/draft-eco4-guidance-interim-delivery (only published as draft)

f) **ECO4 Guidance: Monitoring**[8] – aimed at suppliers, outlining monitoring requirements and expectations on quality assurance and score monitoring inspections on ECO measures to ensure the required standards of installation are met and measures are scored accurately.

This document (ECO4 Guidance: Delivery) addresses the following:

a) How a supplier achieves its obligation

b) Specific requirements relating to eligibility of households

c) Measures eligible under ECO and the criteria that must be met

d) How ECO savings are determined, including information on partial project and full project scores

e) How measures are notified and the information we require

f) The technical and score monitoring requirements that suppliers must meet

g) The auditing and counter-fraud processes that suppliers will be subject to

h) Supporting information contained in appendices.

It is the responsibility of each supplier to understand the provisions of the ECO4 Order and how those provisions apply to it. This guidance may be used by suppliers, members of the supply-chain and local authorities, but it is not intended to be a definitive guide to the statutory instrument. A supplier is responsible for ensuring that it, and any member of the supply-chain acting on its behalf, complies with the applicable requirements of the law and industry standards.

[8] The ECO4 Guidance: Monitoring will be published soon and will be available on the following website https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents

Useful links

The Electricity and Gas (Energy Company Obligation) Order 2022
https://www.legislation.gov.uk/ukdsi/2022/9780348236606/part/1

Government response to the Energy Company Obligation (ECO4: 2022 – 2026) consultation
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

Department of Business, Energy & Industrial Strategy (BEIS) ECO4 consultation: final impact assessment
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065825/eco4-final-ia.pdf

ECO4 Guidance: Supplier Administration
https://www.ofgem.gov.uk/publications/draft-energy-company-obligation-eco4-guidance-supplier-administration-v01

ECO4 Guidance: Local Authority Administration
https://www.ofgem.gov.uk/publications/final-eco4-guidance-local-authority-administration

ECO4 Guidance: New Measures and Products
https://www.ofgem.gov.uk/publications/draft-energy-company-obligation-eco4-guidance-new-measures-and-products-nmap-v01

ECO4 Guidance: Interim Delivery
https://www.ofgem.gov.uk/publications/draft-eco4-guidance-interim-delivery

ECO4 Data Dictionary
https://www.ofgem.gov.uk/publications/eco4-supplier-data-dictionary

1. Introduction

1.1. The Energy Company Obligation (ECO), first introduced in 2013, is an energy efficiency scheme for Great Britain that places legal obligations on energy suppliers to deliver energy efficiency measures to domestic premises.

1.2. The ECO1 scheme ran between 1 January 2013 and 31 March 2015. The ECO2 scheme then ran from 1 April 2015 to 31 March 2017. This scheme was then extended to run from 1 April 2017 to 30 September 2018 and was referred to as ECO2t. The ECO3 scheme ran from 3 December 2018 to 31 March 2022. Further arrangements were added to the ECO3 scheme under an amendment to the ECO3 Order, referred to as the ECO3.1 Order, which applied from 1 January 2020 until the end of ECO3.

1.3. A new obligation period has been established under the ECO4 Order[9], and the scheme that runs during this period is called 'ECO4'. The overall obligation period for ECO4 runs from the commencement date of the ECO4 Order on 27 July 2022 to 31 March 2026 and is split into four phases. Ofgem will administer the scheme in line with the requirements of the ECO4 Order.

1.4. ECO4 is comprised entirely of a single obligation – the Home Heating Cost Reduction Obligation (HHCRO). This aims to reduce home heating costs for low-income, fuel poor and vulnerable people, and is designed as a fabric first multiple measure whole-house retrofit policy with the aim to encourage the installation of insulation, renewables and district heating connections as well as upgrading inefficient heating systems.[10] Furthermore, it incorporates the replacement of broken heating systems and the upgrade of inefficient heating systems.

1.5. The ECO4 Order sets an overall target of HHCRO of £224.3 million in notional annual bill savings. For each phase of ECO4, a supplier is allocated a proportion of the overall obligation depending on its relative share of the gas and electricity market. A supplier must achieve its obligations no later than 31 March 2026. A supplier achieves its obligations by promoting qualifying actions ('measures') at domestic premises.

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[9] https://www.legislation.gov.uk/uksi/2022/875/contents/made
[10] See PAS 2035:2019, Paragraph 5.4 for a detailed explanation of the fabric first approach, which prioritizes improvements in five stages https://shop.bsigroup.com/products/retrofitting-dwellings-for-improved-energy-efficiencyspecification-and-guidance-3/standard

1.6. Compared to previous ECO schemes, ECO4 focusses on improving the least energy efficient homes as only properties in band D-G can be treated. It also requires a more complete upgrade of those homes, shifting to a multi-measure whole-house retrofit approach. Furthermore, a minimum number of private tenure homes in energy efficiency rating band E, F and G must be upgraded throughout ECO4, ensuring the least efficient homes are treated.

1.7. There is a new Minimum Requirement (MR) to improve the energy efficiency rating of band D and E homes to at least a band C, and band F and G homes to at least a band D. This approach increases the number of measures installed per home and the savings for the household and reduces the need for future upgrades to those properties.

The ECO4 Guidance

1.8. This guidance details our administrative processes for ECO4 and sets out the requirements for all obligated suppliers in accordance with the ECO4 Order. Where a supplier fails to meet the requirements of the ECO4 Order, we may take enforcement action.

1.9. We consider that there is a hierarchy of documents that we follow to support our administrative approach:

a) All existing wider legislation including the ECO legislation

b) Ofgem guidance and any guidance produced by BEIS

c) Any requirements of specifications referred to in legislation, eg Publicly Available Specification (PAS), Heat Trust requirements, TrustMark, Microgeneration Certification Scheme (MCS), Gas Safe, Building Regulations, etc.

d) Other specifications and guidance not directly specified in legislation.

Information gathering powers

1.10. We use our information gathering powers under the ECO4 Order to require suppliers to provide us with information. We may require a supplier to:

a) Provide specific information about its proposals for complying with any requirement under the ECO4 Order;

b) Produce specific evidence to demonstrate that it is complying with, or that it has complied with any requirement under the ECO4 Order; and

c) Provide information relating to the cost to the supplier of achieving its obligations.

Queries and further information

1.11. For further information on our administration of ECO, please visit our website: https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco. Any queries about our guidance or the administration of the ECO scheme should be directed to ECO@ofgem.gov.uk.

1.12. For further advice regarding energy efficiency, including ECO, visit the following: https://www.simpleenergyadvice.org.uk/.

1.13. For further information on TrustMark, please refer to: https://www.trustmark.org.uk/. Queries about the TrustMark Framework should be directed to eco@trustmark.org.uk

1.14. Please direct any queries about the ECO4 Order, future changes to the ECO scheme and wider policy to the Department for Business, Energy and Industrial Strategy (BEIS) at beisecoteam@beis.gov.uk.

2. Obligations

ECO obligations

2.1. ECO4 has one overarching obligation: the Home Heating Cost Reduction Obligation (HHCRO), and two sub-obligations (Solid Wall Minimum Requirement (SWMR) and EFG minimum). To meet the HHCRO, suppliers must deliver measures to eligible ECO domestic premises. This section explains the overall ECO4 obligation, the obligation for each phase, when a supplier is obligated, and individual supplier obligations. It also gives an overview of ECO4 rules including eligibility and installation requirements for different Standard Assessment Procedure, (SAP) band properties.

2.2. The overall obligation period for ECO4 runs from the commencement of the ECO4 Order on 27 July 2022 to 31 March 2026 and is split into four phases:

- **Phase 1:** 27 July 2022 to 31 March 2023
- **Phase 2:** 1 April 2023 to 31 March 2024
- **Phase 3:** 1 April 2024 to 31 March 2025
- **Phase 4:** 1 April 2025 to 31 March 2026

We are required to determine a supplier's obligation for each of these phases.

2.3. A supplier's total obligation is determined by adding together their obligations for each phase. They must meet their total obligation by the end of the scheme (31 March 2026).

2.4. A licence-holder is a participant in relation to a phase if the supplier or a member of a supply group:

a) Supplies 300 gigawatt hours or more of electricity in the qualification year for that phase; and supplies electricity or gas to 150,000 or more domestic customers (dual fuel customers are counted twice) at the end of that qualification year, or

b) Supplies 700 gigawatt hours or more of gas in the qualification year for that phase; and supplies electricity or gas to 150,000 or more domestic customers (dual fuel customers are counted twice) at the end of that qualification year, or

c) Was a participant in relation to the preceding ECO4 phase.

Solid wall minimum requirement

2.5. To meet this requirement, suppliers must install external or internal solid wall insulation (SWI) in eligible solid wall premises. For premises, excluding mobile homes, to count as solid wall premises, and therefore be eligible to count towards the SWMR, at least 50% of the premises exterior wall area must be constructed of solid wall, and at least 50% of the solid wall area must be uninsulated.

2.6. The SWMR target under ECO4 is an equivalent of 90,000 measures throughout the scheme. The SWMR for a supplier will be equal to one SWI measure per £2,492 of their HHCRO.[11]

Private tenure EFG homes

2.7. Suppliers must upgrade a minimum equivalent of 150,000 private tenure band E, F and G homes under ECO4. Private tenure refers to properties which are either owner-occupied (OO) or private rented sector (PRS).

2.8. Minimum upgrade requirements for all bands are described from paragraph 4.23.

Promotion of a qualifying action

2.9. A qualifying action is the installation of a measure at domestic premises that meets the eligibility criteria specified in the ECO4 Order. The act of promotion is therefore linked to the act of installing a measure that results in the reduction in the cost of heating premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas and is completed on or after 1 April 2022 and before 1 April 2026. A supplier promotes the installation of a measure if it is the cause of that measure being installed. Only one supplier may be credited with the savings arising from a measure.

2.10. The clearest means of promotion is if a supplier contracts an installer to carry out the installation of a measure. However, the fact that a supplier has funded all or part of

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[11] As per ECO4 government response, £2,492 is based on the total HHCRO obligation £224.3 million divided by 90,000 SWI measures.
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

the installation of a measure is sufficient to establish that the supplier was a cause of that measure being installed.

2.11. A supplier cannot partially or wholly fund a measure with funding from other government schemes or grants.

2.12. Suppliers will also be able to transfer measures until 30 June 2026. This means that the supplier 'B' notifying the measure might not be the supplier that originally promoted the measure. In this scenario the supplier 'B' that notifies the measure must be able to provide on request evidence that the supplier 'A' was the cause of the measure being installed. Measures promoted by a supplier that has exited the market cannot be notified by another supplier.

2.13. Suppliers may also transfer measures to another obligated supplier if all measures that are linked in a project are transferred together. Qualifying actions include a package of measures associated with a full project score or a package of measures associated with a partial project score. All measures in each project would need to be transferred together as a package, including associated in-fill measures. Similarly, if in-fill measures are transferred, then all the measures of the project, which are primary measure, should also be transferred.

Interim Delivery

2.14. ECO3 Interim Delivery allowed suppliers to deliver to ECO3 rules and ECO3 scoring methodology for three months between 1 April 2022 until 30 June 2022. For further information on ECO3 Interim Delivery see our draft ECO4 Guidance: Interim Delivery[12] and our ECO4 Guidance: Supplier Administration[13] for further information on the administration of ECO3 Interim Delivery as part of the ECO4 obligation.

Overview of ECO4 rules

2.15. Table 1 provides an overview of the ECO4 rules concerning eligibility, tenure, starting SAP ratings and other rules for different eligible tenure types.

[12] See https://www.ofgem.gov.uk/publications/draft-eco4-guidance-interim-delivery
[13] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents

2.16. The acronyms referred to in Table 1 are explained below:

- CWI - cavity wall insulation
- DHC – district heating connection
- DLMs – data light measures
- ECO4 Flex – flexible eligibility
- FTCH – First time central heating
- HTHG – help to heat group
- HWI – hybrid wall insulation
- IMs – innovation measures
- MIR – Minimum insulation requirement
- OO – owner occupied
- PRS – private rented sector
- SAM - standard alternative methodology
- SH – social housing
- SWI - solid wall insulation

Table 1: Overview of ECO4 rules across eligibility, tenure, starting SAP ratings and other rules

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
HTHG	OO	D	All measures eligible	Improvement to at least band C	Homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed of flat roof, pitched roof, room-in-roof, cavity party wall, cavity or solid wall, floor insulation or the floor, walls, and ceiling of a park home. Homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
HTHG	OO	E-G	All measures eligible[16]	Improvement to at least band D (F-G properties) or	All homes receiving any heating measure must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These

[14] Exemptions to minimum requirements covered from paragraph 4.27.
[15] Under ECO4, all heating measures are subject to certain insulation pre-conditions, detailed in paragraph 5.56.
[16] See section on Building fabric repairs from paragraph 4.57 for BFR uplifts

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
				band C (E properties)	requirements are met if all insulation is already installed in the home to the required standard.
HTHG	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating or DHC. See paragraphs 3.74 - 3.77 for exceptions.	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving heating measures must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
SH	SH	D	IMs only, and insulation measures to meet the MIR	Improvement to at least band C	Homes receiving any IMs that are heating measures must first have at least one insulation measure installed (flat roof, pitched roof, room-in-roof, cavity or solid wall, park home and floor insulation). If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
SH	SH	E-G	Insulation measures, FTCH, renewable heating, DHC and IMs	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving any heating measure must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
					requirements are met if all insulation is already installed in the home to the required standard.
ECO4 Flex route 1	OO	D-G	All measures eligible	Improvement to at least band D (F-G properties) or band C (D-E properties)	Band D homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed of flat roof, pitched roof, room-in-roof, cavity or solid wall, floor insulation or the floor, walls, and ceiling of a park home. Band E-G homes and band D homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
ECO4 Flex route 1	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating and DHC. See paragraphs 3.74 - 3.77 for exceptions.	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving heating measures must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
ECO4 Flex route 2	OO	E-G	All measures eligible	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving any heating measure must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
ECO4 Flex route 2	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating and DHC. See paragraphs 3.74 - 3.77 for exceptions.	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving heating measures must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. This requirement is met if all insulation is already installed in the home to the required standard.
ECO4 Flex route 3	OO	D-G	All measures eligible	Improvement to at least band D (F-G properties) or band C (D-E properties)	Band D homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed (flat roof, pitched roof, room-in-roof, cavity or solid wall, park home and floor insulation). Band E-G homes and Band D homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
					home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
ECO4 Flex route 3	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating and DHC. See paragraphs 3.74 - 3.77 for exceptions.	Improvement to at least band D (F-G properties) or band C (E properties)	Homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed (flat roof, pitched roof, room-in-roof, cavity or solid wall, park home and floor insulation). Homes receiving FTCH must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. This requirement is met if all insulation is already installed in the home to the required standard.
ECO4 Flex route 4	OO	D-G	All measures eligible	Improvement to at least band D (F-G properties) or band C (D-E properties)	All Band D homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed (flat roof, pitched roof, room-in-roof, cavity or solid wall, park home and floor insulation). Band E-G homes and Band D homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. This requirement is met if all insulation is already installed in the home to the required standard.

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
ECO4 Flex route 4	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating and DHC. See paragraphs 3.74 - 3.77 for exceptions.	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving any heating measure must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. This requirement is met if all insulation is already installed in the home to the required standard.
In-fill (flat)	Any	Any	CWI, SWI and DHC. Applied measure must match that of the associated ECO-eligible property	None	None
Primary ECO flat for in-fill	OO	D-G	All measures, provided project includes one of CWI, SWI or DHC	Improvement to at least band D (F-G properties) or band C (D-E properties)	All Band D homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed (flat roof, pitched roof, room-in-roof, cavity or solid wall, park home and floor insulation). Band E-G homes and Band D homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
					insulated. This requirement is met if all insulation is already installed in the home to the required standard.
Primary ECO flat for in-fill	SH, PRS	E-G	Any measure that would be eligible if considered in isolation including one of CWI, SWI or DHC	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving any heating measure must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
In-fill (house)	Any	D-G	SWI and / or DHC. Applied measure(s) must match that of the associated ECO-eligible property(ies)	None	None
Primary ECO house for in-fill	OO	D-G	Any measure including one of SWI or DHC	Improvement to at least band D (F-G properties) or band C (D-E properties)	Band D homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed of flat roof, pitched roof, room-in-roof, cavity or solid wall, floor insulation or the floor, walls, and ceiling of a park home. Band E-G homes and band D homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof)

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement[14]	Insulation requirements[15]
					insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.
Primary ECO house for in-fill	PRS, SH	E-G	Any measure that would be eligible if considered in isolation, including one of SWI or DHC	Improvement to at least band D (F-G properties) or band C (E properties)	All homes receiving any heating measure must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. This requirement is met if all insulation is already installed in the home to the required standard.
Off-gas	OO, PRS, SH	Refer to relevant eligibility section of this table	Refer to Figure 14 (Off-Gas Hierarchy flowchart) and PRS and SH sections of the guidance (not all measures apply to PRS and SH homes)	Refer to relevant eligibility section of this table	Band D homes receiving any heating measure other than FTCH or DHC must first have at least one insulation measure installed (flat roof, pitched roof, room-in-roof, cavity or solid wall, park home and floor insulation). Band E-G homes and band D homes receiving FTCH or DHC must first have all the exterior facing cavity walls and loft (including rafters) / roof (including flat, pitched, roof and room-in-roof) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements are met if all insulation is already installed in the home to the required standard.

3. Eligibility

Private domestic premises

3.1. This section of the Delivery Guidance explains the eligibility requirements for private domestic premises as well as for the occupants' requirements in order for a project to be considered eligible for ECO.

3.2. ECO measures delivered to premises occupied by a member of the Help To Heat Group (HTHG) or identified through the ECO4 Flex route must be delivered to private domestic premises. Private domestic premises are domestic premises that are not owned or let by a social landlord.[17]

3.3. Whereas the private requirement (evidence required to demonstrate that premises are private) does not apply to social housing, the domestic and premises requirement apply to all housing types, including social housing.

3.4. Measures can also be delivered to properties owned or let by a social landlord where the property has been let at or above market rate, subject to measure eligibility and occupant requirements. Private domestic owner-occupied premises, and private rented housing can also be treated through ECO4 Flex. Information on how to determine market rate can be found in Appendix 2 – Premises and occupant requirements.

3.5. In the following, this section outlines the definitions and requirements for each of the aspects of private domestic premises.

The 'private' requirement

3.6. The ECO4 data dictionary[18] captures varying tenure types, including owner occupied (OO), private rented sector (PRS) and Social Housing (SH). The evidence required to demonstrate that premises are private depends on:

a) Whether or not a 'relevant interest' in the premises is registered,[19]

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[17] For more information on the definition of a social landlord, see Schedule 1 of the ECO4 Order.
[18] https://www.ofgem.gov.uk/publications/eco4-supplier-data-dictionary
[19] A registered premises is one with a relevant interest registered on the Land Registry in England and Wales or, in Scotland, the Land Register of Scotland or recorded in the Register of Sasines. For more

b) Who the premises belong to, or are let by, and

c) Where applicable, the financial rate at which the premises are let (ie rent).

3.7. The 'relevant interest' is the legal interest granting the current right to occupy those premises and helps to identify the tenure. In England and Wales, the relevant interest may belong to a freeholder, leaseholder, or sub-leaseholder. In Scotland, the relevant interest may belong to the person holding the owner's interest or right, or the person holding the tenant's or sub-tenant's interest.

3.8. Where premises are subject to a shared ownership arrangement between a private individual and a social landlord, we consider the premises to be private domestic premises given a private individual is one of the owners of the premises.

3.9. Where a customer has entered into an agreement with a bank where the bank buys the property and sells it back to the customer over a period of time (for example, due to the customer's religious beliefs) the following will need to be considered when determining whether the property is owner occupied:

a) The terms of the customer's agreement with that bank, and

b) Who has the registered interest in the property.[20]

3.10. Properties that have a Lifetime Mortgage through an Equity Release scheme are treated in the same way as a standard mortgage.[21] The premises should be categorised as owner-occupied, as full ownership is retained by the occupier, subject to the plan provider holding a charge over the property. This is the same as a standard mortgage.

3.11. Where the Equity Release Scheme for the property is a Home Reversion Plan, properties will be considered on a case-by-case basis to determine if they are owner-occupied or private rented sector.

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information on the evidencing routes for registered and unregistered premises refer to Appendix 2 – Premises and occupant requirements.

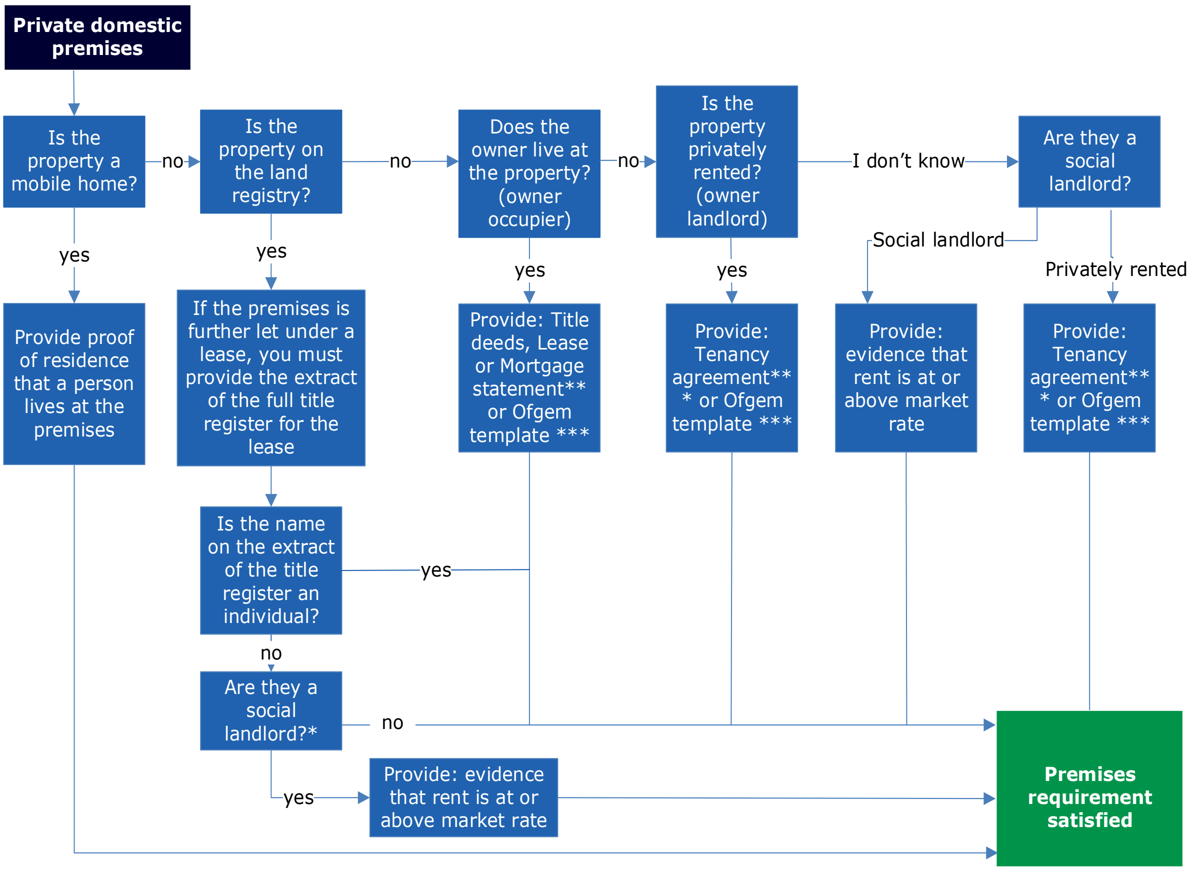
[20] See Appendix 2 – Premises and occupant requirements for information on the documentation needed in these circumstances.

[21] An Equity Release scheme is where the equity in the property is either extracted in a single lump or in instalments and repaid when the occupier either dies or moves to permanent long-term care.

3.12. A property occupied by the way of liferent meets the definition of 'owner-occupied premises' in the ECO4 Order.[22] If the title deeds confirm that the property is under liferent, and the property has not subsequently been let out to someone else, it would be considered as owner-occupied for the purposes of ECO4.

3.13. Evidence demonstrating who the premises belong to, or are let by, must relate to the person to whom the relevant interest belongs. Figure 1 shows how to identify private domestic premises, and some of the documents needed to prove the premises requirement. The Ofgem template can be found on the ECO4 Eligibility Requirements form.

Figure 1: Private domestic premises flowchart



* See Appendix 2 for information on how to identify a social landlord

** If dated earlier than 12 months prior to the completion of the first measure in a project, must be accompanied by proof of residence dated within 12 months prior to completion of the first measure in a project

*** Must be accompanied by proof of residence dated within 12 months before the completion of the first measure in the project

[22] A liferent is a feature of Scottish property law. It allows a person who owns a heritable property to transfer the property to another person(s) and retain the right to occupy the premises.

Registered relevant interest

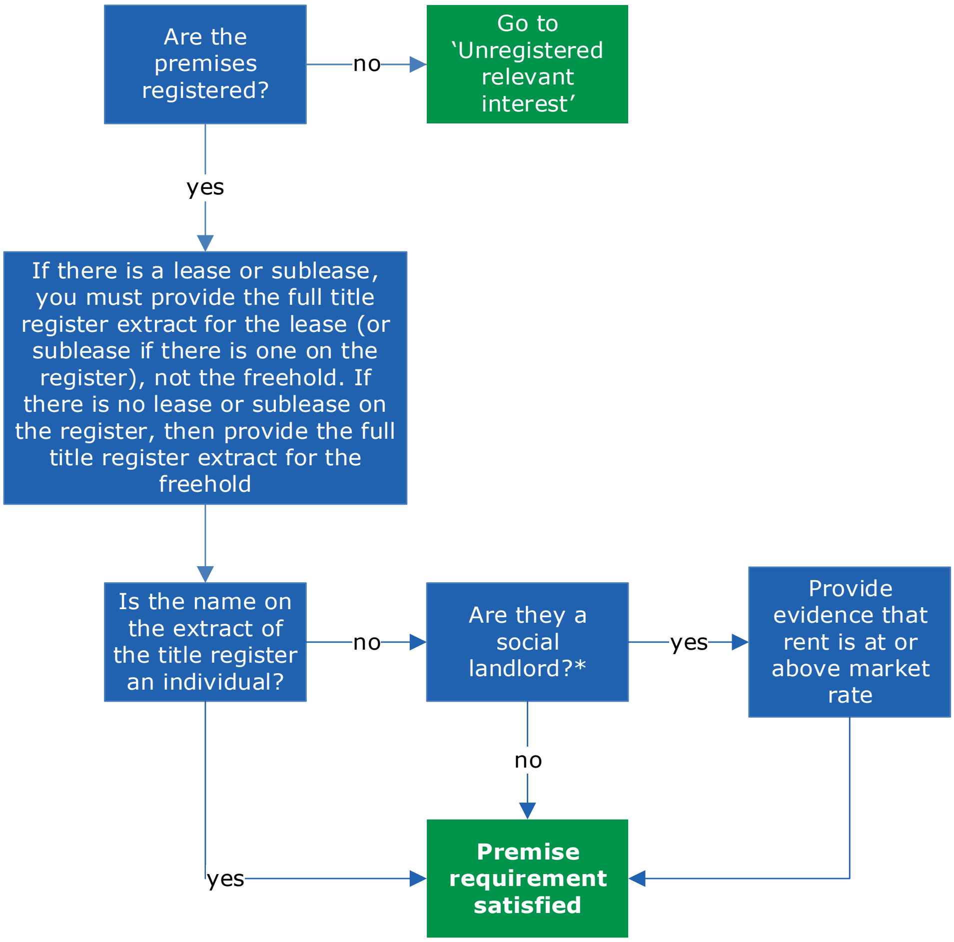
3.14. In England and Wales, premises are **not** considered to be private domestic premises if the relevant interest registered on the Land Registry belongs to a social landlord, ***unless*** the supplier can evidence that the premises are let at or above market rate.[23]

3.15. In Scotland, premises are **not** considered to be private domestic premises if the relevant interest registered on the Land Register of Scotland or recorded in the Register of Sasines belongs to a social landlord, ***unless*** the supplier can evidence that the premises are let at or above market rate.

3.16. Figure 2 shows how to meet the premises requirement for registered premises.

[23] See Appendix 2 – Premises and occupant requirements for information on calculating the market rate.

Figure 2: Registered premises flowchart



* See Appendix 2 for information on how to identify a social landlord

3.17. For information on how to evidence the registered relevant interest see Appendix 2.

Unregistered relevant interest

3.18. Premises for which a relevant interest is not registered will be considered private domestic premises if:

a) The premises are not owned or let by a social landlord unless the premises are let by the social landlord at or above market rate.

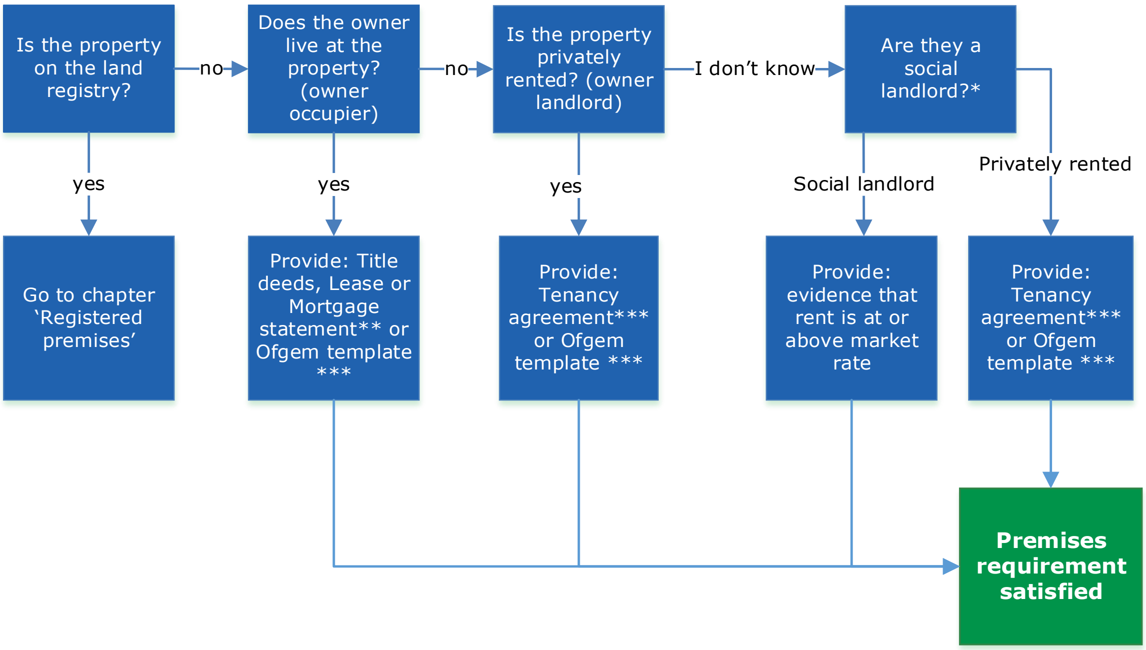
b) The premises are let under a lease granted under the 'Right to Buy' or 'Right to Acquire' schemes in England or Wales.

c) The premises are let under a lease granted under the 'Right to Purchase' scheme in Scotland.

d) The premises is a croft (see paragraphs 3.24 - 3.25 below for more information).

3.19. Figure 3 shows how to meet the premises requirement for unregistered premises. The Ofgem template can be found on the ECO4 Eligibility Requirements form.

Figure 3: Unregistered premises flowchart



* See Appendix 2 for information on how to identify a social landlord

** If dated earlier than 12 months prior to the completion of the first measure in a project, must be accompanied by proof of residence dated within 12 months prior to completion of the first measure in a project

*** Must be accompanied by proof of residence dated within 12 months before the completion of the first measure in the project

3.20. For more information on how to evidence unregistered relevant interest, see Appendix 2 – Premises and occupant requirements.

Online verification service (for premises in England and Wales)

3.21. For properties in England and Wales, the Energy Saving Trust (EST) has developed a service allowing users to verify that a premises is a private domestic premises through a data-matching process with the Land Registry. This service cannot be used to evidence tenure for social housing or local authority owned properties.

3.22. EST will provide the following categories against these verifications:

a) Matched

b) Unmatched

c) Unavailable

3.23. Where EST verifies a premises as 'matched', we consider that the premises is a private domestic premises. Where the premises are 'unmatched' or 'unavailable', alternative evidence will be required.

Crofts

3.24. A property that is a croft can be treated as an owner-occupied premises as long as appropriate evidence is provided. This should show that the property is a croft and that the help to heat group member or person listed as eligible by the local authority lives at the property. This can be evidenced by any of the following:

a) Evidence of leases registered with the Crofting Commission

b) Evidence that the premises is listed on the Register of Crofts (mandatory for all crofts)

c) A copy of a crofting tenancy agreement.

3.25. Although it is possible to evidence the property as recorded on the Register of Sasines or providing title deeds, these documents are not usually available for crofts. If a supplier wishes to use an alternative form of evidence, they should contact us.

The 'premises' requirement

3.26. As outlined in the ECO4 Order, a supplier achieves its obligation by promoting qualifying actions in domestic premises, including mobile homes (also referred to as park homes). All ECO4 eligible measures must be delivered to eligible domestic premises, including those delivered via LA Flex and in-fill.

3.27. As the ECO4 scheme relies on SAP/RdSAP (Reduced Data SAP) assessments, in order for a property to qualify as a domestic premises, it must be a dwelling that serves wholly or mainly for domestic purposes (ie is occupied as a home).[24]

[24] See ECO4 Order Article 2 for the definition of domestic customer

Dwellings

3.28. Any domestic premises receiving ECO measures must meet the 'dwelling' definition in The Energy Performance of Buildings (England and Wales) Regulations 2012[25] and The Energy Performance of Buildings (Scotland) Regulations 2008[26].

3.29. Regulation 2 of The Energy Performance of Buildings (England and Wales) Regulations 2012 defines a 'dwelling' as "a building or part of a building occupied or intended to be occupied as a separate dwelling".

3.30. Regulation 2 of The Energy Performance of Buildings (Scotland) Regulations 2008 defines 'dwelling' as per regulation 2 of the Building (Scotland) Regulations 2004[27] as "a unit of residential accommodation occupied (whether or not as a sole or main residence) by an individual or by individuals living together as a family or by not more than six individuals living together as a single household (including a household where care is provided for residents), and includes any surgeries, consulting rooms, offices or other accommodation, of a floor area not exceeding in the aggregate 50 square metres, forming part of a dwelling and used by an occupant of the dwelling in a professional or business capacity".

3.31. We see this definition implemented through the approach used for SAP assessments, as these are the regulations that govern SAP assessments. SAP and Reduced data SAP (RdSAP) assessments can only be carried out on properties which are deemed to be 'dwellings'. A property's eligibility for a SAP assessment or EPC (Energy Performance Certificate) can be used as proof that it is a dwelling.

3.32. Suppliers can only deliver measures to (except for repairs):

a) Pre-existing buildings erected before 1 April 2022, or

b) Premises which were first occupied as domestic premises before the day on which the installation was completed.[28]

3.33. Evidence to confirm the date of building completion can include:

[25] See https://www.legislation.gov.uk/uksi/2012/3118/contents/made
[26] See https://www.legislation.gov.uk/ssi/2008/309/contents/made
[27] See https://www.legislation.gov.uk/ssi/2008/309/contents/made
[28] See ECO4 Order Article 12(1)(d)(ii)

a) In England and Wales, a building control completion certificate; or

b) In Scotland, notification from a local authority of acceptance of a completion certificate.

3.34. Where neither of these documents are available, suppliers should contact us to discuss alternative documentation. A measure may not be eligible if evidence cannot be provided. Evidence to demonstrate the date of building completion must be dated prior to the evidence of the occupancy.

3.35. Where a building is subject to a change of use, such as commercial to domestic, or a single house into multiple flats, we would consider this building to be a 'new building' under this provision. If an extension is being added, see paragraph 3.47. Suppliers should contact us if there is any uncertainty over whether premises would qualify as a new building.

Confirming that premises are not new build premises

3.36. Where a building is pre-existing before 1 April 2022, the ECO4 Pre-Installation Project Survey should be completed and signed to confirm that the building was pre-existing before 1 April 2022. The supplier should make this document available on request.

3.37. Where the Pre-Project Declaration is not completed and signed to identify that the premises are pre-existing, evidence of occupancy (see paragraph 3.45) or other evidence that the building is pre-existing must be available.

3.38. Where there is uncertainty about the age of a premises, a building that was erected before 1 April 2022 may be identified by reference to any of the following documents:

a) Documentation that meets the occupancy requirements (listed in paragraph 3.45)

b) In England and Wales, a Land Registry search, where a title has been registered prior to 1 April 2022

c) In Scotland, a search of the Land Register of Scotland or Register of Sasines

d) A Certificate of Title or Deeds dated prior to 1 April 2022

e) A date prior to 1 April 2022 on an EPC

f) In England and Wales, a building control completion certificate, or

g) In Scotland, notification from a local authority of acceptance of a completion certificate.

3.39. Where none of these documents are available, suppliers should contact us to discuss alternative documentation.

3.40. We may carry out an audit to confirm that the Pre-project Declaration has been completed as required. Where the declaration is not completed, we may request further evidence from suppliers to verify that a building was erected before 1 April 2022.

Evidencing requirements for delivering measures to new buildings

3.41. Where a measure is delivered to new build premises, such as buildings subject to a change of use (paragraph 3.35), it needs to be evidenced that the premises were first occupied as domestic premises before the installation was completed.[29]

3.42. For a measure delivered to the premises of a member of the Help to Heat Group (HTHG), evidence to demonstrate that a member of the HTHG resides in the premises will be sufficient to evidence eligibility as this demonstrates that the premises is occupied.

3.43. All social housing, ECO4 Flex and in-fill measures delivered to new buildings require a declaration on the Pre-Project Declaration to be completed and signed by the occupant.

3.44. Where premises were erected after 1 April 2022, a declaration from a landlord or non-resident owner must be signed on the Pre-Project Declaration to confirm that premises are occupied. If the declaration is signed by a landlord or a non-resident owner on behalf of the customer, additional evidence must be collected to demonstrate the date of building completion as well as current or previous occupancy.

3.45. Premises are considered occupied, where any of the following documentation is dated after the building completion and prior to the installation of the measure:

a) Utility bill, landline phone bill or TV licence,

[29] See ECO4 Order Article 12(1)(d)(ii)

b) Council tax letter or letter from the council,

c) Mortgage statement or bank statement,

d) Tenancy agreement, or

e) Extract from the electoral register.

3.46. Where these documents are not available, suppliers should contact us to discuss alternative documentation. Evidence of date of completion and occupancy must be made available on request. Where there is insufficient support evidence, the measure may be ineligible.

New build extensions

3.47. A new build extension is an extension[30] completed on or after 1 April 2022.

3.48. An ECO project may not be delivered to a new build extension until the works for the extension have been completed.

3.49. In the case of measures installed to new build extensions, including loft conversions, suppliers will need to evidence that the construction of the extension is completed prior to the date of completed installation (DOCI) of the ECO measure.

3.50. Suitable evidence that the extension was completed before the DOCI of the ECO measure includes:

a) In England and Wales, a building control completion certificate, or

b) In Scotland, a notification from a local authority of acceptance of a completion certificate.

3.51. Where neither of these documents are available, suppliers should contact us to discuss alternative documentation.

[30] An extension as referenced and defined by Building Regulations Part Lb, Fabric standards, at Section 4.1. This supports the Building and Approved inspectors (Amendment) Regulations 2010: https://www.legislation.gov.uk/uksi/2010/719/contents/made

3.52. This evidence must be made available on request. Where no documentation is available, the measure may be ineligible.

The 'domestic' requirement

Occupancy

3.53. In addition to qualifying as a dwelling, for a property to be deemed a domestic premises, it has to be occupied primarily as a home by its residents.

3.54. This part of the test considers the way in which the building is generally used. In most cases it should be clear that premises are being used as a home, ie the premises are used by the occupants for living in on more than a short-term basis (more than three months). Suppliers are expected to check the length of a lease or licence to occupy in scenarios where one would expect the lease or licence to be short-term.

3.55. The use of premises as a home can be evidenced in the following ways:

a) *Owner-occupied premises:* the receipt by the occupant of utility bills or mortgage statements relating to the premises may indicate that the premises are used as a home. There may be other indicators such as mortgage deeds naming the occupant.

b) *Premises occupied under a lease or licence to occupy:* the receipt by the occupant of at least three months of utility bills relating to the premises, or the existence of a lease or licence of longer than three months in the name of the occupant (such as a tenancy agreement) may indicate that the premises are used as a home. There may be other indicators that may be considered acceptable evidence. Please contact us if you are unsure.

Commercial activities

3.56. Occupants may carry out some commercial activities at the premises from a room also used for domestic purposes, provided that the primary use of the premises is as a home. Examples of commercial activities include working or running a business from home.

3.57. We will accept a property's SAP assessment or domestic EPC as sufficient evidence to prove that a property is not being primarily used for commercial purposes, as only domestic properties can qualify for SAP. Any mixed-use areas of the dwelling that are included in the SAP assessment will qualify for ECO.

3.58. Where a property has an integral home office or studio etc, the occupier of the property will still be able to apply to the ECO4 scheme provided the property qualifies for a SAP assessment, as SAP assessments can only be performed on properties assessed to be primarily for domestic use.

3.59. Care homes and student halls of residence will not be eligible for ECO4 measures as these are commercial properties.

Houses in multiple occupation

3.60. Houses in multiple occupation (HMOs) can be treated as part of ECO4 if at least one household occupying the HMO is eligible to receive ECO support.

3.61. Some properties have shared facilities, such as kitchens and bathrooms, but are essentially separate households. In these cases, a SAP assessment may not be possible on the individual unit or room. This means that the SAP assessment will include all the rooms, including all shared facilities.

3.62. As per definition[31], a HMO cannot be formed by a single household and is set up by separate units. The separate units are treated as a single dwelling if they are assessed as such during a SAP assessment.

3.63. Proof of rent (or another form of consideration) of at least one resident in the HMO must be retained.

3.64. Occupancy requirements for HMOs are the same as for other types of domestic premises (see paragraph 3.54).

[31] For further information on HMOs, section 254 in the Housing Act 2004 https://www.legislation.gov.uk/ukpga/2004/34/contents

Rural and off-gas premises

3.65. ECO measures may be delivered in rural and off-gas premises. Projects delivered in rural off-gas properties in Wales and Scotland will receive an uplift of 35%.[32] In England, an uplift for measures delivered to off-gas premises will not apply as these homes are expected to receive support under the Home Upgrade Grant (HUG).

3.66. A 'rural area' refers to an area classified as rural in the '2011 rural-urban classification of output areas' document for properties in England and Wales,[33] and in the 'Scottish Government Urban Rural Classification 2016' document for properties in Scotland[34].

3.67. Please see the Off-gas premises section from paragraph 5.93 or the ECO measures chapter. under 5.98 for further information on off-gas premises and eligible measures.

How to determine rural premises

3.68. Suppliers may use the ONS Postcode Directory,[35] or an equivalent system, to ensure measures are installed in eligible rural areas. Suppliers can look up a postcode and read off the value in the pop-up under 'Rural Urban Indicator' or download the latest available dataset, find the relevant postcode, and read off the corresponding value in the 'ru11ind' column.

3.69. Suppliers can also check if a property falls under a rural classification by entering the postcode at the Rural-Urban Classification for Output Areas Locator Tool[36] and navigate through the differently coloured rural and urban areas and read off the 'RUCOA11 Class' and 'E1RUCOA11 Description'. Also, suppliers can check if a property is classified as rural or urban by entering the postcode and reading off the 'RU11IND' value.

3.70. In **Wales**, the Rural Urban Indicator Codes D1, D2, E1, E2, F1 and F2 qualify as rural areas. These represent the following rural areas:

- D1 - Town and Fringe

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[32] See Uplifts section, paragraphs 6.131 - 6.136
[33] See https://www.gov.uk/government/statistics/2011-rural-urban-classification
[34] See https://www.gov.scot/publications/scottish-government-urban-rural-classification-2016/pages/2/
[35] See https://onsdigital.github.io/postcode-lookup/
[36] See https://ons.maps.arcgis.com/apps/webappviewer/index.html?id=20467878cc20410d961a3f71db356b6d

- D2 - Town and Fringe in a Sparse Setting
- E1 - Village
- E2 - Village in a Sparse Setting
- F1 - Hamlets and Isolated Dwellings
- F2 - Hamlets and Isolated Dwellings in a Sparse Setting

3.71. In **Scotland**, the classifications 6, 7 and 8 classify as rural areas. This is based on the 8-fold classification as per Scottish Government Urban Rural Classification 2020[37] and which are reflected in the ONS Postcode Directory and the Rural-Urban Classification for Output Areas Locator Tool. These areas represent the following rural areas:

- 6 – Accessible Rural Areas
- 7 – Remote Rural Areas
- 8 – Very Remote Rural Areas

Private rented sector

3.72. The Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 establish a Minimum Level of Energy Efficiency Standard (MEES) for private rented sector (PRS) properties.[38] Under the Private Rented Sector Minimum Standard Regulations, landlords are obligated with certain requirements.

3.73. PRS properties occupied by a member of the HTHG, or a person declared as eligible by the local authority living in a property with an initial SAP energy efficiency rating of E, F, and G are eligible to receive ECO4 measures. PRS properties treated under ECO4

[37] In the 6-fold classification the equivalent rural areas are classified as 5 and 6. See https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2022/05/scottish-government-urban-rural-classification-2020/documents/scottish-government-urban-rural-classification-2020/scottish-government-urban-rural-classification-2020/govscot%3Adocument/scottish-government-urban-rural-classification-2020.pdf
[38] https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance

have to meet the minimum requirement (MR) in order to receive a full project score (FPS).

3.74. The package of measures that PRS properties receive must include at least one of the following measures, in addition to further ECO measures necessary to meet the MR[39]:

a) Solid wall insulation (SWI),

b) First time central heating (FTCH),

c) District heating connection (DHC),

d) Renewable heating (RH), except where it replaces a renewable heating measure of the same kind at the domestic premises.

3.75. Heating measures installed in PRS properties are required to meet the minimum insulation requirement. See minimum insulation pre-conditions from paragraph 5.82 for more information on the minimum insulation requirement. Heating measures shall be installed in accordance with the heating measures requirements. See section on Heating measures from paragraph 5.91 onwards for further information.

3.76. In general, the replacement, upgrade or repair of a boiler, central heating system or electric storage heater is not eligible in PRS properties under ECO4. However, this is permissible when the replacement heating measure is the installation of FTCH, a renewable heating measure or a district heating connection.

3.77. The replacement of inefficient heating systems in PRS homes can happen in the following circumstances:

a) Electric Storage Heaters can be replaced if they are being replaced by FTCH under the ECO4 FTCH rules.

b) An inefficient heating system can be replaced with a renewable heating system. A renewable heating system cannot be replaced with another renewable heating system of the same kind.

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[39] See Article 14(c) in the ECO4 Order

3.78. To evidence whether properties are PRS, we will require suppliers to obtain a declaration from the customer confirming the tenure. This should be included on the ECO4 Eligibility Requirements form. Suppliers must obtain the landlord's permission for the delivery of a measure(s) in a PRS property.

3.79. This can be evidenced by the 'Landlord Permission and Blended Funding Declaration' which can be found in the ECO4 Eligibility Requirements Form[40].

3.80. Suppliers may choose to have further evidence requirements in relation to PRS properties beyond this.

Social housing

3.81. ECO4 measures can also be delivered to social housing with a SAP energy efficiency rating of D, E, F, and G, where the premises are let below the market rate. All social housing properties are required to meet the relevant ECO4 MR in order to receive a FPS. The type of measures that can be delivered to social housing properties is dependent on the SAP energy efficiency rating of the property prior to the installation of measures.

3.82. Delivery to E-G rated social housing premises is limited to the following measures:

a) Insulation measures (IM)

b) First time central heating (FTCH)

c) Renewable heating (RH) except where it replaces a renewable heating measure of the same kind at the domestic premises

d) District heating connection (DHC)

e) Innovation measures (IMs).

3.83. Delivery to D rated social housing is limited to IMs and insulation measures installed to meet the minimum insultation requirement (MIR) only. Band D social housing are also required to meet the MR in order to receive FPS; however, they are not eligible to

[40] https://www.ofgem.gov.uk/sites/default/files/2022-10/ECO4%20Eligibility%20Requirements%20Form%20v1.0.pdf

receive other measures. Where the IM is a heating measure, relevant insulation measures needed to meet the MIR must also be installed.[41]

3.84. Heating measures installed in social housing need to meet the MR and must be installed in accordance with the heating measure requirements. See Heating measures from paragraph 5.82 for further information.

3.85. A renewable heating system is eligible, except where it replaces a renewable heating system of the same kind at the domestic premises.

Determining whether properties are social housing

3.86. In England and Wales, premises are considered to be social housing if the relevant interest is registered on the Land Registry as belonging to a social landlord.[42]

3.87. In Scotland, premises are considered to be social housing if the relevant interest is registered on the Land Register of Scotland or recorded in the Register of Sasines as belonging to a social landlord.[43]

3.88. Where premises are not registered, it can be considered as social housing where there is proof that a social landlord lets the property.[44]

3.89. Information on how to identify social landlords can be found in Appendix 2 – Evidencing the premises and occupant requirements (see from paragraph 10.1).

3.90. The supplier must collect a declaration on the ECO4 Eligibility Requirements form signed by or on behalf of a social landlord providing assurance that the SAP assessment reflects the current characteristics of the property. The signatory should have sufficient and appropriate authority to act on behalf of the social landlord.

Determining whether the premises are let below market rate

3.91. Social housing under this provision will only be eligible where the housing is let below the market rate. The supplier must produce a declaration signed by a social landlord

[41] See Schedule 2 Article 15(b)(ii) of the ECO4 Order
[42] See Schedule 2 paragraph 3(a) of the ECO4 Order
[43] See Schedule 2 paragraph 3(b) of the ECO4 Order
[44] Other than under a lease granted pursuant to Part 5 of the Housing Act 1985 or sections 61 to 84 of the Housing (Scotland) Act 1987, as modified by section 84A of that Act. For further information see Schedule 2 of the ECO4 Order.

providing confirmation that the social housing premises are let below the market rate, or where the premises are currently void, have previously and will be let below the market rate.

3.92. This declaration should be made available to us on request.

3.93. Where social housing is let at or above the market rate, the property can be treated as a private domestic premises, where the occupant meets the eligibility requirements. See section on PRS from paragraph 3.72 for more information.

3.94. For more information on how market rate is determined for different areas see Appendix 2 – Evidencing the premises and occupant requirements.

In-fill

3.95. Under ECO4, there are two different categories for in-fill depending on whether the properties are flats or houses.

3.96. The ECO4 Order[45] defines a 'flat' as:

a) in respect of domestic premises in England and Wales, has the same meaning as in the Building Regulations 2010.

b) in respect of domestic premises in Scotland, has the same meaning as in the Building (Scotland) Regulations 2004 and also includes a maisonette, as defined in those Regulations.

3.97. The ECO4 Order considers a house "a domestic premises that is not a flat" where 'flat' has the meaning as above under 3.96.[46]

3.98. All In-Fill homes, whether flats or houses, will not be required to meet the project MR or the minimum insulation requirement given the restrictions on eligible measures for in-fill homes. The scores for in-fill premises are set out in Chapter 6: Scores.

3.99. A pre-retrofit RdSAP assessment (except for DHC measures, other than those that use a shared ground loop) needs to be performed before the installation of the in-fill

[45] See Article 22(3) of the ECO4 Order
[46] See Article 23(4) of the ECO4 Order

measure in order to calculate the SAP rating of the premises. For an in-fill project that only contains a DHC measure (other than those that use a shared ground loop), a SAP assessment must be performed and lodged as an EPC. Where pre-existing EPCs based on a SAP assessment exist issued in the past two years and three months before the day of the completion of the in-fill measure, the most recent EPC can be used.

3.100. If suppliers wish to treat a property under in-fill they need to submit information about the associated ECO4 project(s) via the ECO4 register, alongside other required project and measure details. In order to be validated, suppliers need to specify which premises are treated under in-fill and which ECO4 projects are associated with it. An ECO4 measure from an associated ECO4 project cannot support more than one in-fill measure. There is no requirement that the associated ECO4 projects are completed as full projects and as long as the associated ECO4 measure receives a Partial Project Score (PPS) it can support an in-fill measure.

3.101. The associated ECO4 measure must be the same type of measure that is installed in the in-fill property. The ratio of associated ECO4 measures to the in-fill measure depends on whether a property is a house or a flat, which is described below under the respective sections for in-fill flatsIn-fill flats and in-fill housesIn-fill houses.

3.102. To notify an in-fill measure in the notification template the fields 'Associated_in-fill_Project_1', 'Associated_in-fill_Project_2', 'Associated_in-fill_Project_3' need to be populated to identify the ECO4 projects that are supporting the in-fill house measure. For flats treated under in-fill only "Associated_in-fill_Project_1" is relevant.

3.103. In-fill measures must be promoted by the same supplier and notified against the same supplier licence. When transferring measures between suppliers (inter-supplier transfers), in-fill measures cannot be transferred until all the in-fill and primary measures are approved. Once the measures have all been verified, they can only be transferred as a group. For transfer between different licenses of the same supplier (intra-supplier transfers) measures don't need to be approved before the transfer. See Chapter 8: Transfers of measures and projects in the ECO4 Administrative Guidance[47] for further information on inter- and intra-supplier transfers.

3.104. If a project at an ECO-eligible property is not approved or gets rejected at a later stage, for example if the household or property was found to be ineligible for ECO4,

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[47] See https://www.ofgem.gov.uk/publications/draft-energy-company-obligation-eco4-guidance-supplier-administration-v01

then any linked in-fill property where a measure was installed would also not be approved. If the decision to refuse or revoke the savings of a supporting measure is taken, suppliers will be able to update the notification of the in-fill measure to link it to a different associated ECO-eligible property, given it meets all relevant criteria.

In-fill flats

3.105. For every ECO-eligible flat another 'in-fill' flat whose household would not otherwise be eligible for ECO can be treated under ECO4 in-fill. For example, in a block of flats, the whole block can be upgraded if at least 50% of the flats are occupied by ECO-eligible households. Figure 4: In-fill flats shows an example of a block of flats that can be treated wholly under ECO4, given over half of the block of flats are eligible under ECO4.

3.106. Eligible measures for flats treated as in-fill include:

a) Solid wall insulation

b) District heating connection

c) Cavity wall insulation.

3.107. The in-fill measure has to be linked to the same kind of measure in the associated ECO4 project, ie if the in-fill project is a solid wall insulation, it needs to be linked to a solid wall insulation in the associated ECO4 project.

3.108. The in-fill flats within the same block can be either privately rented, owner occupied or social housing. No restrictions apply to in-fill flats regarding their EPC rating. The associated ECO flat must meet the ECO SAP band requirements, ie band D-G for owner occupied houses, E-G social housing, D social housing for innovation measures and E-G for private rented sector.

3.109. The in-fill project needs to be finalised within 3 months from the installation of the latest associated ECO4 measure. For a flat, this means that a three-month deadline starts on the date of the DOCI of the associated measure in the ECO4 project flat. See paragraphs 4.47- 4.52 for project completion timings.

Figure 4: In-fill flats

In-fill houses

3.110. Houses can be treated under ECO4 in-fill with a ratio of 3:1, so one in-fill property can be treated for every three ECO4 projects in houses.

3.111. The in-fill house can be owner occupied, PRS or social housing and must be in SAP band D-G before the installation of the measure. The ECO projects have to meet the ECO SAP band restrictions, ie band D-G for owner occupied houses, E-G social housing, D social housing for innovation measures and E-G for private rented sector..

3.112. The eligible measures for in-fill houses are limited to:

a) Solid wall insulation

b) District heating connection.

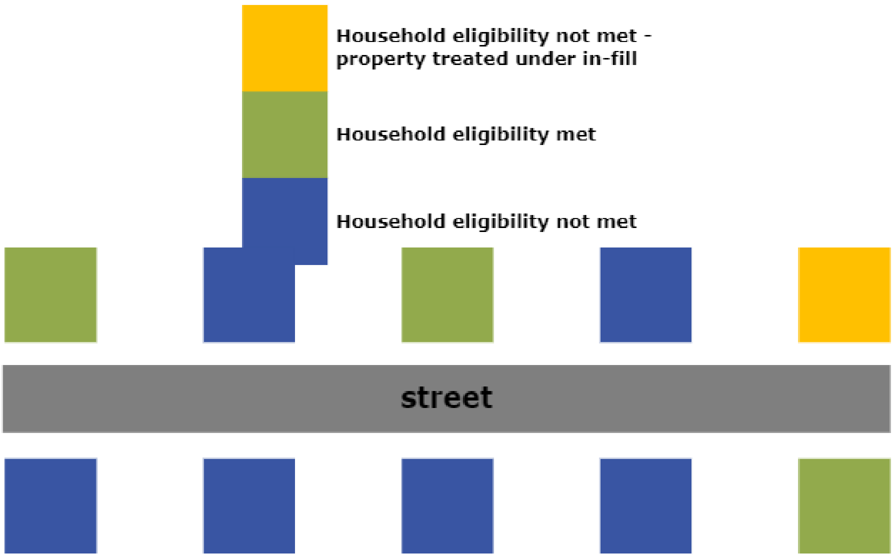
3.113. The in-fill measure must be linked to the same measure in the associated ECO4 projects, ie if the in-fill project is a solid wall insulation, it needs to be linked to **three** solid wall insulation measures in each of the three ECO4 projects.

3.114. The in-fill house must be located on the same street (name) as the three ECO-eligible houses and hence, have the same street address as the ECO4 project houses.

3.115. The in-fill measure needs to be finalised within three months from the installation of the last of the three associated ECO4 measures. This means that three months start with the DOCI of the last of the three associated measures in the ECO4 project houses. See paragraphs 4.47 - 4.56 for project completion timings

3.116. Figure 5 shows a street with three ECO4 project houses, which means that one in-fill property on the same street can be treated along with three other properties eligible for ECO4.

Figure 5: In-fill houses



The occupant requirement

3.117. Where measures are delivered to private domestic premises, except in the case of in-fill, the premises must either be occupied by:

a) a member of the HTHG, or

b) a household declared by a relevant authority[48] as meeting one of the four ECO4 Flex referral routes (see paragraph 3.144 - 3.152).

3.118. The eligibility requirements do not apply to in-fill premises.

[48] See Article 2 of the ECO4 Order for the definition of a local authority

3.119. The eligibility requirements do not apply to measures delivered to social housing where the premises are let below the market rate.

ECO-eligible benefits

3.120. Householders who receive specific benefits (or if in receipt of Child Benefit and are below the equivalised income threshold for the household composition) are members of the Help to Heat group (HTHG). A supplier can promote a measure to occupants of private domestic premises if they are in the HTHG or live with someone in the HTHG in the same premises. HTHG is based on a tenant's status rather than the landlord's (if the property is rented).

Evidencing eligibility

3.121. There are several things to consider when collecting evidence for HTHG eligibility. Suppliers must ensure:

a) The measure is being installed at private domestic premises where a HTHG member lives, and appropriate evidence is available to demonstrate this.

b) Benefit letters are from official departments or organisations (See Appendix 2 – Premises and occupant requirements for example benefit letters).

c) The relevant information provided on the forms is clearly visible.

d) The household eligibility requirement is that the premises are occupied by a member of the HTHG at any time within a 12 month period ending with the day on which the measure is completed, with the exception of Warm House Discount (WHD) Core Group 1 and Core Group 2 customers in England and Wales and Core Group customers in Scotland.

3.122. All documents showing HTHG eligibility must be dated within a 12-month period ending with the day on which the measure is completed. Once successfully data matched, this will act as sufficient evidence for HTHG eligibility in the case of audit.

3.123. All documentation proving HTHG eligibility and DWP/EST data-matching must be dated within 12 months before install.

3.124. For suppliers to demonstrate that the occupant requirement is met, they must be able to provide evidence of the following:

a) A person's membership of the HTHG, and

b) That the person is an occupant of the premises.

3.125. A person living at private domestic premises is an eligible member of the HTHG if they receive at least one of the following benefits and satisfies the relevant income requirements, where applicable:

Table 2: List of eligible benefits under the ECO4 HTHG

Benefits that are eligible under the ECO4 HTHG
1) Income based Jobseekers Allowance (JSA)
2) Income related Employment and Support Allowance (ESA)
3) Income Support (IS)
4) Pension Credit Guarantee Credit (PCGC)
5) Working Tax Credit (WTC)
6) Child Tax Credit (CTC)
7) Universal Credit (UC)
8) Housing Benefit
9) Pension Credit Savings Credit (PCSC)
10) Child Benefit (subject to income caps and composition)

3.126. Households with disabilities would be eligible only where they are in receipt of a means tested benefit or found eligible under one of the four routes outlined in ECO4 Flex.

3.127. Suppliers can demonstrate to us that the occupant requirement is met by ensuring that a copy of the relevant documents is made available at audit.

Evidencing HTHG eligibility

3.128. We do not require full 'proof of benefit' letters. To evidence HTHG eligibility, we only need the page(s) that show:

a) Official letter headed paper from HMRC, DWP / Jobcentre Plus, HM Government, or the Pension Service,

b) Name, benefit type, and benefit address matching where the measure was installed. Where the address is different, official documents proving they resided at the premises where the measure was installed

c) Relevant date (either of the letter, start or end of the benefit), and

d) Confirmation that a customer receives a qualifying benefit through a bank statement, for example.

Matched WHD Core Group notice

3.129. A supplier can produce a matched WHD Core Group 1 and Core Group 2 notice in England and Wales, or Core Group notice in Scotland for each respective scheme year to satisfy us that a person is a member of the HTHG during audits. Core Group notices can be accepted prior to 1 April 2022. Please note that there are now three different Core Group letter types from SY12, but that there was only one under SY11.

Matched DWP reference number

3.130. Suppliers or members of the supply chain may arrange for the Energy Saving Trust (the data-matching service provider), who have a contract with DWP, to confirm that a person is a member of the HTHG.

3.131. If DWP confirms (via the Energy Saving Trust) that a person receives a HTHG benefit, the supplier may rely on this as a way of demonstrating that a person is a member of the HTHG. If a supplier wishes to rely on a DWP confirmation, it must include the 7-digit reference number (or 10 digits where it includes the user prefix) provided by the data-matching service provider when notifying the measure. This is the 'DWP reference number' in the notification template. This reference number will also be accepted where it is preceded by the three digits identifying the service user.

3.132. The Energy Saving Trust refer the following categories of people to suppliers:

a) **Matched** - a person who is confirmed by DWP as receiving an HTHG benefit

b) **Unmatched** – a person who is confirmed by DWP as not receiving an HTHG benefit at the time of the search

c) **Un-verified** – the person's details could not be found and verified by DWP. This is typically due to an error with the data submitted (ie hidden spacing or a spelling mistake).

3.133. We will conduct these checks during monthly processing. All documents showing HTHG eligibility must be dated within a 12-month period ending with the day on which the measure is completed. Where the 'matched' DWP reference number is dated more than

12 months from the end of the date of completed instillation of the first measure, suppliers will receive error notifications through monthly processing. In these cases, we will require alternative evidence to demonstrate that a person was in receipt of an HTHG benefit and was residing at the address at the time of installation.

3.134. An 'unmatched' or 'unverified' referral will not be sufficient to satisfy us that a person is a member of the HTHG. In this case, the supplier should not include the DWP reference number when notifying the measure. The supplier should satisfy us that the relevant person is a member of the HTHG through one of the other routes detailed in this section. They should also ensure that any additional evidence that demonstrates this is made available on request.

3.135. Where suppliers initially notify unmatched or unverified measures on the ECO register, these measures will need to be either amended manually by the supplier, or the supplier will need to renotify the measure on the ECO Register with the 'matched' DWP reference number or use another route to evidence HTHG eligibility.

3.136. Recipients of UC can be on either the full service or the live service. Both full service and live service UC records can be data matched by DWP.

ECO Eligible Referrals (EER)

3.137. Under ECO4, suppliers can also use the ECO Eligible Referral (EER) route to identify eligible households. This route allows suppliers to identify whether their customers are in receipt of ECO eligible benefits through a check with DWP.

3.138. If DWP confirms that a person receives a HTHG benefit, the supplier may rely on this as a way of demonstrating that a person is a member of the HTHG. If a supplier wishes to rely on a DWP confirmation, it must include the EER URN when notifying the measure to Ofgem. This URN must start with 'EER' and a prefix to indicate supplier, followed by a unique number. Suppliers must also notify the Help To Heat Group Verification Method as 'ECO Eligible Referral' on their notification template.

Income levels under Child Benefit

3.139. We expect suppliers to communicate to the supply chain that where a person is in receipt of one of the HTHG qualifying benefits listed in Table 2 this evidence route should be pursued before using Child Benefit. Verifying eligibility through the Child Benefit route should be the method of last resort and only utilised where **all** other routes of establishing eligibility are exhausted.

3.140. Where Child Benefit is used to evidence HTHG eligibility, suppliers should collect a self-declaration, as well as evidence of the occupier's bank statement, payslips or P45 showing both that Child Benefit payments can be provided and that the occupier's income is within the ECO4 Child Benefit thresholds, see below in Table 3.

3.141. The use of customer self-declarations to prove the above is no longer sufficient by itself so alternative evidence, such as council tax letters to show the number of adults residing at the address, and the Child Benefit letter showing how many children within the household are supported by the payment, will also be required.

3.142. Evidence should be collected no more than 12 months from the day on which the measure is completed to verify that the person living at the premises confirms to not only be in receipt of Child Benefit, but also is under the relevant annual income threshold for the household composition.

3.143. The declaration must also be counter-signed by the relevant third party to provide assurance that the person living at the premises is in receipt of Child Benefit and is not in receipt of any of the other qualifying benefits listed in Table 2. The relevant third party could include, but is not limited to: the installer, operative, assessor or managing agent. We will monitor the number of measures notified using the Child Benefit eligibility route and may undertake targeted audits were considered appropriate. In this instance, we will work with suppliers to seek assurance that household eligibility has been appropriately verified, and other routes discounted, as well as verifying the evidence. Where there is evidence of suspected fraud or misrepresentation this will be treated under our existing Counter Fraud policies, and measures will be at risk of rejection. Further information on our Counter Fraud policies is provided in Chapter 8: Monitoring, audit and fraud prevention.

Child Benefit income thresholds

3.144. Table 3: ECO4 Child Benefit income thresholds (before tax and National Insurance) provides the figures for the ECO4 Child Benefit income thresholds.

Table 3: ECO4 Child Benefit income thresholds (before tax and National Insurance)

Type of claimant	Number of children or qualifying young persons			
	1	2	3	4 or more
Single claimant	£19,900	£24,800	£29,600	£34,500
Member of a couple	£27,500	£32,300	£37,200	£42,000

ECO4 Flex for Local Authorities and suppliers

3.145. Suppliers can deliver up to 50% of their obligation through the ECO4 Flexibility eligibility (ECO4 Flex) route. Delivery under ECO4 Flex is optional for suppliers.

3.146. We have provided guidance below on this eligibility route for suppliers and supply-chain members. There is a separate guidance for Local Authorities (LAs), the ECO4 Guidance: Local Authority and Devolved Government Administration, which is published on the Ofgem website.[49]

3.147. There are four separate qualifying routes to identify low income and vulnerable households. All four routes can be used as evidence by a single LA, and each route should be used independently of each other. In ECO4, suppliers may also use ECO4 Flex however they can only provide evidence for routes 2 and 4. The eligible routes are:

Table 4: ECO4 Flex Routes

ECO4 Flex Routes	
Route 1	**Household combined income:** Households living in a SAP band rated D, E, F or G home, with a combined gross income from all sources under £31,000. **(LA route only).**
Route 2	**Proxy Targeting:** Households in SAP bands E, F or G and meeting a combination of two proxies outline in Table 5.

[49] https://www.ofgem.gov.uk/publications/eco4-guidance-local-authority-administration

	Suppliers are also able to refer ECO4 Flex households under this route using either a combination of supplier and LA data or by solely using their own data. **(LAs and supplier route).**
Route 3	**NHS referrals:** Households living in band D, E, F or G homes and identified by either a general medical practitioner, a Health Board in Scotland, a Local Health Board in Wales, an NHS foundation trust, or by an NHS trust as suffering from a severe and /or long-term health condition that could be severely impacted by living in a cold home. **(LA route only).** These health conditions may fall under one of the umbrella conditions: • A cardiovascular condition, • A respiratory disease, • Limited mobility, or • Immunosuppression.
Route 4	**Bespoke targeting:** Suppliers and LAs can submit an application where they have identified a new mechanism which identifies low income and fuel poor households. Applications need to demonstrate that, as well as living in a SAP band D, E, F or G property: • The proposed methodology would identify low-income households where no more than 49% are in the Help to Heat Group, **and** • Where at least 75% of the households that meet the criteria are in owner-occupied premises and contain at least one person living in fuel poverty, or • At least 90% of the households that meet those criteria are in private rented premises that contain at least one person living in fuel poverty. The proposals are submitted and assessed by a BEIS panel. If successful and the application is approved, completed projects in households targeted using that method would receive a score uplift of 10%.

	Suppliers who refer households under Bespoke Targeting do not need to combine their application with debt data **(LA and supplier route).**

Table 5: ECO4 Flex Proxy Targeting criteria

ECO4 Flex Route 2 Proxy criteria
1) a) Homes in England in Lower Super Output Area (LSOA) 1-3 areas[36] or, b) Homes in Welsh provision Lower-layer Super Output Area in the first, second or third decile on the Welsh Index of Multiple Deprivation 2019 published in November 2019 by the Welsh Government[37] or, c) For premises located in Scotland, a data zone which is identified as being in the first, second or third decile on the Index of Multiple Deprivation for 2020 published by the Scottish Government[38]*
2) Householders receiving a Council Tax reduction (reductions based on low income only).
3) Householders vulnerable to living in a cold home as identified in the National Institute for Health and Care Excellence (NICE) Guidance [6]: Recommendation 2.[50] Only one from the list can be used, excludes the proxy 'low income'.*
4) A householder receiving free school meals due to low-income.
5) A householder referred under a LA run scheme which aims to support low income and vulnerable households.
6) A household referred to the LA for support by their energy supplier or Citizens Advice because they have been identified as struggling to pay their gas and electricity bills, (LAs only).*

36 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/845345/File_7_-_All_IoD2019_Scores_Ranks_Deciles_and_Population_Denominators_3.csv/preview
37 https://gov.wales/welsh-index-multiple-deprivation-full-index-update-ranks-2019
38 https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/
50 https://www.nice.org.uk/guidance/ng6/chapter/1-Recommendations#recommendation-2-ensure-there-is-a-singlepointofcontact-health-and-housing-referral-service-for

7) a) Non-Pre-Payment meter households will be eligible if in debt for more than 13 weeks, ending with the day on which the declaration is made, **and** in a debt repayment plan with their energy supplier or repaying their fuel debt through 3rd party deductions (Suppliers only).*

b) Pre-Payment meter households, have to have been either self-disconnected or received supplier Discretionary / Friendly credit within the last 13 weeks, ending with the day on which the declaration is made; or in a debt repayment plan with their energy supplier; or repaying their fuel debt through 3rd party deductions. (Suppliers only).*

*Proxies 1 and 3, proxies 6 and 7 cannot be used in combination with one another.

3.148. It is mandatory for suppliers to use one type of customer debt-data (PPM or non-PPM data), in combination with one other proxy from Route 2 with the exceptions of the LA run scheme and utility bill support.

3.149. Properties that suppliers have identified must be a private domestic premises for which the pre-project SAP band is D, E, F or G for owner-occupied homes, or SAP bands E, F or G for private rented sector households.

3.150. It will be the responsibility of both the LA and the supplier to retain evidence for the eligibility route after Final Determination has been decided for the ECO4 scheme for three years as a minimum.

3.151. Suppliers will be required to notify Ofgem of the referral route being used when notifying LA Flex measures on their project notification.

3.152. Where the cost savings for a supplier’s flexible eligibility exceeds the ECO4 Flex cap of 50% of HHCRO, those excess savings may not count towards a supplier’s ECO4 obligation.

3.153. In recognition of doctor’s and GP’s time and effort, and to reduce their administrative burden, we have published a standard referral letter on our website that can be used for Route 2, proxy 3, and Route 3.

Statement of Intent

3.154. LAs will be required to publish a Statement of Intent (SoI) to participate in ECO4 Flex. The SoI will need to follow the format of the template provided in Ofgem's ECO4 Guidance for Local Authorities. The SoI must be publicly available (eg published on an LA's website) so that it can be easily accessed by interested parties.

3.155. LAs are responsible for ensuring the Sol is accurately numbered and dated to allow for clear distinction from previous versions. The LAs must ensure all published versions of the SoI remain publicly available for viewing (eg published on an LA's website). All previous versions of the SoI should be marked 'withdrawn / superseded' and dated accordingly.

3.156. The SoI template includes fields for the following information:

a) Name of the LA,

b) LA they are acting on behalf of (if relevant),

c) Date of publication,

d) Version number,

e) A statement to outline that the LA will be using one of the four eligible routes to identify households. Where LAs use the LA-run scheme proxy (listed as proxy 5 above), the name and the description of the scheme must be stated in the SoI. The description will need to include which cohort of people it is helping and how they have identified the household or person as meeting the low-income and vulnerable to the cold criteria. The dedicated LA officer will be responsible for checking and verifying declarations and associated evidence submitted.

f) A signature (or co-signature) from the CEO or dedicated responsible person to confirm the above.

3.157. A local authority can provide SoIs for households not within its administrative area under certain circumstances. For example, this includes where a LA delegates some functions to another LA, where the LA providing the service is best placed to make a determination of the eligibility of a household. In such situations all relevant LAs must co-sign the SoI to confirm which LAs are operating on behalf of others. This must also be recorded on the LA declaration. The LA who delegates functions to another LA must ensure that this is made clear on their website.

Local Authority declarations

3.158. LAs are also required to produce a declaration for all properties they refer. LAs can only issue declarations once they have published an SoI. The declaration will be a standardised template that includes the following fields:

a) LA Declaration Unique Reference Number (URN),

b) Referral made outside of LA remit (optional),

c) Referral Route:

- Route 1: Low Income households,
- Route 2: Proxy Targeting- including Supplier Flex (see 3.180),
- Route 3: NHS Referral, or
- Route 4: Bespoke Targeting (BEIS Panel); include approved application number

d) Route 2 or Route 3 proxies (only mandatory if referral routes 2 or 3 are used),

e) Address details – street name and postcode,

f) LA area,[51]

g) Confirmation of the LA's consultation with the supplier prior to measure installation,

h) Date of householder eligibility,

i) Statement of Intent publication date,

j) Statement of Intent link.

[51] A local authority can provide declarations for households not within its administrative area under certain circumstances. For example, this includes where a LA delegates some functions to another LA, where the LA providing the service is best placed to make a determination of the eligibility of a household. In such situations all relevant LAs must co-sign the SoI to confirm which LAs are operating on behalf of others. This must also be recorded on the LA declaration.

3.159. LAs will be required to submit declarations to suppliers / installers or their managing agents at the same time that they notify them to Ofgem. Ofgem will then use these notifications as part of project processing for households referred through ECO4 Flex by comparing them to supplier project notifications that are using the LA declaration eligibility route. Declarations must be notified to Ofgem before measures are installed. Where a measure is notified by the supplier, Ofgem will cross reference the supplier's notification against the LA's notification to ensure the details match and will then approve or reject the measure. A supplier's notification won't be able to process until the LA's declarations has been processed.

3.160. The LA declaration must be issued within the 12 month period ending with the day immediately preceding the day on which the measure is complete.

3.161. LAs will be expected to provide Ofgem with their declaration notification in a CSV file, the template for which can be found on our website. For the beginning of the ECO4 Flex scheme, LAs can send this LA notification file via email at ECO4Flex@ofgem.gov.uk for Ofgem to review. Ofgem will aim to respond within 10 working days.

3.162. Once the ECO4 LA Flex Register becomes available in 2023, the LA should notify their declaration to Ofgem on the LA Register. Once built, the matching process will be automated.

3.163. The LA is responsible for making the determination that a household is eligible. Whilst suppliers should be able to rely on LAs having made an accurate assessment of households, this cannot be fully confirmed until after the checks and audits have been completed.

3.164. Where there is a mismatch between what a supplier notifies and what is included in the LA declaration, an error will be flagged, and this will be sent back to the supplier for remediation. Where evidence cannot be obtained, we will be minded to reject the measures. Table 6 presents some examples of potential causes of mismatches and the remediation steps:

Table 6: LA declaration mismatches and remediation steps

Error	Remediation steps
Supplier notifies measure using LA Flex eligibility but there are	This could occur when the LA has not notified the declaration for that household prior to the supplier notifying the measure. Potential options:

no declaration details that match the declaration number or address.	• Notify supplier that declaration doesn't exist; • Measure held until next processing round to give time for declaration to be notified then flag to supplier.
Project uses the same URN as a previous project.	Supplier would need to reassess their Project Notification Reference to ensure that each measure has been installed with a separate reference identity.

3.165. LA declarations will remain valid for a period of one year from the date of signature or until 31 March 2026, whichever is earliest, providing there is a valid SoI in place and that it meets the ECO4 requirements. There is no requirement to reassess households once a LA declaration has determined a household to be eligible when the project starts if that assessment took place within one year under a valid SoI and meets the ECO4 requirements.

3.166. When notifying LA Flex measures to Ofgem, suppliers will need to provide the unique reference number (URN) of the completed LA declaration. Each project under ECO4 will need a separate URN.

3.167. The URN on the LA declaration must follow the format below:

ANNNNNNNN-NNNNN

3.168. The 'ANNNNNNNN' should identify the LA making the declaration. Each LA has a 9-digit ONS code. For example, the ONS code for Liverpool is E08000012. These ONS codes are available online and an amalgamated list of area codes can be found in BEIS' Household Energy Efficiency National Statistics tables.[52]

3.169. The second section of the URN, 'NNNNN', should represent the number of the declaration in the order it has been made. For example, the first declaration can be 00001.

3.170. Suppliers will also need to notify which of the four referral routes is being used for that project. We will then check this against LA declarations.

[52] See Tab 3.4 of the 'Headline HEE release tables' for area codes https://www.gov.uk/government/collections/household-energy-efficiency-national-statistics

3.171. This process is illustrated in Appendix 6.

3.172. Suppliers have the options to work with the LA under the LA run scheme proxy under Route 2.

3.173. Where suppliers work with the LA, they will need to combine one of the two 'supplier only' proxies (see Table 5), with the 'LA run scheme' proxy that aims to support low-income and vulnerable households.

3.174. The 'supplier only' proxy must demonstrate that household is in the following circumstances:

a) Non-Pre-Payment meter (non-PPM), households will be eligible if in debt for more than 13 weeks ending on the day the declaration is made and in a debt repayment plan with their energy supplier or repaying their fuel debt through 3rd party deductions; or

b) Pre-Payment meter households (PPM), have to have been either self-disconnected or received supplier Discretionary / Friendly credit within the last 13 weeks ending on the day the declaration is made; or in a debt repayment plan with their energy supplier; or repaying their fuel debt through third party deductions.

3.175. Where the supplier works together with the LA, they must consult with the LA prior to installing measures once they have collaboratively identified a household. This is to keep the LA well informed of eligible ECO4 Flex households.

3.176. Example 1 in Figure 6, demonstrates the evidence collected by the supplier and LA to refer an eligible household for the scheme:

Figure 6: Example 1: LA and supplier collected evidence under Supplier Flex

Actor	LA and Supplier Flex eligibility	Evidence
Local Authority	A non-pre-payment meter household has been in debt for 100 days and is repaying their fuel debt through 3rd party deductions.	LA signed declaration

	A member of the household has been referred by a LA under a scheme established by the LA to support households containing people who would be considered vulnerable to the cold for the purposes of NICE Guidelines.	

3.177. In this example, the supplier is responsible for identifying and providing evidence for the customer's PPM data, while the LA is responsible for finding and evidencing the LA scheme proxy. In this example, the LA signs the declaration and sends a LA notification to Ofgem.

Supplier Project Notifications

3.178. Suppliers also have the options to work independently from the LA and refer households based entirely on their own debt data along with another proxy listed under route 2, which is not owned by the LA.

3.179. As outlined in Table 5, Route 2 requires two proxies from suppliers to be used to identify households. One of those proxies **must** either be proxy 7 or proxy 8.

3.180. Where a supplier identifies PPM / non-PPM households and wishes to refer them separately from the LA, they will need to evidence through their project notification that the household meets another proxy outlined in the Route 2 criteria, with the exceptions of households who benefit from a LA run scheme or claim utility bill support (proxies 5 and 6 in Table 5).

3.181. An example is given in Figure 7 below.

Figure 7: Example 2: evidence collection from suppliers

Actor	Supplier Flex eligibility	Evidence
Supplier	A pre-payment meter household has been self-disconnected from its provider for six weeks.	Supplier evidence this referral via their

	This household also receives Council Tax reductions based on low-income.	ECO4 project notification

3.182. As shown in Example 2 in Figure 7, the supplier is responsible for identifying and referring households based on the customer's PPM data and, because they are not using the LA scheme proxy, another proxy listed in Route 2 needs to be used, with the exception of electricity and gas bill support. In this example, the supplier produces their project notification.

3.183. We encourage all suppliers to keep a list of households they have referred for the scheme and who have been approved for checking and auditing processes. They will also need to retain householder evidence. For more information on auditing under ECO4 Flex, please see paragraph 3.186.

3.184. Suppliers must consult with LAs prior to installing measures once they have identified a household within their remit to keep the LA well informed of eligible ECO4 Flex households.

3.185. The criteria for suppliers that will form part of their project notification will be the following:

a) ECO Supplier Reference Number,

b) Project Reference Number,

c) ECO Flex Supplier Data: PPM / non-PPM data,

d) Referral Route:

- Route 2, Proxy Targeting,
- Route 4, Bespoke Targeting; include BEIS approved application number,

e) Address details – street name / postcode,

f) Date of householder eligibility.

ECO4 Flex Audits

3.186. Suppliers will be expected to collect sufficient evidence from all ECO4 Flex measures to ensure that they meet the eligibility and compliance requirements of the scheme.

Table 7: Non-exhaustive list of evidence examples for Routes 1-4

Referral Route	Evidence
Route 1: Low income	All evidence should be within the last three months. • Tax returns, • Payslips, • Bank statements proving income payments, • P45 or P60 documentation showing household annual income or benefits.
Route 2: Proxy targeting	• Screenshot from the LA confirming the household is within a LSOA area, supported by Office for National Statistics (ONS) data; ONS Postcode Directory look-up - Office for National Statistics (onsdigital.github.io). • Photo of council tax reduction with name and address, or letter confirming reduction from LA. • Official, signed letter from a Doctor / GP identifying that someone has a medical condition, following NICE Guidance: NG6, and excluding the low-income health proxy. • Signed letter from local authority that proves the household was eligible for a LA-run scheme. • Eligibility Checking Service (ECS), documentation showing eligibility for free school meals for low-income provided by the Department for Education or the school the child attends. • Letter from the energy supplier or Citizen's advice, showing that the household has been referred to the local authority for utility bill support **(LA proxy only).** **PPM / non-PPM evidence (supplier provided data):** Customer tariff data to indicate the customer's payment method.

Route 3: NHS referrals	Signed referral letter found on Ofgem's and BEIS' website from either an NHS Trust, NHS Trust Board or NHS Primary Care provider. This letter will need to state that the medical professional signing the letter considers someone in the household to be suffering from a severe and/ or long-term health condition that could be severely impacted by living in a cold home.
Route 4: Bespoke targeting	The evidence for this will be assessed as part of the panel assessment by BEIS. Once approved we will check the reference numbers for the application.

3.187. Ofgem will send suppliers an annual sample of measures that they have notified throughout the duration of the year and request that suppliers carry out internal checks on them to ensure that they have complied with the scheme's requirements.

3.188. If the supplier's evidence is insufficient or incorrect, they will need to engage with the LA to review their data or check their own project notifications.

3.189. Once the supplier has carried out its internal checks, they will be expected to present the evidence to Ofgem through a measures-compliance report. Where the evidence was found to be insufficient or incorrect, the supplier must explain in detail the reasons for the error and measures may be rejected.

3.190. Ofgem will then publish on their website their own report to summarise the overall findings of the audit. This report will assess the reasons for non-compliance and further auditing may be carried out where necessary.

3.191. Where Ofgem identify that LAs have not carried out adequate due diligence checks, we will include this in the report. Ofgem would expect suppliers to consider this report when delivering Flex measures for the following year.

3.192. Where Scottish and Welsh governments submit SoIs and declarations on behalf of LAs within their remits, they will be expected to carry out their own checks on LAs to ensure that have complied with Ofgem's guidance. Whilst they will be responsible for their own LA remits in this situation, Ofgem will still monitor Scottish and Welsh declarations. All SoIs must be made publicly available.

3.193. If Scottish and Welsh governments do not submit a SoI and declaration on behalf of LAs within their remit, Ofgem will audit the LAs following the process described above.

4. Projects

Multiple measure approach

4.1. This section focusses on the whole-house approach taken for ECO4 projects. It includes information on the minimum requirement, rejections, building fabric repairs and the exclusion of blended funding for ECO4 projects.

4.2. ECO4 adopts a whole-house approach to energy efficiency improvement, as set out in Publicly Available Specification (PAS) 2035:2019 (see paragraph 4.8), whereby multiple measures are installed in a property following a full assessment of the home's needs. Packages of one or more ECO4 eligible measures delivered to the same domestic premises by the same supplier is referred to as an 'ECO4 project'.[53] For the purposes of our administration, all measures installed under ECO4 will be associated with a project, even where there is only a single measure installed at a property.

4.3. Where the project meets certain requirements (see paragraph 4.23) the final score for a property will be attached to the project, rather than the individual measures. This is called the full project score (FPS), which may only be awarded once a project is complete, the minimum requirement is met, relevant post-retrofit evidencing is provided and all measures in that project have passed required validation checks.

4.4. As an interim approach for measures awaiting project completion, or for completed projects that do not qualify for the FPS, individual measures can be awarded deflated partial project scores (PPS). PPS will be provisionally awarded to measures that pass required eligibility checks and are moved into an approved status on the ECO4 register. This approval is not final and may be revoked.

4.5. For the above purposes, a project is considered complete once a supplier re-notifies an existing project as a completed project notification on the ECO4 register. Please see our ECO4 Guidance: Supplier Administration[54] for more details on the notification process.

4.6. PPS measures are capped at 12.5% of a supplier's total Home Heating Cost Reduction Obligation (HHCRO). We will determine whether a cap has been breached at final

[53] See Article 2 of the ECO4 Order
[54] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents

determination, at which point any measures in excess of this cap may not count towards a supplier's obligation. See Appendix 5 – Uplifts, increases, deflators, caps and requirements for a list of all caps in ECO4.

4.7. The following counts towards the PPS cap, provided the measures are approved:

a) Measures in completed projects that do not meet the minimum requirement, and where no exemption applies.

b) Measures in projects that remain incomplete at final determination.

PAS and the whole-house approach

4.8. The multiple-measure approach of ECO4 aligns with the whole-house approach to domestic retrofits outlined in PAS 2035:2019.[55]

4.9. PAS 2035:2019 covers the whole life cycle of a retrofit project, from the initial engagement with a client, through the assessment, design, installation and subsequent evaluation and monitoring stages that should be undertaken to ensure that suitable energy efficiency measures are installed appropriately to the right premises.

4.10. It supports both the one-off installation of improvement measures and a staged approach in which improvement measures are implemented over time.

4.11. PAS 2035:2019 is the over-arching document in the retrofit standards framework, with which users of the TrustMark Government-endorsed quality scheme are required to comply when carrying out domestic retrofit work. It may also be applied to retrofit projects outside the TrustMark Quality Assurance Framework. It references measures from both the PAS 2030:2019 standard as well as from the Microgeneration Certification Scheme (MCS).

4.12. PAS 2030:2019 sets out how the installation of specific energy efficiency measures should be carried out in existing domestic buildings. The primary objective is the provision of a robust, uniformly applicable energy efficiency measure installation process that will assist installers that comply with its requirements in full to

[55] https://shop.bsigroup.com/products/retrofitting-dwellings-for-improved-energy-efficiency-specification-and-guidance-3/standard

demonstrate that their installation processes can provide installation to specification and in accordance with the client's expectations.

4.13. MCS is a standards organisation, creating and maintaining standards for the certification of low-carbon energy technologies, installers, and their installations. On behalf of MCS, Certification Bodies who hold UKAS accreditation to ISO 17065 run the certification scheme associated to these standards. Membership of MCS represents the adherence to these recognised industry standards; highlighting quality, competency, and compliance.[56] MCS certified installers are required to follow standards that ensure good performance and that installers are technically safe and competent.

4.14. ECO4 projects which involve one or more measures referred to in PAS 2035:19 should follow the domestic retrofit process required by PAS 2035:2019. This includes but is not limited to a pre-retrofit assessment, development of an improvement option evaluation and medium-term improvement plan[57], installation of measures, commissioning, and handover. This initial pre-retrofit assessment is the start of the lifecycle of a project and determines the starting SAP rating of the property which is needed to evidence eligibility and calculate scores.

4.15. ECO4 projects may also require an updated retrofit assessment after the project is completed for the purposes of scoring, to verify the minimum requirement (MR) has been met and for FPS to be awarded (see chapter 6: Scores).

4.16. We expect that projects in compliance with PAS 2035 will be managed by a Retrofit Coordinator (RC). The Retrofit Coordinator should be qualified in accordance with the requirements set out in Annex A of PAS 2035:2019. They are responsible for overseeing the project from inception to completion, ie the risk assessment, the dwelling assessment, the retrofit design, installation, and post-retrofit monitoring and evaluation. They will also be responsible for ensuring and claiming compliance with PAS 2035.

4.17. We anticipate Retrofit Coordinators working on ECO projects will be aware of ECO4 rules and will manage the projects in accordance with these.

[56] See https://mcscertified.com/about-us/
[57] Projects assessed to follow the Path A domestic retrofit process may not require an improvement option evaluation and medium-term plan. See PAS2035:19 0.5.

4.18. Compliance with PAS will be evidenced through TrustMark registration and their Quality Assurance Framework. Any measure covered by PAS, and any project containing such measures (including MCS), should be lodged with Trustmark and awarded a relevant certificate of lodgement as a requirement to become a qualifying action.

4.19. Where an ECO4 project consists of a District Heating Connection (DHC) only, or a DHC and one or more novel data light measures (DLM) only, its starting SAP rating should be evidenced through a SAP 2012 assessment that must then be lodged as an EPC.

4.20. Where an ECO4 project consists only of novel DLM, it's starting SAP rating should be evidenced through an RdSAP assessment that must then be lodged as an EPC.

4.21. Where a project includes DLM or IM that are not listed in PAS 2035:2019, these may be classed as 'Other EEMs, including innovations' for the purposes of PAS 2035:2019. These projects will need to follow the Path C domestic retrofit process.

4.22. Where suppliers have a project consisting only of DHC measures, DLMs or IMs that are not installed in accordance with PAS 2030:2019 or MCS standards, and where PAS 2035 is not relevant, suppliers should ensure that measures are installed according to relevant standards for those measures, and contact us prior to installation if uncertain.

Minimum requirement

4.23. In order to be granted a FPS, a project must produce a sufficient increase in the property's SAP rating to meet the minimum requirement (MR). The minimum requirement is:

- Any starting SAP band F or G property treated must be improved to at least a band D.

- Any starting SAP band D or E property treated must be improved to at least a band C.

4.24. Properties with a starting SAP band of C or above are not eligible under ECO4. The only exceptions to this are in-fill retrofits, which are not subject to the usual eligibility requirements or minimum requirement.

4.25. Whether a project meets the MR does not impact the eligibility of the measure(s) within that project. Projects which do not achieve the MR will receive deflated PPS, unless they are subject to certain exemptions discussed in paragraphs 4.27 - 4.32.

Deflated PPS will only be awarded where the supplier has not breached their PPS cap. If they have, the measures may not count towards a supplier's obligation .

4.26. Chapter 6 provides more detail on scoring measures and projects in ECO4.

Exemptions and consumer circumstances

4.27. Various circumstances may prevent the installation of a measure, for example where the property is a listed building. These circumstances are called exemption categories. Where a measure is considered for installation in a project but meets an exemption category, this may be used to exempt the measure or project from the following requirements:

- The measure may be exempt from the minimum insulation requirements.
- The measure may be exempt from installing certain heating measure(s) in the off-gas heating hierarchy.
- The project containing the measure may receive FPS without meeting the MR. See paragraph 4.28 for more details.

4.28. A project may be awarded a FPS despite not meeting the MR, if one or more of the measures required to meet the MR could not be installed due to an exemption. This applies only to projects with a starting SAP band E, F or G. This only applies where there are otherwise too few suitable ECO-eligible measures to meet the MR as set out in the PAS Improvement Option Evaluation (IOE) and corresponding pre-installation RdSAP / SAP assessment. All other ECO-eligible measures recommended in the IOE must be installed, excluding those attracting exemptions, and there must be no other possible combination of ECO eligible measures that would result in a higher SAP rating.

4.29. Subject to the same requirements, FPS may also be awarded to a project that does not meet the MR where we are satisfied there is no combination of eligible ECO4 measures that would allow the project to meet the MR, even without exemptions.

4.30. Additionally, a project may be awarded FPS without meeting the MR where the project ended early due to unexpected circumstances impacting the consumer, pending approval by Ofgem. This covers situations such as a death in the household or change in occupancy and are referred to collectively as consumer circumstances. See 4.36 for more detail on acceptable circumstances. Consumer circumstances may only be used to exempt a project from the MR, and not insulation requirements or the off-gas hierarchy. Like exemptions to the MR, this is only allowed in projects with a starting SAP band of E, F, or G.

4.31. Where a measure is exempt in a project that is lodged with Trustmark, it will be validated against data held in the Trustmark Data Warehouse. For non-Trustmark projects suppliers must be able to provide evidence that a measure could not be installed because of an exemption. Information on consumer circumstances is not held by Trustmark and should be held by suppliers in all cases. The exemption categories and example consumer circumstances, along with the documentation required to evidence them, are listed in Table 8.

Table 8: Exemption categories and consumer circumstances

Exemption category	Evidenced via
Where the property is a listed building	A letter from planning dept. at relevant local authority, English Heritage, Cadw, or Historic Scotland stating that it is not possible to install a specific measure due to the building being a listed property / rejected planning application
Where the property is in a conservation area (and failed to gain planning permission)	A letter from planning dept. at relevant local authority, English Heritage, Cadw, or Historic Scotland stating that it is not possible to install a specific measure due to the building being in a conservation area
Where the property houses a protected species that would be materially affected by one or more installations	Letter from Natural England, Scottish Natural Heritage, Natural Resources Wales, or a chartered ecologist (a member of Chartered Institute of Ecology and Environmental Managers) stating which protected species is housed at the property and that installing the measure would materially affect the species
Where it would otherwise be unlawful – eg where planning permission has been refused	Letter from relevant local authority's planning dept. or RICS stating which law prevents the installation of the measure(s)
Where local environmental conditions mean some measures can never be appropriately installed (eg regular exposure to driving rain)	PAS retrofit assessment, improvement options evaluation and medium-term improvement plan for the property

Where the structure/fabric of the building, or access constraints prevents installation of some measures (eg a narrow passageway that cannot accommodate scaffolding for external wall insulation, or a wall type that is not suitable for cavity or solid wall insulation)	PAS retrofit assessment, improvement options evaluation and medium-term improvement plan for the property
Consumer circumstance	**Evidenced via**
Where the project ends early due to a change in occupancy of the household	Tenancy agreement
Where the project ends early due to the death of a member of the household	Death certificate

4.32. Suppliers should notify exemptions to Ofgem through the measure notification template.[58] As these are notifications of measures that were not installed, the majority of fields on the template may be left blank. Only a few key details including the measure and project reference numbers, measure type and exemption category are required. These notifications will receive no score and are not subject to the usual notification deadline. These will be distinguished from regular measures through the 'purpose of notification' field.

4.33. As certain details contained within the measure name may not be available for exempt measures, suppliers will be able to notify any measure type within the specific measure category. For example, if a property could not have external wall insulation installed, then the supplier could notify an exempt measure with the measure type listed as 'EWI_solid_1.7_0.3' or 'EWI_solid_1.7_0.55' or any other variant of external wall insulation and it would be considered simply as external wall insulation for validation purposes.

[58] The measure notification template is found on this page: https://www.ofgem.gov.uk/publications/eco4-supplier-data-dictionary

4.34. Where a supplier wishes to request a project to be exempt from the MR due to: containing an exempted measure; where there is no possible combination of ECO4 eligible measures that would meet it; or where there are consumer circumstances; they should do so using the completed project notification.

4.35. Properties that receive FPS without meeting the MR under these circumstances are capped. This cap is 7500 properties across all of ECO4, of which a proportion will be allocated to each supplier for each phase based on the size of their total obligation (note this will be re-calculated based on changed HHCRO after any trade of obligations). Properties above this cap will receive PPS even where an exemption applies.

4.36. Suppliers should also indicate where they request an exemption from the MR due to consumer circumstances through the completed project notification. These are not capped. Where a supplier wishes to notify consumer circumstances that are not a death in the household or change of occupancy they should contact Ofgem in advance of notification to discuss suitable evidence. Suppliers should also contact Ofgem where they wish to use alternate evidence to the options listed in Table 8. This should only be done in exceptional circumstances. We will judge these on a case-by-case basis and reserve the right to deny an exemption where we do not consider one is warranted. We will not consider medical issues as valid consumer circumstances based on the reasons stated in the Government response to the ECO4 consultation.[59]

4.37. See 7.2 for more information on notification of projects and the completed project notification.

[59] See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

Projects with non-compliant and rejected measures

4.38. Individual measures will be rejected where they do not comply with scheme requirements. If a measure rejection occurs in a project, it may no longer meet the MR.

4.39. Whether a project with non-compliant measure(s) receives FPS, PPS or no score depends on the nature of the non-compliance as well as on whether the MR was met at the point of completed project re-notification.

4.40. Where non-compliant measures are identified in our compliance processes, we will reach out to suppliers to enable them to make representations to provide the necessary evidence or rectify a measure. Where no successful representations are made, we are minded to reject the non-compliant measure (minded-to-notice process). If a measure cannot be approved due to a minor administrative error, for example missing key information on mandatory documentation, that will still be considered a compliance failure and must be rectified or be at risk of rejection. Where the rectification occurs after the retrofit time-limit, a late penalty may apply, however scores will not be deflated provided the MR is met. Rejected measures cannot contribute to the MR.

4.41. For measures lodged with TrustMark, where a measure has been found non-compliant through TrustMark's Quality Assurance framework, we expect suppliers to conduct remedial work wherever possible. Should the MR of the project be dependent on that measure and the measure is:

- rectified successfully and approved by Ofgem, the project consisting of its measures and the rectified measure will receive FPS. The rectified measure is subject to the late penalty if the rectification is completed after the project deadline or an extension to that deadline. The rectification will be monitored by Trustmark.

- not rectified successfully, the measure will be rejected. The remaining measures in the project will receive PPS if the MR is no longer met, or if the MR is still met, the project will receive FPS.

4.42. For DHC measures, which fall outside of the remit of TrustMark's Quality Assurance Framework, where measures are identified as not registered or are non-compliant with the Heat Trust Scheme, or equivalent, we will reach out to suppliers to enable them to make representations to provide the necessary evidence or rectify a measure. Where no successful representations are made, we will be minded to reject measures and will follow the 'minded-to-notice' process.

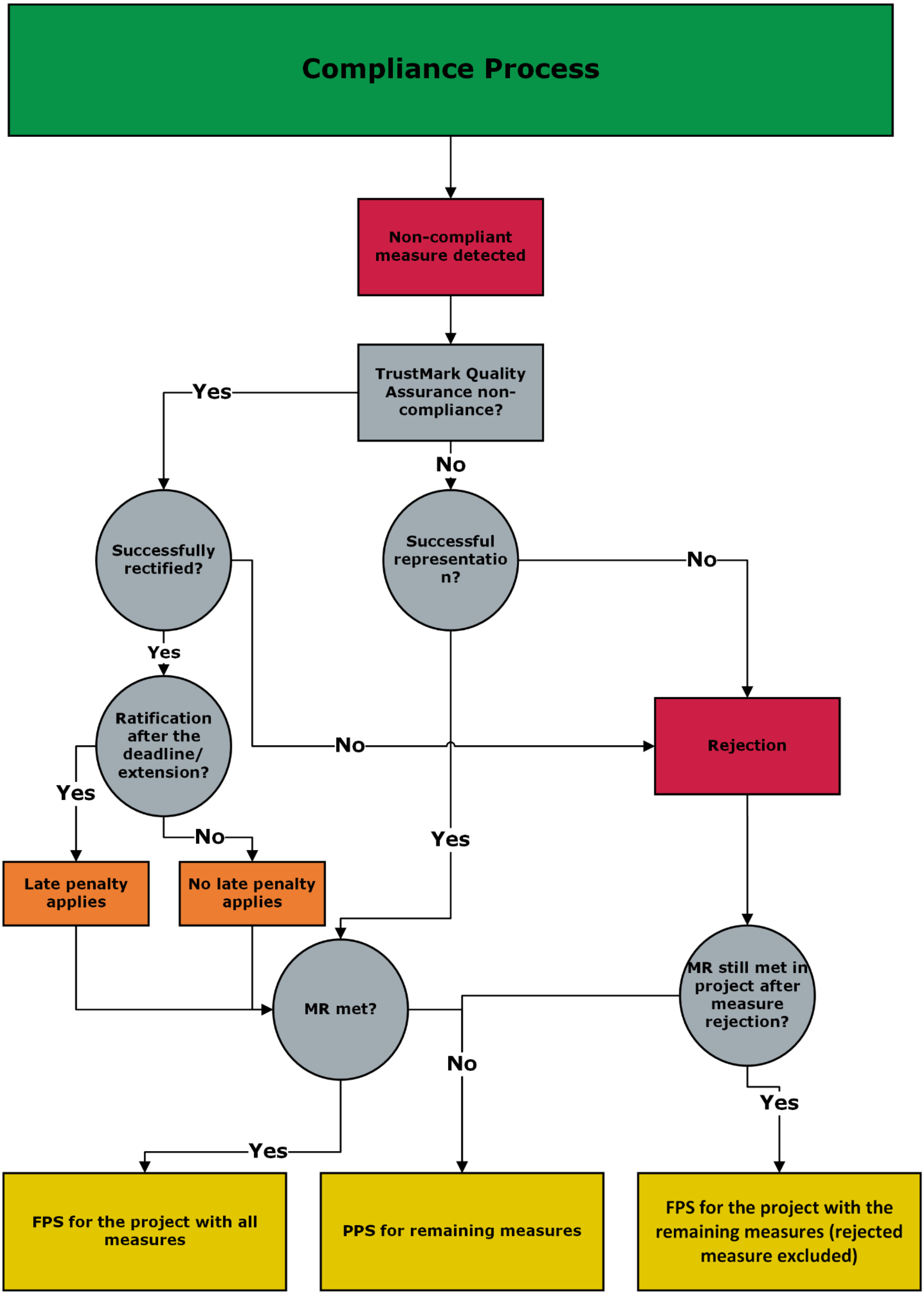
4.43. Where an exemption applies to a project (see paragraph 5.80 following for information on exemptions) the MR no longer applies, however all measures which are deemed appropriate by the PAS retrofit design to meet the MR in theory, including in the IOE, must then be installed. Where a rejection occurs that cannot be rectified in a project where an exemption applies, it will be considered that not all measures that are deemed appropriate were installed. The remaining measures in the project will receive PPS and the rejected measure will not receive any score.

4.44. When a measure is rejected, for example if it is an invalid duplicate, no score for the measure will be awarded. If this results in the project no longer meeting the MR, the remaining measures in the project will receive PPS. Depending on the nature of the measure, in some cases the MR in a project could still be met after a measure is rejected, in which case the project with the remaining measures would still receive FPS without taking the rejected measure into account. This means that the final SAP (or RDSAP) rating would need to be reassessed and re-notified to exclude the rejected measure. The FPS will be re-calculated based on the reassessed lower final SAP (or RDSAP) rating, which ultimately results in a lower FPS.

4.45. If an occupant or a property was found to be ineligible for ECO in the first place or where the project is fraudulent, all measures in a package will be rejected and no score for the project will be granted.

4.46. The flowchart below Figure 8 shows the possible scenarios in the compliance process where a measure is found to be non-compliant and the respective scores.

Figure 8: Scenarios for projects with non-compliant measures



Project completion timings

4.47. Individual projects must be completed no more than three months after the installation of the first measure, excluding DHC. Projects containing a DHC have a six-month deadline instead of the standard three months.

4.48. The time limit begins from the date of completed installation (DOCI) of the first measure in the project. For most measures, installation beyond this deadline does not prevent them from being eligible but determines if the project is awarded FPS with or without a late penalty applied. Where we find the DOCI of a measure has been misrepresented to avoid a late penalty we may consider this ground for rejection.

4.49. For all measures, except in-fill, this deadline is only relevant to the FPS where the project meets the MR. Where a project does not meet the MR (and does not meet an exemption criteria), it will receive deflated partial project score (PPS) regardless of whether it was completed within the deadline or not.

4.50. This deadline is different for in-fill measures. In-fill measures installed beyond the project deadline will not be eligible measures and may be rejected. For in-fill, the deadline is not derived from the DOCI of the first measure in the in-fill project, but instead the deadline is three months from the DOCI of the associated ECO measure (or **latest** of the three associated ECO measures in the case of an in-fill house). See chapter 3 from paragraph 3.95for more details on in-fill measures.

4.51. An installation extension of three months will be permitted in circumstances where delays occur due to reasons that could not have been reasonably foreseen at the start of the project, such as building fabric repairs arising mid-project, or prolonged extreme weather conditions.

4.52. Delays that reasonably could have been foreseen and therefore avoided will not be eligible for installation extensions. For example, issues with the availability of installers which could have been mitigated through improved coordination prior to the installation of the first measure.

4.53. These installation extensions are on a per measure basis. Thus, extension requests are submitted for and awarded to individual measures, not projects. In-fill measures may not receive installation extensions.

4.54. If an extension is granted, the total deadline for measures will be six months from the DOCI of the first measure. DHC measures are also eligible for extensions. For projects containing DHC measures, an extension would result in a total deadline of nine months from the DOCI of the first measure.

4.55. Please see our ECO4 Guidance: Supplier Administration for more detail on submitting an extensions request.[60]

4.56. Projects containing measures that exceed the deadline, or projects with measures that exceed an extension to the deadline, may still be granted FPS but with a penalty applied to the score. See Chapter 6 for more detail on the scoring of late projects.

Building fabric repairs

4.57. Building fabric repair (BFR) homes are those which require remedial work to rectify faults or otherwise require spending to treat issues in the property before the installation of energy efficiency measures can take place.

4.58. BFR increases can be claimed for starting SAP band E, F and G homes, and will only be eligible in owner-occupied properties. BFR increases will not be eligible in PRS or social housing, or in-fill properties.

4.59. The BFR increase that can be claimed for a single property is capped. This cap means that the highest assumed BFR spend per property is £1500, however the actual spend on rectifying issues may exceed this6.144. Information on how to claim the BFR increase, as well as other uplifts and increases can be found in the section Uplifts and Increases from paragraph6.129 on.

4.60. BFR is also capped at 0.5% of each supplier's total HHCRO obligation, meaning that the total scores awarded to a supplier through the BFR increase may not exceed the value of 0.5% of their obligation.

4.61. BFR homes must be evidenced using the PAS 2035:2019 pre-installation whole-house assessment as a minimum. This must include "identification of the location and severity of any existing construction defects or structural defects or leaks, and of any condensation and / or mould growth in the dwelling"[61]. This pre-installation

[60] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents
[61] See PAS 2035:2019 chapter 8

assessment is a suitable way of documenting the need for a BFR increase and should be verified by the Retrofit Coordinator as part of the end-to-end retrofit process.

4.62. BFR spend is required to be recorded alongside each issue by the Retrofit Coordinator and lodged in TrustMark's Data Warehouse alongside relevant PAS documentation. Projects that are outside the scope of PAS ie those consisting of DHC or data light measures only are not eligible to receive the BFR increase.

4.63. Therefore, BFR increase should only apply where both the following criteria are met:

a) BFR issues comprise "any existing construction defects, structural defects, leaks, condensation or mould growth in the dwelling", and are identified and evidenced as such under requirements in PAS 2035:2019, paragraph 8.3.1; and

b) Are reported as "defects that need to be repaired before any retrofit work can proceed", as required by PAS 2035:2019, paragraph 8.6.3.

4.64. Table 9 sets out a non-exhaustive list of items which are and are not covered within the scope of the BFR increase.

Table 9: Items which are covered and not covered within the scope of the BFR increase

Covered	Out of scope
Removal of asbestos where this is a legal and / or regulatory requirement	Relaying tiles or carpets
Treatment of condensation or mould growth	Moving items in loft spaces and furniture generally
The repair of an existing construction defect, a structural defect, or a leak	Repainting damaged surfaces
The extraction of cavity wall insulation or loft insulation	Installation of flood mitigation measures
	Installation of ventilation measures

Extraction of pre-existing insulation

4.65. The extraction or removal of insulation is not an ECO measure. However, there are situations where the extraction of defective insulation is necessary. The cost of extracting the insulation may be covered under the BFR increase. In these cases new insulation installed to replace faulty insulation may be an eligible ECO measure.

4.66. Extraction or removal of insulation will only be covered under the BFR increase where no guarantee exists for the existing insulation (whether that guarantee remains in effect throughout the original term or not). Evidence must be provided to Ofgem that there is no warranty in place that covers the remedial work, for example, confirmation from guarantee providers.

4.67. In situations where an appropriate insulation guarantee is still valid, remedial works should be covered by the guarantee and is neither covered under BFR nor an eligible ECO measure. If the guarantee is revoked, then a repair and replacement of a measure would not be eligible under ECO.

4.68. Where there is a building insurance policy for the property, checks will need to be carried out to verify that the insurance will not cover the insulation removal. These checks could either be an enquiry or claim with the insurance provider or identifying relevant sections in the insurance policy document.

4.69. Relevant health and safety checks and procedures for removal must be followed.

4.70. Where there is no warranty or guarantee in place and the remedial work is not covered by building insurance or any other means, consumers should contact the installer responsible for the original installation to check if they will provide remediation.

4.71. Where there is no warranty or guarantee in place, the remedial work is not covered by building insurance or any other means and the original installer is unable to be contacted or refuses to remediate, insulation extraction may be carried out under the BFR increase in the following situations:

a) Where the extraction is recommended by a suitably qualified independent professional and either the installation of the insulation was completed prior to the guarantee requirements or the guarantee has expired. We consider that a chartered surveyor should be able to perform this function as well as someone qualified to the IAA Cavity Extraction & Remediation Certification Scheme.[62] Evidence should be provided to support the reason for removal, for example a C1 monitoring survey, pre-installation building inspection (PIBI), an inspection report, and expired / no guarantee documentation evidence in all cases.

b) Where the existing insulation has failed as a result of historically poor building maintenance (mould and cold spots are not reasons on their own) and the issues with the building have been rectified to ensure that the property is now in a suitable condition for the insulation to be reinstalled. If the poor building maintenance is due to current occupancy then they may be responsible (for example, tampered with roof tiles that resulted in damp insulation) and the BFR will not cover these circumstances, however this will need to be judged on a case by case by evidence provided. Evidence should be provided to support the reason for removal, for example a C1 monitoring survey, PIBI or an inspection report, and to evidence that the building is suitable for new insulation. Ventilation of the property should be assessed to address existing mould and condensation issues prior to further actions.

c) Where a material is causing or exacerbating structural damage to a property, for example foam products expanding and causing bowed walls in CWI, or exacerbating damp, or where there is an infestation that is causing risk to the occupier's health. In these circumstances, we would expect the installer who carried out the initial works to be contacted to rectify the measure. Where this is not possible, evidence should be provided to support the reason for removal, for example a C1 monitoring survey, PIBI, an inspection report, or expired guarantee documentation evidence.

d) Where the existing insulation has failed due to damage from flooding. Evidence should be provided to support the reason for removal, along with a report from a suitably qualified independent professional, such as a certified Property Flood Resilience Surveyor.[63]

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[62] https://www.theiaa.co.uk/news/post/the-iaa-cavity-extraction-amp-remediation-certification-scheme
[63] A Property Floor Resilience Surveyor is considered to be a person of appropriate skill and experience to determine which measures are appropriate for the replacement. Please contact us to confirm whether an alternative professional is suitably qualified.

4.72. In line with the government response[64], we interpret defective to mean the complete and total failure of the insulation measure, for example, not just some gaps in the distribution of a cavity wall insulation measure.

4.73. In these circumstances, a Chartered Surveyor or a skilled technician with the relevant qualifications must provide appropriate reasoning for removal and replacement of the defective insulation, including:[65]

a) Detailed reasons for why the insulation has to be removed;

b) Appropriate evidence that the insulation is directly causing the relevant problems for the premises; and

c) A recommendation for the best insulation for the premises (if any).

4.74. A skilled technician, that could include a Chartered Surveyor, must have visited and inspected the property in person for the purposes of completing the survey. A recommendation based on remote evidence such as photos or video is not sufficient. Instead, they must carry out stringent inspections, such as through use of a borescope to provide the level of certainty required. The process will also invalidate any existing guarantees present.

4.75. Extraction of insulation must follow all relevant standards and requirements, and must be carried out by someone independent of the actual inspection. Once the defective insulation has been removed, remedial work must be completed, where necessary, to address any building issues that may have caused the initial insulation to become defective or to remediate any damage caused to the premises. The premises may then be insulated where a Retrofit Coordinator deems this appropriate for the building and location. A measure may be rejected if we find it has been preceded by a historical extraction that does not comply with the guidance. We expect suppliers to have processes in place to check that insulation was not present in the property prior to the measure being installed.

[64] See paragraph 307 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

[65] A Chartered Surveyor accredited with a Royal Institution of Chartered Surveyors (RICS) membership.

Interaction with funding from other schemes

4.76. Funding for measures delivered under ECO4 cannot be blended with funding from other government schemes or grants. Any measures outside of ECO4 delivered to the same property would have to be installed either before or after all of the ECO4 measures are installed. This means non-ECO measures that may impact the properties' SAP rating cannot be installed between the pre-retrofit SAP assessment and the post-retrofit SAP assessment. This requirement includes, but is not limited to, the following schemes.

Warm Home Discount

4.77. Under the Warm Home Discount (WHD), energy efficiency measures may be installed under industry initiatives (II). The WHD legislation rules out spending on II contributing towards ECO.[66] ECO and WHD funding cannot be combined for any measures and suppliers should have robust processes in place to identify and prevent any potential overlaps.

Home Upgrade Grant

4.78. The Home Upgrade Grant (HUG) aims at supporting low-income households through upgrading the worst-performing off-gas-grid homes in England. These upgrades will create warmer homes at lower cost, and will support switch to low-carbon heating, contributing to both fuel poverty and net zero targets.[67]

4.79. HUG functions as a whole house upgrade scheme, similarly to ECO4. Funding cannot be blended within the ECO4 package of measures.

4.80. Measures delivered under HUG that are not included in the package of upgrades for ECO4 may be installed in line with the key principles set out above to avoid scheme overlap. For example, insulation measures could be delivered under ECO4, followed by a heat pump under HUG after the end of the ECO4 project. In this example, a heat pump would not be eligible for an ECO4 score or contribute to the MR.

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[66] See The Warm Home Discount (England and Wales) Regulations 2022 regulation 21 https://www.legislation.gov.uk/ukdsi/2022/9780348235173 and The Warm Home Discount (Scotland) Regulations 2022 regulation 24 https://www.legislation.gov.uk/ukdsi/2022/9780348236835/contents

[67]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/960200/CCS207_CCS0221018682-001_CP_391_Sustainable_Warmth_Print.pdf

4.81. Where HUG funding is available for multiple dwelling upgrade projects, off-gas premises upgrades should be delivered fully using the HUG funding. Where projects cannot be fully funded under HUG, ECO4 may be used for upgrading other dwellings in the project, subject to those households meeting the ECO4 eligibility criteria.

Boiler Upgrade Scheme

4.82. The Boiler Upgrade Scheme (BUS) offers capital grants to property owners to install heat pumps and in some limited circumstances, biomass boilers, to replace fossil fuel heating systems with a focus on off-gas grid homes.

4.83. Funding from BUS and ECO cannot be blended for the same measure or be included within an ECO4 project.[68] Any measures in receipt of BUS are not eligible to be claimed for ECO4.

4.84. A property treated under BUS can still be treated under ECO4 afterwards if the property meets the relevant pre-retrofit SAP band requirements and ECO4 eligibility requirements. The same is the case for when a property was treated under ECO4 first, then after the end of the project is treated under BUS. For example, a home could be upgraded with insulation measures through ECO4 and with heating measures through the BUS scheme, however, the heating measure would not be eligible for an ECO score.

Social Housing Decarbonisation Fund

4.85. The Social Housing Decarbonisation Fund upgrades social houses to meet an EPC band C standard. It intends to deliver warmer and more energy efficient homes whilst reducing carbon emissions and bills to social housing properties. All social housing landlords are able to directly access funding through the Social Housing Decarbonisation Fund.[69]

4.86. Funding from ECO4 and the Social Housing Decarbonisation Fund cannot be blended for the same measure or be included within an ECO4 project.

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[68] See Article 12(1)(e) of the ECO4 Order

[69] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/960200/CCS207_CCS0221018682-001_CP_391_Sustainable_Warmth_Print.pdf

4.87. In line with WHD, HUG and BUS, any other measures delivered to a property where an ECO4 project takes place would have to be installed either before the first ECO4 measure, or after all the ECO4 measures are installed.

4.88. Social housing funding and ECO4 could work in tandem, if different measures are delivered under any social housing fund that are not included in the package of upgrades for ECO4. For example, insulation measures could be delivered under ECO4, followed by a heat pump under the Social Housing Decarbonisation Fund. In this example, the heat pump would not be eligible for an ECO score or contribute to the ECO4 project.

5. ECO measures

Qualifying actions in HHCRO

5.1. To achieve its ECO obligations, a supplier must install measures that qualify under the scheme and deliver annual bill savings for the household.

5.2. The table below gives a measure overview for all eligible measures under ECO4 and the related rules around tenure and starting SAP rating.

Table 10: Measure table ECO4

	Tenure			
Measure Sub-Category	**Owner Occupied D-G**	**PRS E-G**	**Social E-G 2**	**Social D**
Boiler - Repair of a broken efficient heating system **1**	✓	No	No	Social Band D Premises are eligible when are carried out as innovation measure only. Insulation measures are eligible when are carried out in order to meet the minimum insulation requirements **3**
Boiler - Replacement of a broken efficient heating system **1**	✓	No	No	
Boiler - Upgrade of an inefficient heating system **1**	✓	Eligible where the upgrade is to a renewable heating system **3**		
Boiler - Upgrade of an efficient heating system **1**	✓			
First Time Central Heating	✓	No	No	
ESH - Repair or replacement of a broken efficient ESH	✓	No	No	
ESH - Upgrade of an inefficient ESH	✓	No	No	
District Heating Connection	✓	✓	✓	
Heating controls - Compensation, P&RT, Smart thermostat, TRV, TTZC	✓	Eligible when carried out as a part of FTCH installation **3**		
Solar PV	Eligible if the property is heated by a hydronic heat pump, ESH or EHS with a SAP responsiveness of ≥ 0.8 **3**			
External/Internal/Hybrid Wall Insulation	✓	✓	✓	
Cavity Wall Insulation	✓	Eligible if installed to meet the minimum insulation requirements **3**	✓	
Loft Insulation	✓		✓	
Pitched Roof Insulation	✓		✓	
Flat Roof Insulation	✓		✓	
Room in Roof Insulation	✓		✓	
Underfloor Insulation	✓	Eligible if installed in the same project as an SWI, renewable, DHC or FTCH measure **3**	✓	
Solid Floor Insulation	✓		✓	
Draught Proofing	✓		✓	
Window Glazing	✓		✓	
Higher Performance External Doors	✓		✓	
Park Home Insulation	✓	✓	✓	

Figure 9: Key for Measure Table 10

Key:
1 Includes the following renewable heat sources: ASHP, GSHP, biomass boilers and fuel cell mCHP. For boiler and ESH uplifts please see the standalone table version.
2 Properties in social E-G can receive IMs
3 Measure eligible under certain conditions

Insulation measures

5.3. This section details eligible insulation measures, measure-specific guidance, and requirements for insulation measures under ECO4.

Cavity wall insulation

5.4. Insulation of a cavity wall includes the insulation of exterior facing cavity walls and party walls. Cavity walls can be treated with:

a) Cavity wall insulation (CWI) installed between the internal and external leaves of a cavity wall;

b) External wall insulation (EWI) installed to the exterior face of the cavity wall; or

c) Internal wall insulation (IWI) installed to the interior face of the cavity wall.

5.5. If the external or internal face of a cavity wall is treated with EWI or IWI, then an IWI or EWI measure should be claimed.

5.6. There are four types of CWI measures. The first three can only be claimed for CWI measures installed to uninsulated cavities in external walls. Where CWI is installed to the remaining air gap in a partially filled cavity, the fourth measure type, CWI_partial_fill, must be used.

5.7. Where CWI is installed to an uninsulated cavity, the correct measure type must be selected based on the thermal conductivity of the CWI product. The three CWI measure types are differentiated by the thermal conductivity of the CWI:

- CWI_0.040
- CWI_0.033
- CWI_0.027

5.8. This information should be available on the product's test certificate. The selection should be carried out using Table 11.

5.9. CWI should not be installed in properties when existing CWI meets current building standards. When considering installing CWI in properties built after 2000, members of the supply chain should be particularly vigilant in confirming that any pre-existing CWI does not meet current building standards and needs additional partial fill. A measure may be rejected if we find it has been preceded by an extraction that does not comply with the guidance.

Table 11: Thermal conductivities for CWI

Existing insulation	Measure type	Associated range of thermal conductivity for products (W / mK)
Uninsulated cavity	CWI_0.040	0.035 – 0.045
	CWI_0.033	0.029 – 0.034
	CWI_0.027	< 0.028
Cavity wall partial-fill insulation	CWI_partial_fill	All

Party cavity wall insulation

5.10. A party wall measure can be claimed for each property adjacent to any walls that are treated if all other eligibility criteria are met for all premises. The installer must obtain the necessary consent from all properties adjacent to the wall before the measure is carried out.

5.11. Party wall measures cannot be claimed under ECO for flats and maisonettes as they are assumed to be constructed to avoid a thermal bypass.

5.12. When claiming for multiple adjacent party wall measures, suppliers should ensure that all the party walls in each property are treated, unless there are reasonable grounds for not doing so. For clarity, if consent cannot be obtained this would be reasonable grounds for not completing 100% of the measure.

External / Internal / Hybrid Wall Insulation (E / I / HWI)

5.13. External, internal, and hybrid wall insulation measures are separated into individual measure types for ECO4 to mirror the annexes in Publicly Available Specification (PAS), however all three use the same scoring approach, as outlined in the following paragraphs.

5.14. Hybrid wall insulation (HWI) combines more than one type of wall insulation on a single dwelling. A hybrid approach is most prevalent with external (EWI) and internal wall insulation (IWI) to ensure all external walls are insulated. For example, it may be used where IWI is required on the front façade and EWI is used on the rear, ensuring the junction between the two systems includes appropriate overlap to avoid thermal bridging. Hybrid wall insulation should be notified when a property is treated with a combination of EWI and IWI.

5.15. Due to the substantial differences in the thermal conductivity of different wall substrates and differences in E / I / HWI installations there are more partial project score options than for other ECO measures. The E / I / HWI variants are expressed in terms of U-value change (for example a change in U-value from 2.0 to 0.3). All the partial project score variants are listed in Table 12. The assumed starting wall U-values are shown in the left-hand column and the assumed finishing U-values are shown in the columns on the right.

Table 12: E / I / HWI U-Value variants for partial project scores

Starting wall U-value ($W / m^2 K$)	Finishing wall U-value (W / m^2K)			
2.0	0.6	0.35	0.3	0.25
1.7	0.6	0.55	0.3	0.23
1.0	0.6	0.45	0.3	
0.6	0.3	0.24		
0.45	0.21			

5.16. To select the correct E / I / HWI score the starting wall U-value should be determined, using the wall type and approximate age of the property in conjunction with the country. Table 13 specifies the starting U-value that should be selected based on wall type and age.

Table 13: Starting U-values of various wall constructions by age and location

	England and Wales		Scotland	
Wall Type	**Age**	**Starting U-Value**	**Age**	**Starting U-value**
Solid brick	Before 1976	1.7	Before 1976	1.7
	1976 - 1982	1	1976 - 1983	1
	1983 - 1995	0.6	1984 - 1991	0.6
	From 1996	0.45	From 1992	0.45
Cavity as built	Before 1976	1.7	Before 1976	1.7
	1976 - 1982	1	1976 - 1983	1
	1983 - 1995	0.6	1984 - 1991	0.6
	From 1996	0.45	From 1992	0.45
System build	Before 1967	2.0	Before 1965	2.0
	1967 - 1975	1.7	1965 - 1975	1.7
	1976 - 1982	1	1976 - 1983	1
	1983 - 1995	0.6	1984 - 1991	0.6
	From 1996	0.45	From 1992	0.45
Stone	Before 1976	1.7	Before 1976	1.7
	1976 - 1982	1	1976 - 1983	1
	1983 - 1995	0.6	1984 - 1991	0.6
	From 1996	0.45	From 1992	0.45
Cob	Before 1996	0.6	Before 1999	0.6
	From 1996	0.45	From 1999	0.45
Timber frame	Before 1949	2.0	Before 1949	2.0
	1950 - 1966	1	1950 - 1964	1
	1967 - 1975	0.6	1965 - 1975	0.6
	From 1976	0.45	From 1976	0.45
Filled cavity	Before 1976	0.6	Before 1976	0.6
	From 1976	0.45	From 1976	0.45

5.17. The finishing wall U-value should be determined using the thickness of external / internal / hybrid wall insulation installed. Each E / I / HWI score in the PPS Matrix assumes a certain thickness of mineral fibre insulation. However, the thickness required to achieve a specified level of thermal improvement will vary depending on the insulation material used.

5.18. Table 14 outlines the thickness of insulation required to claim the E / I / HWI partial project score for different materials. Values have been generated using typical thermal conductivities for each material and rounded up to the nearest 10mm in thickness.

5.19. The intention of Table 14 is to show that higher performing materials may not require the same depth of insulation. As such, it is not intended to be a definitive guide and the list of materials in this table is non-exhaustive. However, this information should remove the need for bespoke U-value calculations in most cases.

Table 14: Minimum insulation thickness required to achieve each U-value change

	Minimum thickness (mm) required to achieve U-value change					
Deemed Score (U-value change)	**Mineral Fibre**	**EPS 70, 100, 150**	**EPS 200**	**Graphite Enhanced EPS**	**PIR**	**Phenolic**
2 -> 0.6	60	50	40	40	40	30
2 -> 0.35	110	90	90	80	70	50
2 -> 0.3	130	110	100	90	80	60
2 -> 0.25	160	140	120	110	100	80
1.7 -> 0.6	50	50	40	40	30	30
1.7 -> 0.55	60	50	50	40	40	30
1.7 -> 0.3	130	110	100	90	80	60
1.7 -> 0.23	170	150	130	120	100	80
1.0 -> 0.6	30	30	30	20	20	20
1.0 -> 0.45	60	50	50	40	40	30
1.0 -> 0.3	110	90	80	70	70	50
0.6 -> 0.3	80	70	60	50	50	40
0.6 -> 0.24	110	100	90	80	70	60
0.45 ->0.21	120	100	90	80	70	60

5.20. The thickness values in Table 14 are the minimum required to achieve the corresponding U-value change. Therefore, where the E / I / HWI measure has a thickness that is between two values in the table the U-value that corresponds to the lower numbered measurement value should be selected.

5.21. The minimum thickness values in Table 14 relate to the insulation material alone. We are aware that the entire insulation system is likely to require additional elements, such as render finish and so the final thickness of the system may be greater than the associated value in the table. Note that this applies even to insulation bonded to plasterboard.

5.22. Some insulation systems may not be adequately covered by Table 14, for example because they incorporate multiple materials; a version of a material with significantly different thermal characteristics; or a material not included by the table. In these situations, suppliers may calculate the U-value of the wall. Suppliers must contact us if they intend to notify a measure with a calculated post-installation U-value.

5.23. A person of appropriate skill and experience[70] must carry out the U-value calculations. The thermal properties for the existing wall structure used in the calculation must be determined from Table 14: Minimum insulation thickness required to achieve each U-value change rather than based on an assessment of the actual structure, in order that the overall U-value change is not misrepresented. Where the post-installation U-value is different to the U-values in the Partial Project Matrix, the score can be selected based on the nearest U-value achieved by the installation. To select the correct score the finishing U-value should always be rounded up. For example, where the starting U-value is 1.7 and the finishing U-value is 0.5 the value for a U-value change of 1.7 to 0.55 should be selected. Suppliers must retain the calculation and the details of the operative who carried it out.

Loft insulation

5.24. Loft insulation (LI) is installed between, and / or on top of, joists. There are two LI measures:

a) LI where there is less than or equal to (≤) 100mm pre-existing insulation, or

b) LI where there is greater than (>) 100mm pre-existing insulation.

5.25. Prior to the installation of any loft measures taking place, the installer, operative or assessor, and either the occupier or landlord must sign the pre-existing loft declaration to confirm that that no loft insulation has been removed within the past year from the

[70] Evidence of suitable qualification is through membership of a recognised U-value calculation competency scheme (BBA/TIMSA (UK)), OCDEA membership (England & Wales, Northern Ireland) or any other scheme formally agreed between Accreditation Schemes/Approved Organisations and Government.

property outside of the ECO project, or has previously been claimed under ECO or any other government scheme to the best of the householder's knowledge.

5.26. A copy of the signed declaration must be left in the loft. The declaration should be fixed in a secure position close to the loft hatch where it can be clearly viewed and is unlikely to be covered up or disturbed, for example on a nearby rafter. The declaration should be legible to somebody who is standing at the top of a ladder entering the loft.

5.27. A supplier must retain a copy (or photo) of the signed declaration. We would recommend a clear photo of the loft declaration securely fixed to the loft. We may request this is made available for review, should we have concerns over these requirements being met.

5.28. Where loft insulation has previously been claimed under ECO, we will request evidence of the date the property owner took ownership of the property – this can include several items, for example the land deed. If this date precedes the previous ECO loft insulation measure, the latest loft insulation measure will be rejected.

Room-in-roof insulation

5.29. The RdSAP convention on 'Roof room / Attics' should be used to determine whether an area is a room-in-roof or a separate storey. This states that for a room-in-roof to be classed as such, the height of the common wall must be less than 1.8m for at least 50% of the common wall (excluding gable ends and party walls). A room-in-roof can be a loft conversion, dormer bungalow / chalet bungalow, or an original storey with a common wall which is less than 1.8m and can be accessed via a permanent fixed staircase.

5.30. Where a flat is entirely contained within a room-in-roof, a room-in-roof insulation (RIRI) measure can be claimed for insulating the relevant elements.

5.31. Room-in-roof insulation has two measure variants relating to residual loft space: residual area insulated and residual area uninsulated. The residual area is defined as the loft area in the same continuous air space as the room-in-roof. In Figure 10, the residual loft is the area highlighted green, behind the stud walls.

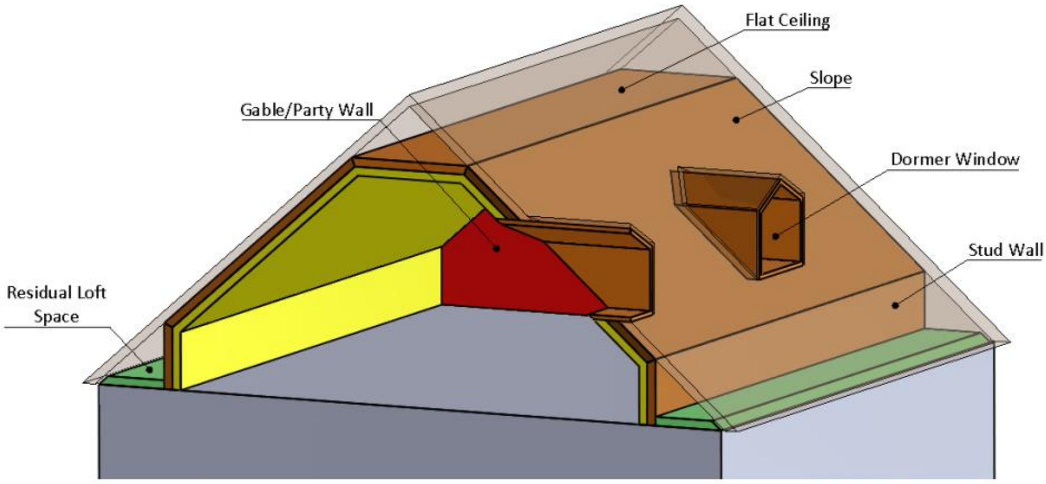
5.32. If the installer insulates the residual area to bring it up to building regulations standard, the deemed score for 'room-in-roof insulation - residual area insulated' should be selected. To claim the 'residual area insulated' score, the entire residual area must be insulated as part of the installation.

5.33. If the residual area is not insulated, or if it is already insulated prior to the RIRI measure being installed, the 'residual area uninsulated' should be claimed.

5.34. For clarity, insulation of the residual loft area should be completed to the same building regulations standards as a typical loft insulation measure.

5.35. We expect that all RIRI installations are conducted in line with BEIS's best technical guidance for RIRI measures.[71]

Figure 10: Areas in room-in-roof



Pitched roof insulation

5.36. Pitched roof insulation (PRI) is the application of insulation at rafter level to the sloping ceiling of a roof. Pitched roofs can be upgraded by adding insulation between the existing rafters. Insulation can also be added either above or below the rafter zone. Pitched roof insulation should only be applied in lofts with existing habitable rooms which do not meet the criteria for being considered a room in roof,[72] as well as a vaulted ceiling with no loft space – the installation of pitched roof installation to uninhabited cold loft spaces is not supported under ECO4.

Floor insulation

71

72 Please see RdSAP conventions for the definition of a room-in-roof

5.37. Floor insulation can only be installed to the floor in the property that is either in contact with the ground, above an unheated space (ie a cellar), or suspended and in contact with the outside air.

5.38. A floor cannot be treated if there is a room below it that contains a heat emitter such as a radiator.

5.39. It is recognised that underfloor insulation (UFI) applied to a suspended floor can be installed using different techniques and requires different skillsets to insulation applied to a solid floor (SFI).[73] As such we consider them to be different measures, in much the same way as cavity wall and solid walls differ and require different insulation installation techniques.

5.40. Separate scores for both variants, UFI and SFI, exist and should be notified accordingly.

5.41. To claim a suspended underfloor insulation measure, we expect that the installation techniques of the UFI measure is in line with the manufacturer's instructions, the prescribed installation methods for the product used, and the BEIS Guide to Best Practice: Retrofit Floor insulation – Suspended Timber Floors.[74]

5.42. We expect that all solid floor insulation installations are conducted in line with the BEIS guide to best practice [75].

Park home insulation

5.43. A park home insulation (PHI) measure is the insulation of the walls, ceiling and floor of a park home.

5.44. BEIS are developing a technical guide to best practice for PHI measures, which we anticipate they will publish in the coming months. As such, following its publication, we

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[73] http://www.greenspec.co.uk/building-design/ground-floor-insulation/
[74] Further specific information on the installation of suspended UFI can be found in the BEIS Guide to Best Practice: Retrofit Floor insulation – Suspended Timber Floors: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/898872/suspended-timber-floors-underfloor-insulation-best-practice.pdf
[75] The guide is available at: https://www.gov.uk/government/publications/solid-floor-insulation-sfi-best-practice.

expect that all PHI installations are conducted in line with the BEIS guide to best practice.

Window glazing

5.45. Window glazing can be installed as either 'single to double' or 'improved double glazing'.

5.46. 'Single to double' is the replacement of single glazed windows, to glazing which meets the current building regulations. This may be double or triple glazing.

5.47. 'Improved double glazing' is the replacement of double-glazed windows that do not meet current building regulations. Such windows can be replaced with double or triple glazing that does meet current building regulations.

Solid Wall Insulation

5.48. Solid wall insulation (SWI) means internal or external insulation of a solid wall (ie internal wall insulation (IWI) or external wall insulation (EWI) respectively). SWI does not include insulation of a mobile home, which is a separate eligible ECO measure.[76]

5.49. A solid wall can be a solid brick wall or a solid non-brick wall (including stone walls). The types of non-brick wall covered by the definition of solid wall include metal or timber frame walls, and walls of prefabricated concrete construction.[77] There are no distinct measure types for different types of solid walls. The same set of deemed scores applies for both solid brick and solid non-brick wall properties. The types of solid wall may have different starting U-values as per Table 13.

5.50. Although most system build properties meet the definition of solid wall, some have external walls of a standard cavity construction and require a cavity wall insulation measure. The construction type of the external walls of a system build property should therefore be assessed prior to insulating the property as it will not automatically be considered a solid wall.

[76] Article 2 of the ECO4 Order.
[77] See ECO4 Guidance: Supplier Administration Chapter 4 for more information on the solid wall minimum requirement (SMWR).

5.51. Please note that we expect that all IWI installations are conducted in line with BEIS guide to best practice for retrofit internal wall insulation.[78]

Solid Wall Minimum Requirement

5.52. For ECO4, the solid wall minimum requirement or 'SWMR' (paragraph 2.5) is achieved by promoting solid wall actions. A solid wall action is the internal or external insulation of the exterior facing solid walls of uninsulated solid wall premises.

5.53. Insulation could be achieved through EWI, IWI, or HWI. It does not include insulation of a mobile home, which is a separate eligible ECO measure.

5.54. An uninsulated solid wall premises is a premises with at least one exterior facing wall, where at least 50%, by area, of the exterior facing walls are solid walls, and at least 50%, by area, of the exterior facing solid walls do not have internal or external insulation. For the purposes of meeting the solid wall minimum requirement, we consider solid walls with a pre-insulation U-value of 0.60 or lower to have been insulated during construction.

5.55. A property may have two solid wall types (each of which accounts for 50% of the total solid wall area) that are both insulated on the same day. This would be notified as two measures. The SWMR target is based on the number of premises, meaning one premises with multiple wall types would only count towards the SWMR target once.

Minimum insulation pre-conditions

5.56. Under ECO4, all heating measures are subject to certain insulation pre-conditions. The pre-conditions are as follows:

Precondition 1:

All Band D homes receiving any heating measure other than FTCH or a DHC must first have at least one insulation measure installed as part of the same ECO4 project before the heating measure is completed. The eligible insulation measures are: roof insulation (flat roof, pitched roof, room-in-roof), wall insulation (cavity wall, solid wall), party wall

[78] https://www.gov.uk/government/publications/retrofit-internal-wall-insulation-best-practice

insulation and floor insulation (solid and underfloor). Park homes must receive floor, wall and ceiling insulation.

Precondition 2:

All Band E, F and G homes receiving any heating measure and Band D homes receiving FTCH or a DHC must have all the exterior facing cavity walls and loft (including rafters) / roof (including flat and pitched roof or room-in-roof) area insulated as part of the same ECO4 project before the heating measure is completed. Park homes must receive floor, wall and ceiling insulation.

Meeting the pre-conditions

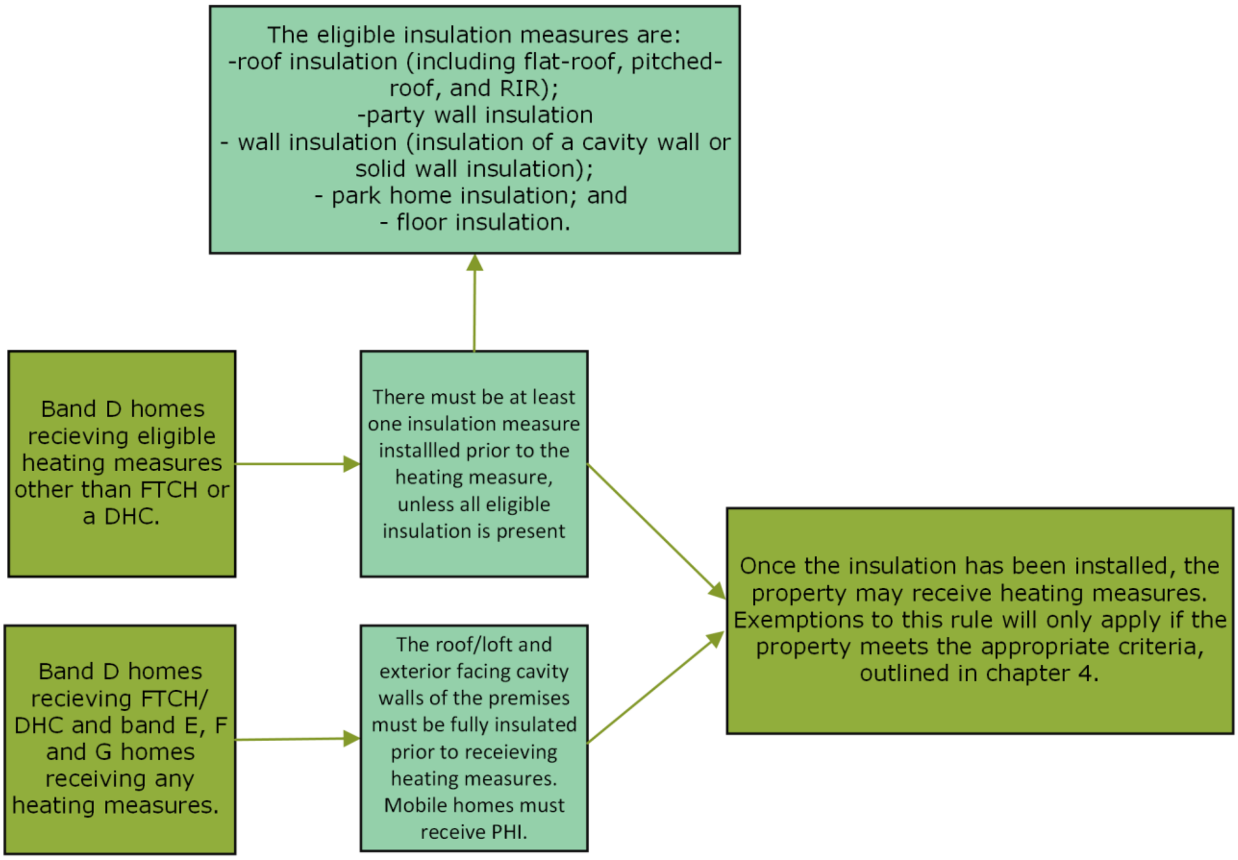
5.57. The pre-conditions 5.56always apply to heating measures, including repairs and replacements, heating controls and solar PV, unless all eligible insulation measures are already installed to the prescribed standard, or where exemptions to the MR apply (see paragraphs 4.27 - 4.37).

5.58. Either new or pre-existing insulation, or a combination of both, may be used to meet the pre-conditions but pre-existing insulation must meet the prescribed standards. Any pre-existing insulation cannot be claimed as an ECO measure.

5.59. Prescribed standards means that insulation measures must meet current building regulations (BSI for park homes) as would apply if the measure had been first installed as part of the project. For existing insulation that was installed to older standards, in certain circumstances this may require topping-up existing insulation beyond what is currently recommended by Building Regulations in order to meet the standards for new insulation. Additionally, prescribed standards means that where an insulation measure is installed as part of an ECO4 project, the insulation measure is installed by, or under the responsibility of, a person who is registered with TrustMark for the purposes of that measure, and a certificate of lodgement is issued by the operator of TrustMark in respect of that measure, or the insulation measure is installed subject to arrangements equivalent to TrustMark.

5.60. Figure 11 presents different scenarios for the insulation requirements which must be installed prior to heating measures installed in different properties.

Figure 11: Scenarios for the insulation requirements for properties receiving heating measures



5.61. The following section will cover when certain types of insulation can be considered as having been fully installed for the purposes of the minimum insulation pre-conditions. As stated in the above section there are two different sets of pre-conditions.

5.62. In this section, a pre-condition being 'met' means that the type of insulation mentioned is fully installed for the purposes of the pre-conditions. The Retrofit Coordinator in the case of projects lodged with TrustMark will be responsible for this assessment. In the case of non-TrustMark projects, the operative overseeing a project will be responsible for this assessment. Information on insulation pre-conditions will be collected in the Pre-Installation Heating Checklist.[79]

5.63. It can be demonstrated that the pre-conditions have been met through a combination of a relevant pre retrofit EPC or RdSAP assessment plus, if need be, notified insulation

[79] https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables

measures as part of the project which show the relevant insulation in place before the installation of any heating measure.

Pre-condition 1 - wall insulation

5.64. The wall insulation pre-condition applies to the exterior facing and party walls of band D premises receiving any heating measure, other than band D homes receiving FTCH or a DHC, including multi-storey buildings and system build premises. This refers to all types of exterior facing wall insulation measures including CWI, EWI, HWI, and IWI.

5.65. To meet the wall insulation pre-condition, all exterior-facing walls of the premises must have insulation installed, except for walls which:

a) already have insulation installed to the prescribed standard; or

b) hold an exemption to the minimum requirement.

Pre-condition 1 - floor insulation

5.66. The floor insulation pre-condition applies to all premises with floors in contact with the ground, above an unheated space (ie a cellar), or suspended and in contact with the outside air, that can be fitted with insulation. This precondition applies to both solid floors and suspended floors.

5.67. To meet the floor insulation pre-condition, all treatable floor areas of the premises must have insulation fitted, except for floor areas that:

a) already have floor insulation installed to the prescribed standard, or

b) hold an exemption to the minimum requirement

Pre-condition 1 – party wall insulation

5.68. The party wall insulation pre-condition applies to all premises with cavity walls which divides the premises from other premises under different occupation.

5.69. To meet the party wall insulation pre-condition, all party walls must have insulation fitted, except for walls that:

a) already have insulation installed to the prescribed standard, or

b) hold an exemption to the minimum requirement

Pre-condition 1 - roof insulation

5.70. The roof insulation pre-condition applies to all premises which include the top floor of the building in which they are located (ie premises with external roof area).

5.71. To meet the roof insulation pre-condition, premises must have roof insulation in place. We will consider that the pre-condition is met if the total roof area of the premises is insulated to the prescribed standards, except for areas that cannot be insulated.

5.72. For the purposes of this pre-condition, 'roof area' means:

a) for flat roof and pitched roof insulation, the area of the roof; and

b) for room-in-roof insulation, the area of the room-in-roof including the common walls / stud walls, sloping ceilings, gable walls, party walls, ceiling, and residual areas.

5.73. The 'total roof area' includes any areas not suitable for insulation. For premises with more than one roof type, the total roof area is the sum of any of the areas listed in paragraph 5.79. For example, where the premises have a flat roof and a pitched roof, the percentage insulated is the percentage of the total roof area insulated with flat roof insulation and pitched roof insulation.

5.74. To meet the roof insulation pre-condition, the treatable roof area of the premises must have insulation fitted, except for roof areas that:

a) already have roof insulation installed to the prescribed standard, or

b) hold an exemption to the minimum requirement.

Pre-conditions 1&2 – Park Home Insulation

5.75. The park home insulation pre-condition applies to all mobile homes regardless of the premises' starting SAP rating. The full walls, ceiling and floor of a park home must have insulation fitted to the prescribed standards in order to meet this precondition except for walls and floor/roof areas that:

a) Already have insulation installed to the prescribed standard, or

b) hold an exemption to the minimum requirement.

Pre-condition 2 – cavity wall insulation

5.76. The cavity wall insulation (CWI) pre-condition applies to band EFG premises receiving any heating measure. It also applies band D premises receiving FTCH or a DHC.

5.77. To meet the cavity wall pre-condition, all exterior-facing cavity walls[80] of the premises, including multi-storey buildings and system build premises, must have insulation installed except for exterior-facing walls which:

a) already have cavity insulation installed to the prescribed standard; or

b) hold an exemption to the minimum requirement.

Pre-condition 2 – loft, roof and room-in-roof insulation

5.78. The loft, roof and room-in-roof insulation pre-condition applies to all premises which include the top floor of the building in which they are located (ie premises with external roof area).

5.79. We will consider that the pre-condition is met if the total loft and roof area of the premises is insulated to the prescribed standard, except for areas that cannot be insulated. For the purposes of this pre-condition, loft and roof area means:

c) for loft insulation, the area of the floor of the loft

d) for flat roof and pitched roof insulation, the area of the roof; and

e) for room-in-roof insulation, the area of the room-in-roof including the common walls / stud walls, sloping ceilings, gable walls, party walls, ceiling, and residual areas.

[80] Where a property is made up primarily of solid walls, the area made up of cavity walls must still be insulated.

Exemptions

5.80. The exemptions to minimum insulation pre-conditions are the same as the exemptions to the minimum requirements, discussed in Chapter 4 - Projects.

5.81. If the minimum insulation pre-conditions cannot be met, the relevant exemption should be notified for the project. Further information on how to notify these can be found within the ECO4 Guidance: Supplier Administration[81] and the ECO4 Data Dictionary[82].

Heating measures

5.82. This section details eligible heating measures, including measure-specific guidance and requirements for heating measures under ECO4.

5.83. One of the primary determinants of a property's eligibility for heating measures is whether it is classed as 'on-gas' or 'off-gas', as explained in the following sections.

On-gas homes

5.84. On-gas homes are defined as homes which were connected to a pipe-line system operated by a gas transporter on 31 March 2022.[83] This includes homes which are connected on this date but were first connected previously. The connection also has to be existing and operative for the start of the ECO4 project.

5.85. In order to satisfy the criteria for a gas connection, suppliers need to be able to provide a form of evidence for both the 'connected on the start day of the ECO4 project (day of pre-retrofit assessment)' requirement as well as the 'connected before 1/4/22' requirement. Evidence may be provided as set out in Table 15.

[81] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents
[82] See https://www.ofgem.gov.uk/publications/eco4-supplier-data-dictionary
[83] See Article 2(1) of the ECO4 Order

Table 15: Evidencing a gas connection

	On-gas definition as per ECO4 Order	
	Connected on the start day of the ECO4 project (day of pre-retrofit assessment)	Connected on 31/3/22
EPC after 1/4/22[84]	X	
ECO4 project RdSAP assessment after 1/4/22	X	
Fuel bill accounting for gas usage incurred after 1/4/22	X	
EPC prior to 1/4/22		X
Fuel bill prior to 1/4/22		X
Connected gas cooker	X	
Gas meter exchange date (on the label on the meter) prior to 1/4/2022	X	X
XOSERVE[85]	X	X
Historic property listings / documentation		X

5.86. The main route for showing that a gas connection is in place is through the RdSAP assessment. The RdSAP methodology[86] requires that the Retrofit Assessor determine whether a premises is connected to mains-gas. Where they deem this to be the case, 'Mains Gas Present' is recorded. The information will be lodged onto the TrustMark Data Warehouse. The existence of a gas connection in a premises has to be notified to our ECO4 register in the field 'On_Gas'.

[84] EPC must also be the most recent of any EPCs issued for the premises within two years and three months prior to the completion of the first measure in an ECO4 project.
[85] XOSERVE is a gas market data service provider for Britain's gas market, funded, governed and owned by the gas industry.
[86] https://bregroup.com/sap/standard-assessment-procedure-sap-2012/?cn-reloaded=1

5.87. The RdSAP[87] Convention considers a property as on gas if a gas meter or a gas burning appliance such as a gas cooker is present in a property. A closed-off gas pipe does not count, however. Where a boiler is present and attached to a heating system (not in a box), and the mains gas meter has been removed for security reasons, a gas boiler is considered as the main form of heating. Where mains gas is not available, we deem the property to be off-gas, ie not connected to the gas grid. The methodology is set out to align with the off-gas definition of the ECO4 Order. See the section on Off-gas from paragraph 5.94 for further information on off-gas properties.

5.88. Evidence provided outside of what is included in Table 15 may be assessed on a case-by-case basis. Suppliers should contact us via email at eco@ofgem.gov.uk if they would like to discuss alternative evidence for a gas connection.

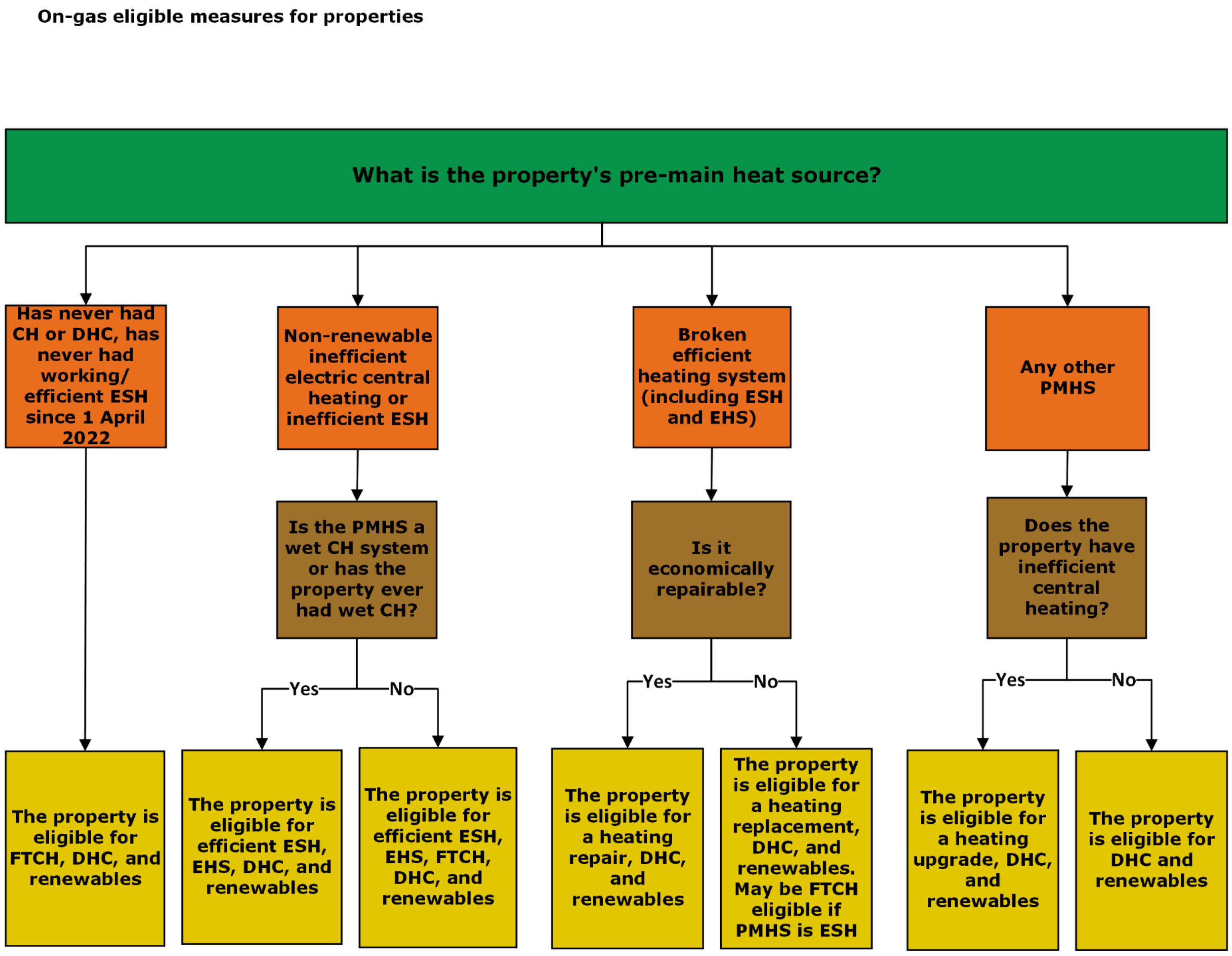
5.89. We will require the Retrofit Coordinator to fill out the ECO4 Pre-Installation Heating Checklist[88] and declare whether a connection to a gas pipeline was present on 31 March 2022 or not, or in the case of a project that includes a DHC only, the project operative.

Measures installed in on-gas premises

5.90. The flowchart in Figure 12 explains which measures in on-gas properties are available to a customer depending on the property's pre-main heat source.

[87] RdSAP 2012 can be found here: https://bregroup.com/sap/standard-assessment-procedure-sap-2012/?cn-reloaded=1
[88] https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables

Figure 12: On-gas measures flowchart



5.91. The above flowchart does not include the eligibility criteria for innovation measures or heating controls, which are eligible under all scenarios.

5.92. The rules governing the flowchart are explained in this chapter.

Off-gas premises

5.93. Off-gas premises are those premises not connected to a pipe-line system operated by a gas transporter on 31 March 2022.[89] As stated under the on-gas section, we will require the Retrofit Coordinator[90] to fill out the ECO4 Pre-Installation Heating Checklist and declare whether or not a connection to gas pipeline was present before 31 March 2022.

5.94. Off-gas premises are considered premises[91]:

a) Where the primary heating system is a fixed coal, oil, or LPG heating system;

b) Where the home has a fixed electric heating system with no evidence of using a gas cooker; or

c) Where there is no fixed gas heating system in place and no connection to mains-gas in present (including a gas cooker).

5.95. For projects other than those that only include a DHC and are not lodged with TrustMark, the Retrofit Coordinator collects off-gas information through an RdSAP assessment and lodges it in the TrustMark's Data Warehouse in the field 'MainsGas'. Evidence should be retained to prove the premises was not connected to any pipe-line system operated by a gas transporter.

Measures installed in off-gas premises

5.96. Heating measures installed in off-gas premises meet the requirements if:

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[89] See Article 2(1) of the ECO4 Order
[90] This can be the project operative in the case of projects that include only a DHC.
[91] ECO4 Government Response p. 54 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

a) The measure is not the installation of equipment for the generation of heat wholly or partly from mains gas; and

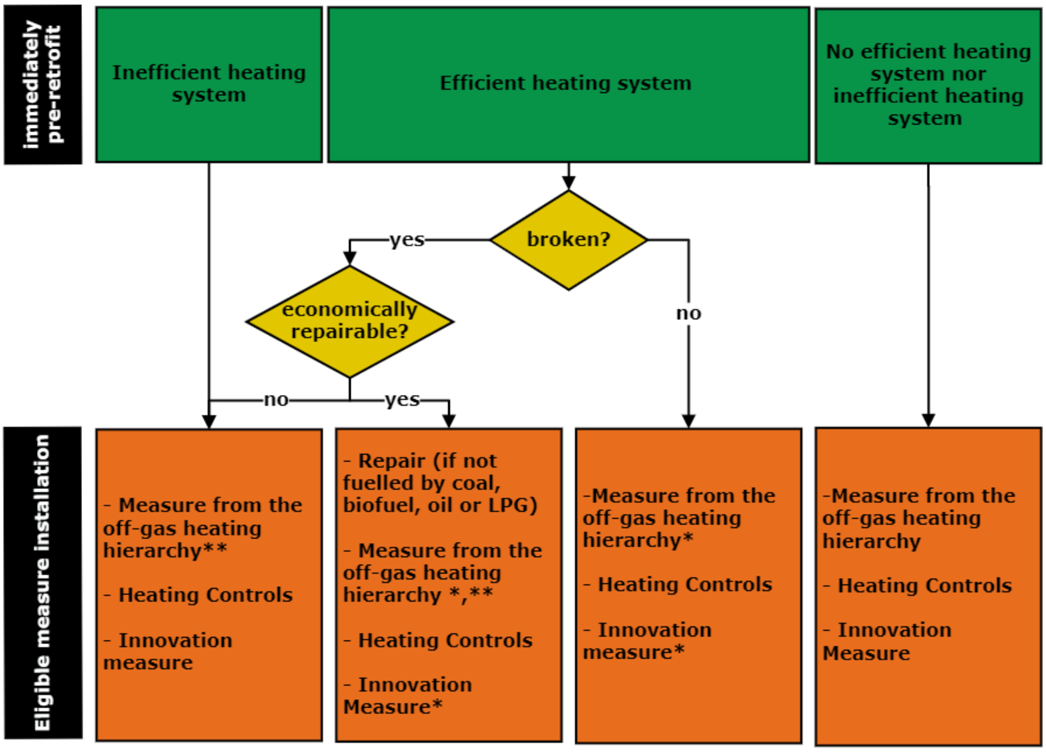
b) The measure is not a connection to a district heating system that delivers heat generated wholly or partly from mains gas;

c) The heating measure is not the installation of coal, oil, LPG and biofueled heating systems (unless it is a repair of oil, LPG and biofueled heating systems);

d) The off-gas heating hierarchy is followed.

5.97. Figure 13 gives an overview of the eligible heating measures that can be installed in off-gas premises subject to restrictions in Figure 13: Off-gas measures requirement.

Figure 13: Off-gas measures requirement[92][93]



[92] "efficient heating system" means—
(a) a central heating system;
(b) a district heating connection; or
(c) an electric storage heater,
which is not an inefficient heating system

[93] "inefficient heating system" means a central heating system, district heating connection or electric storage heater which—

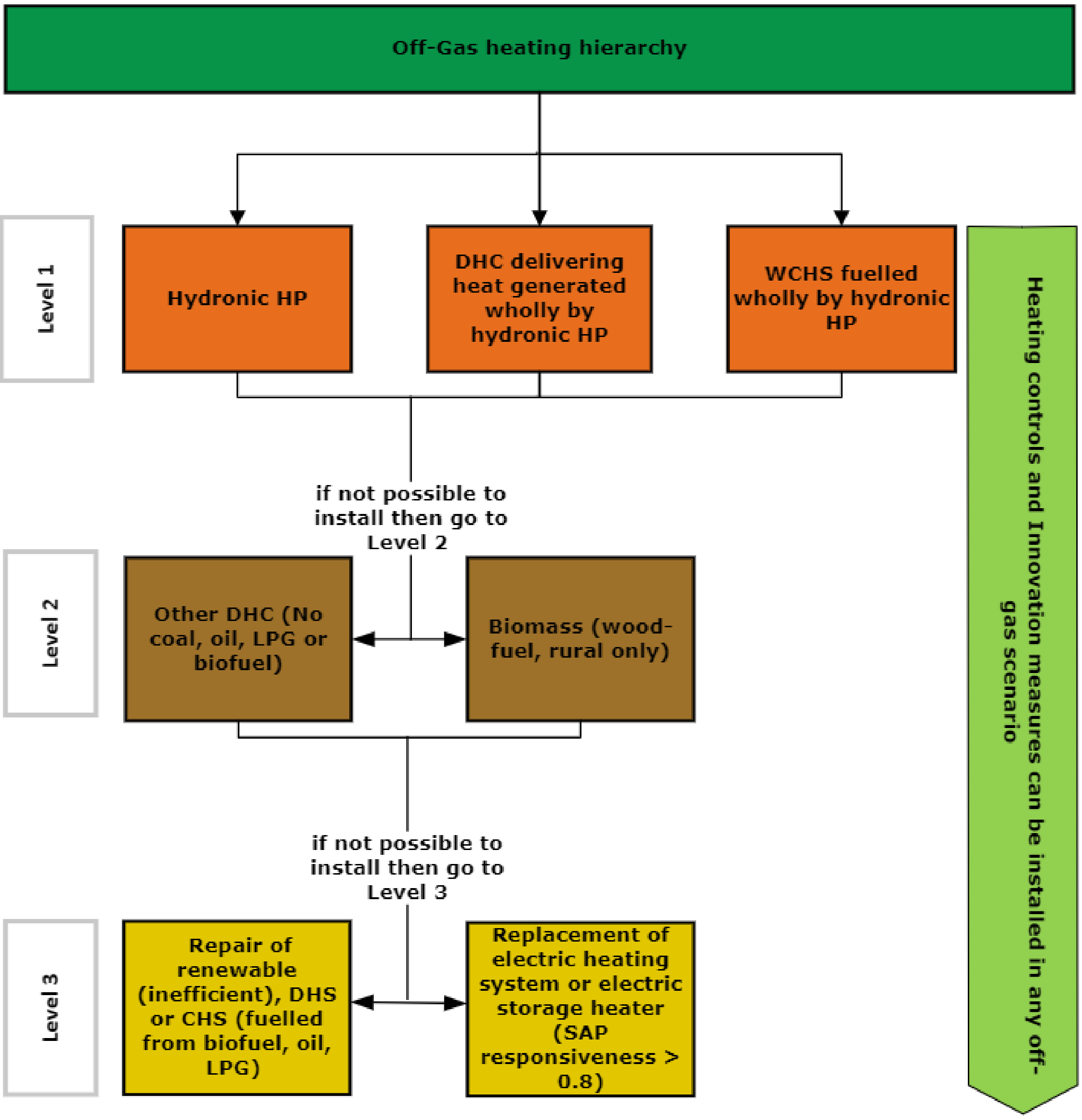
Table 16: Off-gas measure restrictions

	Restrictions to the off-gas measure requirements
*	In the case of a replacement of the efficient heating system, is not a measure of the same kind as the heating system being replaced
**	Is not a repair unless it is a measure that complies with the off-gas heating hierarchy by virtue of being one of the following measures: the repair of— • a renewable heating system which is an inefficient heating system; • a central heating system which is fuelled wholly or partly from biofuel, oil or liquefied petroleum gas; or • a connection to a district heating system that delivers heat generated wholly or partly from biofuel, oil or liquefied petroleum gas.

5.98. The off-gas heating hierarchy is explained in the following Figure 14.

(a) in the case of a central heating system other than an electric heating system—
(i) includes a non-condensing boiler; or
(ii) has a peak energy efficiency that is no better than a central heating system falling within sub-paragraph
(b)in the case of a district heating connection other than an electric heating system, is a connection to a district heating system that—
(i) includes a non-condensing boiler; or
(ii) has a peak energy efficiency that is no better than a central heating system falling within paragraph (a)(i); and
(c) in the case of an electric heating system or an electric storage heater, has a responsiveness rating equal to or less than 0.2 when assessed against the Standard Assessment Procedure

Figure 14: Off-gas heating hierarchy



5.99. Hydronic heat pumps are the primary heating measure to be considered for off-gas homes.

5.100. A broken renewable, DHC or efficient heating system (excluding those fuelled by coal, biofuel, oil or LPG), where economic to repair, may be repaired outside the off-gas heating hierarchy rules.[94] If a repair cannot take place, the heating measure needs to follow the off-gas hierarchy requirements listed in Figure 14. The repair of broken oil, LPG and biofuel heating systems is subject to the hierarchy and Broken Heating Repair Cap.

[94] See article 29(1)(b)(i)

5.101. Where a DHC measure is installed, a wet central heating system can also be installed. In an off-gas property, the installer must declare the fuel source of the DHC on the Pre-Installation Heating Checklist. The installer signature is required to declare that the measure has been installed in line with level 1 or 2 of the off-gas heating hierarchy. For level 1, the DHC must be fuelled wholly by a hydronic heat pump. For level 2, the DHC can be fuelled by any fuel source other than mains gas, coal, oil, LPG or biofuels.

5.102. Biomass systems can only be installed in rural properties. Where a property is off-gas but not situated in a rural area, the installation of biomass is not possible. This will also be captured on the Pre-installation Heating Checklist. Biomass heating systems are only allowed under ECO4 if they are fuelled wholly by wood-fuel. In accordance with MCS standards, installers should provide written information to customers on details of the appropriate fuel for their system and maintenance requirements following completion of the installation.[95]

5.103. A measure is '**not possible**' to install in each level of the off-gas heating hierarchy if:

a) it is not reasonably practicable[96] to install the measure. A measure is deemed reasonably practicable to install where it is shown to be technically applicable by a Retrofit Designer, in accordance with PAS 2035:2019 requirements, and must not result in an increase in energy bills when the package of measures for a home is assessed against SAP.

b) it attracts an exemption (see paragraph 4.27 for further information on exemptions)

c) the measure is the installation of equipment for the generation of heat wholly or partly from biomass and the premises are not in a rural area

d) one or more improvement options evaluation reports in relation to the premises are held on the TrustMark Data Warehouse and the measure is not

[95] See ECO4 Government Response p. 59 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

[96] See ECO4 Government Response p. 59 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/eco4-government-response.pdf

amongst the measures recommended in the most recent improvement options evaluation report; or

e) where no improvement options evaluation report in relation to the premises is held on the TrustMark Data Warehouse; but instead one or more EPC recommendation reports have been issued for the premises; and the measure is not amongst the measures recommended in the most recent EPC recommendation report.

5.104. Where none of the above heating systems can be installed or repaired and where the MR cannot be met because of a lack of eligible ECO4 measure combinations in the PAS IOE and, where applicable, pre-insulation EPC the premises can still receive insulation. These homes would be exempt from the MR where appropriately evidenced and the supplier's exempted project allowance has not been exhausted.[97]

5.105. We will require the retrofit coordinator or DHC operative to complete and sign the Pre-installation Heating Checklist[98] stating that any measures in the off-gas heating hierarchy in the levels above the level of the measure being installed in the premises were not reasonably practicable to install or show that an exemption applies. Please see section on Exemptions for further details on scenarios where exemptions apply in off-gas premises.

Repair and replacement of broken heating systems

5.106. Because the repair or like for like replacement of a broken efficient heating system is not reflected in the SAP rating improvement, they do not have specific scores attached to them. However, a fixed value increase is awarded for the repair and replacement of broken efficient heating systems (including boilers and ESH), subject to caps as explained below.[99] Inefficient heating systems are eligible for uncapped upgrades to efficient heating (see paragraph 5.119).

[97] See Article 50(3)(b)(bb) of the ECO4 Order
[98] See https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables
[99] Oil and LPG repairs, subject to the off-gas hierarchy, do not need to be on efficient heating systems as explained in the following paragraphs.

Repairs

5.107. A boiler is classed as broken down if, when connected to electric and fuel supplies, it does not respond appropriately to any demand for heat as required by the central heating or domestic hot water system.

5.108. An electric storage heater is broken down if, when connected to a working electric supply, it does not store heat or does not deliver any heat.

5.109. Repairs of broken heating systems may only be carried out on efficient heating systems, renewable heating system (RHS) and DHC which are economic to repair. Condensing boilers are considered efficient boilers, while ESH and electric heating systems with a responsiveness of more than 0.2 when assessed against SAP are considered efficient. ESH and electric heating systems with a responsiveness rating of 0.2 or less and non-condensing boilers are considered to be inefficient.

5.110. The operative should complete the relevant heating checklist and they must determine whether a broken efficient heating system can be economically repaired. Rules for determining whether an ESH is economically repairable can be found in Appendix 4 – Electric storage heaters (ESH) information pack, and rules on determining whether a boiler is economically repairable can be found in Appendix 3 – Boiler information pack

5.111. If a broken efficient heating system can be economically repaired, it must be repaired (subject to the Broken Heating Repair Cap) or replaced with a renewable heating system or DHC, following the off-gas heating hierarchy rules in off-gas premises.

5.112. Repairs are only allowed when it is economic to repair an efficient heating system, with the exception of broken oil, LPG and biofuel boilers in off-gas premises, as set out in Figure 14: Off-gas heating hierarchy . Inefficient heating systems are not eligible for repairs but instead are eligible for uncapped heating upgrades.

5.113. Broken oil, LPG and biofuel boilers may be repaired if there are no other eligible options in the off-gas heating hierarchy (see Figure 14: Off-gas heating hierarchy). These heating systems may be efficient or inefficient and there is no requirement for them to be economic to repair, as oil, LPG and biofuel boiler replacements are ineligible.

5.114. Repairs of heating systems are also subject to the minimum insulation pre-conditions (paragraph 5.56) unless an exemption applies.

5.115. All efficient boiler and ESH repairs and repairs of oil, LPG, and biofuel boilers are subject to a cap of 5,000 measures per year. This cap will be shared amongst individual suppliers relative to each supplier's HHCRO obligation.[100]

5.116. Repairs of DHC and renewable heating systems are uncapped. They also remain eligible for the score increase like all repairs. Further information on this can be found in Chapter 6.

Replacements of efficient heating systems

5.117. Broken efficient heating systems, efficient boilers and ESH which are not economically repairable may be replaced under the Heating Replacement Cap of 5,000 homes per year. This cap will be shared amongst individual suppliers relative to each supplier's HHCRO obligation.[101]

5.118. If a broken efficient heating system cannot be economically repaired, it may be replaced subject to the Broken Heating Replacement Cap with a new efficient boiler (only when replacing a broken boiler) or ESH as long as the ESH is replacing another ESH or electric heating system. It may also be replaced by a renewable heating system or DHC, following the off-gas heating hierarchy rules in off-gas premises; these are not subject to the cap.

5.119. Broken heating systems which are inefficient are generally ineligible for repairs and can be upgraded with an efficient replacement, renewable heating system or DHC, or, where eligible, replaced with FTCH, and are all exempt from the cap. Working efficient heating systems, including ESH, are eligible for an upgrade to a renewable heating system or DHC. To be eligible, the measure must result in a heating cost saving. In off-gas premises, the off-gas heating hierarchy (see Figure 14: Off-gas heating hierarchy) must also be followed.

Properties without a main heating system

5.120. Properties without an efficient or inefficient heating system may be eligible for the delivery of First Time Central Heating (see paragraph 5.166). For example, electric

[100] See the Supplier Administration Guidance for more information
[101] See the Supplier Administration Guidance for more information

room heaters (both fixed and portable) are not considered to be a main heating system.

5.121. Where a property was previously heated by a central heating system but now does not have central heating, it may be eligible for a renewable heating system or DHC measure outside of FTCH. Renewable heating installations in these cases should be notified using the Boiler Upgrade score.

5.122. These properties may also be eligible for the delivery of IMs and Heating Controls.

Boilers and central heating

5.123. Appendix 3 – Boiler information pack provides an overview of the different boiler measures which are eligible in ECO. It also details when a boiler installation is a broken efficient boiler replacement, repair, or the upgrade of an inefficient system and how the boiler is assessed.

5.124. If the property is heated by an inefficient heating system (eg a non-condensing boiler), it can be upgraded to an efficient boiler.

5.125. Where an efficient boiler installation replaces a previous heating source, to ensure the heating cost savings are realised, the boiler must be connected to a working central heating system. If there is no existing heating system in the property, we would expect a heating system to be installed alongside the boiler. If the existing boiler or central heating system is not working, it may be eligible for repair or replacement under the cap (see paragraphs 5.117-5.119).

5.126. All newly installed boilers must be efficient (ie condensing). Installers must carry out hydraulic balancing following installation of the boiler to a wet central heating system to ensure that the central heating system is balanced. Hydraulic balancing ensures the optimum distribution of heat throughout the heating system based on the heat loss and radiator sizes in each room of the home. This reduces the risk of over or underheating rooms by ensuring each room meets the set point temperature at the same time.

5.127. All boilers will need to be assessed using the heating checklist – more information can be found in the Appendix 4 – Electric storage heaters (ESH) information pack on how to assess boilers.

5.128. There should always be a full set of functioning heating controls in the property following a boiler installation. The requirement for heating controls is that they should include (as a minimum) a timer, a room thermostat and TRVs on all radiators outside of the room that contains the thermostat. Alternatively, the requirement can be met with a timer and individual networked radiator controls in each room.

Hydronic heat pumps

5.129. A hydronic heat pump is any heat pump that delivers heat in the form of fluid in a wet central heating system. Hydronic heat pumps can be air-source or ground-source.

5.130. As per Article 2(2) of the ECO4 Order, air-source heat pumps are defined as heat pumps that generate heat by absorbing energy stored in the form of heat in the ambient air.

5.131. Hydronic heat pumps are a renewable heating source and can be delivered in all on-gas and off-gas premises, replacing any heating measure except where it is replacing an efficient heating system or renewable heating system of the same kind.[102]

5.132. This includes the installation of a heat pump as an upgrade measure (listed as B_upgrade measure type in the PPS matrix) in properties with an existing working efficient heating system. For example, if it results in a heating cost saving, then a working condensing boiler could be upgraded to a hydronic heat pump.

Wood-fuel

5.133. Biomass heating systems are only allowed under ECO4 if they source their heat wholly from wood-fuel and are installed in rural areas, see paragraph 3.68 for more information on what is categorised as 'rural'. Biomass is considered to be a renewable heating source.

5.134. In off-gas properties, wood-fuel heating systems can only be installed where a hydronic heat pump or renewable District Heating Connection cannot be reasonably or practically installed.[103]

[102] As per article 2(3) of the ECO4 Order, 'same kind' in this instance refers to other renewable heating systems that generate heating from the same source.
[103] See figure 14 for more information on the off-gas hierarchy.

Electric storage heaters and electric heating systems

5.135. This section applies to the installation of ESH and electric heating systems. Renewable electric heating systems, such as heat pumps, are not subject to the eligibility requirements for other electric heating systems.

5.136. All ESH and electric heating systems installed under ECO4 must have a manufactured responsiveness rating of 0.8 or above when assessed against SAP. High heat retention (HHR) ESH meet this requirement.

5.137. If the property is currently heated by an inefficient electric heating system or ESH, it can be upgraded to HHR ESH or an electric heating system (rules surrounding property tenure and eligibility still apply). Electric room heaters are not considered to be an electric heating system.

5.138. Inefficient ESH and electric heating systems are defined as having a responsiveness rating of 0.2 or below when measured against SAP.

5.139. Efficient ESH and electric heating (SAP responsiveness above 0.2) are not eligible for non-renewable electric heating or ESH upgrades outside of the heating replacement cap. However, they are eligible to be replaced by renewable heating or DHC as an upgrade measure or (in some cases) a FTCH measure.

5.140. All ESH and electric heating systems installed under ECO4 must be in premises where the pre-main heat source is an electric heating system. ESH are under no circumstances allowed to be installed in properties that have electric room heaters as their pre-main heat source.

5.141. The following is a non-exhaustive list of generally non-renewable electric heating systems:[104]

a) Electric warm air heating systems

b) Electric boilers

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[104] Per Article 2 of the ECO4 Order, electric heating systems are only considered renewable if they are wholly or mainly fuelled by a technology or source listed in section 100(4) of the Energy Act 2008

c) Underfloor electric heating

5.142. Do note that for the above list, none of the above heat sources will meet the 'electric heating system' test unless they meet the definition of central heating (ie a system which provides heat for the purpose of space heating through a boiler).

Heating controls

5.143. This section details the heating control measures that can be claimed for ECO4 – thermostatic radiator valves (TRVs), programmer & room thermostat, smart thermostats, time and temperature zone control (TTZC) and compensation.

TRVs and Programmer & room thermostats

5.144. The installation of heating controls continues to be an eligible measure under ECO4. There are two measure types for standard heating controls:

a) TRVs,

b) Programmer & room thermostat.

5.145. The TRV measure can be installed alongside a standard programmer & room thermostat or a smart thermostat measure.

5.146. All boiler upgrade measures have two different scores based on whether heating controls are already present in the property. One can be claimed where, prior to installation, a full set of heating controls which meet the minimum requirement are already present and functioning ('preHCs'). The other can be claimed where a full set of controls are not present or functioning ('noPreHCs'). For example, when the boiler measure is scored using the 'noPreHCs' variation, a TRV and programmer & room thermostat measure can also be installed.

5.147. Where a property already has a full set of functioning heating controls, the standard heating controls measures cannot be claimed. This applies even where the heating controls are broken or are replaced because they are incompatible with a new boiler or heating system which is being installed. This is because there is no cost saving associated with the replacement of existing heating controls. A compensation, smart thermostat or TTZC measure may still be installed, provided these were not already present.

Smart thermostats

5.148. Smart thermostats must meet the criteria set out in the Boiler Plus Standard.[105] That is, they must incorporate **automation** and **optimisation**.

5.149. **Automation** means a control function which automatically adjusts time and temperature settings based on occupancy detection and / or stored data from user adjustments over time.

5.150. **Optimisation** means a control starts the boiler operation at the optimum time to achieve the setpoint temperature at the start of the occupancy period.

5.151. To be considered a smart thermostat for the purposes of ECO4, products installed must also offer some form of wider **connectivity**, such that consumers can remotely control their home temperature via a tablet, smartphone, or desktop for greater control over the central heating system. Whilst there is no single definition of smart technology, the score for this measure is based on field trials of smart thermostats which have this feature.

5.152. If a property without an existing programmer & room thermostat receives a smart thermostat, the scores for installing both a smart thermostat and a programmer & thermostat can be claimed. This is the case to simplify the number of measures.

5.153. Where a home receives a smart thermostat, the compensation measure type cannot also be installed.

5.154. As smart thermostats are not modelled in RdSAP 2012, they are treated for scoring purposes as a standard alternative methodology. A deemed SAP rating improvement has been derived for smart thermostats and is included within the published PPS matrix. Before determining the finishing intermediate SAP band for a project and its FPS, the deemed SAP rating improvement for the smart thermostat measure must be added to the finishing SAP rating determined for the premises by the RdSAP assessment. This allows smart thermostat measures to contribute to the minimum requirement and FPS.

[105] All smart thermostats installed under ECO4 must meet these criteria https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/651853/Boiler_Plus_final_policy_and_consultation_response.pdf

5.155. Suppliers do not need to notify the SAP point improvement. If a smart thermostat measure is notified, the ECO4 Register will automatically add the deemed SAP rating improvement to the project's finishing SAP rating.

5.156. This mechanism also applies to all standard alternative methodology and data light measures not included within the SAP methodology (see section 6.39 - 6.47).

Time and Temperature Zone Controls

5.157. Time and Temperature Zone Control (TTZC) is defined, in the SAP, as a system that allows both the heating times and the temperatures of at least two zones to be programmed independently.

5.158. In the case of wet systems, TTZC can be achieved by either:

- Separate plumbing circuits, either with their own programmer, or separate channels in the same programmer.

- Programmable, communicating, or smart TRVs that are able to provide time and temperature zone control (as opposed to standard TRVs which only provide temperature control).

5.159. In line with SAP conventions, the TTZC score can only be claimed for smart, programmable, or communicating TRVs if the product is listed in the SAP Product Characteristics Database (PCDB).[106]

5.160. The TTZC scores assume the property has a full set of functioning heating controls (programmer & room thermostat and TRVs) as a baseline.

5.161. If the property does not have a full set of heating controls, the TTZC measure should be installed alongside a programmer & room thermostat measure. The TTZC score, a programmer and room thermostat score and the TRV score can then be claimed. This is the case in order to simplify the score notification process

[106] http://www.ncm-pcdb.org.uk/sap/searchpod.jsp?id=17.

Compensation

5.162. The compensation measure type can be notified where either weather or load compensation is installed.[107] Where weather or load compensation is installed in a property the compensation measure can be claimed, provided that:

- weather or load compensation is not currently present;
- the property has not had and is not receiving a smart thermostat measure.

5.163. The compensation score can be claimed where compensation controls are added to a compatible boiler alone or where a boiler is installed which incorporates the functionality and the functionality is activated. The compensation measure cannot be combined with a smart thermostat measure as the smart thermostat score assumes the unit includes weather compensation functionality.

5.164. Weather compensation means a control function which maintains internal temperatures by varying the flow temperature from the heat generator relative to the measured outside air temperature.

5.165. Load compensation means a control function which maintains internal temperatures by varying the flow temperature from the heat generator relative to the measure response of the heating system.

[107] This also applies where a boiler with integrated weather or load compensation is installed, provided any additional equipment such as temperature sensors are included.

Table 17: Heating control score examples

Measure installed	Pre-installation heating controls	Score to be claimed
Completion of incomplete heating controls (properties which don't have a smart thermostat)	No programmer and/or room thermostat	Programmer & room thermostat score
Completion of TRVS	Incomplete or none	TRV score
Smart thermostat installation	No programmer and/or room thermostat	Smart thermostat score and programmer & room thermostat score
	Programmer & room thermostat	Smart thermostat score
Installation of weather or load compensation (properties which don't have a smart thermostat) installation	No programmer and/or room thermostat	Compensation no preHCs score
	Programmer & room thermostat	Compensation preHCs score
TTZC	No programmer and/or room thermostat	TTZC score and programmer & room thermostat score
	Programmer & room thermostat	TTZC score

First Time Central Heating

5.166. First Time Central Heating (FTCH) is the installation of a wet central heating systems into a property that does not have, and has not previously had, a wet central heating system and which at no point since 1 April 2022 contain an efficient ESH (SAP responsiveness rating greater than 0.2) that is not broken down or if it is broken down can be economically repaired.

5.167. A wet central heating system means 'a central heating system in which heated fluid circulates between a boiler or other heat source and one or more separate heat emitters'.[108]

5.168. For the installation of FTCH into properties, suppliers will need to collect a declaration to evidence this requirement. This should contain the following wording and be signed by the owner or landlord (including social landlord) of the property:

> **"I, the owner of the premises**, declare that to the best of my knowledge, at no point prior to the installation of first-time central heating, did the premises have a wet central heating system nor, at any point since 1 April 2022, did the premises have a working or economically repairable, efficient electric storage heater(s)."

5.169. Suppliers should evidence this on the ECO4 Eligibility Requirements form.

5.170. The wording 'at no point prior' in the declaration refers to premises which do not, and never have had, a wet central heating system.

5.171. If premises have had a wet central heating system in the past, but it is not present immediately prior to the delivery of an ECO measure, it is not eligible for FTCH.

5.172. Installations of renewable central heating systems and district heating connections with a wet central heating system can take place outside of FTCH.[109]

5.173. Further, where a wet central heating system is present but not working, the premises is also ineligible for FTCH. However, a broken efficient central heating system may be repaired or replaced under the broken heating replacement cap. A broken inefficient central heating system may be eligible for an upgrade (see paragraph 5.119).

5.174. The presence of a central heating system or an electric storage heater may be identified with reference to any available evidence within the premises or records relating to the premises. Examples include an old boiler, pipework, heating controls, radiators, storage heaters, an EPC or picture evidence from property listings. This information is intended as a guide and is not a definitive list.

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[108] See article 2 of the ECO4 Order.
[109] See paragraph 5.185 for more information on renewable heating systems

5.175. Following notification of a FTCH measure, if evidence is subsequently found at audit that demonstrates any supporting evidence including a declaration provided by a landlord was false and that premises had, at any point prior, a wet central heating system, the measure will be rejected. Similarly, if it is found that since 1 April 2022 the premises had an efficient, working or economically repairable ESH, the measure will be rejected. Evidence of landlords making false declarations will be reported to the relevant bodies.[110]

5.176. The following are examples of some of the pre-main heating sources that indicate a property may be eligible for the delivery of a FTCH measure:

a) Gas room heaters,

b) Electric room heaters, including direct acting room heaters, fan heaters and inefficient electric storage heaters (SAP rating of 0.2 or less),

c) Gas fire with back boiler with one or no heat emitter,

d) Range cooker boiler with one or no heat emitter,

e) Warm air system,

f) Solid fossil fuel fire with back boiler,

g) Direct electric underfloor or ceiling heating (not connected to an electric boiler),

h) Bottled LPG room heating,

i) Solid fossil fuel room heaters,

j) Wood / biomass room heating,

k) Oil room heater,

l) No heating at all.

[110] Where there is evidence of suspected fraud this will be reported to the Homes and Communities Agency or the equivalent bodies.

5.177. The examples in paragraph 5.176 5.176are non-exhaustive and are based on heat sources that do not meet the definition of a 'central heating system'. Suppliers should contact Ofgem prior to installation if they have queries regarding the eligibility of a property for a FTCH measure.

5.178. We do not consider that homes with one radiator connected to a heating appliance for health and safety reasons is a central heating system. Therefore, homes with gas back boilers and range cooker boilers with one radiator will be considered eligible for FTCH where the eligibility rules can be met.

5.179. If a premises is eligible for FTCH, the following, non-exhaustive list of heating measure types may be installed alongside a wet CHS as a FTCH measure:

a) Condensing gas Boiler

b) Biomass Boiler

c) Air Source Heat Pump

d) Ground Source Heat Pump

e) Fuel cell mCHP

f) Electric Boiler (in homes which are already electrically heated)

5.180. Mains-gas and hybrid mains-gas FTCH may only be installed in on-gas homes.

5.181. DHC measures are not eligible to be installed as FTCH measures. They should instead be installed as a new DHC measure (see paragraph 5.2075.207)

5.182. Where a wet central heating system is installed, it must meet the definition outlined in paragraph 5.1675.167 and the relevant building regulations, PAS, or other relevant requirements, to be eligible.

5.183. FTCH installations are not included in the broken heating replacement cap. However, FTCH installations are required to meet the heating measure pre-conditions (see paragraph 5.615.61).

5.184. When installing FTCH, there is a requirement to provide a full set of heating controls as part of this. This is met where there is a programmer, room thermostat and TRVs on all the radiators outside the room with the thermostat, or a timer and individual networked radiator controls in each room. In this case, the 'TRV' and 'programmer & room thermostat' scores should be claimed alongside the FTCH score.

Renewables

5.185. A renewable heating system[111] includes those where the sources of energy and technologies are:

a) Biomass

b) Fuel cells

c) Water (including waves and tides)

d) Solar power

e) Geothermal sources

f) Heat from air, water, or the ground

g) Combined heat and power systems (but only if the system's source of energy is a renewable source).

5.186. The post-main heat sources in the PPS matrix which are renewable heating systems are biomass boilers, air and ground source heat pumps, and fuel cell mCHP. A biomass heating measure, for the purposes of ECO4, is the generation of heat wholly or partly from biomass and can only be installed in a rural area and generates heat from biomass which is wholly wood fuel.[112]

5.187. The number of renewable heating systems installed or repaired is not capped under the Heating Repair or Replacement Caps. Any heating system can be replaced with a renewable heating system, provided the property does not already have a renewable

[111] A 'renewable heating system' means equipment for the generation of heat wholly or mainly by means of a source of energy or technology mentioned in section 100(4)(a) or (c) to (h) of the Energy Act 2008 - http://www.legislation.gov.uk/ukpga/2008/32/section/100
[112] Wood fuel has the same meaning as in paragraph 6 of Schedule 4A to the Renewable Heat Incentive Scheme Regulations 2018 as per Article 27(2) of the ECO4 Order.

heating system of the same kind, the off-gas heating hierarchy is followed in off-gas premises and rules for biomass are met.

5.188. Renewable electric heating systems, such as heat pumps, are governed by the rules applying to renewable heating systems and are not subject to the eligibility requirements for other electric heating systems.

Solar PV

5.189. When delivering microgeneration measures, for example Solar PV, the installer must be accredited under the Microgeneration Certification Scheme (MCS) or an alternative certification scheme to demonstrate appropriate skill and experience.

5.190. The installation must be carried out in accordance with the relevant MCS or scheme's requirements and in accordance with PAS 2035:2019.

5.191. Solar PV is an eligible heating measure where the main heating system in the property before the ECO4 project starts is a hydronic heat pump, high heat retention electric storage heaters or an electric heating system with a SAP responsiveness rating of equal to or greater than 0.8.

5.192. Solar PV is also an eligible heating measure where a hydronic heat pump, high heat retention electric storage heaters or an electric heating system with a SAP responsiveness rating of equal to or greater than 0.8 is installed within the same ECO4 project as the Solar PV measure.

5.193. A Solar PV measure should not be installed where there are plans to install a non-electric primary heat source. Non-electric heating measures cannot take place after the installation of a Solar PV measure. This is because Solar PV measures are only eligible where they reduce heating costs, which would not be case with a non-electric primary heat source.

5.194. For Solar PV measures, many variables can affect the cost saving achieved, such as the kilowatts peak (kWp) of the system installed. A methodology to appropriately adjust the Solar PV partial project score based on these variables can be found from paragraphs.

5.195. Solar PV, as it is a heating measure, is subject to the minimum insulation pre-conditions when it is installed as part of an ECO4 project (see paragraph 5.56).

5.196. Solar PV also classed as a renewable heating system – where it is being installed alongside or in a property that already has a heat pump or electric heating (including ESH), it is subject to renewable heating eligibility rules including for repairs.

5.197. ESH/EHS that is installed alongside Solar PV is not allowed to be claimed as renewable heating and must follow the standard rules for non-renewable electric heating systems.

District Heating Connections

5.198. A district heating system (DHS) is a system that delivers heat through pipes or conduits to at least two domestic premises in at least two separate buildings, or at least three domestic premises situated in a single building. District heating connection (DHC) means a connection of domestic premises to a DHS.

5.199. DHC measures are eligible where they meet the relevant requirements. There are two DHC measures in ECO:

a) The connection of a domestic premises to a DHS, including a connection to an existing DHS or to a new DHS.

b) The installation at a domestic premises of a ground source heat pump which draws heat from a shared ground loop supplying multiple premises ("shared ground loop GSHP").

5.200. Broken DHC are eligible for repair, where they are economically repairable, and connected to an efficient DHS. In the case of off-gas premises, where a DHC is connected to a DHS that deliver heat that is generated wholly or partly from biofuel, oil or liquefied petroleum gas, the off-gas heating hierarchy only allows repairs as a last resort, where other measures in the hierarchy are not possible (See Figure 14: Off-gas heating hierarchy).

5.201. The number of DHC measures installed or repaired is not capped under ECO4. Any heating system can be replaced with a connection to a DHS, provided the off-gas heating hierarchy is followed in off-gas premises. A DHC cannot be installed where there is already a connection to an efficient DHS in the home.

5.202. Where a home does not have central heating system, a wet central heating system must be installed as part of the DHC measure. Following a DHC installation, the property must be left with a full set of functioning heating controls. This includes a programmer, room thermostat, and thermostatic radiator valves (TRVs) on all radiators outside of the room that contains the thermostat.

5.203. The score for DHC measures other than shared ground loop GSHPs includes the savings associated with a programmer and room thermostat. A programmer and room thermostat should be installed alongside the new DHC. The score for the installation of TRVs is not included in the DHC score and must be claimed as a separate measure.

5.204. In the case of shared ground loop GSHP, both TRVs and a programmer and room thermostat should be installed and claimed as separate measures where not already present.

5.205. Alternatively, the requirement can be met with a timer and individual networked radiator controls in each room. More information on heating controls can be found from paragraph 5.143 - 5.142.

5.206. For all projects that include a DHC measure or a DHC repair, the ECO4 Pre-Installation Heating Checklist should be completed and retained by the Supplier. For any projects where the pre-main heat source is a DHC, and this is being replaced by a different heating measure, then the ECO4 Pre-installation Heating Checklist should be completed.

5.207. A DHC installed together with a wet central heating system in a premises that has never had a central heating system in the past, must be notified as a DHC measure, not as a FTCH measure.

5.208. For projects that include a DHC measure other than DHC that use a shared ground loop, the following applies regarding TrustMark lodgement. Where the project includes only a DHC or a DHC and data light measures only, it falls outside of the remit of TrustMark. Projects that include a DHC measure and any other measures should be lodged with TrustMark. Projects that include a DHC that uses a shared ground loop should always be lodged with TrustMark.

DHS consumer protection standards

Heat Trust

5.209. DHC measures must be installed in line with the appropriate consumer protection standards. Heat Trust are the current industry standard for consumer protection of DHS other than shared ground loop GSHPs, and due to their role in DHS, they have been specifically designated within the ECO4 Order.

5.210. DHC measures other than shared ground loop GSHPs must be registered with Heat Trust or demonstrate that they comply with equivalent standards to those provided by Heat Trust. Therefore, the first step when considering the installation of a DHC measure should be to engage with Heat Trust, to understand the requirements so that they can help with the circumstances of the installation.

5.211. A ground source heat pump DHC measure, such as a system which has a shared ground loop connection where individual premises have their own heat pumps, is not required to have registration with Heat Trust. Instead, such measures must be installed by, or under the responsibility of, a person who is registered with TrustMark for the purposes of that measure, and be subject to TrustMark's quality assurance framework, or an equivalent. Where there is a single ground source heat pump that supplies multiple premises, these connections would require appropriate consumer protection standards.

5.212. The ECO4 Order details that "arrangements for consumer protection which are equivalent to the requirements under the Heat Trust Scheme" will be required for DHC measures. Ofgem considers the term 'equivalent' in this context to mean equal or the same. If there are situations that diverge from Heat Trust requirements, suppliers may choose to discuss these with Heat Trust to work towards a solution, so that the evidence for any deviation can be demonstrated to Ofgem.

5.213. Ofgem recommends anyone seeking to install DHC measure to engage with Heat trust at the earliest possible opportunity.

5.214. In these circumstances, suppliers should notify 'Heat Trust' in the DHC Consumer Protection field of the measure notification template, when notifying a DHC measure.

Equivalent requirements to Heat Trust

5.215. If choosing an alternative to Heat trust, an independent audit report must be completed by a qualified auditor. The third-party auditor must be suitably qualified with relevant industry experience. They must be able to understand and suitably assess equivalence on every aspect of Heat Trust's requirements.[113] As such, these requirements form the basis of any checklist or the requirements. To note, if standards go beyond what Heat Trust offers, we will consider the overall package as 'equivalent'.

5.216. The audit and report themselves will vary in scale depending on what is being assessed. However, they need to be thorough, detailing not only how they meet the requirements at the time of installation, but also how they will meet the requirements that require ongoing actions, such as 24-hour contact services and access to an Ombudsman in the event a complaint is made.

5.217. Improvements to Heat Trust standards would need to be incorporated at the time of a third-party audit equivalence assessment. However, Ofgem would not expect these improvements to retrospectively take place on previously installed and notified measures. Additionally, any failings on the expected ongoing consumer protection put in place would not be assessed by Ofgem, although we retain the right to audit and revoke measures if they fail to comply with scheme requirements.

5.218. In these circumstances, suppliers should notify 'HT Equivalent' in the Consumer Protection field of the measure notification template, when notifying a DHC measure.

Alternative organisations to Heat Trust

5.219. As ECO4 progresses, other organisations may seek to offer equivalent assessments. Once it can be shown, via an audit on equivalence, that an organisation can provide equivalent requirements to Heat Trust and update these when Heat Trust updates them, then this organisation will be deemed as equivalent.

5.220. We would expect close engagement with any organisations seeking to offer services that are claimed to be equivalent to Heat Trust.

[113] https://www.heattrust.org/index.php/the-scheme-rules

Smart Meter Advice

5.221. A smart meter is a digital electricity and gas meter which displays accurate energy usage readings in near real time.

5.222. Smart meters are not an eligible ECO measure and will not factor into any score – however, installers are mandated to provide advice to customers on the benefits of smart meters as per the ECO4 Order.[114] This advice must take the form of giving the customer a leaflet, either physically or electronically, produced by Smart Energy GB.[115]

5.223. This advice must be provided prior to the installation of the first measure in a project or prior the installation on an in-fill measure – we would recommend that this advice is given by the Retrofit Coordinator as part of the wider retrofit advice given at the start of the project. This advice can be given either electronically or in print.

5.224. The provision of this advice will have to be confirmed by the Retrofit Coordinator as part of a declaration during the lodgement of the project in the TrustMark Data Warehouse.

Standards for the installation of ECO measures

5.225. Suppliers should ensure that the installation of a measure is carried out in accordance with the relevant standards.

5.226. If a measure is referred to in PAS 2030:2019 or falls under an MCS standard, the installation of the measure should be carried out:

a) By either a PAS or MCS certified installer, or under the responsibility of, a person certified to PAS2030:19 or MCS.

b) In accordance with relevant provisions of PAS 2030:2019, MCS standards, PAS 2035:2019, building regulations and any other applicable regulations.

[114] See Article 31 of the ECO4 Order

[115] The leaflet can be found in the following link: https://www.smartenergygb.org/resource-centre/materials/2022-core-assets/a-smart-meter-could-give-you-peace-of-mind-if-money-s-tight/a-smart-meter-could-give-you-peace-of-mind-if-money-s-tight-leaflet-in-english

5.227. TrustMark is responsible for ensuring compliance with PAS and MCS standards (except for DHC measures that aren't heat pumps connected to shared ground loops) and that appropriate guarantees are in place. Measures installed according to PAS or MCS must be installed by, or under the responsibility of, a person who is registered with TrustMark for the purposes of that measure. These requirements are evidenced to Ofgem by a Certificate of Lodgement (CoL) awarded by TrustMark for measures.

5.228. An 'operative' is defined in PAS 2030:2019 as a "person employed by the Retrofit Installer, either directly or under a subcontract arrangement, to undertake installation tasks on an energy efficiency measure in accordance with the relevant method statement".[116] There are two categories of operative permitted under the provisions of this PAS, those who can demonstrate vocational competence and those who are acquiring vocational competence.

5.229. Individuals employed to provide labouring, carrying, or loading / unloading capability do not constitute operatives in the terms of this PAS. In such cases, it is the PAS-certified installation company who remains responsible for any work carried out.

5.230. Under ECO4, TrustMark registered businesses must be certified as compliant with PAS 2030:2019 by a PAS 2031:19 accredited scheme provider or certification body. All installers registered with TrustMark must deliver energy efficiency measures within the scope of PAS 2035:2019 and PAS 2030:2019[117].

5.231. In the case of microgeneration measures, where operatives require membership to a standards organisation such as MCS, in the first instance this person must still be registered with, or under the responsibility of someone who is registered with TrustMark.

5.232. In the case of DHC measures (other than DHC measures that use a shared ground loop, which fall under the remit of TrustMark), installation should be in accordance with building regulations and any other regulations that relate to the installation of the measure. Installation should be by a person with appropriate skill and experience in relation to the installation and connection of a wet central heating system in domestic premises. This is because, under ECO4, DHC measures involve the connection of a domestic premises' wet central heating system to a DHS. Therefore, suitable

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[116] See PAS 2030:2019 paragraph 3.12
[117] See TrustMark Framework Operating Requirements https://www.trustmark.org.uk/tradespeople/government-grants-schemes-and-subsidies

qualifications for installers may be a Level 2 or 3 NVQ in gas, plumbing or mechanical engineering. We recommend CIBSE Heat Networks: Code of practice for the UK is followed during all phases of the DHC project where relevant.

TrustMark Equivalence

5.233. In the instance of measures not referred to in PAS 2030 or under MCS, such as some novel data light measures (DLM) and innovation measures (IM), installation must be subject to arrangements for quality assurance and consumer protection, including installation standards and arrangements for repairs and other remedies, which are equivalent to what TrustMark requires. TrustMark's Framework Operating Requirements[118] are extensive and would need to be covered in full, and additional consideration would need to be made of any circumstances that may be unique to the novel measure. We would expect any suppliers seeking to pursue this option to contact us at ECO@ofgem.gov.uk prior to seeking to installing a measure to explain how they will achieve TrustMark equivalence.

5.234. DLM and IM which are not referenced in PAS 2030:19 and do not fall under MCS, must be certified by a person accredited to ISO / IEC 17065:2012. See the New Measures and Products Guidance[119] for details on this requirement. Information on standards described as necessary to the safe and effective operation of an IM or DLM, provided to the measure manufacturer / obligated supplier from the organisation accredited to ISO / IEC 17065 when certifying an IM / DLM should be provided to Ofgem as part of the DLM or IM application.

Guarantees

5.235. Guarantee requirements and standards will be mandated by TrustMark via their registration and compliance. Any measure lodged with TrustMark that does not meet relevant guarantee requirements, enforced via TrustMark, will not be considered a qualifying ECO measure.

[118] http://www.trustmark.org.uk/docs/default-source/scheme-documents/framework_operating_requirements-v2-5-1-11-21.pdf
[119] https://www.ofgem.gov.uk/publications/energy-company-obligation-2022-26-eco4-guidance-new-measures-and-products

5.236. Appropriate guarantees, which have been reviewed and are considered to meet the TrustMark Framework, are listed on TrustMark's website.[120]

5.237. Suppliers will not need to supply us with the guarantee codes as part of the ECO4 notification template.

5.238. For DHC measures, consumer protection is delivered through registration with the Heat Trust scheme, or an equivalent (See paragraphs from 5.209).

5.239. For DLM and IM that are not referenced in PAS 2030:19 and do not fall under MCS, TrustMark equivalent guarantees must be provided. Equivalence here will be subject to a letter of direction from Government. We recommend that suppliers contact us at ECO@ofgem.gov.uk prior to seeking to install such measures.

[120] https://www.trustmark.org.uk/tradespeople/financial-protection

6. Scores

Introduction to ECO savings

6.1. This section introduces the scoring methodology for ECO4 including partial and full project scores as well as how these are calculated.

6.2. Each measure or package of measures receives a score which determines the contribution that the measure makes towards a supplier's HHCRO obligation.

6.3. When completed measures are notified to us, Ofgem will determine the score for the measure or package of measures, based on the information notified.

6.4. Scores are based on the annual cost saving achieved by a measure or package of measures when installed in a domestic premises.[121]

6.5. In certain circumstances, 'uplifts' or 'increases' may be applied to the cost savings which increase the value when determining a score. These are provided to encourage delivery of specific measures or treatment of certain properties. Similarly, penalties may be applied to a score in certain circumstances such as the late penalty applied to a project containing late installations.

Scoring system

6.6. Scoring under ECO4 comprises two scoring systems: full project scores and partial project scores.

6.7. Full project scores (FPS) are awarded to projects which meet the minimum requirement (or where a relevant exemption applies) and are based on the annual energy bill saving produced by the improvement in a premises' SAP rating. Under this system, scores are pre-calculated and can be selected from tables using a premises' starting and finishing SAP ratings and floor area.

6.8. Partial project scores (PPS) are awarded as each measure within a project is notified and approved. They are interim scores which represent a proportion of the full

[121] Information on how the scores were calculated can be found in our consultation on the ECO4 scoring methodology, and the associated decision document: https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision

expected annual bill saving of the measure. PPS are also based on the starting SAP rating of a property but not the finishing SAP rating. Once a project is complete, partial project scores may be superseded by full project scores if the project meets the minimum requirement.

Intermediate SAP bands

6.9. In a SAP assessment, the energy efficiency rating of a domestic premises is expressed by assigning it a band from A to G. The band is determined by the SAP rating, which is a numerical value normally between 1 and 100 based on the calculated energy costs for the premises. Higher ratings indicate better energy efficiency. A rating between 1 and 20 relates to band G, 21 to 38 relates to F and so on.

6.10. ECO4 scores are based on intermediate SAP bands, which divide SAP bands into a 'low' and a 'high' category. Although SAP ratings are usually rounded to a whole number, the intermediate SAP bands give ratings to one decimal place. These intermediate SAP bands and their corresponding SAP rating range are given in Table 18 below.

Table 18: SAP ratings and corresponding intermediate SAP bands

SAP rating	Intermediate SAP band
Below 10.5	Low G
10.5 to 20.4	High G
20.5 to 29.4	Low F
29.5 to 38.4	High F
38.5 to 46.4	Low E
46.5 to 54.4	High E
54.5 to 61.4	Low D
61.5 to 68.4	High D
68.5 to 74.4	Low C
74.5 to 80.4	High C
80.5 to 85.9	Low B
86.0 to 91.4	High B
91.5 to 95.9	Low A
96.0 and above	High A

Total floor area segments

6.11. The size of the premises has a significant impact on energy costs and savings, therefore ECO4 scores are also based on the total floor area of the premises.

6.12. Premises can be divided into four distinct floor area segments, based on the total floor area range of the property.

6.13. The floor area of the premises should be determined in accordance with SAP/RdSAP conventions. The floor area should not change between the pre-retrofit and post-retrofit assessment.

6.14. Note that it is the internal total floor area which must be used. RdSAP allows assessors to enter external dimensions, and the software automatically makes allowances for wall thicknesses in calculating the internal total floor area. Floor area should therefore always be taken from the SAP/RdSAP assessment output, rather than manually calculated using input dimensions.

Table 19: Floor area segments

Floor area segment	Total floor area (TFA) range
1	TFA < $73m^2$
2	$73m^2 \leq$ TFA < $98m^2$
3	$98m^2 \leq$ TFA < $200m^2$
4	$200m^2 \leq$ TFA

6.15. Score uplifts are automatically applied to the two smallest floor area segments (segment 1 and 2 in Table 19). These uplifts are already be accounted for in the scores shown in the published scoring matrix.[122] This is discussed further in the uplift section below, starting from 6.129.

Starting SAP rating

6.16. To determine the PPS or FPS for a premises, and the intermediate SAP band, the starting SAP rating must be established.

[122] See https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision

6.17. The starting SAP rating can be determined via a pre-installation RdSAP assessment as part of PAS 2035, a valid SAP assessment, or a valid pre-installation EPC for projects outside the scope of PAS.

6.18. Any RdSAP assessments produced for PAS retrofits should be lodged, as PAS requires, in TrustMark's Data Warehouse. RdSAP assessments must be carried out using RdSAP 2012 v9.94.

6.19. Where a retrofit contains only a DHC and DLM or DHC alone, all of which are outside the scope of PAS2035, the starting SAP rating must be evidenced by a pre-retrofit full SAP assessment lodged as an EPC. These must use SAP 2012 v9.92. SAP 10 (and RdSAP 10, when available) may be adopted in future, subject to a relevant amendment of the scheme legislation.

6.20. If a project contains only a novel DLM, the starting SAP rating must be evidenced by an RdSAP assessment lodged as an EPC, or an existing EPC for the property lodged within two years and three months of the first measure being installed.

Partial project scores

6.21. Partial project scores (PPS) are a system of deemed scores based on the average annual bill saving achieved by a measure when installed in a premises with a given starting intermediate SAP band and floor area segment.

6.22. They are interim scores which represent a proportion of the full bill saving improvement of the measure and are awarded as each measure within a project is notified and approved.

6.23. The PPS for all measures within a project will be determined using the original starting intermediate SAP band determined at the start of the project.

6.24. Once a project is complete, if it meets the minimum requirement for SAP band improvements, the deflated PPS of individual measures will be replaced by a full project score applied to the project.

6.25. Where a project is completed but does not meet the minimum requirement, or where a project is left incomplete, deflated PPS will be the final score for the measures in that project.

6.26. PPS for all measures can be found in the Partial Project Scores Matrix.[123] The PPS for a given measure can be identified by selecting the row with the appropriate values in the preceding columns.

6.27. A deflator of 20% will be applied to all PPS except in-fill measures, which are not deflated. The PPS published in the Partial Scores Matrix do not include the deflator – this will be applied automatically by the Register where relevant. The deflator is a feature of the scheme[124], and helps ensure there is a benefit to completing a project.

In-Fill

6.28. In-fill measures are not required to meet the minimum requirements, as discussed f in paragraphs 4.23-4.26.

6.29. The partial project scores awarded to in-fill measures will not be deflated, and will not count towards the PPS cap.

Full project scores

6.30. As discussed in Chapter 4, ECO4 focuses on a multi-measure, whole-house approach. Full project scores (FPS) are awarded in respect of packages of measures installed in eligible premises.

6.31. FPS are based upon the starting intermediate SAP band (pre-retrofit) and finishing intermediate SAP band (post-retrofit) of the premises and is based on the difference in expected annual energy costs between the bands, whilst also having regard to the size of the property (floor area).

6.32. For example, a band G premises with a starting SAP rating of 17.0 is categorised as a high G (see Table 18). Under the minimum requirement, the premises must be improved to at least a low band D. If the finishing SAP rating is 58.0, this relates to a low D meaning the project has met the minimum requirement, and a pre-calculated FPS will be awarded based on the improvement from a low G to a low D.

[123] See https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision
[124] See Chapter 4 of the ECO4 Order

6.33. The maximum possible FPS may be awarded where the post-retrofit SAP band is high band B. Further increases to the SAP rating above high band B will not result in a higher FPS.

6.34. Pre-calculated FPS can be identified from the FPS matrix[125] based on the intermediate SAP band before and after the retrofit project, and the floor area segment the premises falls within.

6.35. FPS will only be awarded where projects meet the minimum requirement, or if they do not meet the MR, where a relevant exemption(s) applies. The MR for projects and exemptions are discussed in Chapter 4.

6.36. Various uplifts and increases may also be added to FPS.

Finishing SAP rating

6.37. To determine the finishing SAP rating of a premises and therefore the FPS that will be awarded, an updated RdSAP assessment, or an updated SAP assessment for projects containing DHC measures and novel DLM only, should be carried out at the end of the project. The SAP rating should be notified as part of the completed project re-notification.

6.38. The post-retrofit assessment must mirror the pre-retrofit assessment type, for example mixing pre and post SAP and RdSAP assessments in a single retrofit is not permitted. This is also the case for non-PAS projects using EPC assessments. For example, if a project has an RdSAP for the pre-retrofit assessment, the post retrofit assessment must also be RdSAP, with the post-retrofit assessment lodged as an EPC where a pre-retrofit EPC is required. Additionally, the version of SAP or RdSAP used must be the same as was used for the pre-retrofit assessment.

[125] See https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision

Data light and Standard Alternative Methodology measures

6.39. As covered in the New Measures and Products guidance[126] for measures not accounted for by SAP or RdSAP, a deemed SAP rating improvement can be derived by applying the energy cost rating formula.

6.40. If a DLM or SAM measure is notified, before determining the finishing intermediate SAP band for a project and its full project score, the ECO Register will automatically add the relevant SAP rating improvement to the project's finishing SAP rating. This method ensures the contribution of the SAM or DLM is recognised in the full project score and minimum requirement.

6.41. For reference, the deemed SAP improvement for each approved SAM or DLM will be published in the PPS matrix.

6.42. Where the supplier is in excess of their DLM cap, the DLMs will not contribute to the MR. More information can be found in Table 29 in Appendix 5 – Uplifts, increases, deflators, caps and requirements lists the caps present in ECO4. See our ECO4 Guidance: Supplier Administration[127] for more explanation of caps.

Late measures

6.43. Measures which are delivered to the required standards past the project completion deadline for the purposes of rectification, installation of a new measure to meet the MR or otherwise, will be deemed as late installations and may result in a late penalty being applied to the FPS of that project.

6.44. This late penalty is calculated as 20% (the deflator value) of the deemed cost savings (the value taken from the matrix) of any late installations in the project. This means the penalty is applied after any adjustments due to POPT but before uplifts or the deflator are applied. This value will then be subtracted from the FPS.

6.45. This late penalty will only be applied where a project is awarded FPS. Late installations have no effect on the scoring of a project that is not awarded FPS.

[126] See https://www.ofgem.gov.uk/publications/energy-company-obligation-2022-26-eco4-guidance-new-measures-and-products

[127] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents

Example late penalty calculation

6.46. A supplier notifies a UFI measure installed in a property with a floor area of 60m^2 and starting intermediate SAP band high E. POPT is 100% so no adjustment is required. This property is eligible through ECO4 Flex route 4. From the PPS matrix, the score for this measure is £79. The 10% uplift for route 4 is applied giving a total un-deflated score of £86.9. Then the deflator is applied to give the deflated PPS of 69.52.

6.47. This measure is installed after the deadline and so attracts a late penalty. The project meets the MR and is awarded FPS. The late penalty is equal to 0.2 x 79 = £15.8. So 15.8 is subtracted from the FPS awarded to the project. Note the penalty is applied to the value taken from the matrix before the other uplifts or deflator are applied.

Identification of the pre-main heat source for heating measures

6.48. Identification of the premises' pre-main heat source is required to determine the correct score for the heating measure being installed. As part of the pre-retrofit RdSAP assessment, the associated Conventions[128] should be followed to determine the pre-main heating system of the premises.

6.49. Where a property has two main heating systems, the pre-retrofit RdSAP should also determine the proportion served by each system. In these cases, heating measures should be notified as two separate measures with the POPT for each measure notified as the proportion to the heated floor area served by each system.

6.50. Where the pre-retrofit assessment identifies no main heating system, for example where the property has no fixed heating system or portable room heaters, an electric room heater proxy will be assigned for scoring purposes. The pre-main heat source should be notified as 'no heating present' and the register will assign the proxy.

6.51. If the main heating system is ESH and the property is on a single rate electricity tariff, the RdSAP conventions should be followed, and the pre-main heat source should be notified as electric room heaters. This does not impact FTCH eligibility, properties with working efficient ESH are not eligible for FTCH measures.

[128] RdSAP Conventions can be found on this page: https://www.bregroup.com/sap/standard-assessment-procedure-sap-2012/

6.52. Broken or inefficient boilers and ESH which are being replaced under ECO should not be removed until the necessary evidence has been collected to enable the intended measure to be notified. Where this is not the case, it may no longer be possible to carry out the intended measure under ECO.

6.53. When installing heating controls, the pre-main heat source is the heating system that will be affected by the controls being installed.

6.54. The PPS Matrix provides scores for common heating sources used across the Great British housing stock. The pre-main heat sources used for the scores are given in Table 20.

Table 20: Pre-main heat sources for heating measures

Pre-main heat sources
Air to Water ASHP
Biomass Boiler
Bottled LPG Boiler
Bottled LPG Room Heaters
Condensing Gas boiler
Condensing LPG boiler
Condensing Oil boiler
DHS supplying heat from CHP (DHS_CHP)
DHS supplying heat not from CHP (DHS_Non-CHP)
Electric Boiler
Electric Room Heaters
Electric Storage Heaters Responsiveness <=0.2
Electric Storage Heaters Responsiveness >0.2
Gas Back Boiler to Radiators
Gas Fire with Back Boiler
Gas Room Heaters
GSHP
Non-Condensing Gas Boiler
Non-Condensing LPG Boiler
Non-Condensing Oil Boiler
Solid Fossil Boiler
Solid Fossil Room Heaters

Proxies

6.55. Proxies are used for rare pre-main heat sources for which there is no score available.

6.56. Where a supplier installs a heating measure and the pre-main heat source is not reflected in the PPS Matrix, Table 21 is used to determine which heating source is used as a proxy for the actual heating source.

6.57. Please note that Table 21 is for reference only. Suppliers must notify the actual pre-main heat source listed rather than the proxy. The proxy will be automatically assigned within the Register based on Table 21, to allow the correct partial project score to be awarded. For the avoidance of doubt, the eligibility of a given heating measure is based on the actual pre-main heat source, rather than the proxy.

Table 21: Partial project scores proxy heating sources

Pre-main heat sources	Proxy
ASHP/Oil Boiler Hybrid	Air to Water ASHP
ASHP/Gas Boiler Hybrid	Air to Water ASHP
Biomass/Wood Central Heating	Condensing LPG boiler
Biomass/Wood Room Heating	Solid Fossil Room Heaters
Bottled LPG Back Boiler to Radiators	Electric Boiler
Bottled LPG Fire with Back Boiler	Bottled LPG Room Heaters
Bottled LPG Range Cooker Boiler	Electric Boiler
Electric Ceiling Heaters	Electric Room Heaters
Electric Underfloor Heating	Electric Room Heaters
Electric Warm Air System	Electric Room Heaters
Gas Range Cooker Boiler	Condensing Oil Boiler
Gas Warm Air System	Gas Room Heaters
LPG Back Boiler to Radiators	Bottled LPG Boiler
LPG Boiler - Special Condition 18	Condensing Gas boiler
LPG Fire with Back Boiler	Bottled LPG Room Heaters
LPG Range Cooker Boiler	Bottled LPG Boiler
LPG Warm Air System	Bottled LPG Room Heaters
No Heating	Electric Room Heaters
Oil Range Cooker Boiler	Condensing LPG Boiler
Oil Room Heaters	Solid Fossil Room Heaters
Oil Warm Air System	Solid Fossil Room Heaters
Solid Fossil Back Boiler to Radiators	Non-Condensing Oil Boiler
Solid Fossil Fire with Back Boiler	Solid Fossil Room Heaters

6.58. Where a heating source is identified which is not included in the PPS Matrix or Table 21, suppliers should contact Ofgem to determine the most appropriate course of action.

Identification of the post-main heat source for heating measures

6.59. The partial project scores matrix[129] includes partial project scores for installing the heating sources provided in Table 22.

Table 22: Post-main heat sources for heating measures

Post-main heat sources
Air to water ASHP
Biomass Boiler
Condensing Gas Boiler
DHS supplying heat from CHP (DHS_CHP)
DHS supplying heat not from CHP (DHS non-CHP)
Electric Boiler
GSHP
High Heat Retention Storage Heaters
Fuel Cell Micro-CHP (Fuel cell mCHP)
Shared Ground Loop GSHP

6.60. Guidance on rules and limitations covering the installation of these heat sources is given in Chapter 5.

6.61. If a supplier wishes to notify the installation of a heat source which is not in Table 22: Post-main heat sources for heating measures, they should contact us prior to any installations taking place.

Percentage of property treated (POPT)

6.62. The published partial project scores[130] take into consideration that it is often not possible to treat 100% of a property when a particular measure is installed.

[129] See https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision
[130] See https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision

6.63. On average across the housing stock, for most measure types, less than 100% of the property is treated. An average percentage of property treated has been developed for each different measure type.

6.64. In the measure notification, suppliers must include the POPT. If it is larger than 67%, this can be notified as "67+" and the published PPS will be awarded.

6.65. Where less than 67% of the property is treated, suppliers need to notify the exact POPT. The score will be calculated using the exact POPT. This calculation is explained in paragraph 6.68. Suppliers do not need to notify Ofgem of the score for the measure – this will be calculated and awarded by the ECO4 Register.

6.66. POPT is only required for calculating PPS of individual measures. The percentage of property treated for each measure is considered as part of the post-retrofit assessment and therefore, is considered in the finishing SAP rating and FPS.

Percentage of property treated calculation

6.67. POPT is determined using the formula below:

$$\mathrm{POPT} = \frac{\mathrm{A}}{\mathrm{C}} \times 100$$

Where:

A is the area that the measure is installed to, and

C is the total 'similar' area of the property:

- For EWI, IWI and CWI, this is the total heat loss wall area
- For party wall insulation, this is the total party wall area
- For roof insulation, loft insulation and room-in-roof insulation, this is the total roof area
- For heating measures, this is the total floor area of the property that should be heated.

Scores awarded where POPT is less than 67%

6.68. The PPS are published with the average POPT already applied. Where the actual POPT is less than 67%, the published partial project score will be divided by the average POPT, then multiplied by the actual POPT to give the correct value.

6.69. The score awarded for the measure will be calculated by the register using the formula:

$$\frac{\text{Published PPS}}{\text{Average POPT}} \times \text{Actual POPT} = \text{Awarded PPS}$$

Where:

- Actual POPT is the percentage of property treated by the measure, and
- Average POPT is the average POPT factor which applies to the measure, which is listed in the PPS matrix.

6.70. For example, if an EWI measure is installed to a property with a starting intermediate SAP band of low F and with a total floor area <73m^2. The walls of the property are of both cavity and solid construction, meaning that 50% of the wall area is cavity wall and the other 50% is solid wall. The cavity wall is already fully insulated, and as part of the ECO project EWI is installed to the solid wall. The actual POPT for the EWI measure is 50%, which is below the 67% threshold.

6.71. The average POPT for EWI measures is 95%, written as 0.95 in the PPS matrix. The score for this measure, from the PPS matrix, is 128. Therefore, the partial project score for this example is:

$$\frac{128}{0.95} \times 0.5 = £67.37$$

6.72. Actual POPT, when expressed as a percentage (eg for notifications), should be rounded to the nearest whole number. For example, where 50.3% of a property is treated by a measure, then 50% in notifications and 0.50 will be used in calculations.

Measure-specific POPT principles

6.73. When calculating POPT, there are some general measure-specific principles which should be taken into account. These principles are outlined in paragraphs 6.74 6.126.

Wall insulation

6.74. For wall insulation, POPT is 100% when the total external heat loss wall area of the property is insulated as part of the measure. It should be noted that the wall(s) of a flat which are adjacent to a corridor may be considered as an external heat loss wall for the purposes of determining the POPT.

6.75. If the measure does not insulate all external heat loss wall areas, the POPT would be less than 100%. If the POPT is at least 67%, the published score will be awarded without modification. However, if it is less than 67%, the score will be calculated in accordance with paragraph 6.68.

6.76. Where some of the external heat loss wall area is already fully insulated prior to the installation of an ECO wall insulation measure, the percentage of the previously insulated wall should be removed from the POPT.

6.77. Where some of the external heat loss wall area cannot be insulated as part of the installation, the percentage of that wall area should be removed from the POPT. For example, when installing a cavity wall insulation measure, any solid wall area of the property should be removed from POPT. It also includes areas relating to chimneys, where the chimney forms part of the external heat loss wall area.

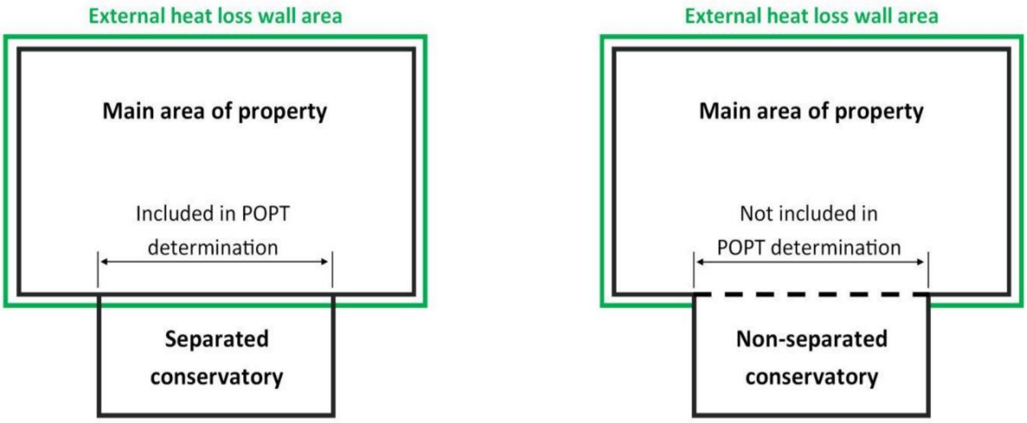
6.78. For CWI installations, if a property has cavity walls which are partially covered by cladding, tiles or wooden panelling, these areas must be insulated where possible, either by using a lance, internal drilling, or by removing and replacing exterior cladding. If these areas are of solid wall construction, then they should be removed from the POPT.

6.79. Where a property's external heat loss wall area is both of cavity wall and solid wall construction, and both are insulated, this should be claimed as two separate measures. The average treatable area approach still applies – if POPT for one measure meets the 67% threshold, the relevant PPS for that measure will be awarded without modification.

6.80. If a property has external heat loss walls of two types of solid wall construction, and both are insulated, then this should be notified as two separate measures, with POPT split accordingly. However, where one construction type has as POPT of ≥67% (meeting the average POPT criteria), only the 67+ SWI measure can be notified. This stands even if there are different initial u-values. For example, if EWI is installed to a property which is 70% solid brick, and 30% timber frame (eg an extension), then only one measure should be notified, with >67% POPT.

6.81. The wall area of separated conservatories (those which are accessible via an external quality door) is not included in this determination. In this case, the wall area between the conservatory and the main part of the property is considered to be the external heat loss wall and should be insulated.

Figure 15: POPT diagram for properties with fully glazed conservatories



6.82. Where a property has a non-separated conservatory (with an internal quality door), the wall area between the main part of the property and the non-separated conservatory is not considered to be an external heat loss wall and should not be included in the POPT determination. Both scenarios are shown in Figure 15.

6.83. Where a non-separate conservatory has one or more full-height walls, these are considered external heat loss walls and therefore should be included in the POPT determination.

6.84. There may be some cases where non-separate conservatories have partial wall areas which could be insulated, such as dwarf walls. Because savings are likely to be negligible in such cases, we do not require dwarf walls of conservatories to be considered when calculating POPT.

6.85. Where a property has a garage that is not thermally separate from the dwelling, the wall area of the garage is considered part of the external heat loss wall.

6.86. Where a property has a garage that is thermally separate from the dwelling, the outer walls of the garage are not considered as part of the external heat loss wall. The wall area between the main property and garage is considered part of the external heat loss wall.

Examples of calculating POPT for wall insulation

6.87. Table 23 presents examples of calculating POPT for wall insulation.

Table 23: Examples of POPT calculations for wall insulation

Scenario	POPT approach
Example 1: all of a property's external heat loss walls are cavity walls and they are all treated with CWI.	100% of the property has been treated. POPT can be notified as "67+" and the published PPS will be awarded without modification.
Example 2: a property has solid walls with a total heat loss wall area of 50m^2 and is to be treated with EWI. One wall with an area of 15m^2 is tile hung and cannot be treated.	POPT is 70%. This still meets the 67% requirement, POPT can be notified as "67+" and the published PPS will be awarded without modification.
Example 3: an uninsulated property has a total heat loss wall area of 50m^2, of which 15m^2 is of cavity wall construction and 35m^2 is solid wall.	a) If the total external heat loss cavity wall area is treated with CWI, the POPT is 30%. This is below the 67% requirement. Therefore, the exact POPT must be notified, and the score awarded will be calculated in accordance with paragraph 6.69. b) If 20m^2 of the available 35m^2 of the solid walls is insulated, the POPT is 40%. This does not meet the 67% requirement. The exact POPT must be notified, and the score will be calculated in accordance with paragraph 6.69. c) If all of the heat loss walls are treated, then the insulation of the cavity wall and solid wall areas should be notified as separate measures. The POPT for the CWI measure is 30%, and the relevant CWI score will be calculated in accordance with paragraph 6.69. The POPT for the

	SWI measure is 70%. This meets the 67% requirement and the published score for the relevant SWI measure will be awarded without modification. POPT can be notified as “67+”.

Party cavity wall insulation (PCWI)

6.88. For party cavity wall insulation, 100% POPT is the insulation of all party cavity walls. POPT should be calculated based on the area of the party cavity walls that has been insulated, divided by the total area of party cavity wall.

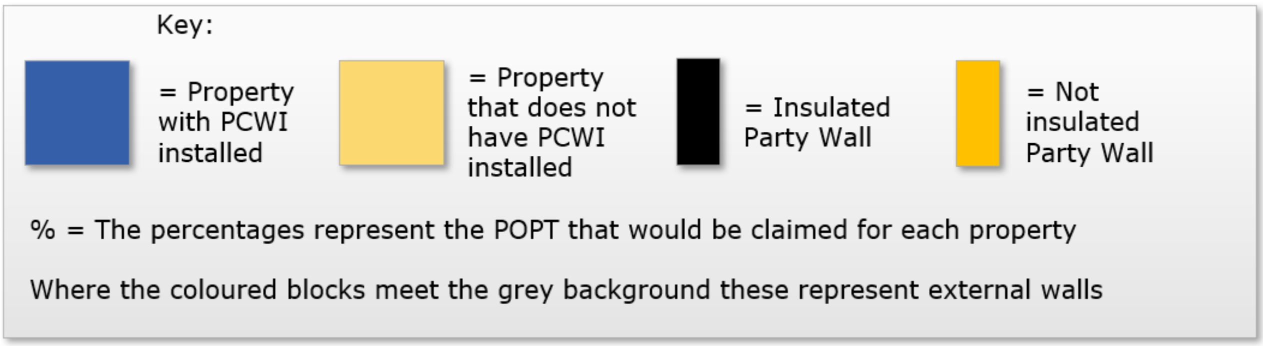
6.89. When claiming for multiple adjacent party wall measures, suppliers should ensure that all the party walls in each property are treated, unless there are reasonable grounds for not doing so. For clarity, if consent cannot be obtained, this would be reasonable grounds for not completing 100% of the measure.

6.90. If all the party walls in a property are treated, this counts as both 100% for POPT. As with other measures, if POPT is 67% or more then the published PPS will be awarded without modification.

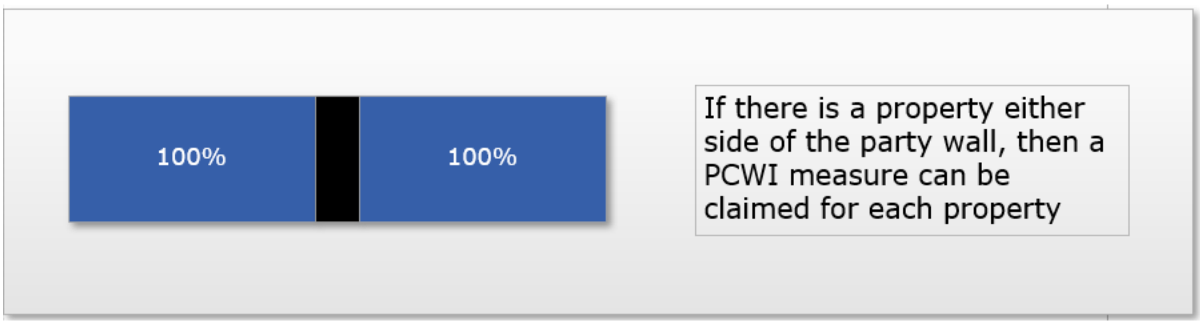
Examples of calculating POPT for PCWI measures

6.91. The examples of PCWI installations in Figure 16 show how the POPT changes depending on the number of party walls which have been insulated.

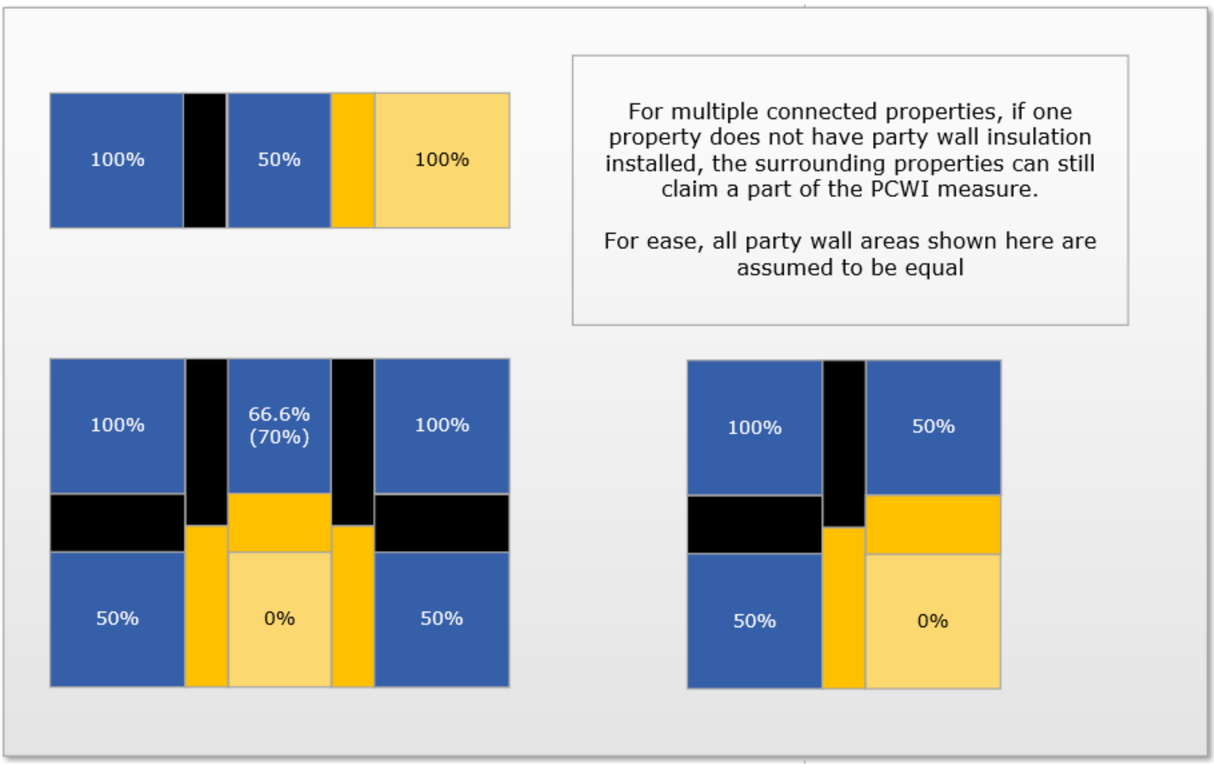
Figure 16: Examples of calculating POPT for PCWI measures



Example 1:



Example 2:



Loft insulation

6.92. Where part of a loft has already been insulated, the area with no pre-existing insulation can be claimed as loft insulation ≤100mm. Percentage of property treated should be reduced accordingly. If the pre-existing insulation has a depth of equal to or less than 100mm, any additional insulation installed in these areas can be claimed as part of the same measure (LI ≤100mm) as the area with no pre-existing insulation. If the pre-existing insulation has a depth greater than 100mm and further insulation is installed, this area should be claimed as a separate measure (LI >100mm) and the POPT reduced accordingly.

6.93. For example, prior to installation 30% of the loft area is uninsulated, 30% is insulated to a depth of 100mm, and 40% is insulated to a depth of 200mm. If the entire loft area is fully insulated, two measures can be claimed – one LI ≤100mm measure with a POPT of 60%, and one LI >100mm measure with a POPT of 40%.

Roof insulation

6.94. For roof insulation, POPT is considered to be 100% when the entire heated area of the property has received roof insulation. If the measure does not insulate some heated area of the property, the POPT would be less than 100% as only a proportion of the property is treated as part of the measure. As with other measure types, the exact POPT needs to be notified and published score will be modified if the 67% requirement is not met.

6.95. When calculating POPT for a roof insulation measure, the plan area (ie the footprint) of the roof should be used. Where a property has multiple roof types, for example a pitched roof and a flat roof, the area of all roof types should be taken into account when calculating POPT. Where part of the heated area of the property is not the top storey of a building, for example a ground floor flat with a single storey extension at the rear, this must also be taken into account and POPT reduce proportionately.

6.96. When installing additional insulation to a roof area which is already partially insulated, where the existing insulation does not meet the relevant standards, the POPT does not need to be reduced.

6.97. The roof area of conservatories (separated or non-separated) should not be included in the determination of POPT.

6.98. The roof area of a garage should only be included in the determination of POPT where the garage is not thermally separated from the main property.

6.99. It should be noted that where a property has a mansard roof, the sloped area should be considered as roof area if the slope is at an angle of less than 70°. If the angle is more than 70°, it is considered to be a wall and should not be considered as part of the roof area. If a sloped area with an angle of more than 70° is being insulated, the score should be determined using the process for external / internal wall insulation from paragraph 5.13 onwards. The wall type will generally be timber frame.

6.100. Calculating POPT for room-in-roof insulation (RIRI) is more complex than other roof insulation measures and involves two separate considerations:

a) If a property has a single roof space containing a room-in-roof (RIR), the maximum POPT would be 100%. If a property has multiple roof spaces, the percentage of roof area which is made up of the RIR should be considered. In these cases, the maximum POPT for a RIRI measure is less than 100%.

b) The percentage of the RIR insulated, not including the residual loft area. Where this is less than 100%, the POPT calculated in a) should be scaled down. Paragraph 6.94 explains what is considered to be 100% of a RIRI measure.

6.101. The residual area of a RIR is considered as the residual loft area contained within the same roof as a RIR. To be considered as being in the same roof, it should share the same continuous air space. Generally, a common or stud wall, rather than a masonry wall, would separate the RIR from the residual loft areas. Roof areas separated by masonry walls are considered to be separate roofs for this determination.

6.102. The determination of the residual area is the same regardless of whether the RIRI 'residual area insulated' score or the RIRI 'residual area uninsulated' score is being claimed. To claim the 'residual area insulated' score, the entire residual area must be insulated.

6.103. If there is no residual lost area surrounding the RIR, the 'residual area insulated' score should be claimed.

6.104. The party wall always counts towards the (POPT). However, where it is a solid wall adjacent to a heated space, this would be accepted as reasonable grounds for not completing 100% of the measure (ie it could be left uninsulated, but the POPT would need to be reduced accordingly).

Examples of calculating POPT for roof insulation

6.105. Table 24 presents examples of calculating POPT for roof insulation for dwellings with different roof constructions.

Table 24: Examples of POPT calculations for roof insulation

Scenario	POPT approach
Example 1: where the total heated area of the property has a roof of one type and this is fully insulated using one measure, for	POPT is 100%.

example loft insulation or flat roof insulation.	
Example 2: a property has a total roof area of 100m^2, where 28m^2 is flat roof and 72m^2 is pitched roof.[131]	• Where the property has multiple roof types, for example a flat roof and a pitched roof, all roof areas should be taken into account when calculating POPT. • If the entire flat roof was insulated, the POPT would be 28%. This does not meet the 67% requirement, therefore the exact POPT should be notified, and the score awarded will be modified to reflect this. • The area covered by the pitched roof is 72m^2 of the total 100m^2 roof area. If the pitched roof is fully insulated, the POPT will be 72%. This meets the 67% requirement, therefore the exact POPT is not required, and published score will be awarded without modification. • Where both the flat roof and pitched roof areas are insulated, these should be claimed as separate measures. The average treatable area approach would still apply.
Example 3: a ground floor flat has a single storey extension which comprises 20% of the heated area of the property.	• If the extension roof is insulated, the POPT would be 20%. This does not meet the 67% requirement, and notification of the measure should include the exact POPT, and the score awarded will be calculated in accordance with paragraph 6.69.
Example 4: a property with a single pitched roof of 80m^2 containing an RIR with a floor area of 20m^2.	• If only the loft area surrounding the RIR is insulated (ie as a loft insulation measure), the POPT would relate to the loft area insulated, which is 60m^2 of the total 80m^2 roof area. • This is 75% of the overall roof area which meets the 67% requirement, therefore the exact POPT is not required, and the published score will be awarded without modification. This applies when

[131] For the purposes of calculating POPT for roof insulation measures, roof areas should be measured in the horizontal plane ie the area of a pitched roof is equal to the area of floor beneath it.

	only loft insulation is being carried out and the RIR is not insulated.
Example 5: a property has a single pitched roof containing a RIR.	• If all elements of the RIR are insulated but the residual area is not, the measure type is 'room-in-roof insulation – residual area uninsulated'. POPT are 100%. This meets the 67% requirement, therefore the exact POPT is not required, and the published score will be awarded without modification. • If the residual area is insulated, the deemed score for 'room-in-roof insulation – residual area insulated' should be selected. • If, in either of the above examples, only 63% of the RIR is insulated, then POPT in this case is 63%. This does not meet the 67% requirement. The exact POPT should be notified, and the score awarded will be modified to account for this.
Example 6: a property has two roofs, where one is a pitched roof containing a RIR and the other is a flat roof. The total roof area is 100m^2, of which the pitched roof containing the RIR has a plan area of 72m^2, which includes any residual areas, and the flat roof has a plan area of 28m^2.	• If a RIRI measure installed, the percentage of the overall roof area of the RIR must first be considered, which in this case is 72%. • If all elements of the RIR are insulated but the residual area is not insulated, the score for 'room-in-roof insulation – residual area uninsulated' should be selected. POPT in this case is 72%. This meets the 67% requirement and therefore the exact POPT is not required, and the published score will be awarded without modification. • If the residual area is insulated and all elements of the RIR are insulated, the score for 'room-in-roof insulation – residual area insulated' should be selected. POPT is also 72%. • If, in either of the above examples, only 80% of the RIR is insulated. The POPT is 80% of 72%, which is 58%. This does not meet the 67% requirement, and the exact POPT should be notified, and the score awarded will be modified to account for this. • Were both the flat roof and RIR to be insulated, these should be claimed as separate measures. The average treatable area approach would still

	apply – assuming all of the RIR is insulated, the published score for this measure will be awarded without modification.

Heating measures

6.106. For heating measures, POPT is 100% when the entire property is heated by the new heating measure. We expect the property to be adequately heated in line with the relevant standards following the installation of a heating measure. If the measure supplies a radiator(s) or heater(s) for a room, the measure can be counted as heating the entire room.

6.107. We expect scenarios where the POPT of the notified heating measure is less than 100% to be limited to properties with multiple pre-main heat sources, as the installation may have to be notified as two or more separate measures. However, we still expect the property to be adequately heated following the installation.

6.108. The percentage should be determined in terms of the floor area across all floors of the entire property. As with other measure types, the published partial project score would only be modified and the exact POPT require to be notified if the 67% requirement is not met.

6.109. Where a heating system is being replaced in a property that contains multiple pre-main heat sources, the POPT should be calculated by identifying the proportion of the floor area of the property that is being heated by the new system.

6.110. For heating controls, the POPT should be the same as the heating system installed in the property. All the heating controls at a property do not have to be replaced to claim 100% POPT. Suppliers can claim 100% of the property by bringing the property up to standard. A full set of heating controls should include, as a minimum, a timer, a room thermostat, and thermostatic radiator valves (TRVs) installed on all radiators outside of the room that contains the thermostat. Alternatively, the requirement can be met with a timer and individual networked radiator controls in each room.

Boilers

6.111. The partial project scores for boiler measures (including heat pumps) assume that they provide space heating and water heating. In some cases, a boiler measure may be installed that only provides space heating. In such cases, POPT must be reduced by 20%. This only impacts the score if it reduces POPT below the 67% requirement.

6.112. Where a boiler measure is installed and there are multiple existing heating systems that provide a combination of space and water heating, the supplier should contact us prior to notification to determine the correct POPT.

Electric storage heaters

6.113. An ESH upgrade measure can only have 100% POPT if all electric storage heaters in the property are upgraded, and the entire property is adequately heated.

6.114. Where only some of the ESH in a property are eligible for an upgrade, the POPT must be reduced accordingly.

Examples of calculating POPT for heating measures

6.115. Table 25 presents examples of how POPT is calculated for heating measures.

Table 25: Examples of POPT calculations for heating measures

Scenario	POPT approach
Example 1: a mains gas boiler is replaced where 60% of the dwelling is heated by mains gas and 40% is heated by electric storage heaters.	POPT is 60%. This does not meet the 67% requirement, so the exact POPT should be notified, and the score awarded will be modified to account for this. If all the ESHs are inefficient and are upgraded, this is a separate measure where POPT is 40%. This does not meet the 67% requirement. The exact POPT should be notified, and the score awarded will be modified to account for this.
Example 2: a property where 3 out of 5 ESHs, which all adequately heat an equal area of the property, are broken and not economically repairable, and the other two are inefficient.	The POPT for the inefficient ESH upgrade would be 40%. The 67% requirement is not met, and the scores awarded would be modified in accordance with paragraph 6.68. An uplift is applied for each efficient broken ESH which is replaced.
Example 3: in a property, one efficient ESH heats 40% of the area of the property, two inefficient ESHs heat a further 50% between them, and the remaining 10% is not adequately heated. Two ESHs	The proportion of the property heated by the efficient ESH should be removed from the POPT. This gives a POPT for the measure of 60%. This does not meet the 67% requirement, therefore the exact POPT should be notified, and the score

are installed to upgrade the inefficient ESHs and are sized and positioned to ensure that all parts of the property are adequately heated.	awarded will be modified to account for this.

Solar photovoltaics

6.116. Many variables can have an effect on the efficiency of the Solar PV measure, such as the kilowatts peak (kWp) of the system installed. For this reason, POPT for Solar PV measures should be calculated using the following methodology, rather than the average treatable area approach used for other measures.

6.117. The partial project scores developed for Solar PV are based on the following assumptions:

- The installed capacity is 2.5kWp
- The solar panels are installed in a south facing orientation with an inclination of 30°, and
- There is modest over-shading.

6.118. These factors will vary by installation, and they can have a material impact on the saving achieved by the measure. In this methodology, the first two factors are used to adjust the POPT for Solar PV measures, such that the score for a given installation better reflects the saving.

Installed capacity

6.119. The partial project score is based on an installed capacity of 2.5 kWp. If an installation is greater or less than 2.5 kWp, the POPT should be adjusted on a pro-rata basis up to a maximum of 10 kWp. For example, where an installation has an installed capacity of 5 kWp, the POPT should be increased to 200% to reflect that the installation has an installed capacity which is 200% of what the partial project score assumes.

Orientation and inclination

6.120. The partial project score is based on solar panels in a south-facing orientation with an inclination of 30°. If installed outside of these parameters, the power generated by the installation could be significantly different to that assumed in the score. To recognise this, the POPT should be adjusted based on an orientation and inclination factor (OI factor).

6.121. The OI factor represents the expected energy yield when considering the orientation and inclination values of a particular installation.

6.122. Suppliers should select the appropriate OI factor based on the orientation and inclination of a specific installation using Table 26. The orientation of a system should be selected on the horizontal axis and the inclination on the vertical axis. Where these points intersect identifies the correct band. The key should then be used to identify the OI factor for that band.

6.123. Where more than one array of PV panels is being installed (ie a split array) and the OI factor is different for each array, the POPT calculation should be performed for each array and added together to give the total POPT for the measure.

6.124. Where the orientation or inclination factors are not listed in Table 26, the figure should be rounded to the nearest figure provided.

Table 26: OI factors for Solar PV installations of different orientation and inclination

Inclination	North	North	North West	North West	North West	West	West	West	South West	South West	South West	South	South	South	South East	South East	South East	East	East	East	North East	North East	North East	North	North
	-180°	-165°	-150°	-135°	-120°	-105°	-90°	-75°	-60°	-45°	-30°	-15°	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
90°	35	35	35	35	35	55	55	55	55	74	74	74	74	74	74	74	55	55	55	55	35	35	35	35	35
80°	35	35	35	35	55	55	55	55	74	74	74	74	74	74	74	74	74	55	55	55	55	35	35	35	35
70°	35	35	35	35	55	55	74	74	74	74	86	86	86	86	86	74	74	74	74	55	55	35	35	35	35
60°	35	35	35	55	55	55	74	74	74	86	93	93	93	93	93	86	74	74	74	55	55	55	35	35	35
50°	35	55	55	55	55	74	74	74	86	93	93	100	100	100	93	93	86	74	74	74	55	55	55	55	35
45°	55	55	55	55	55	74	74	74	86	93	93	100	100	100	93	93	86	74	74	74	55	55	55	55	55
40°	55	55	55	55	55	74	74	74	86	93	100	100	100	100	100	93	86	74	74	74	55	55	55	55	55
35°	55	55	55	55	55	74	74	86	86	93	100	100	100	100	100	93	86	86	74	74	55	55	55	55	55
30°	55	55	55	55	74	74	74	86	93	93	100	100	100	100	100	93	93	86	74	74	74	55	55	55	55
20°	74	74	74	74	74	74	86	86	93	93	93	100	100	100	93	93	93	86	86	74	74	74	74	74	74
10°	74	74	74	74	74	86	86	86	86	93	93	93	93	93	93	93	86	86	86	86	74	74	74	74	74
0°	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86	86

Key:

Band colour	OI factor (%)
Red	35
Orange	55
Yellow	74
Light green	86
Dark green	93
Blue	100

Calculating POPT for Solar PV

6.125. POPT for Solar PV measures is calculated using the formula below:

$$\text{Solar PV POPT} = \frac{\text{Installed Capacity (kWp)}}{\text{2.5 (kWp)}} \times \text{OI Factor (\%)}$$

Where:

- Installed capacity is the capacity of the system installed in kWp, and
- OI Factor is the average % energy yield or power generation, determined using Table 26.

The average treatable area approach does not apply; therefore, the score will be calculated simply by multiplying the published score by the POPT.

Examples of Solar PV POPT methodology

6.126. Table 27 presents examples of how POPT is calculated for Solar PV measures.

Table 27: Examples of POPT calculations for Solar PV measures

Scenario	POPT calculation
Example 1: a 4 kWp Solar PV installation with an orientation of 35° south-east and an inclination of 20°. Using Table 26, the OI factor is 93%.	$\text{Solar PV POPT} = \frac{4}{2.5} \times 93 = 148.8$ POPT is rounded to the nearest whole number giving a POPT of 149%.
Example 2: a 2 kWp Solar PV installation with an orientation of 60° south-east and an inclination of 35°. Using Table 26, the OI factor is 86%.	$\text{Solar PV POPT} = \frac{2}{2.5} \times 86 = 68.8$ POPT is rounded to the nearest whole number giving a POPT of 69%. The average treatable area approach does not apply to Solar PV measures, therefore the score awarded will be the published score multiplied by 0.69.
Example 3: a 3 kWp Solar PV installation with an orientation of -15° south / south-west and an inclination of 35°. Using Table 26, the OI factor is 100%.	$\text{Solar PV POPT} = \frac{3}{2.5} \times 100 = 120$ POPT is 120%.
Example 4: a Solar PV installation at a single property has two arrays. Array one is a 2 kWp array with an orientation of 60° south-east and an inclination of 35°. Array two is a 3 kWp array with an orientation of -15° south / south-west and an inclination of 35°.	Using the calculations from example 2 and example 3, the POPT for array one is 68.8% and array two is 120%. The POPTs should be added together to give a total POPT of 188.8%, rounded to 189%.

Building Extensions

6.127. ECO measures cannot be delivered to an unfinished new build extension. If a measure is installed to a property that had an on-going new build extension, then the measure can only be claimed for the existing part of the property. The percentage of property treated must be reduced accordingly. See paragraphs 3.47 - 3.52 for more information.

6.128. For example, where flat roof insulation is installed to a property with a flat roof, but 20% of the roof area is part of an unfinished extension, the POPT must be reduced by 20%. This would only affect the score if POPT is reduced below the 67% requirement.

Uplifts and Increases

6.129. There are nine uplifts and increases available in ECO4. Both uplifts and increase apply higher scores to a project or measure. The term uplift applies to a % multiplier while increase refers to fixed values. The available uplifts and increases are given in Table 29 in Appendix 5 – Uplifts, increases, deflators, caps and requirements.

6.130. The nine uplifts and increases can be categorised into four different mechanisms:

1) Fixed value increases – this category comprises the heating system repair, heating system replacement, ESH repair, ESH replacement and building fabric repairs increases. These increases have fixed value scores attached to them, they are notified using the measure notification template and will be awarded a score when approved. When the project is complete and the MR is met, these fixed values will be un-deflated and added to the FPS. If the project does not meet the MR, these increases will remain deflated.

2) Innovation measure uplifts – after an innovation measure is notified, the deflated PPS for the measure will receive a 25% or 45% uplift, dependent on whether the measure demonstrates a moderate or substantial improvement against its standard counterpart. The differentiation between the two uplifts will be decided by the innovation measure application process. The sponsoring supplier will also receive an extra 5% uplift, when they notify an innovation measure. When the project is complete and the MR is met, the value of the IM uplift will be un-deflated and added to the FPS. If the project does not meet the MR, the uplifts will still apply to the deflated PPS.

3) Project uplifts – this applies to off-gas and ECO Flex route 4. These uplifts will apply a percentage uplift to the PPS of every measure in the relevant project. Where FPS is awarded, the same percentage will be applied to that FPS. Note this will not be applied to the PPS of a fixed value increase described in 1) above.

4) Automated uplifts – this refers to the floor area uplifts. These uplifts apply to any scores awarded to measures and projects installed in properties in the smallest two floor area segments (see Table 19). These uplifts are already applied to all relevant PPS and FPS in the published matrix. Suppliers do not need to calculate this uplift or submit any additional notification. The uplifts will be automatically applied to the PPS awarded, and when the project is complete and the MR is met, the FPS. Note these will also be applied the PPS of a fixed value increase described in 1) above.

6.131. The off-gas rural uplift is only eligible for off-gas properties in rural areas in Scotland and Wales.

6.132. The heating system repair increase applies to the repair of broken efficient boilers, broken efficient heating systems, and broken renewable heating systems. The repair increase also applies to broken inefficient heating systems fuelled wholly or partly from biofuel, oil, or liquefied petroleum gas, subject to the off-gas heating hierarchy rules. The heating system repair increase does not apply to ESH (which has a separate repair increase) or heating controls.

6.133. The heating system replacement increase is only eligible for like-for-like replacements, meaning the replacement system must be of the same type as the original system.

6.134. The repair or replacement of heating systems or ESH is capped for specific circumstances. See Table 32 for detail of caps in ECO4.

6.135. Uplifts and increases do not count towards meeting the minimum requirement for each property. The MR is based on improvements in the property's SAP rating. Uplifts and increases only impact scores and do not contribute to SAP rating improvements.

6.136. Aside from the floor area uplifts, which will be included in the scores listed in the scoring matrix, uplifts and increases can only be applied to base scores (pre-uplift values). For example, if an off-gas property with a floor area of 100m^2 is improved from a low band F to a low band D, the FPS received is £1072.[132] If there is also a BFR uplift which adds £20 to the base score, the off-gas uplift will only be applied to the base score of £1072, not £1092 (base score plus BFR uplift).

[132] Score taken from the FPS matrix available at: https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision

6.137. Where a project is awarded FPS and attracts a late penalty, this penalty will be applied to the base FPS value, after all uplifts have been calculated. Thus, the late penalty will not reduce the value of any uplifts applied to the project.

Building fabric repairs

6.138. BFR increases are eligible for owner-occupied premises with a starting SAP band of E, F or G. Further information on BFR about eligibility and evidencing can be found in paragraphs 4.57- 4.64.

6.139. The appropriate BFR uplift is determined by the BFR actual spend. The amount spent on rectifying BFR issues will fall into a cost range category, to the nearest pound. The mid-point of this cost range category is then used to calculate the value of the BFR uplift. These are:

a) Low - £50 - 200 actual spend (mid-point = £125)

b) Medium - £201 - 500 actual spend (mid-point = £351)

c) High - £501 - 1000 actual spend (mid-point = £751)

d) Highest - £1001 - £1500 actual spend (mid-point = £1251).

6.140. The cost ranges apply to all BFR issues that are rectified in a particular property ie where multiple issues are rectified, the total cost of treating these is used to calculate the BFR spend. Therefore, only one increase can be applied per property.

6.141. Where the BFR actual spend is above £1500 in a property, the mid-point of the highest category must still be used, which would be £1251.

6.142. The BFR increase is calculated using the BFR spend and the following formula:

$$\text{BFR Increase} = \frac{\text{Mid-point of BFR actual spend cost range category}}{\text{Cost per £ bill saving of improving the household}}$$

6.143. The cost per £ bill saving of improving the household is taken from the ECO4 final stage impact assessment[133] and has a value of £17.83. Therefore, for a property which requires £800 to cover building fabric repairs, the BFR uplift for that project would be:

$$\text{BFR Uplift} = \frac{751}{17.83} = £42.12$$

6.144. BFR increases should be notified to Ofgem using the measure notification template, as is the case with the other fixed value increases. There will be four different types of BFR 'measures' which are determined by the BFR actual spend cost range categories. We will validate the notified BGR against the repair spend lodged with Trustmark to ensure accuracy of notified data.

Example score calculations with uplifts

6.145. Example 1: A rural and off-gas property in Scotland with a starting intermediate SAP band of low E and floor area of 150m^2 repairs several BFR issues before measure installation begins, which total £890. Then, an insulation measure is installed, followed by an innovation measure (which is eligible for the 45% uplift), followed by a heating measure which results in the property being improved to a low band C.

- The BFR uplift should be notified to Ofgem as 'BFR_high'. This corresponds to an uplift value of:

$$\text{BFR Uplift} = \frac{751}{17.83} = £42.12$$

- The PPS deflator of 20% is applied, awarding a PPS of £33.70 for the BFR uplift.

- The deflated PPS for the insulation measure is £200 which is awarded for the insulation measure when it is approved.

- The innovation measure receives a PPS of £100, which receives a 45% uplift, therefore the PPS is multiplied by 1.45 and the PPS awarded is £145.

[133] See https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026

- The deflated PPS for the heating measure is £600 which is awarded for the heating measure when it is approved.

- The project also reaches the MR; therefore, the FPS supersedes the PPS awarded for the project. However, the uplifts are still awarded. The FPS received for improving a home with a floor area of 150m^2 from a low band E to a low band C is £815.4. The FPS is also uplifted by 35% for the off-gas uplift, increasing the FPS to £1100.79.

- The value of the BFR uplift is un-deflated (to £42.12) and added to the total score.

- The value of the IM uplift itself is 45% of the PPS for the IM, which is £45. This value is un-deflated (to £56.25) and added to the total score.

- Therefore, the total score for this project is the FPS multiplied by the off-gas uplift, plus the un-deflated values of the BFR uplift and IM uplift. This is:

$$\text{Total score} = £1100.79 + £42.12 + £56.25 = £1199.16$$

6.146. Example 2: a property identified through LA Flex route 4 has a starting intermediate SAP band of low F. It receives a like-for-like efficient broken boiler replacement, an insulation measure, and an innovation measure (which is eligible for the 25% uplift). The property is improved to a high band E.

- The efficient broken boiler replacement is notified to Ofgem and receives a fixed value uplift of £140. This is deflated and a PPS of £112 is awarded.

- The deflated PPS for the insulation measure is £150, therefore a PPS of £150 is awarded for the insulation measure.

- The innovation measure receives a PPS of £200, which receives a 25% uplift, therefore the PPS is multiplied by 1.25 and the PPS awarded is £250.

- The MR has not been met for this project, therefore the measures in this project will receive deflated PPS. However, the ECO Flex route 4 uplift will still be applied to the PPS for each measure. Therefore, the total score awarded for this project is the deflated efficient boiler replacement fixed value increase multiplied by 1.1, the deflated PPS for the insulation measure multiplied by 1.1, and the deflated PPS for the innovation measure multiplied by 1 x (0.25 + 0.1). This is:

$$\text{Total score awarded} = £123.2 + £165 + £270 = £558.2$$

New measures and products

6.147. Under ECO4, delivery of new measures and products (NMAP) that can further improve the energy efficiency of our housing stock, or that offer additional benefits, will be possible via the following routes:

6.148. **Standard alternative methodology (SAM) –** A route for awarding a new measure type for technologies deliverable under Publicly Available Specification (PAS) 2030:2019 or the Microgeneration Certification Scheme (MCS), not currently recognised in the Standard Assessment Procedure (SAP)[134] nor deliverable on the scheme under an existing standard measure type.[135] The evidence of cost savings must be of a similar level as required for inclusion in SAP Appendix Q as a space heating measure. A successful application will result in a new measure type and partial project score being created.

6.149. **Data light measures (DLM) –** A route for awarding a new measure type and set of scores for technologies not currently deliverable on the scheme under an existing measure type. The DLM route requires less extensive evidence to support the space heating cost savings than the SAM route. Applications must be for a technology certified by a party accredited to ISO / IEC 17065:2012. A successful application will result in the creation of a new data light measure type and a set of partial project scores. Each DLM will be capped at 1,250 qualifying actions per annum, under any specific DLM type description.

6.150. **Innovation measures (IM) -** A route for awarding an uplift to measures that can demonstrate an improvement over comparable measures[136] currently deliverable under ECO. Following a successful application, a description of the IM will be published, and a score uplift can then be awarded to products meeting that description. Either a 25% or

[134] For the purposes of this requirement, SAP 2012 does not include SAP Appendix Q.
[135] The only exception is district heating system connections, suppliers can apply for an alternative methodology where SAP/RdSAP does not provide an appropriate calculation method for DHC (District Heating Connection).
[136] Article 32 of the ECO4 Order – Comparable measures means measures that would otherwise be promoted by the participant and are commonly available on the market in Great Britain.

45% uplift can be awarded. Please note that applications must include the specific product(s) that the applicant intends to promote as an IM. Measures delivered under this route are capped.

6.151. These routes all involve an application process before the measures can be delivered.

6.152. The NMAP routes are optional and energy suppliers are not obliged to deliver under them. Please see our New Measures and Products Guidance and the relevant application forms[137] for further information.

[137] See https://www.ofgem.gov.uk/publications/energy-company-obligation-2022-26-eco4-guidance-new-measures-and-products

7. Notifications

Notifications

7.1. This chapter contains guidance around the notification process and templates.

7.2. Suppliers should notify projects and measures by submitting completed notification templates. The most recent version of the templates must be used.[138] Completed templates are then uploaded to the ECO4 register, to which obligated suppliers have access.

7.3. The project notification will contain information related to the project and property, that should remain constant for every measure in that project. This includes but is not limited to the eligibility route, address, retrofit assessment and SAP ratings etc. The measure notification(s) will contain information about the specific measures that have been installed in the project including but not limited to the measure type, date of completed installation, installer name etc.

7.4. An ECO4 project begins with a whole house assessment performed by a retrofit assessor at the property. Details about this assessment and the information within it are required as part of the notification process, as they inform the eligibility of the project and the score it may receive eg the starting SAP rating of the property.

Notification of project information

7.5. Like measures, projects are notified by uploading a project notification template to the ECO4 register. This is a separate template to the measure notification, as measures and projects exist as separate entities on the register.[139] Every measure must be identified through a unique supplier-generated 'Measure Reference Number', and then attached to a project with a unique supplier-generated 'Project Reference Number'.

7.6. Projects will be notified at the start of the project, while it is still in progress. Once the project is complete it should be updated with a completed project re-notification that includes additional information required to calculate the FPS including the finishing SAP rating, as discussed in paragraphs 6.30 - 6.36.

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[138] See https://www.ofgem.gov.uk/publications/eco4-supplier-data-dictionary
[139] See https://www.ofgem.gov.uk/publications/eco4-supplier-data-dictionary

Timing of measure and project notification

7.7. For all measures installed after 31 August 2022, suppliers must notify us of these measures by the end of the month following the month in which the installation of the measure was completed. For example a measure installed in October 2022 must be notified by the end of November 2022.

7.8. Measures that are installed on or before 31 August 2022 have a different deadline of 30 September 2022.

7.9. Measures notified beyond the deadline are deemed as late notifications and may be rejected where an extension cannot be granted. Measures will undergo verification checks upon notification and may require re-notification if the information provided does not meet the requirements.

7.10. The intended order of notifications is (in the example of a two-measure project):

a) Initial project notification

b) Measure 1

c) Measure 2

d) Completed project re-notification.

7.11. Project notifications do not have a deadline based on when the project occurred, however they must be notified on or before an overall scheme notification deadline of 30 June 2026. Measures cannot be approved until the associated project has been notified and passed validation checks, therefore we encourage suppliers to notify projects quickly.

When is installation of a measure or project complete?

7.12. The installation of a measure is complete at handover, at which point it must be able to deliver savings at a level expected for that measure. For measures installed in accordance with PAS 2030:2019 and 2035:2019, the meaning of handover is defined within these documents. For measures that are not captured within PAS, the date of handover will be the date on which work on the installation of the measure is finished, and any relevant information or documents relating to operating and maintaining the measure have been provided to the consumer.

7.13. Suppliers must be able to evidence the date when a measure was completed. The documentation a supplier is required to hold is listed in our Guidance: Supplier Administration along with further guidance on defining when a measure is complete. [140]

7.14. A project is deemed complete once the last measure in the project has been completed. Suppliers indicate that this has occurred by re-notifying the project with a completed project re-notification, at which point the project will be considered complete.

Notifications of late measures

7.15. Where a supplier is unable to notify measures before the notification deadline, the measures can still be successfully notified to Ofgem via one of the following two scenarios:

a) For measures composing a maximum of 5% of the number of measures installed in each month and notified within their notification period, the notification deadline can be automatically extended for up to three months, or

b) A supplier can apply for an extension to the notification deadline for measures above the automatic 5%.

7.16. For example, say a supplier has promoted several measures that were installed in March 2024. The notification deadline for these is 30 April. If 100 of these measures were notified within the period, then up to 5 other measures installed in the same month can be notified as late as 31 July and be awarded an automatic late extension.

7.17. Applications for an extension request must be in writing and explain why the extension is being requested. The reason should be supported by evidence. A supplier should make an extension request promptly when it first becomes aware that it has failed, or will fail, to notify a measure by the notification deadline. Extensions can be requested at any time on or before 31 May 2026.

7.18. In general, extensions may be granted due to unexpected or unusual events that are unforeseeable or beyond the supplier’s control and prevent the supplier from notifying

[140] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents

a measure by the notification deadline. As this is judged on a case-by-case basis, we do not intend to provide an exhaustive list of eligible reasons for extension.

7.19. Please see our ECO4 Guidance: Supplier Administration document for more detail on late measures and extension requests.

Late projects

7.20. All measures in a project must be completed within three months of the DOCI of the first measure installed in that project. This is called the project completion deadline. Measures in a project containing a DHC have a deadline of six months instead.

7.21. Measures installed beyond this deadline are treated as late installations. These are still eligible under ECO4; however, they may result in a penalty to the FPS if awarded to the project. The exception to this is in-fill measures, which must be completed within the deadline to be eligible and cannot receive an extension or a late penalty.

7.22. For in-fill, the deadline starts based on the DOCI of the primary measure, or latest of the three primary measures for an in-fill house.

Applications for extensions to the project completion deadline

7.23. Suppliers may apply for an installation extension on a measure of a further three months to the deadline. As late penalties are applied to individual measures, and the reasons for delays may be measure specific, these extensions must be requested for and applied to individual measures. In-fill measures may not apply for extensions, as an extension to the primary measure will result in an extension to the in-fill in practice.

7.24. Suppliers may apply for an extension to the project completion deadline for a measure in a project at any time before the deadline of five months after the DOCI of the first measure in that project. Where the project contains a DHC, it must be within 8 months instead. The measures and associated project referred to in an extension application do not need to have been notified before an extension can be raised.

7.25. Each measure may only be awarded one installation extension. The first measure to be completed in each project may not receive an extension as that installation date is the starting point for the deadline. Measures installed beyond the extended deadline will be treated as late installations.

7.26. Suppliers apply for extensions by submitting an 'Application for Project Deadline Extension' template. Any relevant supporting evidence, such as emails, screenshots or other correspondence should be sent to us at the same time as the extension request.

7.27. We will grant an extension to the project completion deadline if we are satisfied the supplier has a reasonable excuse for why the measure was not or is unlikely to be completed by the deadline. A reasonable excuse is an unexpected or unusual event that is either unforeseeable and beyond the supplier's control and prevents the supplier from completing the measure by the deadline.

7.28. As each extension request is considered on a case-by-case basis, we do not intend to provide an exhaustive list of eligible reasons for extension.

7.29. Please see our ECO4 Guidance: Supplier Administration document for more detail on late projects and extension requests.

Fair and transparent processing

7.30. Guidance around GDPR and data processing for information which suppliers obtain about occupants or landlords of premises.

7.31. When fulfilling its ECO4 obligations, a supplier may obtain information about the occupant or landlord of the premises. Some of this information will need to be provided to us either as part of the monthly notification or in the course of our audits. In addition, in the course of the transfer of a qualifying action, one supplier will disclose this information to another supplier.

7.32. A supplier should ensure that its processing of this information complies with all applicable data protection laws. A supplier should also ensure that any member of the supply chain acting on its behalf complies with the data protection laws.

7.33. In particular, it is the responsibility of a supplier to ensure the person who lives at the premises where the ECO measure is delivered knows how and why their information will be processed, including who the information will be disclosed to and for what purpose. This includes telling them that their data will be shared with us.

7.34. The General Data Protection Regulation (UK GDPR) requires anyone collecting personal data to give the data subject (ie in the case of ECO the occupant or the landlord) a Privacy Notice.

7.35. So that we can process the data that suppliers provide, we require suppliers to provide the occupant under ECO4 with the ECO4 Working Group Privacy Notice Document, available on our website[141]. This is an ECO Reporting Working Group document and not an Ofgem document. Full details of Ofgem's ECO Privacy Policy can be found on our website.

7.36. The wording in the Privacy Notice is intended to discharge some of our obligations under the UK GDPR. It is not intended, and should not be relied on, to discharge suppliers' obligations for that legislation or other data protection laws. Further guidance on what information Privacy Notices should contain can be found on the Information Commissioner's Office website.

[141] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents

8. Monitoring, audit and fraud prevention

Technical and score monitoring

8.1. Ofgem technical monitoring verifies whether a measure has been installed to the relevant installation standards by a person of appropriate qualification and expertise.

8.2. Ofgem score monitoring verifies that the correct score has been selected based on the characteristics of the property where the measure was installed.

8.3. Under ECO4, measures installed and lodged on the TrustMark data warehouse will not be subject to Ofgem technical monitoring and will instead be subject to TrustMark's Quality Assurance framework. For more information, please see https://www.trustmark.org.uk/tradespeople/eco-technical-monitoring.

8.4. The responsibility for score monitoring of measures installed and lodged on the TrustMark data warehouse is divided between TrustMark and Ofgem, with TrustMark collecting the necessary data for score monitoring and Ofgem using this data to make an assessment against the data notified by suppliers. More information about how this process will work and what the roles and responsibilities of suppliers and installers can be found in our upcoming ECO4 Guidance: Monitoring.

8.5. Measures not lodged on the TrustMark data warehouse (ie the installation of a district heating connection, other than a connection to a district heating system that uses a shared ground loop) will be subject to the Ofgem monitoring programme. More information can be found in our upcoming ECO4 Guidance: Monitoring.

Audit

8.6. Ofgem also conducts audits of the measures notified to us by suppliers and may conduct audits under ECO4 at the project level too. Auditing verifies whether the processes and requirements we outline in our guidance documents have been followed. For example, this includes documentation to prove that a person is a member of the HTHG or a beneficiary of ECO4 Flex.

8.7. We may audit measures (including their associated projects) promoted by a supplier, and that audit may relate to any of the requirements in the ECO4 Order or our guidance documents. The documents and data that a supplier must make available to us are detailed in the ECO4: Supplier Administration Guidance.[142] In certain circumstances, for example where there is suspected scheme abuse, fraud, or misreporting, we may require a supplier to provide further information not listed in the ECO4: Supplier Administration Guidance.[143]

8.8. We do not require suppliers to hold or retain these documents and data. A supplier may choose to enter an arrangement with a third party, such as an installer, under which the third party agrees to hold these documents and data and make them available to the supplier on request. Suppliers should decide how they will ensure they are in a position to make the documents and data available to an auditor within the required timeframes.

Fraud prevention

8.9. Ofgem takes a zero-tolerance approach to fraud and scheme abuse. A dedicated Counter-Fraud team undertakes activities to detect, prevent and deter fraudulent activity across ECO.

8.10. All suppliers are expected to work closely with the Counter-Fraud team to ensure a collaborative and targeted approach. In the context of ECO, fraudulent activity is any dishonesty or misrepresentation in relation to the ECO4 Order or our guidance that undermines the Government's policy intent or Ofgem's administration.

8.11. A supplier is expected to mitigate the risk of fraud within its ECO activity. This should include, but is not exclusive to:

a) Identifying and mitigating fraud risks

b) Controls to ensure savings determined using deemed scores, SAP assessments, EPCs, or alternative methodologies are correct. This list is not exhaustive.

c) Sufficient requirements within third party contracts to ensure that work is completed in accordance with the ECO4 Order and Ofgem guidance. This must include the activity of the whole supply chain, including all sub-contractors

[142] See https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-guidance-and-associated-documents
[143] See article 83 of the ECO4 Order

d) Robust processes for getting regular, reflective activity reports from in-house installers and third parties

e) Continued scrutiny of in-house and third-party activity to ensure compliance with the ECO4 Order and Ofgem guidance

f) Suitable, senior manager oversight of activity and reporting

g) Processes to ensure accurate and reflective reporting to us, and

h) Processes for handing, investigating and reporting suspected fraud cases. This includes having processes in place for receiving allegations of fraud and whistleblowing from the public or supply chain.

8.12. A supplier is required to submit its fraud prevention strategy upon request. These strategies should be continually reviewed by suppliers to ensure they are sufficiently robust.

8.13. We will work closely with each supplier to ensure that their fraud prevention strategy is appropriate, effective, and robust. A supplier should be able to demonstrate the steps they have taken, and are taking, to eliminate fraud and should provide sufficient evidence to us to demonstrate those steps.

8.14. All suppliers are invited to attend the ECO Industry Fraud Prevention and Compliance Committee,[144] a forum for discussing common fraud risks and issues across the industry and to drive best practice.

8.15. Suppliers should, in all instances, promptly report any instances of suspected fraud to the Ofgem Counter-Fraud team (counterfraud@ofgem.gov.uk)

8.16. A supplier must ensure their own investigations into suspected fraud cases are thorough and completed in a timely manner. A supplier should contact us if they have any questions regarding their investigation plan, approach, or results.

[144] The ECO Industry Fraud Prevention and Compliance Committee (EIFPCC) provides a forum for ECO-obligated suppliers, together with Ofgem and other representatives agreed by the group, to discuss fraud and compliance risks relating to instances of fraud within the ECO scheme and to agree mitigating actions encompassing prevention, detection, and response.

8.17. During the investigation of suspected fraud cases, we may suspend approval of the subset of measures to which the fraud relates, while we establish if it is an isolated incident or if further ECO measures are involved. Depending on the nature of the investigation, we may also suspend similar measures installed by that installer or third party. Where evidence of fraud is found, we may refuse or revoke approval of the fraudulent ECO measures.

8.18. In addition, where evidence of fraud is found this should be reported by the obligated supplier to Action Fraud[145] or the Police.[146] We will also refuse or revoke approval of any fraudulent ECO measures.

Documentation guidelines

8.19. As the administrator of ECO, Ofgem must ensure that energy suppliers comply with the legislation and meet the requirements regarding eligibility and installation set out in our guidance. A supplier is responsible for ensuring that they, and any member of the supply chain acting on their behalf, complies with the applicable requirements of the law and industry standards.

8.20. This section outlines the existing requirements and expectations when it comes to the completion of documentation and notification / lodgement of information in the ECO4 Registers or on the TrustMark database that is used to support the eligibility and compliance of an ECO measure or project.

8.21. The information in the below paragraphs outlines the minimum standards that Ofgem expects to be met when completing any ECO documentation or notifying / lodging any ECO information. Any measures installed during ECO4 where documentation or information does not meet these standards may be considered for rejection.

Quality of documentation

8.22. We have worked with energy suppliers to develop the following standards, which must be followed as a minimum.

[145] Action Fraud provide a central point of contact for reporting fraud in the UK. See https://www.actionfraud.police.uk/ for more information.
[146] If the fraud is ongoing, it should be reported directly to the Police.

Evidence must be complete

8.23. Documentation must be completed fully. All pages of any documentation must be present unless you have prior agreement from the energy company or funding supplier.

8.24. All documentation must be legible, including where photographic evidence of documents (eg benefit letters) is taken. All forms must be clear and comprehensible and therefore where possible, abbreviations should be kept to a minimum and no 'text message' language should be used. Where conclusions or comments are required on documentation, these must be detailed and not one-word answers.

8.25. Information provided in documentation should be consistent across documents.

8.26. If there is any need to make changes or additions to any document, prior agreement must be given by the energy company or funding supplier. Forms may be branded, provided the agreed template wording stays the same as the forms published on the Ofgem website.

8.27. Mistakes should not be hidden. Any errors in documentation should be scored through with a single line and the correction written alongside, signed (by the original signatory) and dated. Correction fluid should not be used. Where we find evidence that documentation has been changed at any later point after the signature, this will result in the rejection of the measure. Where evidence needs to be amended, for example where work on a measure had not been finished, the installer needs to ensure all paperwork is resigned and the date re-notified, which may result in a late penalty.

8.28. Evidence should be provided as standalone files, in '.pdf' format where possible, and not embedded within other documents or files.

8.29. All photos used to support the eligibility or compliance of a measure must be time, date and geo-stamped. Photos used as evidence should retain accurate information and not have their details tampered with.

Digital software use

8.30. Some obligated energy suppliers may request confirmation of which electronic application or software is being used in the delivery of ECO measures. A demonstration of the software may be required.

8.31. It must not be possible to auto-populate fields which require information specific to a premises or measure, such as dates or customer signatures. Fields which apply in all cases, such as the installer's PAS certification number and address and contact details of the consumer can be auto populated.

8.32. The software used must ensure that any fields cannot be modified at a later date. Documents must be saved automatically once completed, and when there is a need for an update, documents should be version controlled and a record of any changes stored. It must not be possible to change the date of documents that were completed electronically.

8.33. The format of any document must be compatible with standards software so that they can be opened and read by Ofgem and suppliers without the need to purchase new or additional software

8.34. If it is not possible to use an electronic application to obtain particular documents and customer signatures, the branded electronic paperwork should not be used, ie the brand of the application should not show on paperwork which has been manually completed and signed.

8.35. Where customers have signed documents electronically, they must have access to documents after any works are completed. This can include paper versions of documents.

Signature application

8.36. Signatures and dates must only be used where they are embedded and consistent in the documentation. Wet signatures must be applied with a pen and electronic signatures preferably with a stylus, although use of a finger is also acceptable. Signatures must not be copy and pasted. Where signatures are copied and pasted, for example to streamline administrative processes, the document will not be accepted. Any copying and pasting will result in the rejection of a measure.

8.37. All documentation must be completed, signed, and dated by the appropriate individual, such as the operative, landlord, customer, householder, or retrofit coordinator.

Signatures should not be applied on behalf of someone else, eg by other operatives or by office staff, and there should be no amendments to signatures or dates.

8.38. Signatures and signature boxes within documents should be user-friendly and consumers should receive instructions on how to complete these correctly if required. The software used to produce electronic documents must not be capable of assigning a customer signature to a document which they have not signed. The signature must be independently embedded and not copied or replicated. Individual signatures must be obtained for each individual document. It is recommended that the operative is equipped with a stylus to ensure satisfactory signature is captured.

8.39. Should any instances of replicated or copied signatures occur when using electronic paperwork or a digital application, this should be investigated and rectified prior to sending to the obligated supplier.

8.40. Where Ofgem detects signatures have been assigned or auto populated by software, for example as the result of purpose-built software or 'software glitches', those forms will not be accepted and may result in the associated measures being rejected.

GDPR considerations

8.41. Compliance with data protection law, including the UK GDPR Principles, is essential. In particular, data must be accurate and processed lawfully, fairly, and in a transparent manner. This applies to both hard copies and electronic copies of any documentation. Where hard copies, photocopies, or photographs of customer documents, such as benefit letters, are provided, personal information not relevant to ECO should be redacted.

Notes on completion of specific documentation

8.42. The guidance in the previous paragraphs outline what is expected regarding the provision of signatures on ECO documents. It also notes practices that should not take place, such as the copying and pasting of signatures or software auto-populating documents with a signature from another document or part of the same document.

8.43. Many of the documents required with measure submission are declarations and in signing, the party is confirming the information recorded in the form is true and accurate. It is a criminal offence to knowingly make a false declaration, and such an offence may be punishable by a fine, imprisonment or both.

8.44. Users of ECO documents should therefore always read the wording on each document as they will find text outlining where signatures are required and from whom they are required. It is critical to ensure the correct person signs the appropriate sections of the various documents. Following paragraphs present some examples we want to draw particular attention to.

Signature practices that are not permitted

8.45. The following section outlines activity in relation to signature provision on ECO documents that should not take place. If Ofgem uncovers any of the following in connection with signatures on measure documentation, we will be minded to refuse or revoke approval of the impacted ECO measures.

Signature forgery

8.46. Any fraudulent activity including falsifying statements and falsifying signatures may be reported to the Police, Action Fraud, or other law enforcement agencies such as Trading Standards and will result in the measure in question to be rejected.

Operative signatures being signed 'on behalf' of the operative

8.47. As highlighted in this guidance, signatures should be given by the appropriate party in question. In the case of documents that must be completed by the operative, the wording of the relevant ECO document will outline where operative signatures are required and it must be the operative who signs these fields. This provides Ofgem with the necessary assurance that the appropriate party has read the document, the recorded contents of the document are accurate and that by signing, they understand fully any written declaration present.

8.48. The signature should not be provided by any other individual, for example a colleague or office staff, 'on behalf' of the operative.

Copy and pasting

8.49. Signatures must not be copied and pasted. Wet or permitted electronic signatures must be applied individually in each case. Where copying and pasting is detected the measure in question will be rejected.

8.50. Householders may be required to sign multiple documents, but in doing so it provides Ofgem the assurance that the customer has seen, read and understood the contents of each document. In addition, the Post-Installation Declaration is a declaration, therefore it is imperative that it is signed by the correct parties to provide assurance the details recorded are accurate.

8.51. Copying and pasting of signatures across documents must not take place. Administrative misunderstandings, streamlining of administrative processes or the actions of 'rogue individuals' will not be acceptable excuses for documentation that does not meet the requirements we have outlined.

Photocopying

8.52. Every form should be completed manually to ensure that the information provided is accurate to the property and relevant measure. We would like to draw particular attention to completion of the Pre-installation Heating Checklist – photocopying or copying and pasting from other Pre-installation Heating Checklist should not be used to complete any part of this form.

8.53. To reiterate, signatures must be obtained for each individual document whether it is the signature of the operative, customer, landlord or property management company.

8.54. Photocopying to duplicate a signature and apply it elsewhere is not acceptable. Administrative misunderstandings, streamlining of administrative processes or the actions of 'rogue individuals' will not be acceptable excuses for documentation that does not meet the requirements we have outlined.

Appendices

Index

9. Appendix 1 – ECO4 associated documents

9.1. Table 28: Templates for ECO4 outlines our ECO4 templates along with a brief description of each document.

Table 28: Templates for ECO4

ECO4 template	Purpose of ECO4 template	Mandatory Signatories
ECO4 Pre-Installation Project Survey	To collect project-level information before the installation of measures takes place.	• Retrofit Co-ordinator
ECO4 Post-Installation and Installer Declaration	To collect post-installation information on the measures installed. To collect customer and supply chain declarations to sign off on ECO4 requirements.	• Installer • Occupier • Retrofit Co-ordinator
ECO4 Pre-installation Heating Checklist	To assist the supply chain in complying with rules for heating measures and district heating connections, and to collect information relating to those rules.	• Surveyor / assessor / operative / installer or similar • Retrofit coordinator • Occupier/Owner
ECO4 Pre-existing Loft Insulation Declaration	To confirm that extraction has not taken place on pre-existing loft insulation outside of the relevant ECO project.	• Operative • Occupier
ECO4 Eligibility Requirements form	To determine eligibility to receive ECO4 measures. Contains FTCH declaration, Landlord Permission and Blended Funding Declaration, Social Housing Declaration, Data Use Declaration, and Child Benefit Self-Declaration. Evidencing templates for private domestic premises can be found in a separate document.	• Occupier • private or social landlord

10. Appendix 2 – Premises and occupant requirements

10.1. This appendix supports Chapter 3 - Eligibility, outlining the documents and data that a supplier can use to demonstrate that the occupant requirements have been met for all projects.

Private domestic premises

The private requirement

10.2. You should note the following when collecting evidence to prove the private requirement of private domestic premises:

a) Documents should be from official organisations (eg bank or mortgage society) or government departments, with the exception of Ofgem templates and tenancy agreements.

b) The necessary information on the documents should be clearly visible.

c) The dates on the documents should fit within the given timeframe as indicated throughout this guidance note.

d) Letters or other documents that include other pieces of personal information not relevant to ECO should be redacted. We do not need to see the cost of the premises, the amount of mortgage outstanding, bank details or anything else that does not affect the eligibility of the premises requirement.

e) Suppliers should ensure that the data they collect complies with all applicable data protection laws. A supplier should also ensure that any member of the supply chain acting on its behalf complies with the data protection laws.

f) We may need to audit suppliers' compliance with their legislative requirements up to and after the end of the scheme. Suppliers must ensure that they are able to make documents available for the purpose of an audit or other compliance check at any time before 30 September 2026. See the upcoming ECO4: Monitoring Guidance for further detail.

Registered relevant interest

10.3. A supplier must provide evidence that the relevant interest does not belong to a social landlord by providing the full title register extract from one of the following:

a) The Land Register maintained by Her Majesty's Land Registry for England and Wales, or

b) The Land Register of Scotland or the Register of Sasines for Scotland.

10.4. Where it is not possible to download a copy of the full title register on the Land Register of Scotland, the supplier must provide a screenshot of the search results.

10.5. Where the registry states that the premises have been leased or sub-leased, further evidence will be required to demonstrate that the premises are not let by a social landlord.

10.6. The extract must be dated no more than 12 months prior to the date of completion of the first measure in a project.

10.7. The extract may be dated after the measure was completed where it shows that the date on which the relevant interest was acquired was prior to the completion of the measure. We will assume that the person to whom the relevant interest belongs had not changed in the period in between.

10.8. Documents that show who owns or rents the premises must relate to the person who has the current right to occupy these premises. In England and Wales an owner may be a freeholder, a leaseholder, or a sub-leaseholder.[147] A tenant may be a leaseholder or a sub-leaseholder. In Scotland premises are generally owned in arrangement which is similar to an English freehold while long leases are less common.

10.9. Where the premises are subject to a shared ownership arrangement between a private individual and a social landlord, we consider this arrangement to be a private domestic premises as the private individual is a 'freeholder' or 'owner' of the premises. The full title register extract would need to show this.

[147] Or in Scotland, the owner's interest or right, tenant's or sub-tenant's interest.

10.10. Where a customer has entered into an agreement with a bank where the bank buys the property and sells it back to the customer over a period of time (for example, due to the customer's religious beliefs) the following documentation should be obtained by the supplier:

a) If it is the bank alone that has a registered interest in the property:

- a letter from the bank confirming the terms of their arrangement with the occupier, or
- a completed Ofgem template within Energy Company Obligation (ECO4) Eligibility Requirements Form (Template 2: Landlord and occupier statement where no written tenancy agreement exists).[148]

b) If the occupier shows on the title extract as the 'registered owner' and the bank has a charge registered against the property, then this should be treated as a standard mortgage and the supplier should follow the guidance in paragraph 10.3.

10.11. Where a customer has a Lifetime Mortgage Equity Release Scheme, the property is treated as owner-occupied, and the premises requirement can be evidenced through the same documents. For Home Revision Plan Equity Release Scheme, properties are considered on a case-by-case basis if they are owner-occupied or private rented sector. The evidence required will be dependent on the circumstances of each case.

10.12. Generally, where the relevant interest is registered as belonging to an individual person, we will be satisfied the premises are private domestic premises. If the search results prove inconclusive, ie the registered relevant interest belongs to a corporation and not an individual, the supplier must use other means to ensure that that entity is not a social landlord.

10.13. Towards the end of the land registry extract there may be a 'schedule of notices of leases'. If the dates show that the premises are currently being leased, it will need to be identified whether the leaseholder is a 'social landlord'.

[148] See https://www.ofgem.gov.uk/publications/eco3-templates-evidence-private-domestic-premises

10.14. Where the registered relevant interest belongs to a social landlord, the premises may still be eligible as private domestic premises if they are rented at market rate or above.

10.15. If only the plot of land is registered, rather than the premises, it must be confirmed that the address where the measure will be installed matches the general address (eg street name / area) of the plot on the land registry. To do this, the full title register extract needs to be accompanied by a proof of residence. The address on the proof of residence must match the address on the land registry, with the addition of the building name or number and postcode. If the person living at the premises is an owner-occupier, you will need to ensure the name on the land registry matches the name of the proof of residence.

Unregistered relevant interest

10.16. Land registry evidence will need to be provided for each individual premises. Where a building has been converted into flats but is showing on the land registry as one property, we would not accept the land registry extract as sufficient evidence to demonstrate the registered relevant interest in each premises. In this scenario, the steps below would need to be followed.

10.17. Where the relevant interest is not registered, the supplier must prove this by providing a snapshot of the land registry search. The supplier must then prove that the relevant interest does not belong to a social landlord, or that the premises are leased under the 'Right to Buy', 'Right to Purchase' or 'Right to Acquire' schemes.[149]

10.18. Where the relevant interest is not registered, the supplier must provide different evidence depending on whether:

a) The person who owns the relevant interest occupies the premises ('the owner occupier'), or

b) the person who owns the relevant interest lets the premises to a tenant ('the owner landlord').

[149] The leases for these premises, which show they are under either 'Right to Buy', 'Right to Purchase' or 'Right to Acquire' schemes, can be used as evidence that the premises are private domestic premises.

Owner occupiers

10.19. For owner-occupiers, the supplier must provide evidence of the relevant interest in the premises and, where applicable, proof of residence[150] to demonstrate that the owner-occupier has the current right to occupy the premises (ie the premises have not been leased to another person). The supplier will need to provide a copy of one of the following:

1) Title deeds (we will accept other deeds and legal declarations that explicitly state that the person owns the premises)[151], OR

2) A mortgage statement for the premises which is addressed to the owner occupier (the mortgage statement must be dated within 12 months from the start of a project). Where the mortgage statement is older or is not addressed to the owner occupier, it must be accompanied by proof of residence dated within 12 months from the start of a project), OR

3) A completed Ofgem template[152] and evidence proving that the owner occupier resides at the premises which:

    - Provides a declaration from a professional third party confirming they hold the title deeds for the premises and those deeds name the occupier as the freeholder / the person holding the owner's interest or right, or

    - Provides a declaration from a professional third party confirming that, following an investigation, the title deeds have been lost or destroyed and he / she is satisfied that the occupier is the freeholder / the person holding the owner's interest or right.

[150] Proof of residence can be in the form of a benefit letter, or the list of official documents referenced in Appendix 1 – ECO4 associated documents
[151] Examples of documents that can prove ownership include title deeds, deeds of conveyance, deeds of gift, conveyance documents, or a grant of admission, where they explicitly state that the person owns the premises. Where suppliers are not certain whether a document is eligible, they should contact us before installing a measure
[152] See ECO4 Eligibility Requirements Form https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables

Owner landlords

10.20. In the case of owner landlords, the supplier must provide information on the tenancy in order to demonstrate that the tenant has the current right to occupy the premises.

10.21. Evidence proving the tenant resides in that premises is required to show that the tenancy agreement is still valid. The supplier will need to provide a copy of one of the following:

a) A written tenancy agreement between the owner landlord and the tenant demonstrating that the named tenant resides there. Where an extract from a written tenancy agreement is provided, the extract must show the:

- address of the premises
- term of the tenancy, and
- names and signatures of the tenant and landlord

OR

b) A completed Ofgem template[153] and evidence proving that the named tenant resides there. These templates are:

- in the case where the written tenancy agreement has expired, signed by both landlord and tenant confirming the occupancy agreement, OR
- in the case where no written tenancy agreement exists, signed by both landlord and tenant confirming the occupancy agreement,
- in the case where there is no tenancy agreement, an occupancy agreement signed by the executor / administrator of the estate and the occupier.

[153] See: https://www.ofgem.gov.uk/publications-and-updates/eco3-templates-evidence-privatedomestic-premises.

Supporting information for demonstrating the relevant interest

10.22. If the documentation listed proves inconclusive, ie the relevant interest belongs to a corporation, the supplier must ensure the entity is not a social landlord (see paragraph 10.24).

10.23. If the owner-occupier or the tenant is the HTHG member, benefit letters addressed to the premises will be sufficient to demonstrate that the HTHG member resides at the premises. If the owner occupier or the tenant is not the HTHG member, a supplier will need to produce evidence to demonstrate that the HTHG member resides at the relevant domestic premise (see paragraph 10.48)

Social Housing

Identifying social landlords

10.24. A social landlord means, in respect of premises in **England and Wales**:

a) A local housing authority, within the meaning of section 1 of the Housing Act 1985[154]

b) A housing association, within the meaning of section 5 of the Housing Act 1985

c) A housing trust, within the meaning of section 6 of the Housing Act 1985

d) A charity, within the meaning of section 1 of the Charities Act 2011[155]

e) A person listed in section 80(1) of the Housing Act 1985 (Wales only), or

f) A body registered as a social landlord under Chapter 1 of Part 1 of the Housing Act 1996 (Wales only).

10.25. A social landlord means, in respect of premises in Scotland, a person so described in section 165 of the Housing (Scotland) Act 2010.[156]

[154] https://www.legislation.gov.uk/ukpga/1985/68/contents
[155] https://www.legislation.gov.uk/ukpga/2011/25/contents
[156] https://www.legislation.gov.uk/asp/2010/17#:~:text=2010%20asp%2017&text=An%20Act%20of%20the%20Scottish,housing%3B%20and%20for%20connected%20purposes.

10.26. A supplier may use one of the registers below to establish whether a corporate body falls under one of the above definitions of a social landlord. These registers do not contain an exhaustive list of social landlords and suppliers should be aware that these registers may not be completely up to date.

England

10.27. The Homes and Communities Agency provide a list of registered providers of social housing.[157]

10.28. The Charity Commission holds a register of organisations that have been recognised as charitable in law.[158] Not all charities must register.

Wales

10.29. The Welsh Ministers maintain a public register of social landlords.[159]

Scotland

10.30. The Scottish Housing Regulator maintains a register of social landlords.[160]

Determining market rate

10.31. Where it is established that the relevant interest belongs to a social landlord, but a supplier wishes to establish HHCRO eligibility, the supplier must demonstrate that the premises were let at or above market rate, or where the premises are currently void, has not and will not be let at below market rate. In order to do this, it must produce:

a) A tenancy agreement, and

b) Statistics showing the premises were rented at or above market rate. See below for more information on demonstrating rent above market rate.

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[157] https://www.gov.uk/government/publications/current-registered-providers-of-social-housing
[158] http://www.charitycommission.gov.uk/showcharity/registerofcharities/registerhomepa ge.aspx?&=&
[159] http://wales.gov.uk/topics/housing-and-regeneration/publications/registered-social-landlords-in-wales/?lang=en
[160] https://www.housingregulator.gov.scot/landlord-performance/landlords

10.32. When determining whether the property is let at below market rate the rent figure should not include the additional cost of service charge.

England

10.33. We consider market rate to be any monthly rent that is equal to or greater than the 'lower quartile value' for premises with the same number of bedrooms for the administrative area that the premises are located in. These statistics should be taken from the most recent table of VOA Private Rental Market Statistics at the time of completion of the measure.[161]

Scotland and Wales

10.34. We consider market rate to be any monthly rent that is equal to or greater than the 30th percentile market rent for premises with the same number of bedrooms in the Broad Rental Market area the premises are located in. The supplier must use the most recent statistics at the completion of the measure. The 30th percentile for an area can be found on the following pages:[162]

- **Scotland**: the 30th percentile of market rents can be found in column 3 of the Local Housing Allowance (LHA) methodology table.[163]

- **Wales**: The 30th percentile of market rents can be found in column 2 of the LHA table.[164]

10.35. In instances where the rent paid is below these figures and a supplier believes that this rent is market rate, a supplier may provide us with alternative statistics in writing for consideration. Suppliers should get alternative statistics approved by us before delivering a measure to that tenant.

---

[161] https://www.gov.uk/government/collections/private-rental-market-statistics#history
[162] The 30th percentile is a mathematical value which represents the level of rent where around 3 in 10 properties are let at or below LHA. The list of rents is a representative sample of private sector rents paid across the BRMA, including those from the lower end through to the upper ends of each rental market
[163] http://www.gov.scot/Topics/Built-Environment/Housing/privaterent/tenants/Local-Housing-Allowance/figures
[164] http://gov.wales/topics/housing-and-regeneration/welfare-reform/rentofficers/publications/?lang=en

Evidence for mobile homes

10.36. It is our understanding that mobile homes are not provided by social landlords as social housing. As a result, we do not require proof of ownership to determine whether the premises are private domestic premises. Therefore, for mobile homes, only evidence demonstrating that an eligible person resides at the premises is required (ie a HTHG member or a household identified as eligible by a local authority). See below for more information on how to evidence this.

10.37. Where supplier is seeking to install a measure into a park home, which is provided as social housing, they must contact us prior to installation.

Occupant requirements

Evidence to demonstrate each of the eligible help to heat group benefit types

10.38. Documents must establish that an occupant of the premises was an HTHG member at some point during the promotion of the measure.

10.39. You must be able to provide evidence that the HTHG member lives at the premises where the measure is being installed. In most cases, this will be the benefit letter.

10.40. There are several ways to show the customer is an HTHG member. The supplier can produce one of the following:

a) a WHD Core Group notice dated 12 months from the start of the project

b) a matched DWP reference number

c) an HTHG benefit letter

d) supporting evidence such as bank statements and payslips to prove that the household is eligible for Child Benefit and within the income caps, as illustrated in Table 3: ECO4 Child Benefit income thresholds (before tax and National Insurance).

10.41. Further information on the WHD Core Group notice and the DWP match eligibility route can be found from paragraph 3.129.

10.42. If using benefit letters to prove HTHG eligibility, with the exception of a WHD core group notice and Child Benefit award notices, the letters must show that the person received the benefit (and any qualifying components) within 12 months of the first measure completed in a project. If the documents are older, suppliers must be able to provide updated evidence. Suppliers can use either the date the letter was sent or the start or end date of the benefit, if stated on the letter. Sometimes this may not correspond with the date the benefits started, in which case:

a) If the benefit letter is sent before the benefit starts, we will accept the letter from that date if the person receives the benefit at some point within 12 months before the completion of the first measure in a project, or

b) If the benefit letter confirms the end of entitlement, it can only evidence HTHG eligibility when the end date of the award falls within 12 months before the completion of the first measure in a project.

10.43. Online services are available for UC recipients which provide customers' up-to-date benefit entitlement information.

10.44. Where DWP data-matching verification is not used, only official HMRC, DWP/Jobcentre Plus, Pensions Service, and HM Government documents are deemed acceptable. This includes online confirmations from government departments, such as the HMRC online service and the Universal Credit full service. Use of any other documents must be agreed in writing with us before installing a measure.

10.45. We do not require full 'proof of benefit' letters or award notices. To evidence HTHG eligibility, we only need the page(s) that show:

a) official letter headed paper from HMRC, DWP/Jobcentre Plus, HM Government or the Pension Service

b) name and address matching where the measure was installed. Where the address is different, official documents proving they resided at the premises where the measure was installed

c) relevant date (either of the letter, start or end of the benefit), and

d) confirmation that a customer receives a qualifying benefit.

10.46. The HTHG benefit types for the purposes of ECO4 are:

a) Income based Jobseekers Allowance (JSA),

b) Income related Employment and Support Allowance (ESA),

c) Income Support (IS),

d) Pension Credit Guarantee Credit (PCGC),

e) Working Tax Credit (WTC),

f) Child Tax Credit (CTC),

g) Universal Credit (UC),

h) Housing Benefit,

i) Pension Credit Savings Credit (PCSC),

j) Child Benefit.

Other official documents which can evidence occupancy

10.47. Where the above benefit documentation is not addressed to the private domestic premises, further evidence showing that the HTHG member resides there will be required.

10.48. Any official documents addressed to that person at the address where the measure is to be installed, such as:

a) an extract from the electoral or open register

b) a utility bill,[165] a landline phone bill, or a tv license

c) a mortgage statement, a bank statement, or

d) any other official documentation as agreed with Ofgem.

[165] We are aware that utility bills for park home residents are often developed and provided by the park home site owner. We would not consider these types of utility bill as being appropriate to evidence occupancy.

10.49. Where the recipient of benefits is a child and a parent or guardian is claiming the benefit on behalf of the child, a Child Tax Credit award notice can be used to evidence that the child lives at the premises where the measure is being installed. The evidence needs to state both the child's name and parent who is claiming the benefit on behalf of the child.

10.50. The documents must be dated on the date of completion of the first measure in a project or no earlier than 12 months prior to the date of completion of the first measure in a project.

Documents relating to a change of name

10.51. There are cases where a person changes their name, with the result that:

a) the person's old name appears on the title deeds or the mortgage statement if the person is a freeholder/leaseholder/owner or the tenancy agreement if the person is a tenant, AND

b) the person's new name appears on HTHG benefit documents or other official correspondence (described above).

10.52. In such cases, a supplier will need to produce a signed declaration from the person that their name has changed. The declaration should be prepared using the ECO3 Templates to evidence private domestic premises.[166]

Children and qualifying young persons

How to confirm responsibility for children and qualifying young persons?

10.53. Responsibility for a child or qualifying young person is defined in regulation 3 of the Child Tax Regulations 2002. Generally, a person shall be treated as responsible for a child or qualifying young person who is normally living with them. If fostering a child through a council and the child's accommodation or maintenance is borne by local authority funds, the foster parents are also not responsible for a child for the purposes

[166] https://www.ofgem.gov.uk/publications-and-updates/eco3-templates-evidence-private-domestic-premises

of ECO if they are being looked after by a local authority,[167] and that authority has placed them in the home of someone proposing to adopt them.

Guidance on redacting information

10.54. The document(s) that should be made available to us on request should contain a minimum amount of information to prove eligibility under the HTHG. This would be a letter-headed document that states the customer's name and address and shows receipt of the qualifying benefit(s). It is not necessary to provide the entire document, only the relevant pages.

10.55. Letters that include other pieces of personal information not relevant to ECO should be redacted. What can be redacted depends on the customer's HTHG qualification route. Consider the following when submitting documents to us:

a) The amount the customer receives from their benefit. You only need to show that they receive that benefit.

b) For HTHG routes which are not means tested (eg Income Support or State Pension Credit), you do not need to show the customer's income or savings.

c) National Insurance numbers should not be visible. These are often shown on the front page and should not be used as a unique identifier.

10.56. When processing any personal data or sensitive personal data, suppliers are reminded of their duties to comply with the requirements of data protection law.

10.57. We may need to audit suppliers' compliance with their legislative requirements up to and after the end of the scheme. Suppliers must ensure that they retain information up to the 30 September 2022. It is the suppliers' responsibility to keep up to date with any changes to requirements.

[167] For Tax Credit Recipients see, article 3, paragraph 2.2 (Rule 4) of the Child Tax Credit Regulations 2002. For Universal Credit Recipients see article 4(6) of the Universal Credit Regulations.

Example letters

10.58. These are some examples of different types of letters that you may encounter.

10.59. We indicate whether the documents are suitable to evidence HTHG eligibility. We have highlighted certain parts of these documents that need to be considered when determining eligibility.

10.60. This is non-exhaustive list of the eligible benefits or scenarios for HTHG eligibility. This is a sample to be used to demonstrate some of the letters that may be provided. For further clarification about whether a document is eligible, suppliers should contact the ECO team at Ofgem on eco@ofgem.gov.uk.

Example letters

10.61. Please find example letters for following benefit letters in the following:

a) Income-based Jobseeker's Allowance (JSA),

b) Income-related Employment and Support Allowance (ESA),

c) Income Support (IS),

d) Pension Credit Guarantee Credit (PCGC) and Pension Credit Savings Credit, (PCSC),

e) Working Tax Credit (WTC),

f) Child Tax Credit (CTC),

g) Universal Credit (UC), [not included in this guidance version],

h) Housing Benefit,

i) Child Benefit (subject to income caps and composition),

j) Warm House Discount (WHD), [Not included in the HTHG].

Example 1: Income Support, Income-related Employment and Support Allowance and Income-based Jobseeker's Allowance letter:

Department for Work & Pensions

Title, Initial, Surname
Address Line 1
Address line 2
Address line 3
Address line 4
Postcode

Building or Office location
Office type
Street
Town
Postcode

www.gov.uk

Telephone: 0000 000 0000
Textphone: 0000 000 0000

Your reference:

Information about your benefits payments

Please read this letter in full

Dear

Select Option

Select Option

Select Option

Your payment details

You were paid [Insert Benefit Name] between the following dates:

Start Date	End Date	Rate	Frequency

Select Option

You were also paid [Insert Benefit Name] between the following dates:

Start Date	End Date	Rate	Frequency

We have many different ways we can communicate with you.

If you would like braille, British Sign Language, a hearing loop, translations, large print, audio or something else please tell us using the phone number at the top of this letter.

Please turn over

DWP105
Page 1 of 2

Select Option

Reporting changes

Confirm all dropdown options

You must tell us straightaway if there is a change in your circumstances. If you give wrong or incomplete information, or you do not report changes, you may be paid more or less money than you should. You will have to pay back overpaid money when told to do so. You could also be prosecuted or need to pay a financial penalty. If we pay you less money than we should we may pay you this money back.

More information

If you would like any further information, please contact us on the number at the top of this letter.

Yours sincerely,

Office manager

Treating people fairly

We are committed to the Equality Act 2010 and treating people fairly. To find out more about this law, search 'Equality' on **www.gov.uk**

Call charges

Calls to 0800 numbers are free from personal mobiles and landlines.

Why DWP needs personal information and how we treat it

We treat personal information carefully. We may use it for any of our purposes. To learn more about information rights and how we use information, please see our DWP Personal Information Charter at **www.gov.uk/dwp/personal-information-charter**

DWP105
Page 2 of 2

Example 2: Working Tax Credit (WTC),

Textphone 0345 300 3909
For our opening hours go to
www.gov.uk/contact-hmrc

PERSON A
421 HAPPY WAY
HAPPY
HA1 PP7

TCO PRESTON
GREAT BRITAIN
PR1 4AT

Date: 13 May 2022

Amended tax credits award for 06/04/2021 to 05/04/2022

PERSON A		National Insurance Number	AB123456C
PERSON B		National Insurance Number	BA654321C

Summary

Tax credit for the period - see Part 2

Working Tax Credit	£1,500.00
Child Tax Credit	£1,000.00

Amounts still to be paid to you for the period shown above – see Part 3

Working Tax Credit to	PERSON A	£500.00
Child Tax Credit to	PERSON A	£1,000.00

Tax credits are based on your personal circumstances and income for the whole tax year. After the end of the tax year, when all the information is known, we make a final decision about how much you are entitled to receive.

Part 1 shows your circumstances, including your income. Please check this part and tell us immediately if anything is wrong, missing or has changed.
Part 2 is for information. It shows how we calculate your tax credits.
Part 3 gives details about any payments we will make for the period shown above.

Your rights and obligations

Your Charter explains what you can expect from us and what we expect from you. For more information go to **www.gov.uk/hmrc/your-charter**

Why we are writing to you

Thank you for telling us that your circumstances have changed.

Part 2 How we work out your tax credits

The amounts shown in this Part are provisional until your actual income and personal circumstances are known and we make a final decision after 5 April 2022.

Tax credits are made up of elements. The elements you receive and the periods you receive them for are shown below. Your income may reduce the amount of tax credits you receive. We show any reductions below.

Working Tax Credit elements

Basic	from	06/04/2021	to	05/04/2022	(365 days)	£1,000.00
30-hour element	from	06/04/2021	to	05/04/2022	(365 days)	£500.00
Lone Parent element	from	06/04/2021	to	05/04/2022	(365 days)	£500.00
Total						£2,000.00
Reduction due to your income						£500.00
Amount for the period						**£1,500.00**

Example 3: Child Tax Credits (CTC),

Child Tax Credit

A child element may be paid for a child from birth until the day before 1 September following their 16th birthday.
After that, a child element may be paid for a young person under 20 who is studying for a qualification up to and including A level, NVQ level 3 or Scottish national qualifications at higher or advanced level or equivalent, or who is on an approved training course. This does not include studying for a university degree or similar qualification. You must tell us straightaway if a child over 16 and under 20 enters or leaves full-time non-advanced education or approved training. A child element for a young person aged 16, 18 or 19 will automatically stop each year unless you tell us they are continuing in full-time non-advanced education or approved training. If you are receiving the child element for a young person aged 17 and they are continuing in full-time non-advanced education or approved training, you will automatically continue to receive the child element.

Child elements for children

Child A

1	child element	from	06/04/2021	to	05/04/2022	(365 days)	£1,500.00

Family elements

Total Child Tax Credit elements	£1,500.00
Reduction due to your income	£500.00
Amount for the period	**£1,000.00**

Example 4: Pension Credit Guarantee Credit and Pension Credit Savings Credit benefit. (Note the page containing the beneficiary's details will follow separately from this page).

Department for Work & Pensions

		Our phone number is
		Code Number
		If you have speech or hearing difficulties you can contact us using a textphone on the number at the bottom of this page.
		If you get in touch with us, tell us this reference number

Pension Credit Date

About your application

Pension Credit Award Notice and Statement of Details

Dear Sir or Madam,

About your appointment to act

You have Power of Attorney or are acting for xxx and this means you are responsible for dealing with their benefit. The information in this letter is about them.

If your Power of Attorney or appointment to act ends for any reason please let us know immediately.

Thank you for contacting The Pension Service and making an application for Pension Credit.

We are pleased to tell you that **you are entitled to** Pension Credit of £ xxx a week from xxx.

Yours sincerely,

Pension Centre Manager

PC ANSoD (CC) Page 1 of 1

Example 5 (a): Housing Benefit exemplar letter for someone who is not working

* In this exemplar letter, 'we' refers to the District Council.

Example 1 – Award letter for someone not working.

0001860101000000

01480 388308

Huntingdonshire DISTRICT COUNCIL

Benefits Section Pathfinder House St Mary's Street Huntingdon Cambs PE29 3TN Email: benefit@huntsdc.gov.uk

Benefit Decision Notice

Please read the enclosed notes carefully. A more detailed explanation of this calculation can be provided on request.

Customer Name

Customer Address

Claim Ref: 2

Council Tax Ref:

Landlord Ref:

Rent Ref:

Date: 21 Apr 2015

Your reference number. Please quote your number when contacting us.

Date we made our decision.

This tells you the reason why you have been sent the award letter.

REASON FOR CALCULATION: anna has no income

Any weekly amount deducted to repay a Housing Benefit overpayment will be shown here.

Your total weekly benefit award.

HOUSING BENEFIT

The Weekly Benefit Award is:	£129.61
Less Overpayment Recovery:	£0.00
Benefit Awarded:	£129.61
Weekly gross Rent/Council Tax is:	£144.16
The Benefit Starts on:	27 Apr 2015
Weekly Eligible Rent/Council Tax:	£144.16
Weekly Ineligible Service Charges:	£0.00
dependant deductions:	£14.55

The weekly amount due to be paid to you or your landlord.

This is the amount of rent we use to work out your entitlement. This may not be the total rent you pay.

The start date this award period relates to.

NON-DEP NAME	GROSS INCOME (WK)	INCOME BAND	DEDUCT (HB)	DEDUCT (CTAX)
ANNA	£ 0.00	18+not work,25+ IS	£14.55	

This section will show the names of anyone aged over 18 who live with you (excluding your partner), their income and the amount of any weekly deduction(s) we have to make from your benefit because of this.

We have used the following information to work out your weekly benefit:

Claim based on income related ESA

This section shows the income we have used to work out your benefit.

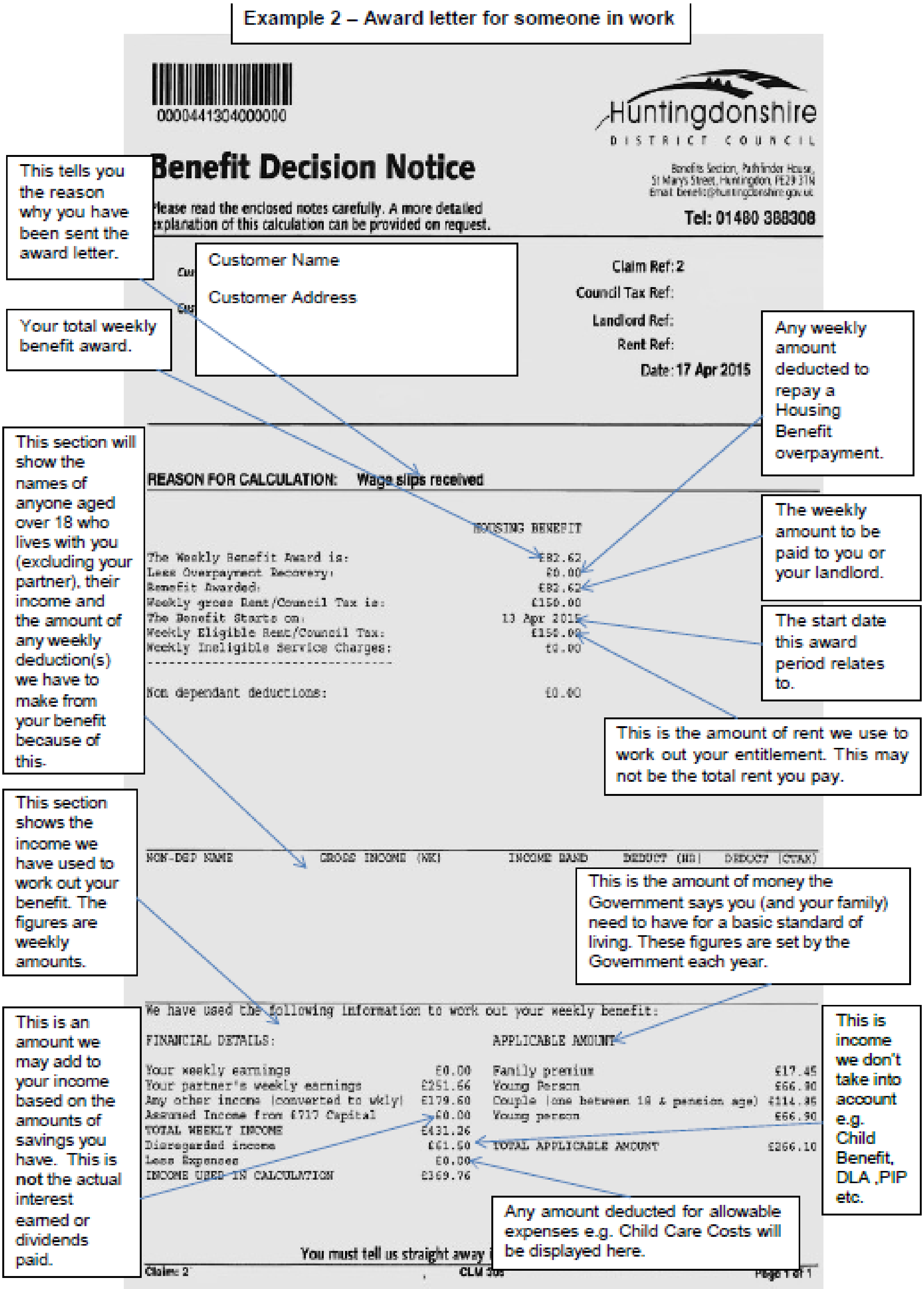
You must tell us straight away if your circumstances change

Claim: 2 CLM 305 Page 1 of 1

Example 5 (b): Housing Benefit exemplar letter for someone who is working:

* In this exemplar letter, 'we' refers to the District Council.

Example 2 – Award letter for someone in work



0000441304000000

Huntingdonshire DISTRICT COUNCIL

Benefits Section, Pathfinder House, St Marys Street, Huntingdon, PE29 3TN
Email: benefits@huntingdonshire.gov.uk

Tel: 01480 388308

Benefit Decision Notice

Please read the enclosed notes carefully. A more detailed explanation of this calculation can be provided on request.

Customer Name

Customer Address

Claim Ref: 2
Council Tax Ref:
Landlord Ref:
Rent Ref:
Date: 17 Apr 2015

REASON FOR CALCULATION: Wage slips received

	HOUSING BENEFIT
The Weekly Benefit Award is:	£82.62
Less Overpayment Recovery:	£0.00
Benefit Awarded:	£82.62
Weekly gross Rent/Council Tax is:	£150.00
The Benefit Starts on:	13 Apr 2015
Weekly Eligible Rent/Council Tax:	£150.00
Weekly Ineligible Service Charges:	£0.00
Non dependant deductions:	£0.00

NON-DEP NAME	GROSS INCOME (WK)	INCOME BAND	DEDUCT (HB)	DEDUCT (CTAX)

We have used the following information to work out your weekly benefit:

FINANCIAL DETAILS:		APPLICABLE AMOUNT	
Your weekly earnings	£0.00	Family premium	£17.45
Your partner's weekly earnings	£251.66	Young Person	£66.90
Any other income (converted to wkly)	£179.60	Couple (one between 18 & pension age)	£114.85
Assumed Income from £717 Capital	£0.00	Young person	£66.90
TOTAL WEEKLY INCOME	£431.26		
Disregarded income	£61.50	TOTAL APPLICABLE AMOUNT	£266.10
Less Expenses	£0.00		
INCOME USED IN CALCULATION	£369.76		

You must tell us straight away i

Claim: 2 CLM 306 Page 1 of 1

Example 6: Child Benefit

HM Revenue & Customs

Child Benefit

Child Benefit Office
HM Revenue and Customs
BX9 1GT

Donald Duck
1 The Pond
POOLE
SW1 1MS

Phone 0300 322 9075 extension 02
8:30am to 5:00pm

Web www.gov.uk

Date 18 May 2022
Our Ref CBO EC Changes
NI number AA000000A

About your Child Benefit

You're entitled to Child Benefit at £21.80 a week from 11 April 2022.

You can get Child Benefit at £21.80 a week from 11 April 2022.

We usually pay Child Benefit at the beginning of every week or every 4 weeks. We'll pay your Child Benefit into your bank/building society account.

If your child was born on a Monday, the earliest you can be entitled to Child Benefit is the Monday after their birth.

The way your Child Benefit is made up is shown on page 2. It also tells you what to do if you disagree with our decision.

For information on what changes you must tell us about, go to www.gov.uk/report-changes-child-benefit

Tell us about changes online, go to www.gov.uk/personal-tax-account

We no longer issue Child Benefit numbers to new customers so you will not need one when you contact us. Child Benefit accounts are all held under your National Insurance number.

CH1700 1 HMRC 12 21

How your child benefit is worked out

Total weekly rates from 11 April 2022

Basic amounts:

Huwey: £21.80

Amount payable: £21.80]

Other important information

For more information about how we pay Child Benefit, go to www.gov.uk/how-to-have-your-benefit-paid

What to do if you want to know more about this decision or you think it is wrong

Phone us on the number on the first page of this letter and we'll explain our decision to you. You should contact us within one month of the date of this letter or we may not be able to consider a dispute of this decision.

What happens after the decision is looked at again

If the decision can be changed we'll send you a new decision. If we cannot change the decision we'll tell you why. You'll still have the right to request a reconsideration of the decision.

Asking for a reconsideration

Ask us for a copy of factsheet CH24A, 'What to do if you think your Child Benefit or Guardian's Allowance decision is wrong'. It explains the reconsideration process. You can request a reconsideration using one of the following methods, but you must do this within one month of the date of this letter:

- by going online – go to www.gov.uk and search for CH24A
- in writing – fill in the form in CH24A and send it to us at the address shown on this letter
- by phoning our helpline on 0300 200 3100

Childcare top-up for working parents

If you are considering childcare, you may be eligible for government top-up towards the costs through Tax-Free Childcare. Please see GOV.UK at www.gov.uk/tax-free-chidcare

CBO EC Changes 135723 2

Example 7: Warm House Discount (WHD)

Your reference is:

HM Government

Warm Home Discount: £150 automatic help with your energy costs

You will receive this discount automatically - you don't need to contact us

Dear

We are pleased to tell you that you qualify for a discount of £150 to help you with the cost of your energy bill.

HM Government is working with energy suppliers to help people on lower incomes with their energy costs, through the Warm Home Discount Scheme.

You will get this discount automatically and don't need to do anything.

Why do I qualify?
You qualify for the discount because on XX/XX/2022 (the qualifying date) you (or your partner, if applicable) were:

- in receipt of Pension Credit Guarantee Credit; and
- a customer of an electricity supplier that is taking part in the scheme; and
- named on your electricity account

What happens next?
You don't need to do anything.

Your energy supplier will apply the discount to your electricity account by 31 March 2023 at the latest – in the majority of cases the discount will be applied between October 2022 and 31 January 2023. **For all payment queries, please contact your electricity supplier direct.**

If you pay your electricity costs by pre-payment meter, your energy supplier will contact you about how you will get your discount.

More information
There is more information on the back of this letter to answer any questions you may have.

11. Appendix 3 – Boiler information pack

Introduction

11.1. This information pack provides an overview of the different eligible boiler measures in ECO. It also details how to assess boilers and outlines the warranty requirements for the repair and replacement of boilers. This appendix should be read in conjunction with Chapter 5 - ECO measures.

11.2. This appendix provides information on the following:

a) Defining boilers and heating systems

b) Replacement boilers

c) Eligible boiler measures in ECO

d) Determining whether a boiler is broken down or inefficient

e) Carrying out boiler assessments, and

f) Warranty requirements for boiler measures

Defining boilers and heating systems

Boilers

11.3. A boiler is defined as a gas, liquid, solid fuelled or electric appliance designed to provide hot water for space heating through a heat distribution system. It may (but does not need to) be designed to provide domestic hot water as well. A boiler may comprise some or all of the following components:

a) Heat exchanger

b) The fuel supply system

c) Boiler and burner control system

d) Air supply and exhaust fans

e) Flue connections within the boiler case

f) Expansion vessel and / or fill and expansion header tanks

g) Programmer / timer (one that is integral to the boiler)

h) Circulation pump

i) Condensate drain system

j) Burner assembly

k) Ancillary equipment and any connections within the case necessary to supply central heating and / or instantaneous hot water.

Heating system

11.4. A heating system is a central heating system, which will normally comprise some or all of the following components:

a) Radiator circuit

b) Heating circuit

c) Heat emitters (radiators as well as underfloor or vents)

d) Flue

e) Room thermostats and thermostatic radiator valves (TRVs)

f) Mains boiler or other heat source (indoor or outdoor unit)

g) Cold water tank

h) Expansion tank

i) Hot water storage tank

j) Control valves

k) Heating system pump.

11.5. An air based central heating system is an appliance designed to distribute heat to multiple rooms within a property and emit heat as warm air through vents. Examples include some warm air heating systems and air-to-air heat pumps.

11.6. Wet central heating systems are defined as 'a central heating system in which heated fluid circulates between a boiler or other heat source and one or more separate heat emitters'.

Replacement boilers

11.7. A replacement boiler is a boiler, connected to a working heating system, that has been installed and which replaces a previous heating source.

11.8. Replacement boilers must be installed in accordance with the relevant Publicly Available Specification 2030 (PAS) and as per the boiler manufacturer's instructions.

Eligible boiler measures in ECO4

11.9. There are three eligible boiler measures in HHCRO. The way in which a boiler measure is categorised depends on the heating source present in the premises before the measure is installed.

11.10. The three eligible boiler measures are

a) Boiler replacement

b) Upgrade of an inefficient boiler

c) Boiler repair

11.11. Additionally, all boilers can be replaced with a district heating system or a renewable heating system.

11.12. Air based systems can in some circumstances be replaced as a boiler upgrade measure. Evidence that the system is inefficient or broken must be retained.

11.13. The scoring methodology that should be used to calculate the partial project score for a replacement or repair of a boiler depends on the type of heating source already present at the premises and / or the measure being installed.

11.14. The heating checklist must be completed for all boiler measures, regardless of the pre-main heat source.

Identifying whether a boiler is broken down or non-condensing

Broken down

11.15. A boiler is 'broken down' if, when connected to electric and fuel supplies, it does not respond appropriately to any demand for heat as required by the central heating or domestic hot water system.

11.16. The operative must list the symptoms observed and state the steps taken to reach his / her conclusion in the **Energy Company Obligation (ECO): Pre-Installation Heating Checklist**.[168] See paragraph 11.31 below for more information on the boiler checklist.

Non-condensing

11.17. Non-condensing boilers or a system with a manufactured energy efficiency that is no better than a non-condensing boiler are eligible for an upgrade.

11.18. ECO4 Pre-Installation Heating Checklist sets out a list of faults which can be used to determine and evidence whether a boiler is broken down and a section for completion on evidencing non-condensing. In all cases, the operative must state the steps taken to reach a conclusion in the ECO4 Pre-Installation Heating Checklist. This may include documenting test results, symptoms observed, or any other method used to identify the faults or information on how they concluded a boiler is non-condensing.

11.19. The operative must use their expertise and available evidence to assess whether the boiler is non-condensing.

Cannot be economically repaired

11.20. Broken boilers may only be replaced where they cannot be economically repaired. If a boiler is economically repairable, it should be repaired or replaced with a renewable

[168] See https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables

heating system or DHC. The boiler will only be eligible for replacement as a broken heating system where:

a) The required replacement parts for the boiler are not available (ie unavailable for purchase at a reasonable cost or within a reasonable timeframe. What is considered a reasonable timeframe and cost will depend on all the circumstances including the nature of the repair required), OR

b) The actual cost of repair is greater than the cost of replacing the boiler, OR

c) The actual cost of repair is greater than the relevant threshold on the Boiler Economic Repair Cost Comparison Tables.

Boiler Economic Repair Cost Comparison Tables

11.21. As described above in paragraph 11.20, a boiler cannot be economically repaired where the actual cost of repair is greater than the relevant threshold on the Boiler Economic Repair Cost Comparison Tables.

11.22. These tables can be found in the (ECO4) Pre-Installation Heating Checklist. There is also a guide to using the tables at the end of the checklist.

11.23. The tables display the maximum cost of repair for boilers of varying ages or it to be considered economic for the boiler to be repaired rather than replaced. If the actual cost of repair, as calculated by the operative, is higher than the maximum cost of repair outlined in the table, the boiler cannot be economically repaired and can therefore be replaced. The maximum cost of repair depends on the boiler type, age, and condition. See 'Assessing boiler condition' below for more information.

11.24. When assessing the condition of the boiler, the operative should make this assessment based on what they would reasonably expect the condition of a boiler of that age and type to be.

11.25. When assessing the boiler age, the estimate age should be rounded down eg a boiler that is 4.7 years old should be assessed as a 4-year-old boiler. The boiler age can be determined by assessing the following information:

a) The boiler name plate

b) Installation certificates

c) Warranty documentation.

11.26. The maximum cost of repair for each boiler type is based on the estimated replacement cost of a boiler and depreciation over time. The estimated replacement cost includes, but is not limited to, the cost of the boiler, extras (eg flue), fittings, water treatment inhibitor, central heating controls, sub-contract electrician, quotation, re-connecting and commissioning the boiler, and labour.

11.27. The costs that are considered by the operative when calculating the actual cost of repair should, where applicable, include those listed above, plus the cost of a warranty for at least one year. The operative must specify the cost of the warranty provided for the boiler in the actual cost of repair. Where, in addition to the repair work itself, further boiler works are necessary at the time of repair to protect the boiler for the life of the warranty, the cost of these works should be included in the actual cost of repair (subject to those works being carried out).

Carrying out boiler assessments

11.28. The operative must complete the (ECO4) Pre-Installation Heating Checklist to assess whether the boiler should be repaired or replaced.

Who is considered to have appropriate skill and experience?

11.29. For boilers that are replaced and referred to in PAS 2030, the boiler must be assessed and replaced by operatives who meet the competency requirements listed in the boiler-specific annex to that specification. For boilers not in PAS, and for boiler repairs, the assessment and repair / replacement must be carried out by operatives who meet industry competency standards for that particular fuel type.

11.30. All operatives undertaking boiler repair / replacement work must also meet regulatory requirements to work with the relevant fuel type. For example, in the case of gas-fuelled boilers, operatives must be Gas Safe registered in accordance with regulation 3 of the Gas Safety (Installation and Use) Regulations 1998. There is no requirement for the assessment and repair / replacement to be carried out by the same person. Each appropriately qualified operative should sign the relevant section of the ECO4 Pre-Installation Heating Checklist. See paragraph 5.223 for more general information on installation standards.

Using the ECO4 Pre-Installation Heating Checklist

11.31. As stated above, Ofgem has prepared a boiler assessment checklist which should be completed, signed, and dated by the relevant operative and made available by the supplier for subsequent audits. The information provided in the ECO4 Pre-Installation Heating Checklist will form the basis of our determination of whether the boiler is broken down and can be economically repaired or whether it is non-condensing.

11.32. The relevant operative specified in the document must complete the ECO4 Pre-Installation Heating Checklist. This will either be the assessor who inspected the boiler on-site or the operative who repaired or replaced the boiler. Another person must not sign it on behalf of this person. When filling in the ECO4 Pre-Installation Heating Checklist, details should not be copied from other forms, ie photocopying or copying and pasting should not be used to complete any part of the form – measures could be rejected when this practice is detected.

11.33. A supplier may adapt the format of the checklist to match its own systems, as long as the content is not changed. Suppliers may submit adapted checklists to us before use for confirmation that the content is acceptable.

11.34. It is important to note that the operative's decision to repair or replace a boiler on the basis that they consider that it is broken down and can or cannot be economically repaired or non-condensing does not necessarily mean that we will reach the same conclusion, particularly if we consider that an assessment has been incorrectly carried out. For this reason, suppliers should ensure that the operative, in assessing the boiler, accurately completes the ECO4 Pre-Installation Heating Checklist.

11.35. Monitoring and auditing will be undertaken by us to ensure that boiler assessments are carried out in accordance with our requirements. To effectively protect against fraudulent activity, monitoring initiatives will include inspection of boiler repair and replacement measures.

11.36. A detailed breakdown of the costs incurred in either repairing or replacing a broken boiler is required. The breakdown of costs must be specific to the boiler being assessed. The breakdown of costs must be itemised as set out in the Actual Costs of Repair and Replacement section of the ECO4 Pre-Installation Heating Checklist. Appendix 1 of the ECO4 Pre-Installation Heating Checklist should be used to record this information. If agreed with the relevant supplier, an alternative format that provides the same information can be used, so long as the itemised costs are retained for audit purposes.

Warranties requirement for boiler measures

11.37. All boilers repaired or installed in ECO must be accompanied by a warranty as per the TrustMark requirement.[169] TrustMark requires that all Registered Businesses provide a minimum two-year financial protection mechanism for all works carried out in and around the home (1 year for repairs). This includes but is not limited to product warranties and workmanship. The requirements that the warranty must meet are dependent on the boiler measure being delivered.

11.38. Where the supplier is aware that the repair or replacement of the existing boiler is covered by a guarantee or warranty, the savings from the new measure cannot be claimed under ECO.

[169] More information on the TrustMark requirements can be found in their Framework operating requirements document.

12. Appendix 4 – Electric storage heaters (ESH) information pack

Introduction

12.1. This information pack provides an overview of the different eligible electric storage heater (ESH) measures in ECO. It also details how to assess ESHs and outlines the warranty requirements for the repair and replacement of ESHs. This appendix should be read in conjunction with Chapter 5.

Replacement electric storage heater

12.2. Replacement ESH can only be installed a property that has ESH or an electric heating system as its pre-main heat source.[170]

12.3. Replacement ESHs must be installed in accordance with Publicly Available Specification (PAS) 2030[171] and as per the ESH manufacturer's instructions.

Eligible ESH measures in ECO4

12.4. The scores achieved through replacing and repairing ESHs can be credited against a supplier's HHCRO.

12.5. There are three eligible ESH measures in HHCRO. The way in which an ESH measure is categorised depends on the heating source present in the premises before the measure is installed.

12.6. The three eligible ESH measures are:

a) Broken ESH replacement

b) Broken ESH repair

c) Upgrade of an inefficient ESH with an efficiency of equal to or less than 0.2

[170] This means the actual PMHS and not the proxy being used for scoring
[171] This is available for purchase on the BSI website: ww.bsigroup.com

12.7. Additionally, all ESHs can be replaced with a district heating connection or a renewable heating system. Broken efficient and not economically repairable ESH are in some cases eligible for FTCH.

12.8. The scoring methodology that should be used to calculate the score for the installation, replacement, or repair of an ESH depends on the type of heating source already present at the premises.

12.9. All new ESHs must have a responsiveness of 0.8 or above when measures against SAP. High heat retention ESH meet this rule.

12.10. Electric storage heater installations will not be considered complete unless the property is on an off-peak electricity tariff.

Determining the functional condition of an ESH

Broken down

12.11. An ESH is 'broken down' if, when connected to an electric supply, it does not store heat or does not deliver any heat.

12.12. The operative should list the symptoms observed and the steps taken to reach his / her conclusion that the ESH is broken down in the ECO4 Pre-Installation Heating Checklist.[172]

Cannot be economically repaired

12.13. Broken ESH should only be replaced where they cannot be economically repaired. If an ESH is economically repairable, it must be repaired or can be replaced as an inefficient upgrade if the ESH has a responsiveness rating equal to or less than 0.2 when assessed against SAP.

12.14. An ESH cannot be economically repaired where:

a) The required replacement parts for the ESH are not available (ie unavailable for purchase at a reasonable cost or within a reasonable timeframe. What is considered

[172] See https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables

a reasonable timeframe and cost will depend on all the circumstances including the nature of the repair required).

b) The insulation in the ESH contains asbestos and therefore cannot be removed to access broken part.

c) The actual cost of repair is greater than the cost of replacing the ESH.

d) The actual cost of repair is greater than the relevant threshold on the ESH Economic Repair Cost Comparison Table.

ESH Economic Repair Cost Comparison Table

12.15. When using option d in paragraph 12.14. above to determine that an ESH with a responsiveness of more than 0.2 cannot be economically repaired, the ESH Economic Repair Cost Comparison Table should be used.

12.16. This table can be found in the ECO4 Pre-Installation Heating Checklist[173].

12.17. The table displays the maximum cost of repair for it to be considered economic for the ESH to be repaired rather than replaced. If the actual cost of repair, as calculated by the operative, is higher than the maximum cost of repair outlined in the table, the ESH cannot be economically repaired and can therefore be replaced. The maximum cost of repair depends on the type and age of the ESH.

12.18. The maximum cost of repair for each ESH type is based on the estimated replacement cost of an ESH and depreciation over time. The estimated replacement cost includes the cost of the ESH, fittings, quotation, cost of electric phase connection to match the load capacity required by the ESH, and labour.

12.19. The costs that are taken into account by the operative when calculating the actual cost of repair should, where applicable, include those listed above, plus the cost of a warranty of at least one years. Where, in addition to the repair work itself, further ESH works are necessary at the time of repair to protect the ESH for the life of the warranty (eg replacing damaged insulation), the cost of these works should be included in the

[173] See https://www.ofgem.gov.uk/publications/eco4-project-forms-and-tables

actual cost of repair (subject to those works being carried out). See paragraph 12.28 in this appendix for more information on warranties.

Carrying out ESH assessment

12.20. In order to determine whether an ESH should be replaced or repaired, the ESH must be assessed by a person of appropriate skill and experience (‘the operative’).

12.21. The operative must complete the heating checklist to demonstrate to us whether the ESH is broken down and to assess whether the ESH can be repaired or whether it should be replaced.

12.22. This section provides information on:

a) Who is considered to have appropriate skill and experience, and

b) Using the ECO4 Pre-Installation Heating Checklist.

Who is considered to have appropriate skill and experience

12.23. The assessment and the repair or replacement of an ESH must be carried out by a person with the appropriate skill and experience (the ‘operative’). Appropriate skill and experience can be demonstrated by the operative meeting the competency requirements for domestic electrical installation work listed in the ‘measure specific requirements for electric storage heaters’ in Annex D1 of PAS 2030. There is no requirement for the assessment and repair / replacement to be carried out by the same person. Each appropriately qualified operative should sign the relevant section of the ECO4 Pre-Installation Heating Checklist.

Using the ECO4 Pre-Installation Heating Checklist

12.24. As mentioned above, the ECO4 Pre-Installation Heating Checklist should be completed, signed, and dated by the relevant operative(s) and must be made available to us on request. All steps taken by the operative in determining if the ESH is broken down or inefficient should be recorded in the checklist, as well as the operative’s recommendation as to whether the ESH should be repaired or replaced. The information in the checklist will form the basis of our determination of whether the ESH is broken down and can / cannot be economically repaired or whether it is inefficient.

12.25. A supplier may adapt the format of the ECO4 Pre-Installation Heating Checklist to match its own systems, as long as the content is not changed. Suppliers may submit adapted checklists to us before use for confirmation that the content is acceptable.

12.26. It is important to note that the operative's decision to repair or replace an ESH on the basis that they consider that it is broken down and can / cannot be economically repaired does not necessarily mean that we will reach the same conclusion, particularly if we consider that an assessment has been incorrectly carried out. For this reason, suppliers should ensure that the operative, in assessing the ESH, accurately completes the ECO4 Pre-Installation Heating Checklist.

12.27. Monitoring and auditing will be undertaken by us to ensure that ESH assessments are done in accordance with our requirements.

Warranty requirements for ESH measures

12.28. On or after 1 April 2022, all ESHs repaired in ECO must be accompanied by a warranty of at least one years as per the TrustMark requirement.[174] TrustMark requires that all Registered Businesses provide a minimum one-year financial protection mechanism to cover only the faulty part that is repaired rather than the whole heating system. This includes but is not limited to product warranties and workmanship. The requirements that the warranty must meet is dependent on the ESH measure being delivered.

12.29. Where the supplier is aware that the repair or replacement of the ESH is covered by a guarantee or warranty, the savings from the new measure cannot be claimed under ECO.

[174] More information on the TrustMark requirements can be found in their Framework operating requirements document. https://www.trustmark.org.uk/aboutus/useful-links

13. Appendix 5 – Uplifts, increases, deflators, caps and requirements

Introduction

13.1. This appendix contains tables listing all the various uplifts, increases, deflators, caps, and minimum requirements in ECO4

Table 29: Uplifts and increases in ECO4

Uplift / Increase	Limit on uplifts in project	How uplift / increase is applied	Rate / value	How / when uplift / increase should be notified	Eligible properties
Efficient heating system repair	1	Fixed value increase	£140[175]	Applicable measures	All SAP bands, owner-occupied properties only
Efficient heating system replacement	1	Fixed value increase	£140[175]	Applicable measures	All SAP bands, owner-occupied properties only
Efficient ESH repair	No limit	Fixed value increase	£40[175]	Applicable measures	All SAP bands, owner-occupied properties only
Efficient ESH replacement	No limit	Fixed value increase	£40[137]	Applicable measures	All SAP bands, owner-occupied properties only
Building fabric repairs	1	Fixed value increase	Based on cost of rectifying BFR issues in home[176]	Applicable measures	SAP band E-G, owner-occupied properties only
Innovation measure	No limit	Multiplication factor uplift	25% or 45%, plus 5% for sponsoring supplier	Applicable measures	All SAP bands and tenures

[175] Annual bill savings. Note these fixed values may appear higher in the scoring matrix due to the floor area uplift
[176] There are four values of BFR uplift available. Please see paragraphs 6.138-6.144 for further information.

Off-gas and rural	No limit	Multiplication factor uplift	35%	All measures in applicable project	All SAP bands and tenures, rural and off-gas properties in Wales and Scotland only
ECO Flex route 4 – bespoke targeting	No limit	Multiplication factor uplift	10%	All measures in applicable project	All SAP bands, owner-occupied and PRS properties
Floor area uplifts	1	Multiplication factor uplift	20% and 10% to the smallest and second smallest floor area segments respectively	All measures in applicable project	All SAP bands and tenures, including in-fill

Table 30: Deflators in ECO4

Deflator	How deflator is applied	Rate	Applicable to all SAP bands?	Applicable to all tenure types?
Partial Project Score (PPS) deflation rate	Applied to the score of all measures, including uplifts, in projects that are not awarded FPS	20%	Yes, where MR is not met	Yes, where MR is not met

Table 31: Minimum requirements in ECO4

Minimum	Covers	Value	Requirement applies to:
EFG minimum requirement	Private domestic premises with a starting SAP band of E, F, or G	150,000 retrofits across ECO4	Each ECO-obligated energy supplier
Solid wall minimum requirement	Projects containing at least one solid wall measure	Equivalent of SWI measures in 90,000 (1 property per £2,492 of total HHCRO)	Each ECO-obligated energy supplier

Table 32: Caps in ECO4

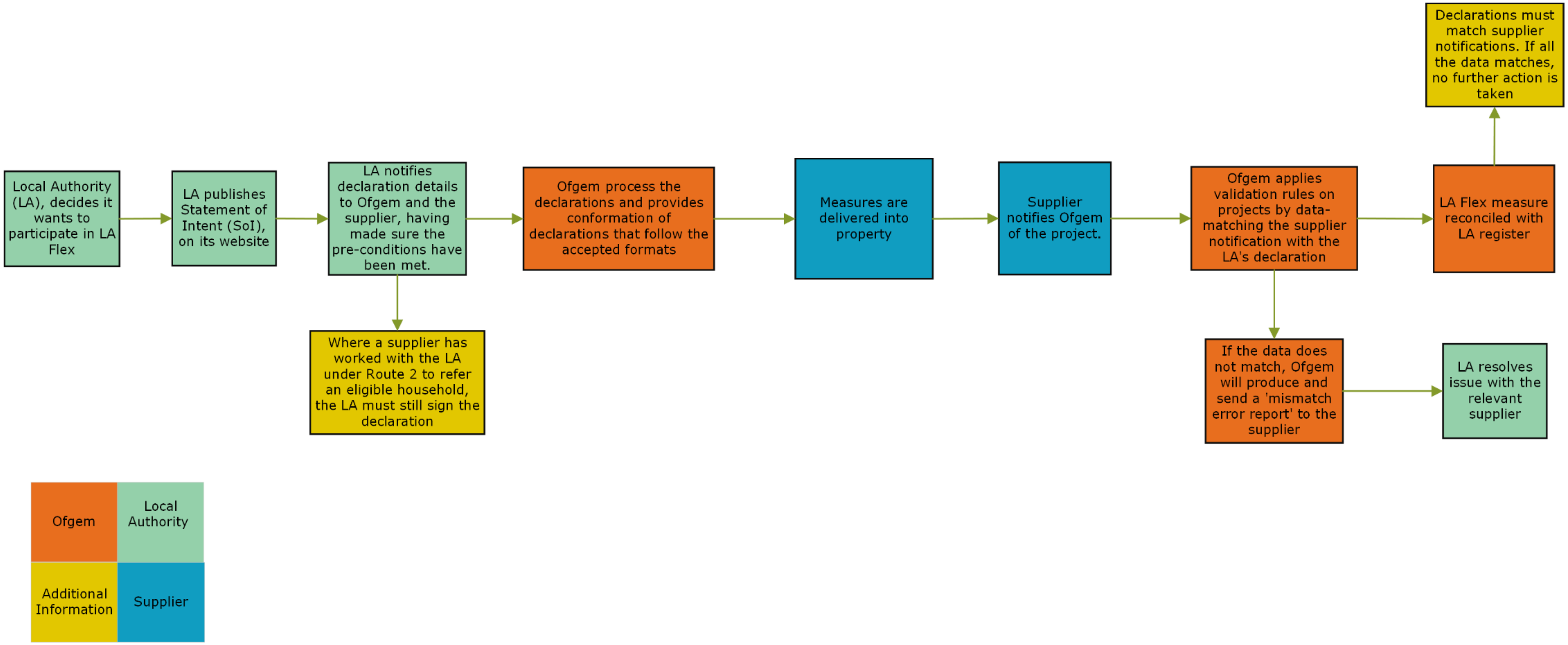
Cap	What does the cap limit?	Value	Impact of project / measure breaching cap[177]
Innovation Measure - general	% of obligation awarded to innovation measures	10% of each supplier's obligation	Score still awarded but with IM uplift(s) excluded
Innovation Measure - specific	% of obligation awarded for each innovation measure number	5% of each supplier's obligation	Score still awarded but with IM uplift(s) excluded
Partial Project Score	% of obligation awarded to measures where PPS is the final score, ie approved measures in projects that aren't awarded FPS (except for in-fill)	12.5% of each supplier's obligation	Measure not scored
Exemptions	Number of projects that are awarded FPS without meeting the MR due to having an exemption (except where that exemption is a change in occupancy or death in household)	7500 exemptions in ECO4. Each supplier's share of this is equivalent to their share of total ECO4 obligation	FPS not awarded; PPS will be final score for measures in project.
Data Light Measures	Number of each data light measure type that can be installed	5000 measures for each DLM across ECO4. Each supplier's share of this is equivalent to their share of total ECO4 obligation	Not scored and will not contribute to MR
Building Fabric Repair	% of obligation awarded for building fabric repair increases	0.5% of each supplier's obligation	BFR increase not awarded for PPS or FPS
ECO4 Flex	% of obligation awarded to projects with ECO flex eligibility route	50% of each supplier's obligation	Entire project not scored unless eligible through another route

[177] Whether a cap has been breached and any subsequent scoring impacts will occur after final determination

Efficient heating repair	Number of measures or projects containing a measure that is the repair of a broken efficient boiler, ESH or another heating system that is fuelled wholly or partly from biofuel, oil, or liquefied petroleum gas.	Equivalent to 20,000 across ECO4. Each supplier's share of this is equivalent to their share of total ECO4 obligation	Measure not scored
Efficient heating replacement	Number of measures or projects containing a measure that is the replacement of a broken efficient heating system with another of the same kind, except where that system is renewable or a DHC.[178]	Equivalent to 20,000 across ECO4. Each supplier's share of this is equivalent to their share of total ECO4 obligation	Measure not scored

[178] Renewable and DHC replacements must be like-for-like to receive the efficient replacement increase, however they are not subject to the cap

14. Appendix 6: - ECO4 Flex process for Local Authorities, (LAs)



15. Appendix 7: ECO4 Abbreviations Table

Abbreviation	Explanation
ASHP	Air source heat pump
BACL	Boiler Assessment Checklist
BEIS	Department for Business, Energy and Industrial Strategy
BFR	Building fabric repair
BUS	Boiler Upgrade Scheme
CHP	Combined heat and power
CoL	Certificate of lodgement
CTC	Child Tax Credit
CWI	Cavity wall insulation
DA	Devolved authority
DHC	District heating connection
DHS	District heating system
DLMs	Data light measures
DOCI	Date of completed installation
DWP	Department for Work and Pensions
ECO	Energy Company Obligation
ECO4 Flex	Flexible eligibility
ECS	Eligibility Checking Service
EER	ECO Eligible Referral
EHS	Electric Heating System
EPC	Energy Performance Certificate
ERH	Electric room heater
ESA	Income related Employment and Support Allowance
ESH	Electric storage heater
EST	Energy saving trust
EWI	External wall insulation
FPS	Full Project Score
FTCH	First time central heating
GDPR	General Data Protection Regulation
GRH	Gas room heater
GSHP	Ground source heat pump
HHCRO	Home Heating Cost Reduction Obligation
HHR	High heat retention
HMO	Houses in multiple occupation
HMRC	HM Revenue and Customs
HTHG	Help To Heat Group

Abbreviation	Explanation
HUG	Home Upgrade Grant
HWI	Hybrid wall insulation
IMs	Innovation measures
IS	Income Support
IWI	Internal wall insulation
JSA	Income based Jobseekers Allowance
kWp	Kilowatts peak
LA	Local authority
LAD	Local Authority Delivery
LDEC	Loft Insulation Declaration
LHA	Local Housing Allowance
LPG	Liquefied petroleum gas
LSOA	Lower Super Output Area
mCHP	Micro combined heat and power
MCS	Microgeneration Certification Scheme
MEES	Minimum Level of Energy Efficiency Standard
MOD	Ministry of Defence
MR	Minimum requirement
NICE	National Institute for Health and Care Excellence
NMAP	New Measures and Products
OI factor	Orientation and inclination factor
ONS	Office for National Statistics
OO	Owner occupied
PAS	Publicly Available Specification
PAS IOE	Publicly Available Specification Improvement Option Evaluation
PCDB	Product Characteristics Database
PCGC	Pension Credit Guarantee Credit
PCSC	Pension Credit Savings Credit
PCWI	Party cavity wall insulation
PHI	Park home insulation
PIBI	Pre-installation building inspection
PICI	Post Installation Customer and Installer Declaration Form
POPT	Percentage of property treated
PPM	Pre-payment meter
PPS	Partial Project Score
PRI	Pitched roof insulation
PRS	Private rented sector
RdSAP	Reduced Data Standard Assessment Procedure

Abbreviation	Explanation
RICS	Royal Institution of Chartered Surveyors
RIR	Room-in-roof
RIRI	Room-in-roof insulation
SAM	Standard alternative methodology
SAP	Standard Assessment Procedure
SAP rating	Numerical value normally between 1 and 100 based on calculated energy costs for the premises.
SFI	Solid floor insulation
SH	Social Housing
SoI	Statement of Intent
Solar PV	Solar photovoltaics
SWI	Solid wall insulation
SWMR	Solid wall minimum requirement
TRVs	Thermostatic radiator valves
TTZC	Time and Temperature Zone Control
UC	Universal Credit
UFI	Underfloor insulation
UK	United Kingdom
URN	Unique reference number
WHD	Warm Home Discount
WTC	Working Tax Credit