

Energy Company Obligation (ECO4)

ECO4 Guidance: Delivery

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This guidance sets out Ofgem's procedures for administering the ECO4 Scheme, established by the Electricity and Gas (Energy Company Obligation) Order 2022 (the 'ECO4 Order').

Since it was originally made, the ECO4 Order has been amended by the Electricity and Gas (Energy Company Obligation) (Amendment) Order 2025 and the Electricity and Gas (Energy Company Obligation) (Amendment, Saving and Transitional Provisions) Order 2025. All references to the ECO4 Order in this document are to the ECO4 Order as amended.

The ECO4 scheme places a legal obligation 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: ECO4 Guidance: Delivery, ECO4 Guidance: Supplier Administration, Great British Insulation Scheme and ECO4 Guidance for Local Authority Administration and ECO4 Guidance: New Measures and Products. The ECO4 Delivery Guidance is aimed at suppliers and the broader supply chain, describing how to deliver measures that are eligible to count towards the Scheme target. It details how a supplier achieves its obligation, and which measures are eligible under the Scheme, as well as the criteria that must be met for each measure.

Information on how scheme savings are determined, how to notify completed measures and the monitoring process is also included.

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About this Guidance

The **ECO4 Delivery: Guidance** provides guidance on how Ofgem ('we', 'our' and 'us' in this document) administers the ECO4 scheme and sets out the requirements the scheme places on all obligated suppliers. It covers the following:

- a) How a supplier meets its obligations
- b) The eligibility of different homes and the households that occupy them
- c) The eligibility of different energy efficiency measures
- d) Measure and project scores
- e) The measure and project notification processes
- f) Technical and score monitoring
- g) Auditing and counter-fraud processes
- h) Supporting information contained in appendices.

For more information about the scheme, [visit our website](#).

Updates to this document

This document has been updated to clarify the circumstances when we will seek to reject non-compliant measures, how to define rural areas in Scotland, and general formatting and drafting improvements.

For further details on the updates contained in this version and previous versions of this publication, see the Summary of Updates. You can find it as a subsidiary document at the bottom of the website page hosting this document.

Relevant Guidance

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

- a) **ECO4 Guidance: Delivery** – Aimed at suppliers and the broader supply-chain, describing how to deliver measures that are eligible to contribute towards the ECO4 targets. Suppliers can use this document for information on flex administration.

- b) [**ECO4 Guidance: Supplier Administration**](#) – Aimed at suppliers, describing the processes that suppliers and Ofgem follow to meet the requirements of the ECO4 Order.
- c) [**Great British Insulation Scheme and ECO4 Local Authority Administration Guidance**](#) – Aimed at Local Authorities and Devolved Administrations, describing how to publish Statements of Intent, submit Declarations, and identify and refer households via local authority flex (LA Flex) on ECO4 and Great British Insulation Scheme, publish Statements of Intent and submit Declarations.
- d) [**ECO4 Guidance: New Measures and Products**](#) – 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: Interim Delivery**](#) - 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.

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

- a) All scheme legislation including the [**Electricity and Gas \(Energy Company Obligation\) Order 2022**](#) (“the ECO4 Order”)¹
- b) Ofgem guidance and any guidance produced by the Department for Energy Security and Net Zero
- c) Any requirements of specifications referred to in legislation, e.g. 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.

¹ Since it was originally made, the ECO4 Order has been amended by the Electricity and Gas (Energy Company Obligation) Order 2023, the Electricity and Gas (Energy Company Obligation) (Amendment) Order 2025 and the Electricity and Gas (Energy Company Obligation) (Amendment, Saving and Transitional Provisions) Order 2025. All references to the ECO4 Order in this document are to the ECO4 Order as amended.

It is the responsibility of each supplier and relevant stakeholder 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 a definitive guide to the ECO4 Order and it does not constitute legal advice. Where there is any ambiguity or conflict between the guidance and the ECO4 Order, the ECO4 Order takes precedence. 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; those involved in delivering the scheme should obtain their own legal advice.

This document does not anticipate every scenario which may arise. If a scenario arises which is not addressed in this guidance, we will adopt an approach consistent with the relevant legislation, in this case the ECO4 Order. Any additional guidance we publish will be available on our website.

Contacts

If you would like to contact us, [visit the ECO contacts page](#).

Relevant Legislation

[The Electricity and Gas \(Energy Company Obligation\) Order 2022 \(legislation.gov.uk\)](#)

[Part 10 of The Electricity and Gas \(Energy Company Obligation\) Order 2023 \(legislation.gov.uk\)](#)

[The Electricity and Gas \(Energy Company Obligation\) \(Amendment\) Order 2025](#)

[The Electricity and Gas \(Energy Company Obligation\) \(Amendment, Saving and Transitional Provisions\) Order 2025](#)

Consultations

[Design of the Energy Company Obligation \(ECO4\): 2022-2026 - GOV.UK \(www.gov.uk\)](#)

[Design of the Energy Company Obligation \(ECO\): 2023-2026 - GOV.UK \(www.gov.uk\)](#)

[Energy Company Obligation schemes: Standard Assessment Procedure \(SAP\) and Reduced Data SAP \(RdSAP\) amendments - GOV.UK \(www.gov.uk\)](#)

[Energy Company Obligation 4 and the Great British Insulation Scheme: mid-scheme changes - GOV.UK](#)

[Ofgem ECO4 Administration Consultation Part 1](#)

[Ofgem ECO4 Administration Consultation Part 2](#)

[ECO4 and GBIS Mid-Scheme Changes Administration: consultation | Ofgem](#)

Personal data

Ofgem will process all personal data collected in accordance with the assimilated law version of the General Data Protection Regulation 2016/679 (UK GDPR) and the Data Protection Act 2018. Ofgem uses the personal data collected to perform its statutory functions and may share this information with other organisations in line with its scheme administration functions and duties under the UK GDPR. For more information on how we process personal data on ECO4, refer to our [ECO4 Privacy Notice](#) which has been published separately.

1. Introduction

- 1.1. Energy efficiency and decarbonisation of domestic homes is a key Government policy for reducing the United Kingdom's carbon emissions. The Energy Company Obligation (ECO), first introduced in 2013, is a series of energy efficiency schemes in Great Britain that place legal obligations on energy suppliers to deliver energy efficiency and heating measures to domestic premises. They work towards the government's energy security and net zero strategies by:
- accelerating progress to meet fuel poverty reduction targets
 - contributing to carbon reduction targets in the domestic sector
 - reducing the costs of meeting the UK's renewable energy target through promoting more efficient energy use, and
 - encouraging innovation in the industry
- 1.2. The Office of Gas and Electricity Markets (Ofgem) is administrator of the ECO schemes.
- 1.3. 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.
- 1.4. ECO4 is enacted by the [Electricity and Gas \(Energy Company Obligation\) Order 2022²](#), as amended, and referred to in this guidance as the 'ECO4 Order'. The overall obligation period for ECO4 runs from the commencement date of the ECO4 Order on 27 July 2022 to 31 March 2026.
- 1.5. The ECO4 scheme is complemented by the Great British Insulation Scheme, which runs from 25 July 2023 to 31 March 2026. For further guidance on the Great British Insulation Scheme, visit our [website](#).

² The original, as made, Order can be found at [The Electricity and Gas \(Energy Company Obligation\) Order 2022 \(legislation.gov.uk\)](#)

- 1.6. ECO4 sets a main obligation called the Home Heating Cost Reduction Obligation (HHCRO), which requires energy suppliers to achieve a total of £224.3 million in annual bill savings for domestic premises. The obligation is divided between energy suppliers based on their respective shares of the domestic gas and electricity market. ECO4 also contains two sub-obligations, the solid wall minimum requirement and the 'EFG' minimum requirement.
- 1.7. A supplier meets its obligations under ECO4 by promoting qualifying actions ('measures') at eligible domestic premises, and must do so in full no later than 31 March 2026. Where a supplier fails to meet the requirements of the ECO4 Order, we may take enforcement action.
- 1.8. Compared to previous ECO schemes, ECO4 places greater focus on low income, fuel poor and vulnerable households to improve the least energy efficient homes. It also requires a more complete upgrade of those homes, shifting to 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. Furthermore, it incorporates the replacement of broken heating systems. Also, 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.
- 1.9. There is also 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.

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, visit our [website](#). 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 [Simple Energy Advice](#) website.
- 1.13. Further information on TrustMark can be found on their [website](#). 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 Energy Security and Net Zero at ECOteam@energysecurity.gov.uk.

2. Obligations

ECO4 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
- 2.3. We are required to determine a supplier's obligation for each of these phases.
- 2.4. 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).
- 2.5. 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

- 2.6. To meet this requirement, suppliers must install external or internal solid wall insulation (SWI) in eligible solid wall premises. For premises 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 of solid wall construction, and prior to the SWI measure at least 50% of the solid wall area must be uninsulated. The wall area is the net area of walls after subtracting the area of windows and doors. Insulation of the walls of a mobile home does not count as solid wall insulation.
- 2.7. 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.³

Private Tenure EFG Homes

- 2.8. 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).
- 2.9. Minimum upgrade requirements for all bands are described from paragraph 4.36.

Promotion of a Qualifying Action

- 2.10. 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.
- 2.11. 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 the installation of a measure is sufficient to establish that the supplier was a cause of that measure being installed.

³ 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

- 2.12. A supplier cannot partially or wholly fund a measure with funding from other government schemes or grants.
- 2.13. A measure does not count as a qualifying action on ECO4 if it has been notified under the Great British Insulation Scheme.
- 2.14. 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.
- 2.15. 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 measures, should also be transferred.
- 2.16. Suppliers may apply to reassign ECO4 ABS to their GBIS obligation. Please see Chapter 9 of the [ECO4](#) Supplier Administration Guidance.

Interim Delivery

- 2.17. 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 [ECO4 Guidance: Interim Delivery](#) and our [ECO4 Guidance: Supplier Administration](#) for further information on the administration of ECO3 Interim Delivery as part of the ECO4 obligation.

Overview of ECO4 Rules

2.18. Table 1 provides an overview of the ECO4 rules concerning eligibility, tenure, starting [SAP \(Standard Assessment Procedure\)](#) ratings and other rules for different eligible tenure types.

2.19. 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 ⁴	Insulation requirements ⁵
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 ⁶	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.
HTHG	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH,	Improvement to at least band D (F-G properties) or	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

⁴ Exemptions to minimum requirements covered from paragraph 4.40 – 4.50.

⁵ Under ECO4, all heating measures are subject to certain insulation pre-conditions, detailed in paragraph 5.58 – 5.62.

⁶ See section on Building Fabric Repairs from paragraph 4.71 for BFR uplifts.

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement ⁴	Insulation requirements ⁵
			renewable heating or DHC. See 3.79-3.83 for exceptions.	band C (E properties)	are met if all insulation is already installed in the home to the required standard.
SH	SH	D	IMs only, and where the IM is a heating measure, 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 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

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement ⁴	Insulation requirements ⁵
ECO4 Flex route 1	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating and DHC. See 3.79-3.83 for exceptions.	Improvement to at least band D (F-G properties) or band C (E properties)	are met if all insulation is already installed in the home to the required standard. 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.
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 3.79-3.83 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.

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement ⁴	Insulation requirements ⁵
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 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 3.79–3.83 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

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement ⁴	Insulation requirements ⁵
requirement is met if all insulation is already installed in the home to the required standard.					
ECO4 Flex route 4	PRS	E-G	Most measures eligible. Must receive at least one of SWI, FTCH, renewable heating and DHC. See 3.79-3.83 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 insulated. This

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement ⁴	Insulation requirements ⁵
					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) insulated. If the home is a park home, the floor, walls, and ceiling must first be insulated. These requirements

Eligibility	Tenure	Starting SAP band	Measures	Minimum requirement ⁴	Insulation requirements ⁵
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)	are met if all insulation is already installed in the home to the required standard. 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 12 (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 those for occupants.
- 3.2. ECO measures delivered to premises occupied by a member of the Help to Heat Group (HTHG)⁷ or identified through the LA 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.⁸
- 3.3. Whereas the private requirement (evidence is required to demonstrate that premises are private) does not apply to social housing, the domestic and premises requirements 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 LA Flex. Information on how to determine market rate can be found in Appendix 2 – Premises and Occupant Requirements.
- 3.5. The following section outlines the definitions and requirements for each of the aspects of private domestic premises.

The 'Private' Requirement

- 3.6. The [ECO4 supplier data dictionary](#) 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:

⁷ As per Article 2, Schedule 1 of the [ECO Order 2022](#), a member of the help to heat group is defined as 'the household eligibility requirement is that the premises are occupied by a member of the help to heat group at any time within the 12 month period ending with the day on which the measure is completed.'

⁸ For more information on the definition of a social landlord, see Schedule 2 of the [ECO4 Order](#).

- Whether or not a 'relevant interest' in the premises is registered,⁹
 - Who the premises belong to, or are let by, and
 - Where applicable, the financial rate at which the premises are let (i.e. 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:
- The terms of the customer's agreement with that bank, and
 - Who has the registered interest in the property.¹⁰
- 3.10. Properties that have a Lifetime Mortgage through an Equity Release scheme are treated in the same way as a standard mortgage.¹¹ 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.

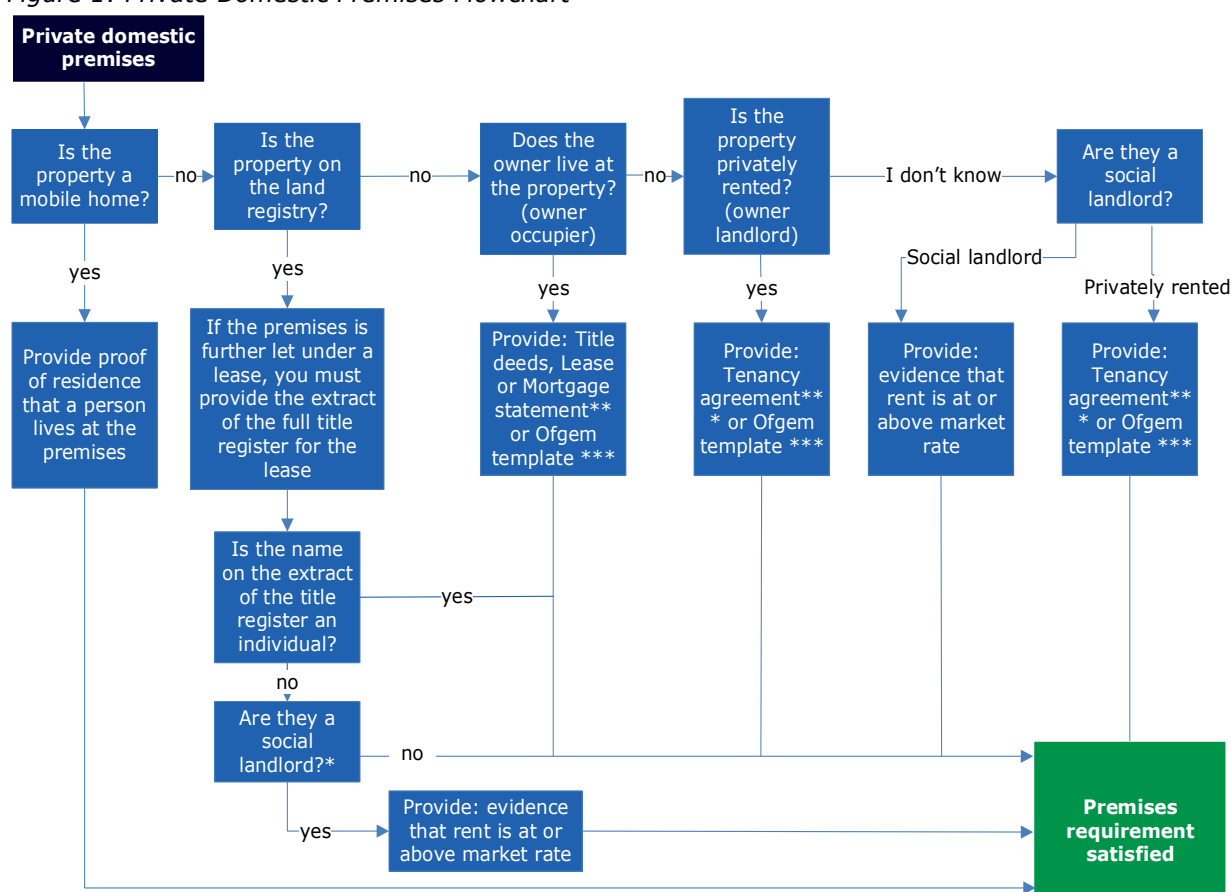
⁹ A registered premises is one with a relevant interest registered on the Land Registry in England and Wales or, in Scotland, the Land Register of Scotland or recorded in the Register of Sasines. For more information on the evidencing routes for registered and unregistered premises refer to Appendix 2 – Premises and Occupant Requirements.

¹⁰ See Appendix 2 – Premises and Occupant Requirements for information on the documentation needed in these circumstances.

¹¹ 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.¹² 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.
- 3.14. 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

¹² 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.

** 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

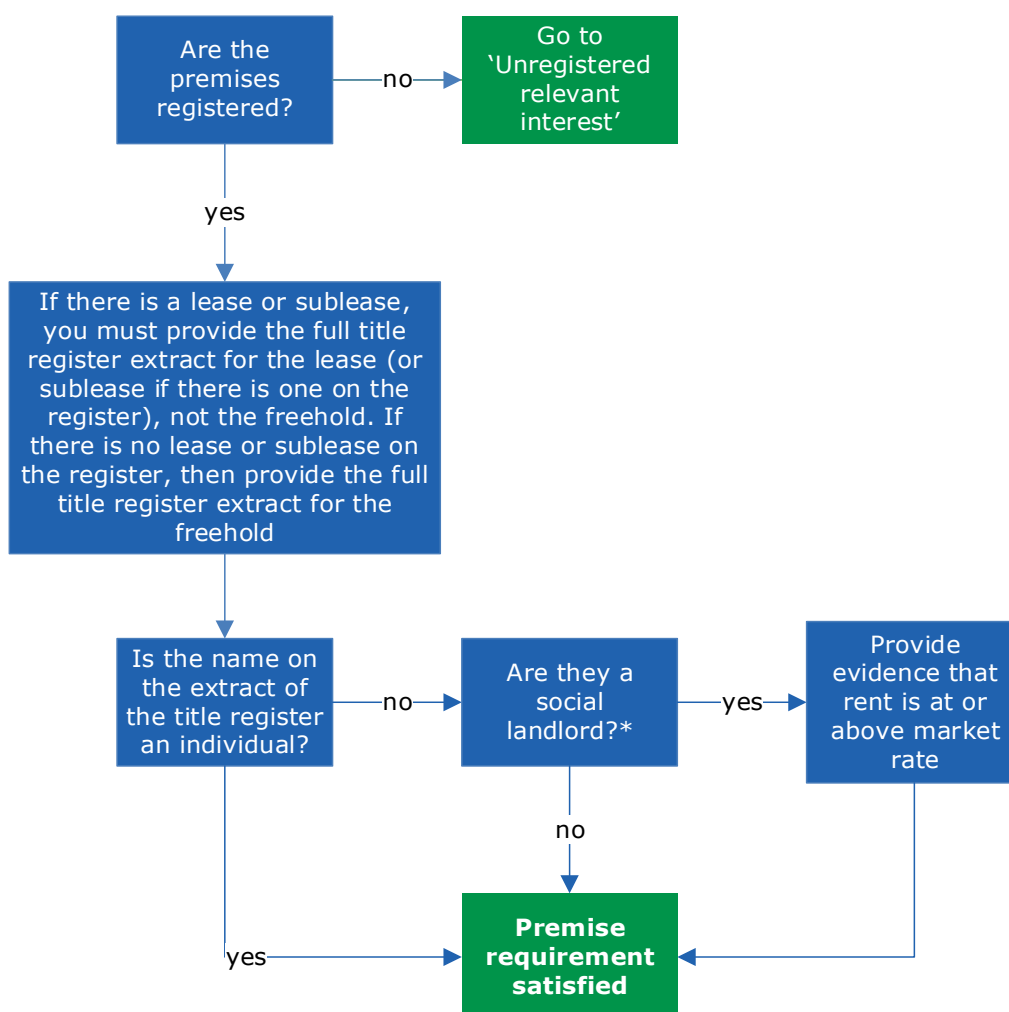
*** Must be accompanied by proof of residence dated within 12 months before the completion of the first measure in the project

Registered Relevant Interest

- 3.15. 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.¹³
- 3.16. 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.
- 3.17. Figure 2 shows how to meet the premises requirement for registered premises.

¹³ See Appendix 2 – Premises and Occupant Requirements.

Figure 2: Registered Premises Flowchart



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

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

Unregistered Relevant Interest

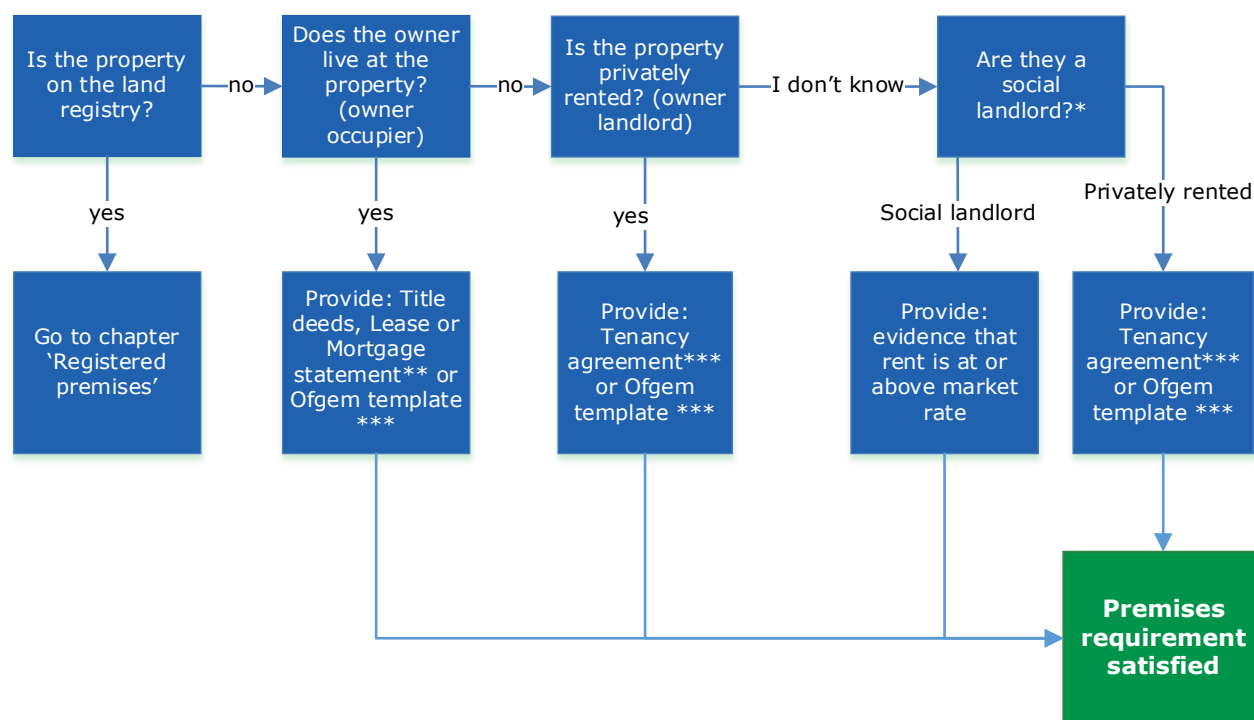
3.19. Premises for which a relevant interest is not registered will be considered private domestic premises if:

- 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.
- The premises are let under a lease granted under the 'Right to Buy' or 'Right to Acquire' schemes in England or Wales.
- The premises are let under a lease granted under the 'Right to Purchase' scheme in Scotland.

- The premises is a croft (see 3.24 for more information).

3.20. 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

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:
- Matched
 - Unmatched
 - 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:
- Evidence of leases registered with the Crofting Commission
 - Evidence that the premises is listed on the Register of Crofts (mandatory for all crofts)
 - 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 Standard Assessment Procedure) 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 (i.e. is occupied as a home).¹⁴

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](#) and [The Energy Performance of Buildings \(Scotland\) Regulations 2008](#).
- 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](#) 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):
- Pre-existing buildings erected before 1 April 2022, or

¹⁴ As per the [ECO4 Order](#) Article 2, a "domestic customer" means a person living in domestic premises in Great Britain who is supplied with electricity or gas at those premises wholly or mainly for domestic purposes.

- Premises which were first occupied as domestic premises before the day on which the installation was completed.¹⁵
- 3.33. Evidence to confirm the date of building completion can include:
- In England and Wales, a building control completion certificate; or
 - 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 'new domestic premises' under this provision. If an extension is being added, see 3.47. Suppliers should contact us if there is any uncertainty over whether premises would qualify as new domestic premises.

Confirming that Premises are Not New Build Premises

- 3.36. Where a building is pre-existing before 1 April 2022, a declaration in 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 declaration is not completed and signed to identify that the premises are pre-existing, evidence of occupancy (see 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:
- Documentation that meets the occupancy requirements (see 3.45)
 - In England and Wales, a Land Registry search, where a title has been registered prior to 1 April 2022

¹⁵ See [ECO4 Order](#) Article 12(1)(d)(ii)

- In Scotland, a search of the Land Register of Scotland or Register of Sasines
 - A Certificate of Title or Deeds dated prior to 1 April 2022
 - A date prior to 1 April 2022 on an EPC
 - In England and Wales, a building control completion certificate, or
 - 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 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 Domestic Premises

- 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.¹⁶
- 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 domestic premises require a declaration on the [ECO4 & GBIS Post Installation Declaration](#) (under section A) 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 ECO4 & GBIS Post-Installation Declaration Form to confirm that premises are occupied. If the declaration is signed by a landlord or a non-resident owner on behalf of the customer,

¹⁶ See [ECO4 Order](#) Article 12(1)(d)(ii))

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:
- Utility bill, landline phone bill or TV licence,
 - Council tax letter or letter from the council,
 - Mortgage statement or bank statement,
 - Tenancy agreement,
 - NHS letter, or
 - 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 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:
- In England and Wales, a building control completion certificate, or
 - 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.
- 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, i.e. 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:
- *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.
 - *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 defined in the [Housing Act 2004](#) (section 254), 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 3.53).

Rural and Off-Gas Premises

- 3.65. ECO4 measures can 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% (see uplifts section from 6.135). 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. Prior to the coming into force date of the Electricity and Gas (Energy Company Obligation) (Amendment) Order 2025 on 1 August 2025, a 'rural area' means an area classified as rural in the "[2011 rural-urban classification of output areas](#)" document for properties in England and Wales, and in the "[Scottish Government Urban Rural Classification 2016](#)" document for properties in Scotland.
- 3.67. On or after the coming into force date of the Electricity and Gas (Energy Company Obligation) (Amendment) Order 2025 on 1 August 2025, a 'rural area'

means an area classified as rural in the "[2021 Rural Urban Classification](#)" document for properties in England and Wales, and in the "[Scottish Government Urban Rural Classification 2022](#)" document for properties in Scotland.

3.68. See 5.104 for further information on off-gas premises.

How to Determine Rural Premises

- 3.69. It is a requirement that only the data sets in scheme legislation are used to determine whether a property is rural.¹⁷ Suppliers may use the [ONS Postcode Directory](#) or [ONS Postcode Directory look-up tool](#) to ensure measures are installed in eligible rural areas. Within the look-up tool, suppliers can look up a postcode and find the value in the pop-up window under the heading 'RUC21IND'. Alternatively, suppliers may download the correct data set(s), find the relevant postcode and read off the corresponding value in the 'RUC21IND' column.
- 3.70. After 29 July 2025, (the date the Electricity and Gas (Energy Company Obligation) (Amendment) Order 2025 became law), areas in England and Wales with Rural Urban Indicator codes RLN1, RSN1, RSF1, RLF1 are considered rural.¹⁸
- 3.71. The Scottish Government's Urban Rural Classification is available in multiple forms. It is important to be aware that ONS use the 6-fold form for the 2022 Classification (this is included within 'RUC21IND' in the ONS Postcode Directory).¹⁹ When using the 6-fold form classes 5 and 6 indicate rural areas.
- 3.72. [The Scottish Statistics Postcode Lookup 2025/2](#) contains the 2022 Urban Rural Classification in both 6-fold and 8-fold forms in the columns labelled 'UrbanRural8Fold2022Code' and 'UrbanRural6Fold2022Code'. If using the 8-fold

¹⁷ From 29 July 2025, the coming into force date of the amendment legislation, a rural area in England and Wales is an area classified as rural in the "2021 rural-urban classification output areas" published by the Office for National Statistics in March 2025; and in Scotland an area classified as rural in the "Scottish Government Urban Renewal Classification 2022" published by the Scottish Government in December 2024.

¹⁸ Prior to 29 July 2025 areas in Wales with Rural Urban Indicator codes D1, D2, E1, E2, F1 and F2 were considered rural, using the 2011 rural urban classification of output areas published by ONS in August 2013. These are available in the ONS Postcode Directory in the column labelled 'RUC11IND'.

¹⁹ Prior to 29 July 2025 rural areas in Scotland were identified using the [Scottish Government Urban Rural Classification 2016 published by the Scottish Government in March 2018](#). To note for clarity, these are not available in the ONS Postcode Directory in the column labelled 'RUC11IND'.

form classes 6, 7 and 8 are considered rural. This is based on the classifications in the [Scottish Government Urban Rural Classification 2022](#).

Private Rented Sector

- 3.73. [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. Under the Private Rented Sector Minimum Standard Regulations, landlords are obligated with certain requirements.
- 3.74. 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 have to meet the minimum requirement (MR) in order to receive a full project score (FPS).
- 3.75. 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 have to meet the minimum requirement (MR) in order to receive a full project score (FPS).
- 3.76. The package of measures that PRS properties receive must include at least one of the following measures, in addition to further ECO measures:
- Solid wall insulation (SWI),
 - First time central heating (FTCH),
 - District heating connection (DHC),
 - Renewable heating (RH), except where it replaces a renewable heating measure of the same kind at the domestic premises.
- 3.77. Heating measures installed in PRS properties are required to meet the minimum insulation requirement. See minimum insulation pre-conditions from 5.58 for more information.
- 3.78. Heating measures shall be installed in accordance with the heating measures requirements. See the section on Heating Measures from 5.95 onwards for further information.

- 3.79. 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, or
 - Where the home is receiving one of the measures listed in paragraph 3.76, the home may receive a boiler or electric storage heater upgrade provided this is not replacing an existing boiler, central heating system or electric storage heater (e.g. a PRS home currently heated by electric room heaters may receive electric storage heater upgrade alongside SWI).
- 3.80. The replacement of inefficient heating systems in PRS homes can happen in the following circumstances:
- Electric Storage Heaters can be replaced if they are being replaced by FTCH under the ECO4 FTCH rules.
 - 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.
- 3.81. 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.
- 3.82. This can be evidenced by the 'Landlord Permission and Blended Funding Declaration' which can be found in the [ECO4 Eligibility Requirements Form](#).
- 3.83. Suppliers may choose to have further evidence requirements in relation to PRS properties beyond this.

Social Housing

- 3.84. 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.

- 3.85. Delivery to E-G rated social housing premises is limited to the following measures:
- Insulation measures (IM)
 - First time central heating (FTCH)
 - Renewable heating (RH) except where it replaces a renewable heating measure of the same kind at the domestic premises
 - District heating connection (DHC)
 - Innovation measures (IMs).
- 3.86. Delivery to D rated social housing is limited to IMs and, where the IM is a heating measure, insulation measures installed to meet the minimum insulation 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 receive other measures. Where the IM is a heating measure, relevant insulation measures needed to meet the MIR must also be installed.²⁰
- 3.87. 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 5.95 for further information.
- 3.88. 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

- 3.89. 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.²¹
- 3.90. 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.²²

²⁰ See Schedule 2 Article 15(b)(ii) of the [ECO4 Order](#)

²¹ See Schedule 2 paragraph 3(a) of the [ECO4 Order](#)

²² See Schedule 2 paragraph 3(b) of the [ECO4 Order](#)

- 3.91. Where premises are not registered, it can be considered as social housing where there is proof that a social landlord lets the property.²³
- 3.92. Information on how to identify social landlords can be found in Appendix 2 - Premises and Occupant Requirements.
- 3.93. The supplier must collect a declaration on the ECO4 & GBIS Eligibility Requirements and Pre-Installation 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

- 3.94. 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 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.
- 3.95. This declaration should be made available to us on request.
- 3.96. 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 3.73 for more information.
- 3.97. For more information on how market rate is determined for different areas see Appendix 2 – Premises and Occupant Requirements.

In-Fill

- 3.98. In-fill is a mechanism which enables homes which would not normally be eligible for ECO to receive certain measures under the scheme, where eligible homes in the same building or street are also receiving the same measure. It is intended to make it easier to install measures such as external wall insulation, which may only be viable if all homes in a given location are treated at the same time.

²³ 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](#).

- 3.99. Under ECO4, there are two different categories for in-fill depending on whether the properties are flats or houses.
- 3.100. The ECO4 Order²⁴ defines a 'flat' as:
- in respect of domestic premises in England and Wales, has the same meaning as in the Building Regulations 2010.
 - 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.
- 3.101. The ECO4 Order considers a house "a domestic premises that is not a flat" where 'flat' has the meaning as above under 3.100.²⁵
- 3.102. 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.
- 3.103. For in-fill measures, except for certain DHC measures, a pre-retrofit RdSAP assessment needs to be performed before the installation of the in-fill measure in order to calculate the SAP rating of the premises. For an in-fill project that only contains a DHC measure, other than a DHC measure that involves the installation of a ground source heat pump at a domestic premises, which draws heat from a shared ground loop supplying multiple premises, 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.
- 3.104. 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

²⁴ See Article 22(3) of the [ECO4 Order](#)

²⁵ See Article 23(4) of the [ECO4 Order](#)

associated ECO4 measure receives a Partial Project Score (PPS) it can support an in-fill measure.

- 3.105. Each ECO4 project may only support one in-fill measure, even if that project contains multiple measure types that could theoretically support an in-fill measure.
- 3.106. 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 flats and in-fill houses.
- 3.107. 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.
- 3.108. 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 Supplier Administration Guidance](#) for further information on inter- and intra-supplier transfers.
- 3.109. 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, 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

- 3.110. 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.

3.111. 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.

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

- Solid wall insulation
- District heating connection
- Cavity wall insulation.

3.113. The in-fill measure has to be linked to the same kind of measure in the associated ECO4 project, i.e. 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.

3.114. 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, i.e. band D-G for owner occupied houses, E-G social housing, D social housing for innovation measures and E-G for private rented sector.

3.115. 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 4.63 for Project Completion Timings.

Figure 4: In-Fill Flats



In-Fill Houses

3.116. 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.

- 3.117. 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, i.e. band D-G for owner occupied houses, E-G social housing, D social housing for innovation measures and E-G for private rented sector.
- 3.118. The eligible measures for in-fill houses are limited to:
- Solid wall insulation
 - District heating connection.
- 3.119. The in-fill measure must be linked to the same measure in the associated ECO4 projects, i.e. if the in-fill project is a solid wall insulation, it needs to be linked to **three** solid wall insulation measures, each in a different ECO4 project.
- 3.120. 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.
- 3.121. 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 4.63 for project completion timings.
- 3.122. 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

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

- a member of the HTHG, or
- a household declared by a relevant authority²⁶ as meeting one of the four ECO4 Flex referral routes (see 3.178).

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

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

ECO-Eligible Benefits

3.126. 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

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

- The measure is being installed at private domestic premises where a HTHG member lives, and appropriate evidence is available to demonstrate this.
- Benefit letters are from official departments or organisations (See Appendix 2 – Premises and Occupant Requirements for example benefit letters).
- The relevant information provided on the forms is clearly visible.
- 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.

²⁶ See Article 2 of the [ECO4 Order](#) for the definition of a local authority

- 3.128. 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.
- 3.129. All documentation proving HTHG eligibility and DWP/EST data-matching must be dated within 12 months before install.
- 3.130. For suppliers to demonstrate that the occupant requirement is met, they must be able to provide evidence of the following:
- A person's membership of the HTHG, and
 - That the person is an occupant of the premises.
- 3.131. 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 satisfy 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)

- 3.132. 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.

- 3.133. 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.
- 3.134. WTC and CTC ceased to exist on 5 April 2025. However, due to the 12 month rule, receipt of WTC or CTC will remain legitimate evidence until scheme end.

Evidencing HTHG Eligibility

- 3.135. We do not require full 'proof of benefit' letters. To evidence HTHG eligibility, we only need the page(s) that show:
- Official letter headed paper from HMRC, DWP / Jobcentre Plus, HM Government, or the Pension Service,
 - 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
 - Relevant date (either of the letter, start or end of the benefit)

Matched WHD Core Group Notice

- 3.136. Matched WHD Core Group notices are no longer permissible evidence of a consumer's HTHG membership. Similarly, an energy bill showing that the WHD rebate has been applied is not acceptable evidence.

DWP Data Matching

- 3.137. There are two processes for cross checking a person's benefit status to confirm HTHG status: Energy Saving Trust (EST) data matching and ECO Eligible Referral (EER) data matching. Both routes work with DWP to check whether individuals are in receipt of specific benefits.
- 3.138. The EST route involves a third-party intermediary body and can be utilised by all supply chain organisations, whereas the EER route is direct with DWP and can only be utilised by suppliers. Both processes rely on different reference numbers as described below.
- 3.139. If DWP confirms, through either route, that a person is in receipt of a HTHG benefit, this can be relied upon for ECO4 eligibility.

EST Data Matching

- 3.140. 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.
- 3.141. 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 EST when notifying the project. This is the 'DWP reference number' in the project notification template. This reference number will also be accepted where it is preceded by the three digits identifying the service user.
- 3.142. The Energy Saving Trust refer the following categories of people to suppliers:
- **Matched** – a person who is confirmed by DWP as receiving a HTHG benefit
 - **Unmatched** – a person who is confirmed by DWP as not receiving a HTHG benefit at the time of the search
 - **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 (i.e. hidden spacing or a spelling mistake).
- 3.143. We will conduct these checks during monthly project processing. All documents showing HTHG eligibility must be dated no more than 12 months before the day on which the measure is completed, and the evidence cannot be dated after the day of completed installation. Where the 'matched' DWP reference number is dated more than 12 months before the date of completed installation of the first measure in the project, 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 a HTHG benefit and was residing at the address at the time of installation.
- 3.144. An 'unmatched' or 'unverified' referral does not confirm that a person is in receipt of a HTHG benefit, therefore it 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 project. 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. Suppliers should take particular care reviewing letters provided for benefits included in matching, and they should also ensure that any additional evidence that demonstrates this is made available on request.

- 3.145. Where suppliers initially notify unmatched or unverified projects on the ECO register, these projects will need to be either amended manually by the supplier, or the supplier will need to renotify the project on the ECO Register with the 'matched' DWP reference number or use another route to evidence HTHG eligibility.
- 3.146. 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)

- 3.147. Under ECO4, suppliers will be able to use the ECO Eligible Referral (EER) route to identify eligible households. This route allows suppliers to identify whether their customers are in receipt of HTHG benefits through a direct check with DWP.
- 3.148. In order for the customer to be eligible, the evidence provided through this check must be dated within 12 months prior to the installation of the measure. See section Evidencing Eligibility for more information.
- 3.149. If a supplier wishes to rely on a DWP confirmation, it must include the EER URN when notifying the project 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

- 3.150. To qualify as a member of the HTHG, a person who claims Child Benefit must have a gross annual income at or below the relevant threshold in Table 3. The threshold differs depending on whether the person making the claim is a single claimant or a member of a couple.
- 3.151. The thresholds apply to the gross annual income of the single claimant or couple from all sources.

Table 3: Child Benefit Income Thresholds

	1 child or qualifying young person	2 children or qualifying young person(s)	3 children or qualifying young person(s)	4 + children or qualifying young person(s)
Single claimant	£19,900	£24,800	£29,600	£34,500
Member of a couple	£27,500	£32,300	£37,200	£42,000

3.152. “Child” refers to a person under the age of 16. “Qualifying young persons” refers to a person under the age of 20 in approved education or training.

3.153. A “couple” refers to:

- Two people who are married or in a civil partnership, and are members of the same household; or
- Two people who are not married or in a civil partnership but are living together as a couple.

3.154. “Single claimant” refers to a person who is not a member of a couple.

3.155. Where a claimant is also in receipt of one of the other HTHG qualifying benefits listed in Table 2, we recommend this route should be pursued instead of Child Benefit. Verifying eligibility through the Child Benefit route should only be used when other routes of establishing eligibility are not available.

3.156. To verify HTHG membership using Child Benefit, the following must be evidenced:

- That the person claims Child Benefit
- The number of children or qualifying young persons in the household
- Couple status
- The claimant’s gross annual income if single or couple’s gross annual income if part of a couple

3.157. To evidence the receipt of Child Benefit and the number of children within a household, suitable evidence includes:

- Child benefit letters
- Confirmation documents downloaded from the [Government Gateway](#)

3.158. To evidence status as a single parent, suitable evidence includes:

- Council tax letters with a single occupancy discount
- Tax Credit Award Notices showing payment as a single person

3.159. To evidence status as a member of a couple, suitable evidence includes:

- Marriage / civil partnership certificate
- A tenancy agreement
- A combination of the following which demonstrate matching addresses for the recipients:
 - Utility bills
 - Benefit letters
 - Financial statements
 - HMRC letters
 - DWP letters
 - GP or Dental registration letters

3.160. To evidence household income, we make the following interpretations of income:
Gross annual income is all money that the members of a household regularly²⁷ earn and receive before taxes and other deductions, where applicable.

3.161. This includes the following list of regular income sources, such as:

- Earnings from employment and self-employment (including 'furlough')
- Pension payments, including State Pension
- Interest earned on savings
- Capital gains from shares
- Dividend payments
- Benefits in Kind (employer benefits)
- Income from owned and rented properties
- [Taxable and non-taxable benefit payments](#) (inc. Child Benefit)

²⁷ Regular earnings refer to payments received on a recurring basis i.e., weekly, monthly, annually.

3.162. This does not include sources of irregular income, such as

- Inheritance payments
- Prizes received from premium bonds
- Gifted payments (e.g. payments from family members)
- 25% tax-free pension lump sum payments
- Student loans or grants
- Transfer of money between one's own personal accounts
- Casual or miscellaneous payments amounting to a total of less than £1,000 per year (e.g. sale of personal items or chattel)

3.163. All relevant income sources included in a household's gross annual income should be evidenced. Suitable evidence types for this include:

- Tax returns, including self-assessment tax returns
- Payslips
- Pension statements
- Benefit statements
- P60 or P45 documentation
- P11D documentation
- L17 Statement of Earnings
- SA302 letter
- A contract of employment which displays an annual salary figure

3.164. Confirmation should also be provided for the number of adult residents at the address. Suitable evidence types for this include:

- Council tax letters
- Tenancy agreements
- Mortgage statements
- Electoral register statements
- A combination of the following which demonstrate matching addresses for recipients:
 - Utility bills
 - Benefit letters
 - Financial statements
 - HMRC or DWP letters

- GP or Dental registration letters

- 3.165. These lists are not exhaustive and other evidence types can be used if the sources listed above are unavailable.
- 3.166. To ensure compliance standards are met, we recommend that the evidence provided is a combination of different types of documents to corroborate a household's gross annual income, where possible.
- 3.167. All documentation should be dated no more than 12 months before the day on which the Declaration is signed. The most recently available version of each document should be used, where possible.
- 3.168. If no evidence is available from this period, we recommend using the most recent evidence available from before this time period.
- 3.169. A self-declaration given by a member of the household cannot be relied upon as standalone evidence of gross annual income

ECO4 Flex

- 3.170. The Flexible Eligibility (Flex) component of ECO4 allows Local Authorities (LAs) to identify and refer consumers that live in private tenure homes and are considered low-income, fuel poor, or vulnerable to the effects of living in a cold home.
- 3.171. Suppliers can deliver up to 50% of their obligation through Flex, though participation in Flex is optional for both suppliers and LAs.
- 3.172. Measures delivered through Flex must be delivered to private tenure homes (i.e. owner-occupied or private rented sector households). Domestic premises owned or let by a social landlord are not eligible for Flex.²⁸
- 3.173. All LAs in England, Wales or Scotland are able to make referrals through Flex. Devolved Administrations (the Welsh and Scottish Governments) are also able to refer households to suppliers.

²⁸ For more information on the definition of a social landlord, see Schedule 2 of the [ECO4 Order](#).

Statement of Intent (SoI)

- 3.174. LAs notify the public of their participation in Flex by publishing a Statement of Intent (SoI) on their website. This will indicate which schemes (ECO4 and/or GBIS) an LA participates in, and the eligibility routes and proxies they use.
- 3.175. An LA must publish an SoI before they can make declarations to suppliers.
- 3.176. An LA can delegate authority to another LA to provide declarations for consumers in its area. This will be stated in the SoI of the LA to whom authority has been delegated.

Eligibility

- 3.177. Measures delivered through Flex must be delivered to private domestic premises (owner-occupied or private rented sector households). Domestic premises let by a social landlord are not eligible for Flex.²⁹
- 3.178. Similar to the standard HTHG eligibility criteria for ECO4, Flex eligibility consists of two elements:
- **Property eligibility:** This refers to whether a property meets the route- and tenure-specific SAP band eligibility criteria.
 - **Household eligibility:** This refers to whether a household meets the eligibility criteria of one of the four Flex routes:
 - Route 1: Household Income
 - Route 2: Proxy Targeting
 - Route 3: Medical Referrals
 - Route 4: Bespoke Targeting
- 3.179. An LA can use any of these routes to refer eligible consumers. Each route must be used independently.
- 3.180. Where an LA refers a member of a household, an LA officer will collect evidence to demonstrate eligibility.
- 3.181. Though LAs are expected to retain this evidence, suppliers are responsible for ensuring that they have access to this evidence, and that they collect and retain

²⁹ For more information on the definition of a social landlord, see Schedule 2 of the [ECO4 Order](#).

any declarations. We may request this evidence from suppliers where issues arise with projects or measures, for example, due to a mismatch or during audits.

3.182. We expect evidence of eligibility to be retained for up to 3 years following the end of the scheme, as per the wider data retention policies in ECO4 and Great British Insulation Scheme.³⁰

3.183. Where suppliers are not able to provide sufficient evidence when requested, we may reject the project or measure.

Route 1: Household Income

3.184. Households with a gross annual income of **less than £31,000** are eligible via Flex Route 1. This threshold applies irrespective of the property size, composition, or regional location.

3.185. This is reached by combining the gross annual income of all adults aged 18 or older living in the home on a permanent basis. This includes lodgers and relatives.

3.186. For further information on how to evidence household income, see 3.160 to 3.169.

Route 2: Proxy Targeting

3.187. Households that meet **at least two** of the proxies listed below are eligible via Flex Route 2.

- **Proxy 1:** Refers to consumers living in a Lower Layer Super Output Area (LSOA) within Indices of Multiple Deprivation.
- **Proxy 2:** Refers to consumers that are entitled to a Council Tax reduction on the grounds of low-income.
- **Proxy 3:** Refers to consumers that are considered to be vulnerable to the cold under [the National Institute for Health and Care Excellence \(NICE\) Guidance NG6: Recommendation 2](#). This must be for a reason other than their low-income.

³⁰ Further information can be found in the [ECO](#) and [GBIS](#) Privacy Notices.

- **Proxy 4:** Refers to a household with a child that is eligible for free school meals on the grounds of low income.³¹
- **Proxy 5:** Refers to a consumer that is supported by a scheme established by the LA, which finds them to be living on low-income and vulnerable to the cold under [NICE Guideline NG6](#).
- **Proxy 6:** Refers to a consumer who has been identified as struggling to pay their gas or electricity bills, and has been referred to the LA by either their energy supplier, [Citizens Advice](#), or [Citizens Advice Scotland](#).
- **Proxy 7:** Refers to consumers identified through energy supplier debt data.

3.188. The following proxy combinations **cannot** be used:

- Proxy 1 with Proxy 3.
- Proxy 7 with Proxy 5 or 6.

3.189. For more information on evidencing for each of these routes, see Section 7 of the [GBIS and ECO4 Local Authority Administration Guidance](#).

Supplier Flex

3.190. Suppliers can refer customers, independent of LAs, based on their own debt data via Route 2, Proxy 7. Suppliers will also need to evidence that the customer's household meets one of Route 2, Proxy 1 to 4. Proxies 5 and 6 cannot be used.

3.191. An example of evidence collection via Supplier Flex is given in Table 4 below.

Table 4: Example of evidence collection via Supplier Flex

Actor	Supplier Flex Eligibility	Evidence
Supplier	A pre-payment meter household has been self-disconnected from its provider for six weeks. This household also receives Council Tax reductions based on low-income.	Supplier notifies the referral via their Project Notification.

³¹ The child must be eligible for free school meals under [Section 512ZB\(4\) of the Education Act 1996](#) or [Section 53 of the Education \(Scotland\) Act 1980](#). Further information can be found at [GOV.UK](#).

Route 3: Medical Referrals

3.192. Households with a person suffering from a severe or long-term health condition, which is adversely affected by living in a cold home, are eligible via Flex Route 3.

3.193. The person's severe or long-term health condition must be due to:

- A cardiovascular condition
- A respiratory disease
- Limited mobility
- Immunosuppression

3.194. For more information on evidencing for this route, see Section 8 of the [GBIS and ECO4 Local Authority Administration Guidance](#).

Route 4: Bespoke Targeting

3.195. Route 4 provides the opportunity for LAs to propose new methods for identifying low-income and vulnerable consumers. This is done via submission of an application to DESNZ.

3.196. See the [ECO4 Flexible Route 4 Bespoke Targeting Guidance](#) further information.

SAP Band Eligibility

3.197. The route- and tenure-specific SAP band eligibility criteria for ECO4 Flex are listed within Table 5 below.

Table 5: Overview of Eligible SAP bands and Tenure Types for ECO4 Flex

Route	Eligible SAP Bands	Eligible Tenure Type
Route 1, 3 & 4	D to G	Owner-occupied
Route 1, 3 & 4	E to G	Private rented sector (PRS)
Route 2	E to G	Owner-occupied
Route 2	E to G	Private rented sector (PRS)

Declarations

- 3.198. LAs issue a '[declaration](#)' for any consumers they wish to refer for support under Flex. Declarations are sent by an LA to a supplier, installer, or managing agent (as appropriate).
- 3.199. A declaration confirms that a consumer, or multiple consumers, are considered eligible under one of the four referral routes, and that evidence has been collected to demonstrate this.
- 3.200. There is no requirement for an LA to reassess a consumer's eligibility once a declaration has been issued, so long as the project starts within one year of the declaration being issued, and this was done so under a valid SoI.
- 3.201. The declaration must be issued within the 12-month period preceding the day on which the project or measure is complete.
- 3.202. Multiple consumers can be referred on a single declaration, provided each individual referral has its own Unique Reference Number (URN).

Declaration Notifications

- 3.203. The LA will send a Declaration Notification to us to notify us that the declaration has been shared with the supplier.
- 3.204. We recommend that LAs submit declaration notifications to us before the installation of measures is complete, though they do not need to be processed by us by that date.

Supplier Notifications

- 3.205. Referrals via Flex can be notified using the [ECO Project and Measure Notification Templates](#).
- 3.206. The following Project Notification fields outline the Flex eligibility type and route that is relevant for the household:
- Eligibility Type
 - "LA Declaration" indicates referral via an LA or DA
 - "Supplier Evidence" indicates referral via Supplier Flex (see 3.208)
 - Verification Method

- “PPM” / “Non-PPM” indicates the type of debt data used for Supplier Flex
- “Flex Route 4” indicates referral via a successful Route 4 methodology
- ECO Flex Referral Route
- Route 4 Application Number
- LA Declaration Reference Number
- Date of Householder Eligibility

Mismatches

3.207. If data submitted to us within Supplier Project Notifications and LA Declaration Notifications do not match, we will notify the supplier of the error to enable correction.

3.208. If the mismatch is not remediated, we may reject the project or measure.

3.209. Below, Table 6 presents some example causes of mismatches and the remediation steps.

Table 6: Examples of declaration mismatches and remediation steps

Error	Remediation steps
Supplier notifies a project under Flex, but the project notification details do not match the Declaration Notification URN or address.	A solution may be that the LA notifies the supplier that the declaration notification has not been submitted. The project notification could then be held by us until the next processing round to give time for Declaration Notification to be submitted and flagged to supplier.
Project uses the same URN as a previous project.	Supplier would need to reassess their Project Notification to ensure that each measure has been installed with a separate URN.

4. Projects

Multiple Measure Approach

- 4.1. This section focuses 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) 2035:2023 (see 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'.³² 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 4.36) 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](#) for more details on the notification process.

³² See Article 2 of the [ECO4 Order](#)

- 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 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:
- Measures in completed projects that do not meet the minimum requirement, and where no exemption applies.
 - 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 2035:2023.³³
- 4.9. PAS 2035:2023 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 2035:2023 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 2030:2023 standard as well as from the Microgeneration Certification Scheme (MCS).
- 4.12. PAS 2030:2023 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

³³ <https://shop.bsigroup.com/products/retrofitting-dwellings-for-improved-energy-efficiency-specification-and-guidance-3/standard>

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

- 4.13. In September 2023, the British Standards Institution (BSI) published updated standards, the PAS 2035/2030:2023 standards. An 18-month transition was agreed between DESNZ, UKAS, BSI and TrustMark to allow time for industry to adopt the changes in PAS 2035/2030:2023. This transition period ended on 30th March 2025, at which point BSI withdrew PAS 2035/2030:2019. During this transition period, either set of standards was eligible. After the withdrawal of PAS 2035/2030:2019, only PAS 2035/2030:2023 is valid. DESNZ and TrustMark published details on the transitional arrangements, including how projects started under PAS2035:2019 can be converted to PAS2035:2023.³⁴
- 4.14. 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.³⁵ MCS certified installers are required to follow standards that ensure good performance and that installers are technically safe and competent.
- 4.15. ECO4 projects which involve one or more measures referred to in PAS 2035:2023 should follow the domestic retrofit process required by PAS 2035:2023. This includes but is not limited to a pre-retrofit assessment, development of an improvement option evaluation and medium-term improvement plan, 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.
- 4.16. 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).

³⁴ [5-march-2025-letter-desnz_transition.pdf](#)

³⁵ <https://mcscertified.com/about-us/>

- 4.17. 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 2035:2023. They are responsible for overseeing the project from inception to completion, i.e. 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.
- 4.18. We anticipate Retrofit Coordinators working on ECO projects will be aware of ECO4 rules and will manage the projects in accordance with these.
- 4.19. Compliance with PAS is evidenced through the TrustMark Quality Assurance Framework. Any measure covered by PAS, and any project containing such measures (including MCS), should be installed by or under the responsibility of a TrustMark registered installer and have a relevant certificate of lodgement. In circumstances where non-compliance with any of the TrustMark requirements is detected, measures or projects may be rejected.
- 4.20. Where an ECO4 project consists of a District Heating Connection (DHC) only (except for a shared ground loop GSHP), or a DHC and one or more novel data light measures (DLM) only (except for a shared ground loop GSHP), its starting SAP rating should be evidenced through a full SAP assessment that must be lodged as an EPC. Either SAP 2012 or SAP 10 may be used for these, however any post-retrofit assessment must always use the same version as the pre-retrofit assessment.
- 4.21. Where an ECO4 project consists only of novel DLM, its starting SAP rating should be evidenced through an RdSAP assessment that must then be lodged as an EPC.
- 4.22. Where a project includes DLM or IM that are not listed in PAS 2035:2023, these may be classed as 'Other EEMs, including innovations' for the purposes of PAS 2035:2023. These projects will need to follow the Path C domestic retrofit process.
- 4.23. Where suppliers have a project consisting only of a DHC measure (except for a shared ground loop GSHP), DLMs or IMs that are not installed in accordance with PAS 2030:2023 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.

- 4.24. Non-ECO energy efficiency measures (i.e. those that are not listed in the ECO4 Measure Table) that increase the SAP rating of the property must not be installed during an ECO project. Where a non-ECO measure which increases the SAP rating of the premises is installed between the pre and post retrofit assessments, the project is not eligible for a Full Project Score.

RdSAP 10 Update

- 4.25. A new version of RdSAP, RdSAP 10, was introduced on 15 June 2025 and replaced RdSAP 2012. The ECO4 Order has been amended to account for this and as a result, different versions of RdSAP must be used to perform retrofit assessments for projects depending on the date of the assessment.
- 4.26. Before 15 June 2025, RdSAP 2012 must be used to perform all RdSAP retrofit assessments.
- 4.27. From 15 June 2025 to 29 January 2026, either RdSAP 2012 or RdSAP 10 may be used to perform RdSAP pre-retrofit and post-retrofit assessments.
- 4.28. New RdSAP pre-retrofit assessments performed on or after 29 January 2026 must use RdSAP 10.
- 4.29. RdSAP post-retrofit assessments must always use the same RdSAP version as the pre-retrofit assessment. If the pre-retrofit assessment was performed using RdSAP 2012, then the post-retrofit assessment must also be performed using RdSAP 2012 regardless of when this post-retrofit assessment is completed. This also applies where a pre-retrofit RdSAP assessment was performed using RdSAP 2012 and the post-retrofit assessment has to be performed again for compliance reasons.
- 4.30. If a pre-retrofit assessment completed using RdSAP 2012 must be performed again on or after 29 January 2026 it must be performed again using RdSAP 10 (and any post-retrofit assessment would have to be performed using RdSAP 10 to match).
- 4.31. The above RdSAP version requirements do not apply to any RdSAP assessment lodged as an EPC, as described in 4.21. These projects must use RdSAP 10 from 15 June 2025.

Consumer Contributions

- 4.32. From May 2024, during the collection of customer data, operatives are required to input the financial amount that the consumer has contributed towards the installation of any ECO4 measure.
- 4.33. This information should be recorded in the 'Customer Contribution' field within the TrustMark Retrofit Portal lodgement process and care should be taken to ensure that the figure is accurate.
- 4.34. The Department of Energy Security and Net Zero and/or Ofgem may request evidence that the amount recorded on submission is correct, such as evidence directly from the customer, an invoice, bank statement or other documentation showing the contribution transaction.
- 4.35. The data that is collected in this field may be shared with the Department of Energy Security and Net Zero and/or Ofgem where it will be subject to analysis.

Minimum Requirement

- 4.36. In order to be granted an 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.
- 4.37. 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.
- 4.38. 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 from 4.40. 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.
- 4.39. Chapter 6: Scores, provides more detail on scoring measures and projects in ECO4.

Exemptions and Consumer Circumstances

- 4.40. 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 4.41 for more details.
- 4.41. A project may be awarded an 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.
- 4.42. 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.
- 4.43. Additionally, a project may be awarded FPS without meeting the MR where the project ended early due to unexpected circumstances impacting the consumer. This covers situations such as a death in the household or change in occupancy and are referred to collectively as consumer 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.
- 4.44. 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 7.

Table 7: Exemption Categories and Consumer Circumstances

Exemption category	Evidence Method
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 – e.g. 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	PAS retrofit assessment, improvement options evaluation and medium-term improvement plan for the property

a wall type that is not suitable for cavity or solid wall insulation)	
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

- 4.45. Suppliers should notify exemptions to Ofgem through the [measure notification template](#). 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.
- 4.46. 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.
- 4.47. 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.
- 4.48. 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 HHCR0 after any trade of obligations). Properties above this cap will receive PPS even where an exemption applies. Exemptions from the off-gas hierarchy or insulation requirements are not subject to this cap, only exemptions from the MR.

- 4.49. 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 7. 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](#).
- 4.50. See 7.1 for more information on notification of projects and the completed project notification.

Projects with Non-Compliant and Rejected Measures

- 4.51. 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.
- 4.52. 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.
- 4.53. 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.
- 4.54. Should the MR of the project be dependent on a non-compliant 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

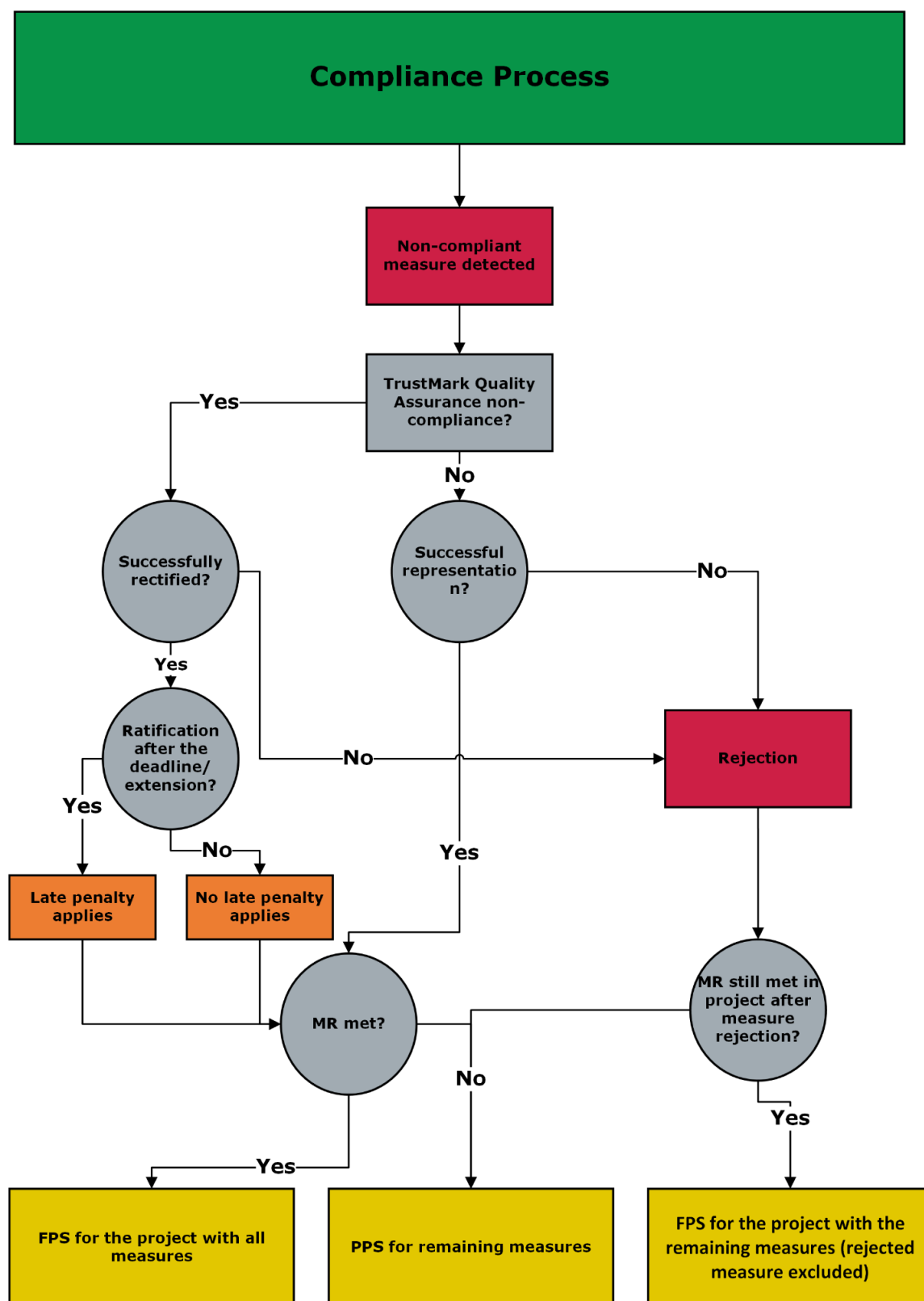
is subject to the late penalty if the rectification is completed after the project deadline or an extension to that deadline. The rectification will be monitored by Trustmark.

- not rectified successfully, the measure may 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.
- 4.55. For measures lodged with TrustMark, where they are found to be non-compliant with TrustMark standards, we expect suppliers to engage with the supply chain to encourage remediation. All measures successfully lodged with TrustMark will be awarded a TrustMark certificate of lodgement. We will refer measures to our rejections process where the TrustMark certificate of lodgement has been voided.
- 4.56. Where a supplier submits representations for a measure facing rejection because the certificate of lodgement has been voided, these will be sent to TrustMark for their feedback, and they will determine if the certificate is to be re-instated. We will then make a decision whether to reject. If the representations include a claim that the certificate of lodgement has been voided in error, we expect a detailed explanation of how the non-compliance was resolved prior to the minded to notice.
- 4.57. 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.
- 4.58. Where an exemption applies to a project (see 4.41) 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.
- 4.59. 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.

- 4.60. A post-retrofit RdSAP assessment must always be performed using the same RdSAP version as the pre-retrofit RdSAP assessment, even where the post-retrofit assessment is re-determined for compliance reasons. Depending on the timing, a pre-retrofit assessment performed using RdSAP 2012 may need to be updated to RdSAP 10. See 4.25-4.31 for more details.
- 4.61. 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.
- 4.62. The flowchart below (*Figure 6*) shows the possible scenarios in the compliance process where a measure is found to be non-compliant, and the respective scores.

Figure 6: Scenarios for Projects with Non-Compliant Measures



Project Completion Timings

- 4.63. 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.
- 4.64. 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.
- 4.65. 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.
- 4.66. 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 In-Fill section for more details on in-fill measures.
- 4.67. 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.
- 4.68. 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.
- 4.69. 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.
- 4.70. 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.

- 4.71. Please see our [ECO4 Guidance: Supplier Administration](#) for more detail on submitting an extensions request.
- 4.72. 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.

Building Fabric Repairs

- 4.73. 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.
- 4.74. 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.
- 4.75. 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 this. Information on how to claim the BFR increase, as well as other uplifts and increases can be found in the section Uplifts and Increases.
- 4.76. 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.
- 4.77. BFR homes must be evidenced using the PAS 2035:2023 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".³⁶ This pre-installation 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.
- 4.78. Although some Building Fabric Repair actions may be considered to be outside of the PAS project itself, they are considered a part of the ECO4 Project and BFR

³⁶ See PAS 2035:2023, Chapter 7

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 i.e. those consisting of DHC, or data light measures only are not eligible to receive the BFR increase.

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

- 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 2035:2023, paragraph 7.3.2; and
- Are reported as "defects that need to be repaired before any retrofit work can proceed", as required by PAS 2035:2023, paragraph 7.4.2.

4.80. Table 8 sets out a non-exhaustive list of items which are and are not covered within the scope of the BFR increase.

Table 8: 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

4.81. 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 defective cavity or loft insulation may be covered under the BFR

increase. In these cases, new insulation installed to replace faulty insulation may be an eligible ECO measure.

- 4.82. 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.
- 4.83. 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 ECO4. For example, if the failure of the measure is due to poor building maintenance, which has had a detrimental effect on the measure, then the BFR cannot be claimed under these circumstances.
- 4.84. 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.
- 4.85. 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.
- 4.86. 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 situations listed below. In all cases, evidence should be provided to support the reason for removal, for example a C1 monitoring survey, pre-installation building inspection (PIBI), an inspection report, or expired/no guarantee documentation evidence. Additional evidence may be required in specific cases.
- 4.87. Whilst we await industry to develop a standard methodology and quality assurance framework, there is no set list of qualifications for recommending insulation. However, we recognise the IAA certificate scheme or anyone with NVQ level 2 in Cavity Wall Insulation Surveying and Extraction as 'suitably qualified'.

- Where the extraction is recommended in a report by a chartered surveyor as 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, who may be qualified to the IAA Cavity Extraction & Remediation Certification Scheme or equivalent, should be able to perform this function. 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.
- 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.
- 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.
- 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.³⁷

- 4.88. In line with the [government response](#), 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.
- 4.89. In these circumstances, a Chartered Surveyor with the relevant qualifications must provide appropriate reasoning for removal and replacement of the defective insulation, including:³⁸
- Detailed reasons for why the insulation has to be removed;
 - Appropriate evidence that the insulation is directly causing the relevant problems for the premises; and
 - A recommendation for the best insulation for the premises (if any).
- 4.90. A Chartered Surveyor must have visited and inspected the property in person for the purposes of completing the survey to assess the condition of the insulation and related building fabric. 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.
- 4.91. 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.

³⁷ 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.

³⁸ A Chartered Surveyor accredited with a Royal Institution of Chartered Surveyors (RICS) membership.

- 4.92. All extractions carried out to support a scheme measure must follow PAS 2035 rules and be lodged with TrustMark, following their EPR conventions. Extractions must take place and appropriate evidence and photographs obtained before the pre-retrofit RdSAP assessment of the property is finalised.

Interaction With Funding from Other Schemes

- 4.93. Funding for measures delivered under ECO4 cannot be blended with other government schemes or grants. Any measures delivered to a property from an alternative scheme must be installed either before the project commences, or after the project is completed.
- 4.94. This requirement includes, but is not limited to, the following schemes:
- [Great British Insulation Scheme \(GBIS\)](#)
 - [Warm Home Discount \(WHD\)](#)
 - [Home Upgrade Scheme \(HUG\)](#)
 - [Boiler Upgrade Scheme \(BUS\)](#)
 - [Social Housing Decarbonisation Fund \(SHDF\)](#)
- 4.95. Consumers in receipt of payments from the following schemes may be eligible for ECO4 measures, however, payments received under these schemes may be impacted by the installation of new heating measures:
- [Domestic Renewable Heat Incentive \(DRHI\)](#)
 - [Feed-In Tariff \(FIT\)](#)

Warm Home Discount

- 4.96. 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.³⁹ 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.

³⁹ 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>

Home Upgrade Grant

- 4.97. 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.⁴⁰
- 4.98. HUG functions as a whole house upgrade scheme, similarly to ECO4. Funding cannot be blended within the ECO4 package of measures.
- 4.99. 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.
- 4.100. 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

- 4.101. 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.
- 4.102. Funding from BUS and ECO cannot be blended for the same measure or be included within an ECO4 project.⁴¹ Any measures in receipt of BUS are not eligible to be claimed for ECO4.
- 4.103. 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

⁴⁰ [Sustainable warmth: protecting vulnerable households in England - GOV.UK](#)

⁴¹ See Article 12(1)(e) of the [ECO4 Order](#)

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

- 4.104. 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.
- 4.105. Funding from ECO4 and the Social Housing Decarbonisation Fund cannot be blended for the same measure or be included within an ECO4 project.
- 4.106. 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.
- 4.107. 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. Table 9, below, gives an overview of all eligible measures under ECO4 and the related rules around tenure, starting SAP rating and other measures installed as part of the same project.
- 5.3. The full Measures table can be found as a subsidiary document to [this ECO4 Delivery Guidance publication page](#).

Table 9: ECO4 Measures Table

Tenure type	Owner Occupied	Private rented sector	Social housing	Social housing
Starting SAP band	SAP Band D to G	SAP Band E to G	SAP Band D	SAP Band E to G*
Boiler - Upgrade to a non-renewable heating system	✓		x	x
Boiler - Upgrade to a renewable heating system	✓	✓		
Boiler - Repair of a broken heating system	✓	x	x	x
Boiler - Replacement of a broken efficient heating system	✓	x		
First Time Central Heating	✓	✓		✓
ESH - Upgrade to an HHR electric storage heater in a home without solar PV	✓		x	
ESH - Upgrade to an HHR electric storage heater in a home with solar PV	✓	✓		
ESH - Repair or replacement of a broken efficient ESH	✓	x	x	x
Connection to a district heating system	✓	✓	x	✓
Heating controls - Compensation, P&RT, Smart thermostat, TRV, TTZC	✓			
Solar PV				
External / Hybrid / Internal insulation of a solid wall	✓	✓		✓

External / Hybrid / Internal wall insulation of a cavity wall	✓			✓
Cavity Wall Insulation - including partial fill and party wall insulation measures	✓			✓
Loft Insulation	✓			✓
Pitched Roof Insulation	✓			✓
Flat Roof Insulation	✓			✓
Room in Roof Insulation	✓			✓
Underfloor Insulation	✓			✓
Solid Floor Insulation	✓			✓
Draught Proofing	✓			✓
Window Glazing	✓			✓
Higher Performance External Doors	✓			✓

Figure 7: Key to Table 9

Colour	Description
	Boiler measures include the installation of renewables: Air to water ASHP, GSHP, Biomass Boiler and Fuel Cell mCHP.
	Measure eligible under certain conditions

*Properties in social E-G can receive IMs

Insulation Measures

- 5.4. This section details eligible insulation measures, measure-specific guidance, and requirements for insulation measures under ECO4. Park homes are not eligible for wall, roof/loft and floor insulation but instead can receive Park Home Insulation (PHI). See 5.45 and 5.46 for more information.

Cavity Wall Insulation (including Party Wall)

- 5.5. Insulation of a cavity wall includes the insulation of exterior facing cavity walls and party walls. Cavity walls can be treated with:
- Cavity wall insulation (CWI) installed between the leaves of a cavity wall;
 - External wall insulation (EWI) installed to the exterior face of the cavity wall; or
 - Internal wall insulation (IWI) installed to the interior face of the cavity wall.
- 5.6. 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 (see following subsection).
- 5.7. There are five 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. The fifth measure type, party cavity wall insulation (PWI_cavity), may be used where CWI is installed to a party wall of cavity construction.
- 5.8. 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
- 5.9. This information should be available on the product's test certificate. The selection should be carried out using Table 10.
- 5.10. 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 there is evidence that it has been preceded by an extraction that does not comply with the guidance.

Table 10: 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
Uninsulated cavity	CWI_0.033	0.029 – 0.034
Uninsulated cavity	CWI_0.027	< 0.028
Cavity wall partial-fill insulation	CWI_partial_fill	All

- 5.11. 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.
- 5.12. Party wall measures cannot be claimed under ECO for flats and maisonettes as they are assumed to be constructed to avoid a thermal bypass.
- 5.13. 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 and a reduced POPT would be claimed where this results in less than 67% being treated.

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

- 5.14. 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 approach to partial project scores, as outlined in the following paragraphs.

- 5.15. 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.
- 5.16. 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 11. 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 11: E / I / HWI U-Value Variants for Partial Project Scores

Starting wall U-value (W / m ² K)	Finishing wall U-value (W / m ² K)	Finishing wall U-value (W / m ² K)	Finishing wall U-value (W / m ² K)	Finishing wall U-value (W / m ² K)
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			

- 5.17. To select the correct E / I / HWI partial project 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 12 specifies the starting U-value that should be selected based on wall type and age.

Table 12: Starting U-Values of Various Wall Constructions by Age and Location

Wall Type	England and Wales Age	England and Wales Starting U-Value	Scotland Age	Scotland 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

5.18. 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.

- 5.19. Table 13 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.
- 5.20. The intention of Table 13 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.

Table 13: Minimum Insulation Thickness Required to Achieve Each 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

- 5.21. The thickness values in Table 13 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.

- 5.22. The minimum thickness values in Table 13 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.
- 5.23. Some insulation systems may not be adequately covered by Table 13, 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.
- 5.24. [TrustMark's Energy Performance Report \(EPR\) Conventions](#) for use in ECO should be followed for the pre and post retrofit RdSAP assessment. As covered in the Conventions, overridden U-values should not be used, unless via prior agreement with the scheme provider on receipt of suitable evidence. This convention covers the selection of the correct PPS in addition to FPS; where a scheme provider agrees that a U-value can be overridden, this U-value can be used instead of insulation thickness in Table 12 to select the appropriate U value change. The U-value change selected must be at least that indicated by the overridden U-value. For example, if the initial U-value of the wall is 1.7, and the scheme provider accepts an overridden post retrofit U-value of 0.25, then a U-value change of 1.7 to 0.3 would be selected.

Loft Insulation

- 5.25. Loft insulation (LI) is installed between, and / or on top of, joists. There are two LI measures:
- LI where there is less than or equal to (\leq) 100mm pre-existing insulation, or
 - LI where there is greater than ($>$) 100mm pre-existing insulation.
- 5.26. 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 regarding the presence of loft insulation in the property.
- 5.27. A copy of the signed declaration must be left in the loft, and should be present in all loft spaces, where a property has multiple. 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.

- 5.28. 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.
- 5.29. 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.
- 5.30. Similarly, if any other evidence is found that loft insulation is or has been present at the property (such as a previous EPC), we will also request evidence of the date the property owner took ownership of the property. If this date precedes the evidence showing loft insulation was present, we will request that an investigation be carried out and dependant on findings, may reject the latest loft insulation measure.

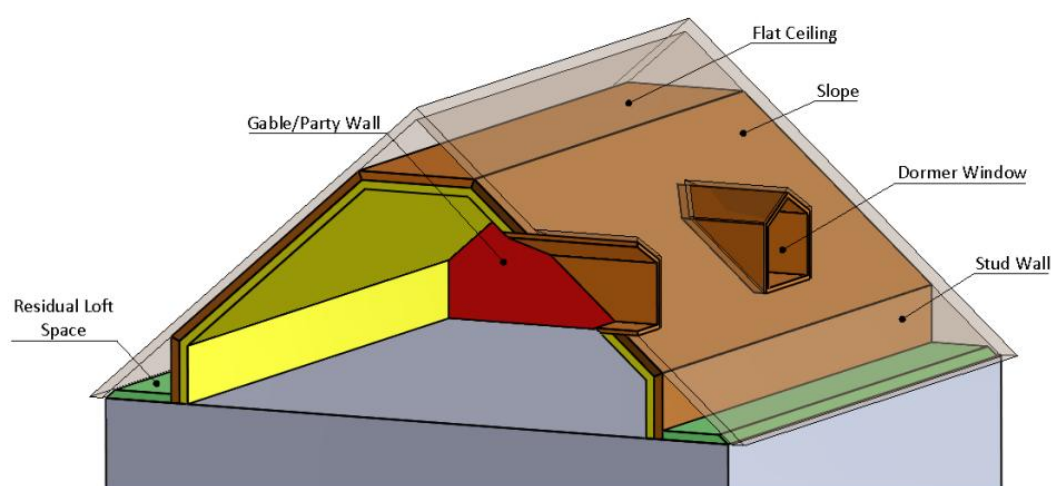
Room-in-Roof Insulation

- 5.31. 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.
- 5.32. 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.
- 5.33. 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 8, the residual loft is the area highlighted green, behind the stud walls.
- 5.34. 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.

- 5.35. 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.
- 5.36. For clarity, insulation of the residual loft area should be completed to the same building regulations standards as a typical loft insulation measure.
- 5.37. We expect that all RIRI installations are conducted in line with the Department for Energy Security and Net Zero's best practice guidance for RIRI measures.

Figure 8: Areas in Room-In-Roof



Pitched Roof Insulation

- 5.38. 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, 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

- 5.39. Floor insulation can only be installed to the floor in the property that is either in contact with the ground, above an unheated space (i.e. a cellar), or suspended and in contact with the outside air.
- 5.40. A floor cannot be treated if there is a room below it that contains a heat emitter such as a radiator.
- 5.41. 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).⁴² 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.
- 5.42. Separate scores for both variants, UFI and SFI, exist and should be notified accordingly.
- 5.43. 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 the Department for Energy Security and Net Zero's Guide to Best Practice: Retrofit Floor insulation – Suspended Timber Floors.⁴³
- 5.44. We expect that all solid floor insulation installations are conducted in line with the [DESNZ guide to best practice](#).

Park Home Insulation

- 5.45. A park home insulation (PHI) measure is the insulation of the walls, ceiling and floor of a park home.
- 5.46. DESNZ are developing a technical guide to best practice for PHI measures, which they aim to publish this year. Following its publication, we expect that all PHI installations are in line with the guide to best practice.

⁴² <http://www.greenspec.co.uk/building-design/ground-floor-insulation/>

⁴³ Further specific information on the installation of suspended UFI can be found in the DESNZ 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

Window Glazing

- 5.47. Window glazing can be installed as either 'single to double' or 'improved double glazing'.
- 5.48. '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.
- 5.49. '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

- 5.50. Solid wall insulation (SWI) means internal or external insulation of a solid wall (i.e. 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.⁴⁴
- 5.51. 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.⁴⁵ 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 12.
- 5.52. 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.
- 5.53. Please note that we expect that all IWI installations are conducted in line with BEIS guide to [best practice for retrofit internal wall insulation](#).

⁴⁴ See Article 2 of the [ECO4 Order](#).

⁴⁵ See [Energy Company Obligation \(ECO4\) Guidance: Supplier Administration | Ofgem](#), Chapter 4, for more information on the solid wall minimum requirement (SMWR).

Solid Wall Minimum Requirement

- 5.54. For ECO4, the solid wall minimum requirement or 'SWMR' (paragraph 2.6) 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.
- 5.55. 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.
- 5.56. 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.
- 5.57. 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 Preconditions

- 5.58. All heating measures are subject to the insulation preconditions set out below. Heating measures include upgrades, first time central heating, DHC, repairs and replacements, heating controls and solar PV.

Precondition 1

- 5.59. For all Band D homes receiving any heating measure other than FTCH or a DHC, either:
- one of the following insulation measures must be installed as part of the same ECO4 project:
 - roof insulation (flat roof, pitched roof, room-in-roof)
 - exterior facing wall insulation (cavity wall, solid wall)
 - party cavity wall insulation
 - floor insulation (solid, underfloor)

or,

- all measures listed above must already be installed (except any which are exempted as described in paragraph 4.40)

5.60. Park homes must receive floor, wall and ceiling insulation.

Precondition 2

5.61. All Band E, F and G homes receiving any heating measure and Band D homes receiving FTCH or a DHC must have all exterior facing cavity walls and loft (including rafters) / roof (including flat and pitched roof or room-in-roof) area insulated (except where insulation is not possible and exemptions are lodged, see 5.87). The insulation of these areas can be:

- installed as part of the same ECO4 project,
- pre-existing insulation,
- subject to exemptions or
- a combination of the above

5.62. Park homes must receive floor, wall, and ceiling insulation.

Meeting the Insulation Preconditions

5.63. An insulation measure installed as part of the same ECO4 project must have a date of completed installation on the same day or before that of the heating measure.

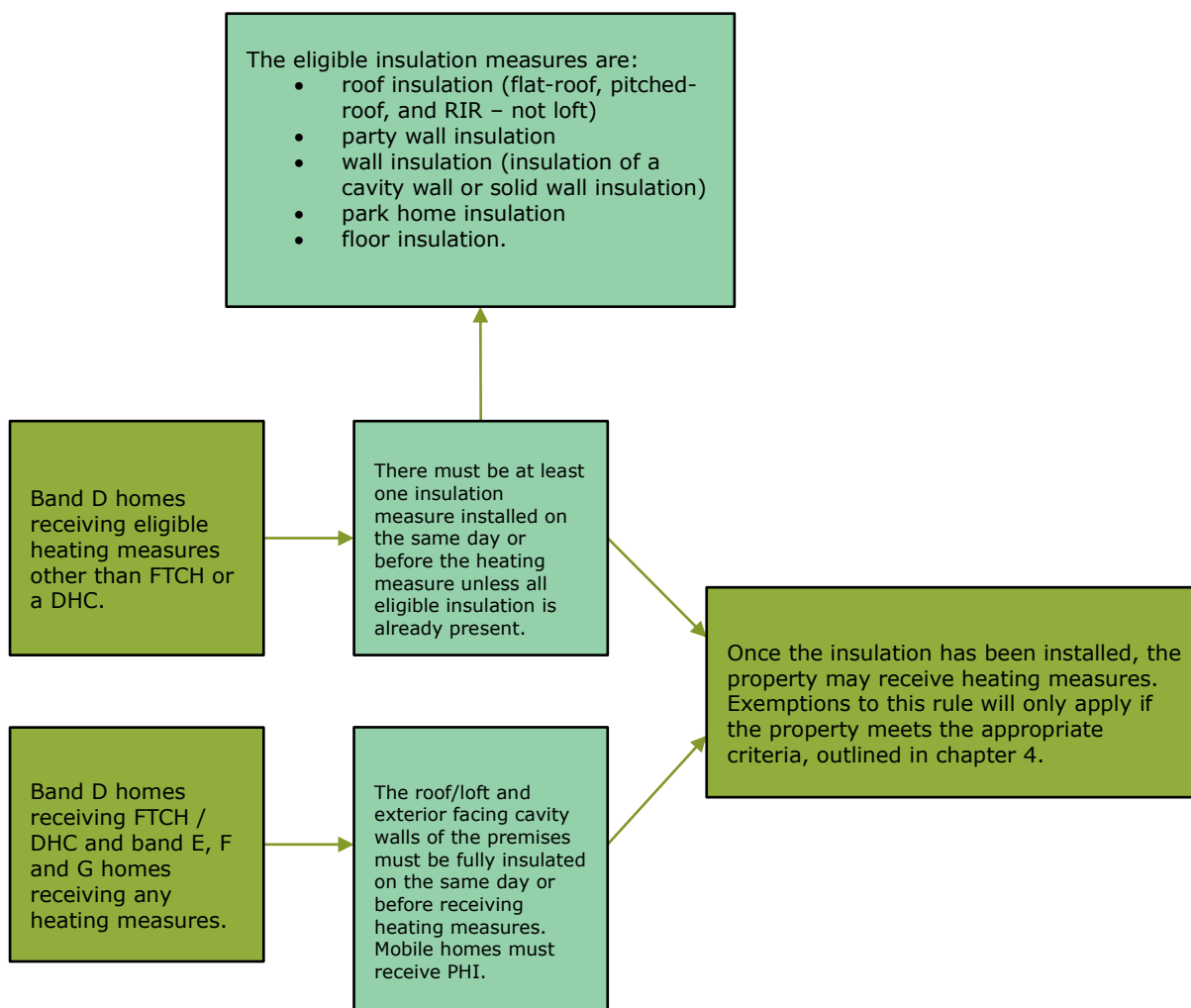
5.64. All insulation measures must be installed in a manner that would meet the current building regulations⁴⁶ (BS 3632 for park homes) applicable if the insulation measure had been first installed on the day before the heating measure is complete. This applies to pre-existing insulation as well as insulation installed during the project. Pre-existing insulation that would not meet current building regulations must be topped up to meet the standards for new insulation to contribute to insulation preconditions.

5.65. Pre-existing insulation cannot be claimed as an ECO measure.

⁴⁶ Building Regulations 2010, or the building (Scotland) regulations 2004

5.66. Figure 9 presents different scenarios for the insulation requirements in properties, subject to the exemptions referred to in paragraph 4.40.

Figure 9: Scenarios for The Insulation Requirements for Properties Receiving Heating Measures



5.67. 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.

5.68. The pre-conditions set out below are considered to be met if:

- all parts of the building element already have insulation installed to current building regulations⁴⁷; or

⁴⁷ Building Regulations 2010, or the building (Scotland) regulations 2004

- if insulation cannot be installed, a valid exemption to the minimum requirement is notified in respect of the building element.

Pre-Condition 1: Wall Insulation

5.69. The wall insulation pre-condition applies to the exterior facing walls of band D premises. This refers to all types of exterior facing wall insulation measures including CWI, EWI, HWI, and IWI.

Pre-Condition 1: Floor Insulation

5.70. The floor insulation pre-condition applies to all premises with floors in contact with the ground, above an unheated space (i.e. 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.

Pre-Condition 1: Party Wall Insulation

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

Pre-Condition 1: Roof Insulation

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

5.73. 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 current building regulations⁴⁸, except for areas that cannot be insulated.

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

- for flat roof and pitched roof insulation, the area of the roof; and

⁴⁸ Building Regulations 2010, or the building (Scotland) regulations 2004

- 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.
- 5.75. 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 5.78. 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.

Pre-Conditions 1&2: Park Home Insulation

- 5.76. 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 BS 3632 in order to meet this precondition except for walls and floor/roof areas that:
- Already have insulation installed to BS 3632, or
 - hold an exemption to the minimum requirement.

Pre-Condition 2: Cavity Wall Insulation

- 5.77. To meet the cavity wall pre-condition, all exterior-facing cavity walls⁴⁹ of the premises, including multi-storey buildings and system build premises, must have insulation installed except for exterior-facing walls which:
- already have cavity insulation installed to current building regulations; or
 - 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 (i.e. premises with external roof area).

⁴⁹ Where a property is made up primarily of solid walls, the area made up of cavity walls must still be insulated.

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

- for loft insulation, the area of the floor of the loft
- for flat roof and pitched roof insulation, the area of the roof; and
- 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.

Demonstrating the Insulation Preconditions are met

5.80. Suppliers must be able to demonstrate that heating measures they notify have met insulation preconditions. This includes the requirement that the relevant building elements are insulated to current building regulations standards. Five ways of demonstrating this are set out in this section. We will also consider other sources of evidence proposed by suppliers or installers.

Insulation Installed as Part of the ECO Project

5.81. If a relevant building element has been insulated as part of the ECO4 project and the measure is approved, no additional evidence is required in respect of that building element (or, where precondition 1 applies, in respect of that project).

Pre-Existing Insulation Evidenced by Documentation

5.82. Documentary evidence can be used to show that existing insulation was installed in a manner which would meet current building regulations. Documentary evidence must be dated after the most recent update to the relevant country's building regulation target u-values for the specific building element (see Appendix 6 – Insulation Precondition Age Band Table)⁵⁰ and must contain the property address. Documentary evidence includes:

- Competent Person Scheme completion certification
- Local Authority completion certification

⁵⁰ Target U values do not necessarily need to be achieved, provided building regulations were complied with.

- Approved inspector final completion certificate produced in line with the Building (Approved Inspectors etc.) Regulation 2010
 - Trustmark/Ofgem approved appropriate guarantee
- 5.83. Contact Ofgem if you encounter documentary evidence not on this list and are not sure whether it demonstrates current building regulations are met.

Pre-Existing Insulation Evidenced by the Pre-Retrofit RdSAP Assessment

- 5.84. Pre-retrofit RdSAP assessments (or EPCs) may be taken as evidence that a given building element would meet current building regulations, if the assessment/EPC shows that the U-value for the element meets building regulations target U-values.⁵¹
- 5.85. Subject to the point below on assumed insulation, this can only be the case if the assessor has obtained sufficient physical evidence to overwrite the RdSAP default with a calculated U-value. As per [Trustmark ECO4 EPR conventions](#), overridden U-values can only be used in ECO4 with the prior permission of the scheme provider on receipt of suitable confirming validated evidence.
- 5.86. RdSAP assessments (or EPCs) that state “Insulated (assumed)” are not sufficient unless the default U-value assigned by RdSAP would meet current building regulations. The default U-value assigned by RdSAP when insulation is assumed is dependent on the age of the building part. U-values for different age bands of buildings can be found in the RdSAP specification document. See Appendix 6 – Insulation Precondition Age Band Table, which shows for each building element the construction date from when “Insulated (assumed)” is acceptable. For example, the assumed RdSAP U-values of a property in England and Wales with solid brick as built external walls will only meet current building regulations (0.3 W/m²K), and hence meet ECO4 pre-conditions, if the construction age band of the building is L or K (i.e. after 2007).

⁵¹ Note that building regulations do not require target U-values to be met in all circumstances, but alternative methods of demonstrating building regulations compliance must be used if this applies.

Building Element Cannot be Insulated and Exemptions are lodged

- 5.87. A building element does not have to be insulated in order to meet insulation preconditions if a relevant exemption or exemptions have been notified in the ECO4 register. 4.40 to 4.44 set out a list of scenarios in which an exemption can be notified.
- 5.88. All possible methods of insulation must be considered for a given building element. For example, where a band F cavity-walled home is receiving a heating measure, the insulation preconditions include the cavity walls. CWI, EWI and IWI must be considered. If none are possible and an exemption exists for all three, insulation preconditions would be satisfied.
- 5.89. Further information on how to notify these can be found within the [ECO4 Guidance: Supplier Administration](#) and the [ECO4 Data Dictionary](#).

Additional Insulation would not Achieve 15 Year Simple Payback (England and Wales)

- 5.90. Building regulation guidance for England and Wales provides that, if achieving the target U-value would not result in a simple payback of 15 years or less, the building element can be upgraded to the lowest U-value that would achieve a simple payback not exceeding 15 years.
- 5.91. In ECO4, where a building element that is part of insulation preconditions does not currently meet the target U-value, but adding further insulation would not achieve a simple payback of 15 years, we will consider that the building regulations are satisfied, and insulation preconditions are met for that element.
- 5.92. The relevant building regulations guidance on performing simple payback calculations must be followed. The calculations must be retained by the supplier as evidence, except in the case of insulated cavity walls.
- 5.93. Where the RdSAP assessment (or EPC) indicates that the cavity walls of a property are filled, we do not require that a simple payback calculation is retained. In the RdSAP methodology, filled cavity walls have an assumed U-value of 0.7 or less. It is highly unlikely that any further insulation improvements to achieve the building regulation target U-value (for example external or internal wall insulation) would achieve a simple payback not exceeding 15 years.

- 5.94. Building regulations in Scotland do not include a simple payback-based rule, and so the above route can only be used for homes in England and Wales. Scottish building regulation guidance requires that target U-values are met 'as far as is reasonably practicable'. Before notifying a heating measure which relies on the 'reasonably practicable' test to meet insulation preconditions, suppliers must be satisfied the relevant building control body would consider the reasonably practicable test is met.

Heating Measures

- 5.95. This section details eligible heating measures, including measure-specific guidance and requirements for heating measures under ECO4.
- 5.96. 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

- 5.97. On-gas homes are defined as homes which were connected to a pipe-line system operated by a gas transporter on 31 March 2022.⁵² This includes homes which are connected on this date but were first connected previously.
- 5.98. In order to satisfy the criteria for a gas connection, suppliers need to be able to provide a form of evidence for the 'connected before 1/4/22' requirement. Evidence may be provided as set out in Table 14. Alternative evidence may be accepted on a case-by-case basis.

⁵² See Article 2(1) of the [ECO Order](#)

Table 14: Evidencing A Gas Connection

Evidence	Connected on 31/3/22
EPC prior to 1/4/22	X
Fuel bill prior to 1/4/22	X
Gas meter exchange date (on the label on the meter) prior to 1/4/2022	X
Screenshot or email confirmation from XOSERVE⁵³	X
Historic property listings / documentation	X
Meter Asset Manager data	X
Screenshot from the Gas Safe register	X
Letterheaded letter from the gas transporter or utility provider	X

- 5.99. Evidence provided outside of what is included Table 14 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.
- 5.100. We will require the Retrofit Coordinator to fill out the [ECO4 Pre-Installation Heating Checklist](#) 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.

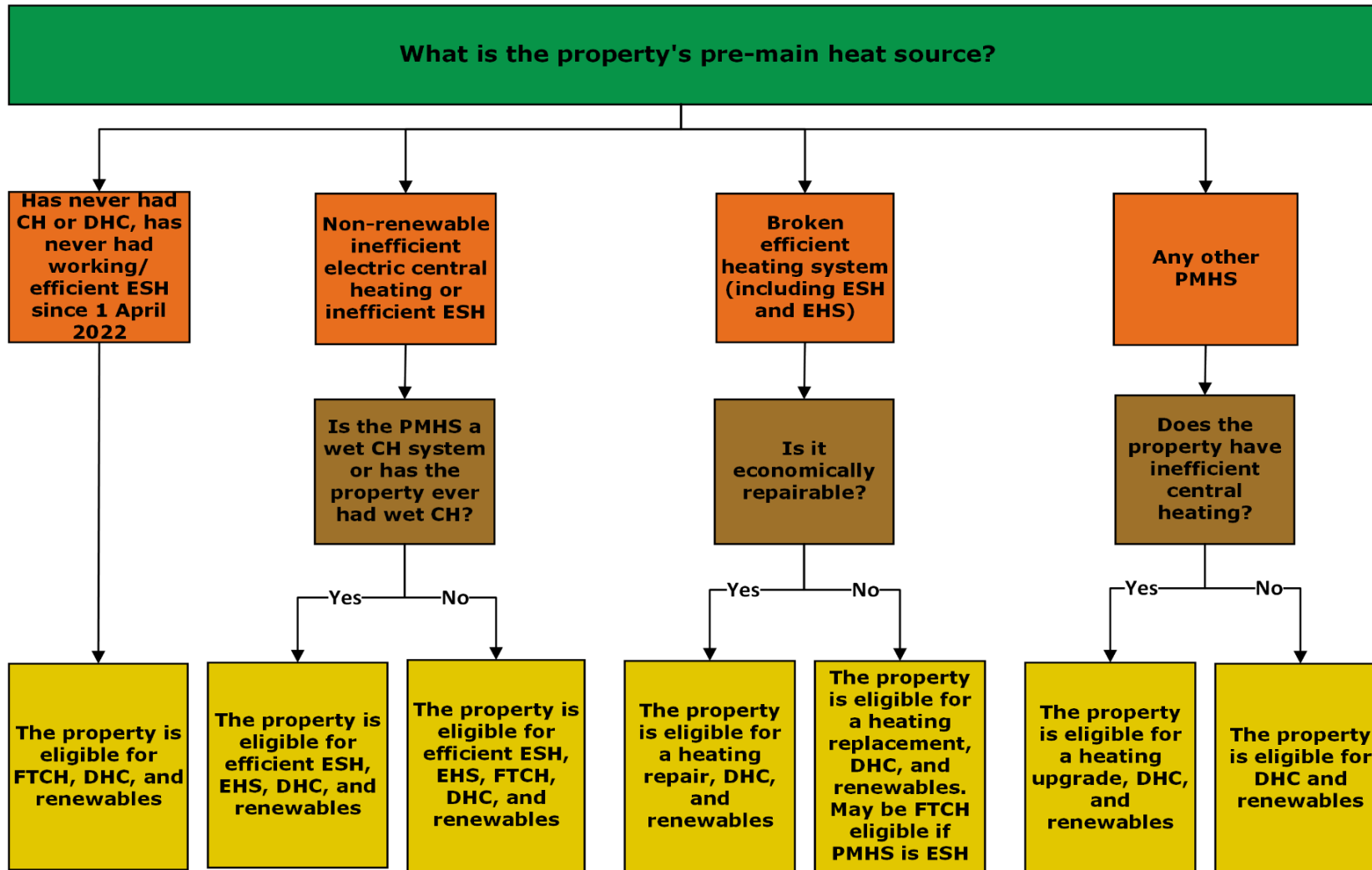
⁵³ XOSERVE is a gas market data service provider for Britain's gas market, funded, governed and owned by the gas industry.

- 5.101. On-gas evidence would not be required for the installation of stand-alone heating controls. However, if a property is eligible for the off-gas rural uplift, evidence of a property's rural status would be required.

Measures Installed in On-Gas Premises

- 5.102. The flowchart in Figure 10 explains which measures in on-gas properties are available to a customer depending on the property's pre-main heat source.

Figure 10: On-Gas Measures Flowchart



5.103. The above flowchart does not include the eligibility criteria for innovation measures or heating controls. Innovation measures must meet the eligibility requirements for their underlying measure type – see 6.156. For details on the eligibility of heating controls, see Table 9: ECO4 Measures Table. The rules governing the flowchart are explained in this chapter.

Off-Gas Premises

5.104. Off-gas premises are those premises not connected to a pipe-line system operated by a gas transporter on 31 March 2022.⁵⁴ As stated under the on-gas section, we will require the Retrofit Coordinator⁵⁵ 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.

5.105. Premises are considered off-gas:⁵⁶

- Where the primary heating system is a fixed coal, oil, or LPG heating system;
- Where the home has a fixed electric heating system with no evidence of using a gas cooker; or
- Where there is no fixed gas heating system in place and no connection to mains-gas is present (including a gas cooker).

5.106. 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 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

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

⁵⁴ See Article 2(1) of the [ECO4 Order](#)

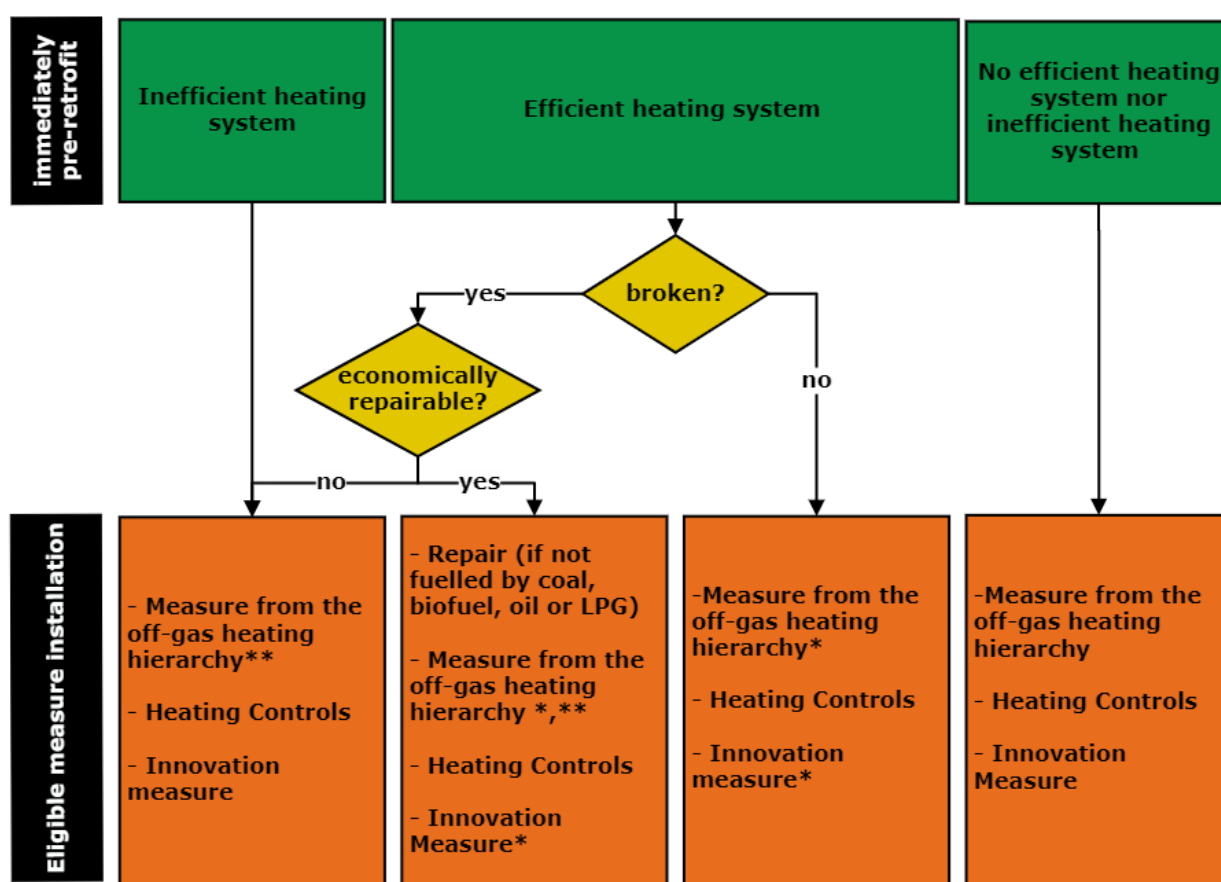
⁵⁵ This can be the project operative in the case of projects that include only a DHC.

⁵⁶ ECO4 Government Response p.54
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/e-co4-government-response.pdf

- The measure is not the installation of equipment for the generation of heat wholly or partly from mains gas; and
- The heating measure is not the installation of coal, oil, LPG and biofuelled heating systems (unless it is a repair of oil, LPG and biofuelled heating systems);
- The off-gas heating hierarchy is followed.

5.108. Figure 11 gives an overview of the eligible heating measures that can be installed in off-gas premises subject to restrictions in paragraph 5.109

Figure 11: Off-Gas Measures Requirement



5.109. Off-Gas Measure Restrictions are as follow:

* 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.

** It is not a repair other than 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.

5.110. The meaning of “efficient” and “inefficient” heating systems are defined below:

“Efficient heating system” means—

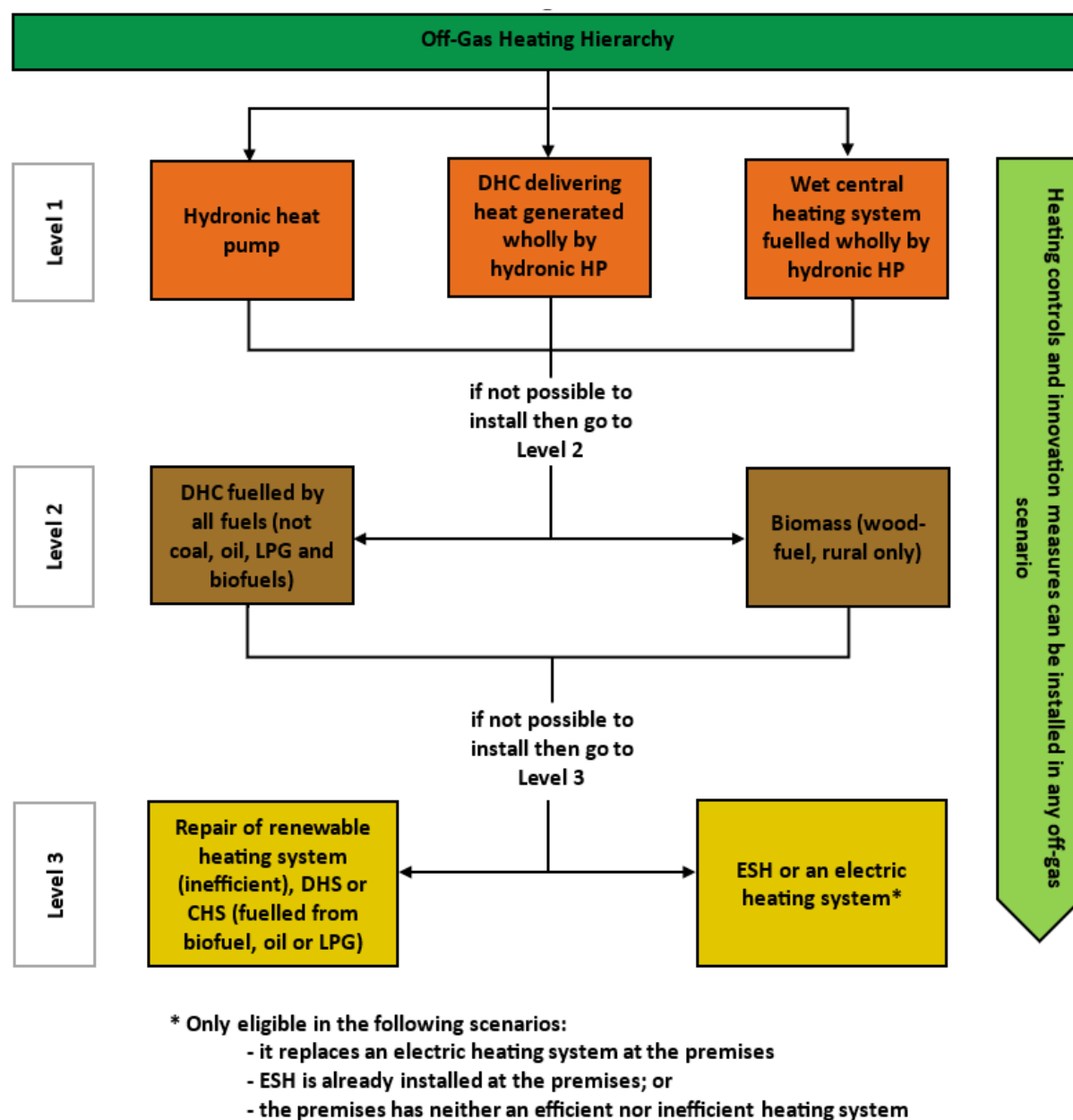
- a central heating system;
- a district heating connection; or
- an electric storage heater, which is not an inefficient heating system.

“Inefficient heating system” means a central heating system, district heating connection or electric storage heater.

- Where the system is a central heating system other than an electric heating system, this must include a non-condensing boiler; or have a peak energy efficiency that is no better than a central heating system than that which includes a non-condensing boiler
- Where the system is a district heating connection other than an electric heating system, this must include a non-condensing boiler or have a peak energy efficiency that is no better than a central heating system than that which includes a non-condensing boiler.
- Where the system an electric heating system or an electric storage heater, it must have a responsiveness rating equal to or less than 0.2 when assessed against the Standard Assessment Procedure.

5.111. The off-gas heating hierarchy is explained in the following Figure 12.

Figure 12: Off-Gas Heating Hierarchy



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

5.113. 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.⁵⁷ If a repair cannot take place, the heating measure needs to follow the off-gas hierarchy requirements listed in Figure 12. The repair of broken oil, LPG and biofuel heating systems is subject to the hierarchy and Broken Heating Repair Cap.

- 5.114. 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 coal, oil, LPG or biofuels.
- 5.115. 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.⁵⁸
- 5.116. A measure is '**not possible**' to install in each level of the off-gas heating hierarchy if one of the following applies:
- it is not reasonably practicable⁵⁹ 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 2035:2023 requirements and must not result in an increase in energy bills when the package of measures for a home is assessed against SAP.
 - it attracts an exemption (see 4.40 for further information on exemptions)
 - 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

⁵⁷ See Article 29(1)(b)(i) of the [ECO4 Order](#)

⁵⁸ See ECO4 Government Response p. 59
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/e-co4-government-response.pdf

⁵⁹ See ECO4 Government Response p. 59
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065823/e-co4-government-response.pdf

- the measure is not recommended in the improvement options evaluation report produced as part of the project.
 - where no improvement options evaluation report in relation to the premises has been produced at the start of the project and, 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.
- 5.117. 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 Improvement Options Evaluation report and, where applicable, pre-installation 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.⁶⁰
- 5.118. We will require the retrofit coordinator or DHC operative to complete and sign the [Pre-installation Heating Checklist](#) 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.

Repair and Replacement of Broken Heating Systems

- 5.119. 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.⁶¹
- 5.120. Inefficient heating systems are eligible for uncapped upgrades to efficient heating.

⁶⁰ See Article 50(3)(b) (bb) of the [ECO4 Order](#)

⁶¹ 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

- 5.121. 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.
- 5.122. 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.
- 5.123. Repairs of broken heating systems may only be carried out on efficient heating systems, renewable heating system 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.
- 5.124. 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.
- 5.125. 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.
- 5.126. 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 12: Off-gas Heating Hierarchy). Inefficient heating systems are not eligible for repairs but instead are eligible for uncapped heating upgrades.
- 5.127. Broken oil, LPG and biofuel boilers may be repaired if there are no other eligible options in the off-gas heating hierarchy (see Figure 12: 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.

- 5.128. Repairs of heating systems are also subject to the minimum insulation pre-conditions (paragraph 5.58) unless an exemption applies.
- 5.129. 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.⁶²
- 5.130. 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: Scores.

Replacements of Efficient Heating Systems

- 5.131. 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.
- 5.132. 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.
- 5.133. 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 12: Off-gas heating hierarchy) must also be followed.

⁶² See the [Energy Company Obligation \(ECO4\) Guidance: Supplier Administration | Ofgem](#) for more information.

Properties without a Main Heating System

- 5.134. Properties without an efficient or inefficient heating system may be eligible for the delivery of First Time Central Heating or electric storage heaters. For example, electric room heaters (both fixed and portable) are not considered to be a main heating system.
- 5.135. 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.
- 5.136. These properties may also be eligible for the delivery of IMs and Heating Controls.

Boilers and Central Heating

- 5.137. 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.
- 5.138. If the property is heated by an inefficient heating system (e.g. a non-condensing boiler), it can be upgraded to an efficient boiler.
- 5.139. 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 5.119).
- 5.140. All newly installed boilers must be efficient (i.e. 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.

- 5.141. All boilers will need to be assessed using the heating checklist – more information can be found in Appendix 3 – Boiler Information Pack on how to assess boilers.
- 5.142. The relevant Building Regulations for the location must be adhered to for all boiler and heat pump installations. Where the replacement heat source is a hydronic heat pump, MCS standards should also be followed.

Hydronic Heat Pumps

- 5.143. 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.
- 5.144. 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.
- 5.145. Hydronic heat pumps are a renewable heating source and can be delivered in all on-gas and off-gas premises.
- 5.146. They can replace any heating measure except a heating system of the same kind.⁶³ 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.
- 5.147. Integrated ASHP/gas boiler hybrid heat sources may be delivered through ECO in on-gas premises only. An ASHP/gas boiler hybrid heat pump is considered to be a renewable heating measure.
- 5.148. The ASHP/gas boiler hybrid post main heat source is intended for use only where a complete system is installed that would be assessed as a hybrid by SAP/RdSAP assessments, using the [hybrid support tool](#) as set out in the [Technical Note on Hybrid heat pumps](#).

⁶³ 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.

- 5.149. It is permissible to install a heat pump alongside an existing boiler, either creating a bivalent heating system or retaining the existing boiler solely for hot water. This would be notified as an Air to water ASHP or GSHP measure as relevant. Note that scores will be lower as the post-retrofit RdSAP assessment will take account of the retained boiler. See 6.113 - 6.115 for advice on partial project scores.

Wood-Fuel

- 5.150. Biomass heating systems are only allowed under ECO4 if they source their heat wholly from wood-fuel and are installed in rural areas, see 3.67 for more information on what is categorised as 'rural'. Biomass is considered to be a renewable heating source.
- 5.151. 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.⁶⁴

Electric Storage Heaters and Electric Heating Systems

- 5.152. This section applies to the installation of electric storage heaters (ESH) and electric heating systems. This section does not apply to heat pumps.
- 5.153. ECO4 legislation defines an electric heating system as a central heating system or district heating connection which provides heat generated wholly or mainly from electricity.
- 5.154. 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.
- 5.155. HHR ESH and electric heating systems can be installed in homes which do not have a central heating system, connection to a district heating system, nor ESH (for example, homes with no fixed heating or with only electric room heaters).
- 5.156. HHR ESH and electric heating systems can also be installed in homes currently heated by an inefficient electric heating system or ESH. Inefficient ESH and

⁶⁴ See the off-gas hierarchy for more information.

electric heating systems are defined as having a responsiveness rating of 0.2 or below when assessed against SAP. Efficient ESH and electric heating systems (SAP responsiveness above 0.2) are not eligible for non-renewable electric heating or ESH upgrades unless they are broken down and not economically repairable, in which case they can be replaced by another measure of the same type under 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.

- 5.157. ESH and electric heating systems installed alongside solar PV are considered as renewable heating systems if the output of the solar PV is used to generate heat by the ESH/electric heating system. However, even where they would be part of a renewable heating system, ESH and electric heating systems can only be installed if the requirements set out in this section are met.
- 5.158. Electric boilers meet the definition of an electric heating system where the heating system has a responsiveness of 0.8 or more. However, their installation is not an eligible measure in the ECO4 scheme because it is not possible to install them in accordance with the scheme's requirements for installation standards and consumer protection. Measures installed under ECO4 are required to be in accordance with PAS2030 standards. As electric boilers are not covered by a PAS annex, they cannot be installed under ECO4.

Heating Controls

- 5.159. 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.

Table 15: Table of Permitted and Prohibited Combinations of Heating Control Types

	TTZC	TRV	P&RT	Smart-Therm	Compensation
TTZC					
TRV					
P&RT					
SmartTherm					
Compensation					

TRVS and Programmer and Room Thermostats

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

- TRVs,
- Programmer & room thermostat.

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

5.162. All boiler upgrade measures have two different scores based on whether heating controls are already present in the property. The 'preHCs' version must be claimed where, prior to installation, a full set of heating controls which meet the minimum requirement are recorded in the pre-installation RdSAP assessment.⁶⁵ The 'noPreHCs' version can be claimed where a full set of controls is not recorded in the pre-installation RdSAP assessment, or where the heat source being upgraded is not a central heating system (e.g. electric room heaters). For example, when the boiler measure is scored using the 'noPreHCs' variation, a TRV and programmer & room thermostat measure can also be installed.

⁶⁵ In accordance with RdSAP, SAP and EPR conventions.

5.163. Where a pre-installation RdSAP assessment records 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

5.164. Whether a product is eligible to claim a smart thermostat score depends on the version of RdSAP used in the pre-retrofit assessment.

5.165. Where the pre-retrofit RdSAP assessment uses RdSAP 2012, the following rules and scoring approach apply:

- The smart thermostats must meet the criteria set out in the [Boiler Plus Standard](#).⁶⁶ That is, they must incorporate **automation** and **optimisation**.
- 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.
- Optimisation means a control starts the boiler operation at the optimum time to achieve the setpoint temperature at the start of the occupancy period.
- The product 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.
- 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

⁶⁶ All smart thermostats installed under ECO4 where the pre-retrofit RdSAP assessment uses RdSAP 2012 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

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.

- 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.
- This mechanism also applies to all standard alternative methodology and data light measures not included within the SAP methodology (see 6.40).

5.166. Where the pre-retrofit RdSAP assessment uses RdSAP 10, the following rules and scoring approach apply: The smart thermostat measure is only eligible for a score where the specific product is listed in the PCDB as a smart thermostat, for use with the heat source of the home where it is installed. For example, where a smart thermostat product is installed in a home with an ASHP heat source, but the smart thermostat product is only listed in the PCDB for use with mains gas heat sources, a smart thermostat measure must not be notified.

5.167. As smart thermostats are modelled in RdSAP 10, the deemed SAP rating improvement will not be applied to projects with RdSAP 10 assessments. The improvements will only be added where assessments are performed in RdSAP 2012. See 4.25-4.31 for more details on RdSAP version requirements.

5.168. 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.

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

Example of Notifying Projects with Smart Thermostat Measures using RdSAP 2012

5.170. The ECO4 project is conducted in an 80m² property with an original SAP rating of 40.0. The pre-main-heating-source of the property is a non-condensing gas boiler.

- 5.171. Alongside other measures, a smart thermostat is installed in the ECO4 project.
- 5.172. In the post-project RdSAP assessment the Domestic Energy Assessor calculates that the property has a new SAP rating of 67.0 (high band D). The supplier must notify the final RdSAP assessment rating of 67.0 to Ofgem.
- 5.173. Given that the savings produced by smart thermostats are not taken into account by the RdSAP, to determine the finishing SAP band the project must have the deemed SAP rating improvement associated with the relevant smart thermostat measure in the PPS matrix added to its score. As stated in the ECO4 PPS matrix, for this example property a smart thermostat measure results in a 2.0 SAP point increase. This increases the SAP rating from 67.0 to 69.0. Consequently, this increases the intermediate SAP band of the property from a high band D to a low band C.
- 5.174. The supplier does not need to notify the specific SAP point improvement caused by the smart thermostat. The ECO4 register automatically adds the deemed SAP rating improvement to ECO4 projects notified with smart thermostat measures.

Time and Temperature Zone Controls

- 5.175. 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.
- 5.176. 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).
- 5.177. In line with RdSAP Conventions, the TTZC score must only be claimed for smart, programmable, or communicating TRVs if the product is listed in the [SAP Product Characteristics Database \(PCDB\)](#), for use with the heat source of the home where it is installed. For example, where a communicating TRV product is installed in a home with an ASHP heat source, but the product is only listed in the PCDB for use with mains gas heat sources, a TTZC measure must not be notified.

- 5.178. The TTZC partial project scores assume the property already has a full set of functioning heating controls (programmer & room thermostat and TRVs) as a baseline.
- 5.179. If installing a TTZC measure in a property that does not have a full set of heating controls, any missing elements must be added. For example, where the home does not have TRVs, either standard TRVs (where TTZC is being achieved by separate plumbing circuits) or smart, programmable or communicating TRVs must be installed as part of the project. In both cases, the TRV measure type must be notified alongside the TTZC measure type. Where the home did not already have a programmer and room thermostat, the installed equipment must provide these functions and the P&RT measure type must be notified alongside the TTZC measure type.

Compensation

- 5.180. The compensation measure type can be notified where either weather or load compensation is installed,⁶⁷ provided that:
- weather or load compensation is not currently present;
 - the property has not had and is not receiving a smart thermostat measure.
- 5.181. 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. For boilers, the compensation device must be listed in the [PCDB](#), for use with the heat source of the home where it is installed.
- 5.182. In the case of heat pumps, compensation is recognised in RdSAP 10 but not in RdSAP 2012. Compensation may be claimed in projects using RdSAP 10, where the installation meets the RdSAP requirements such that the PCDB listing for the heat pump with weather compensation enabled would be used in the post-retrofit RdSAP assessment.⁶⁸

⁶⁷ This also applies where a boiler with integrated weather or load compensation is installed, provided any additional equipment such as temperature sensors are included.

⁶⁸ Section N1.2.1 of the SAP 10.2 specification document [Building Energy Performance Assessment - Support Website :Product Characteristics Database \(PCDB\)](#)

- 5.183. The compensation measure cannot be combined with a smart thermostat measure as the smart thermostat score assumes the unit includes weather compensation functionality.
- 5.184. 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.
- 5.185. 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.

Table 16: 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	No programmer and/or room thermostat	Smart thermostat score Programmer & room thermostat score
Smart thermostat	Programmer & room thermostat	Smart thermostat score
Weather or load compensation (properties which don't have a smart thermostat)	No programmer and/or room thermostat	Compensation no preHCs score
	Programmer & room thermostat	Compensation preHCs score
TTZC Programmer & room thermostat or completion of TRVs	No programmer and/or room thermostat Incomplete TRVs	TTZC score Programmer & room thermostat score TRV score

TTZC	Programmer & room thermostat Complete TRVs	TTZC score
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First Time Central Heating

- 5.186. First Time Central Heating (FTCH) is the installation of a wet central heating system 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.
- 5.187. A central heating system is a system which provides heat for the purpose of space heating through a boiler or other heat source connected to one or more separate heat emitters and does not include a district heating connection. A wet central heating system is a system in which heated fluid circulates between a boiler or other heat source and one or more separate heat emitters.⁶⁹
- 5.188. 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)."

- 5.189. Suppliers should evidence this on the ECO4 Eligibility Requirements form.
- 5.190. The wording 'at no point prior' in the declaration refers to premises which do not, and never have had, a wet central heating system.

⁶⁹ See Article 2 of the [ECO4 Order](#).

- 5.191. 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.
- 5.192. Installations of renewable central heating systems and district heating connections with a wet central heating system can take place outside of FTCH.⁷⁰
- 5.193. 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 5.120).
- 5.194. 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.
- 5.195. 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.⁷¹
- 5.196. 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:
- Gas room heaters,
 - Electric room heaters, including direct acting room heaters, fan heaters and inefficient electric storage heaters (SAP rating of 0.2 or less),
 - Gas fire with back boiler with one or no heat emitter,
 - Range cooker boiler with one or no heat emitter,

⁷⁰ See paragraph 5.205 for more information on renewable heating systems

⁷¹ Where there is evidence of suspected fraud this will be reported to the Homes and Communities Agency or the equivalent bodies.

- Warm air system,
- Solid fossil fuel fire with back boiler,
- Direct electric underfloor or ceiling heating
- Bottled LPG room heating,
- Solid fossil fuel room heaters,
- Wood / biomass room heating,
- Oil room heater,
- No heating at all.

5.197. The examples in paragraph 5.199 are 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.

5.198. 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.

5.199. 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:

- Condensing gas Boiler
- Biomass Boiler
- Air Source Heat Pump
- Gas hybrid air source heat pump
- Ground Source Heat Pump
- Fuel cell mCHP

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

5.201. DHC measures are not eligible to be installed as FTCH measures. They should instead be installed as a new DHC measure (see 5.221).

5.202. Where a wet central heating system is installed, it must meet the definition outlined in paragraph 5.187 and the relevant building regulations, PAS, or other relevant requirements, to be eligible.

5.203. FTCH installations are not included in the broken heating replacement cap. However, FTCH installations are required to meet the heating measure pre-conditions (see 5.63).

5.204. When installing FTCH, the relevant Building Regulations for the location must be adhered to. Where the replacement heat source is a hydronic heat pump, MCS standards should also be followed.

Renewable Heating Systems

5.205. A renewable heating system⁷² is equipment for the generation of heat, or electricity at the premises to provide that heat, which is wholly or partly from the following sources:

- Biomass
- Fuel cells
- Water (including waves and tides)
- Solar power
- Geothermal sources
- Heat from air, water, or the ground
- Combined heat and power systems (but only if the system's source of energy is a renewable source).

5.206. 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.⁷³

5.207. 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

⁷² A "renewable heating system" means equipment for the generation of heat wholly or partly by renewable means, or related electricity generation equipment. "Renewable means" is by means of a source of energy or technology which is mentioned in section 100(4)(a) or (c) to (h) of the Energy Act 2008(1) and is not used to generate electricity that is supplied by a licence-holder (Article 2 of the [ECO4 Order](#)).

⁷³ 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](#).

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

Solar PV

- 5.208. 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.
- 5.209. The installation must be carried out in accordance with the relevant MCS or scheme's requirements and in accordance with PAS 2035:2023.
- 5.210. Solar PV is an eligible heating measure where the heating system in the property, either before the ECO4 project starts or installed as part of the project, is a hydronic heat pump, a high heat retention electric storage heater or an electric heating system with a SAP responsiveness rating of equal to or greater than 0.8.
- 5.211. 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 the case with a non-electric primary heat source. The system must be set up in such a way that some of the electricity generated is used by equipment that generates heat in the domestic premises. As such, bypass directly to the grid would not be appropriate as the electricity generated by the Solar PV system would not be wholly or partly used by equipment that generates heat at the domestic premises.
- 5.212. 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 at 6.131.
- 5.213. Solar PV measures may be delivered as part of an ECO project to homes, where a pre-existing Solar PV system is already present.
- 5.214. Delivery requirements for Solar PV such as minimum insulation preconditions, restrictions on eligible heat sources, and MCS certification continue to apply in these scenarios.

- 5.215. Each home under ECO has a Solar PV generation capacity cap of 10 kWp. This includes the generation capacity of the pre-existing Solar PV system, and the additional Solar PV measure delivered under ECO. Where the total capacity of the Solar PV at a home exceeds 10 kWp cap, the 'excess' capacity above 10 kWp will not be eligible for a score under ECO. For example, a home with 4 kWp installed may receive an additional Solar PV measure of up to 6 kWp.
- 5.216. The delivery of Solar PV measures where a home has a pre-existing Solar PV system should be notified employing current Solar PV requirements as set out in this Delivery Guidance and Data Dictionary, but only the additional generation capacity should be included in the POPT calculation. This means any pre-existing Solar PV generation capacity a home has prior to the ECO project commencing must not be notified in conjunction with the Solar PV measure delivered.
- 5.217. Solar PV, as it is a heating measure, is subject to the minimum insulation pre-conditions (see 5.58).
- 5.218. Solar PV is also classed as a renewable heating system – it is subject to renewable heating eligibility rules including for repairs.
- 5.219. ESH / electric heating systems that are installed alongside Solar PV are considered as renewable heating but must follow the standard rules for electric heating systems.
- 5.220. Battery storage can be installed during an ECO4 retrofit. This will not be added as a new measure type on the scheme and will not contribute to any ECO scoring, because they do not improve the SAP rating of the premises. The installation of PV batteries does not have to be notified to Ofgem.

District Heating Connections

- 5.221. 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.
- 5.222. DHC measures are eligible where they meet the relevant requirements. There are two DHC measures in ECO:
- The connection of a domestic premises to a DHS, including a connection to an existing DHS or to a new DHS.

- 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").
- 5.223. DHC can be fuelled by any fuel source other than coal, oil, LPG or biofuels.
- 5.224. 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 12: Off-Gas Heating Hierarchy).
- 5.225. 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.
- 5.226. Where a home does not have a central heating system, a wet central heating system must be installed as part of the DHC measure.
- 5.227. 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, however as they are included in the DHC measure, suppliers must not notify a P&RT measure to Ofgem. The score for the installation of TRVs is not included in the DHC score and must be claimed as a separate measure.
- 5.228. 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.
- 5.229. 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 5.159.
- 5.230. 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.

- 5.231. 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.
- 5.232. For projects that include a DHC measure other than shared ground loop GSHPs, 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 measure that is a shared ground loop GSHP should always be lodged with TrustMark.

DHS Consumer Protection Standards

Heat Trust

- 5.233. 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.
- 5.234. 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.
- 5.235. DHC measures that are shared ground loop GSHPs, are 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.
- 5.236. 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.

- 5.237. Ofgem recommends anyone seeking to install DHC measure to engage with Heat Trust at the earliest possible opportunity.
- 5.238. 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

- 5.239. 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](#). As such, these requirements form the basis of any checklist for the requirements. To note, if standards go beyond what Heat Trust offers, we will consider the overall package as 'equivalent'.
- 5.240. 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 need ongoing actions, such as 24-hour contact services and access to an Ombudsman in the event a complaint is made.
- 5.241. 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.
- 5.242. 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

- 5.243. 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.
- 5.244. We would expect close engagement with any organisations seeking to offer services that are claimed to be equivalent to Heat Trust.

Smart Meter Advice

- 5.245. A smart meter is a digital electricity and gas meter which displays accurate energy usage readings in near real time.
- 5.246. 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 per the ECO4 Order.⁷⁴ This advice must take the form of giving the customer a leaflet, either physically or electronically, produced by Smart Energy GB.
- 5.247. 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. This advice can be given either electronically or in print.
- 5.248. To encourage the installation of smart meters, a voluntary pledge has been introduced to ECO4.⁷⁵ It is a requirement to offer this pledge to consumers who do not currently have a smart meter installed in their home.
- 5.249. The Retrofit Assessor will discuss the benefits of having a smart meter installed and then ask if the consumer would like to opt in to sign a voluntary pledge. If they agree, the Retrofit Coordinator will lodge this with TrustMark using a tick box on the lodgement during the project creation. This will allow government to undertake future research into the success of this policy.

⁷⁴ See Article 31 of the [ECO4 Order](#)

⁷⁵ See Article 31(1)(a) of the [ECO4 Order](#)

- 5.250. The responsibility for organising a smart meter installation will lie with the consumer, though the pledge should provide information on how to arrange an installation. We expect pledges to be created in line with government guidelines.
- 5.251. The process of getting a smart meter installation continues as usual following the voluntary pledge.⁷⁶
- 5.252. There can be no penalties enforced if a consumer does not follow through with the installation following the pledge, or if a consumer chooses not to sign the pledge. The voluntary pledge has no impact on a consumer's eligibility for the scheme.
- 5.253. The provision of smart meter advice will 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

- 5.254. Suppliers should ensure that the installation of a measure is carried out in accordance with the relevant standards.
- 5.255. If a measure is referred to in PAS 2030:2023 or falls under an MCS standard, the installation of the measure should be carried out:
- By either a PAS or MCS certified installer, or under the responsibility of, a person certified to PAS 2030:2023 or MCS.
 - In accordance with relevant provisions of PAS 2030:2023, MCS standards, PAS 2035:2023, building regulations and any other applicable regulations.
- 5.256. TrustMark is responsible for ensuring compliance with PAS and MCS standards 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. Where non-compliance with TrustMark requirements is detected and the TrustMark certificate of lodgement is voided, we will refer those measures or projects to our rejections process. TrustMark's remit covers DHC measures that involve the installation of a ground source heat pump at a domestic premises, which draws

⁷⁶ For more information about the pledge, please see [Request your smart meter | Smart Energy GB](#)

heat from a shared ground loop supplying multiple premises, but not any other DHC measures.

- 5.257. An 'operative' is defined in PAS 2030:2023 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".⁷⁷ 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.
- 5.258. 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.
- 5.259. Under ECO4, TrustMark registered businesses must be certified as compliant with PAS 2030:2023 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 2035:2023 and PAS 2030:2023.⁷⁸
- 5.260. 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.
- 5.261. In the case of DHC measures, other than DHC measures that are the installation of a ground source heat pump at a domestic premises, which draws heat from a shared ground loop supplying multiple premises and 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 qualifications for installers may be a Level 2 or 3 NVQ in gas, plumbing or

⁷⁷ See PAS 2030:2023 paragraph 4.12

⁷⁸ See TrustMark Framework Operating Requirements <https://www.trustmark.org.uk/tradespeople/government-grants-schemes-and-subsidies>

mechanical engineering. We recommend CIBSE Heat Networks: Code of practice for the UK is followed during all phases of the DHC project where relevant.

- 5.262. Data light measures (DLM) and Innovation measures (IM) which are not referenced in PAS 2030:2023 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](#) 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.

Trustmark Equivalence

- 5.263. All measures must be installed by, or under the responsibility of, a relevant TrustMark registered installer and have received a TrustMark certification of lodgement. The ECO4 Order also allows measures that are “subject to arrangements for quality assurance and consumer protection, including arrangements for repairs and other remedies, which are equivalent to the requirements under TrustMark”. TrustMark’s [Framework Operating Requirements](#) are extensive and would need to be covered in full. 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.

Guarantees

- 5.264. 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.
- 5.265. Appropriate 25-year guarantees, which have been reviewed and are considered to meet the TrustMark Framework, are listed on [TrustMark’s website](#).
- 5.266. Suppliers will not need to supply us with the guarantee codes as part of the ECO4 notification template.
- 5.267. For DHC measures, consumer protection is delivered through registration with the Heat Trust scheme, or an equivalent (See from 5.233).

- 5.268. For DLM and IM that are not referenced in PAS 2030:2023 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.

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 installed or project completed receives a score which determines the contribution made towards a supplier's Home Heating Cost Reduction Obligation.
- 6.3. When measures are notified to us, Ofgem will determine the score for the measure or project, 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.⁷⁹
- 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 savings 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

⁷⁹ 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/decision/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision>

the full 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 17 below.

Table 17: 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 18: Floor Area Segments

Floor area segment	Total floor area (TFA) range
1	$\text{TFA} < 73\text{m}^2$
2	$73\text{m}^2 \leq \text{TFA} < 98\text{m}^2$
3	$98\text{m}^2 \leq \text{TFA} < 200\text{m}^2$
4	$200\text{m}^2 \leq \text{TFA}$

- 6.15. Score uplifts are automatically applied to the two smallest floor area segments (segment 1 and 2 in Table 18). These uplifts are already be accounted for in the scores shown in the [published scoring matrix](#). This is discussed further in the uplift section below, starting from 6.135.

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.
- 6.17. The starting SAP rating can be determined via a pre-installation RdSAP assessment as part of PAS 2035, 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. The timing of the assessment determines which version of RdSAP can be used for the assessment. See 4.25-4.31 for more details.
- 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.
- 6.20. If a project contains only 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 (and no exemption applies), 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](#). 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 and helps ensure there is a benefit to completing a project.⁸⁰

In-Fill

- 6.28. In-fill measures are not required to meet the minimum requirements.
- 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 17). 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.

⁸⁰ 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](#) 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.
- 6.37. Non-ECO measures which increase the SAP Rating of the premises may not be installed during the project. Where a non-ECO measure which increases the SAP rating of the premises is installed between the pre and post retrofit assessments, the project is not eligible for FPS.

Finishing SAP Rating

- 6.38. 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.
- 6.39. 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.

Data Light and Standard Alternative Methodology measures

- 6.40. As covered in the [New Measures and Products guidance](#) for measures not accounted for by SAP or RdSAP, a deemed SAP rating improvement can be derived by applying the energy cost rating formula.

- 6.41. 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.
- 6.42. For reference, the deemed SAP improvement for each approved SAM or DLM will be published in the [PPS matrix](#).
- 6.43. 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 28 in Appendix 5 – Uplifts, Increases, Deflators, Caps and Requirements lists the caps present in ECO4. See our [ECO4 Guidance: Supplier Administration](#) for more explanation of caps.

Late Measures

- 6.44. 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.
- 6.45. 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.
- 6.46. 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.

Example Late Penalty Calculation

- 6.47. A supplier notifies a UFI measure installed in a property with a floor area of 60m² 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.
- 6.48. 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 $0.2 \times 79 =$

£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

- 6.49. 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 Conventions⁸¹ and TrustMark EPR Conventions⁸² should be followed to determine the pre-main heating system of the premises.
- 6.50. 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. This notification approach does not apply to Solar PV measures.
- 6.51. 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.
- 6.52. 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.
- 6.53. 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.

⁸¹ RdSAP Conventions are available at: <https://bregroup.com/expertise/energy/sap/standard-assessment-procedure-2012> (RdSAP 2012) and <https://bregroup.com/expertise/energy/sap/sap10> (RdSAP 10)

⁸² EPR conventions are available at <https://www.trustmark.org.uk/business/information-guidance/quality-assurance>

- 6.54. When installing heating controls, the pre-main heat source is the heating system that will be affected by the controls being installed.
- 6.55. The [PPS Matrix](#) provides scores for common heating sources used across the Great British housing stock. The pre-main heat sources used for scores are given in Table 19.
- 6.56. Note that the Condensing LPG Boiler and Non-Condensing LPG Boiler pre-main heat sources must only be used where the LPG source is a bulk tank at the property. Where the home uses bottled LPG, the relevant bottled LPG per-main heat source must be notified.

Table 19: 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

- 6.57. Proxies are used for rare pre-main heat sources for which there is no score available.
- 6.58. Where a supplier installs a heating measure and the pre-main heat source is not reflected in the [PPS Matrix](#), Table 20 is used to determine which heating source is used as a proxy for the actual heating source.
- 6.59. Please note that Table 20 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 20, 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 20: 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

- 6.60. Where a heating source is identified which is not included in the [PPS Matrix](#) or Table 20, suppliers should contact Ofgem to determine the most appropriate course of action.

Identification of the Post-Main Heat Source for Heating Measures

- 6.61. The [PPS matrix](#) includes partial project scores for installing the heating sources provided in Table 21.

Table 21: 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)
GSHP
ASHP/Gas Boiler Hybrid
High Heat Retention Storage Heaters
Fuel Cell Micro-CHP (Fuel cell mCHP)
Shared Ground Loop GSHP

- 6.62. Guidance on rules and limitations covering the installation of these heat sources is given in Chapter 5.
- 6.63. If a supplier wishes to notify the installation of a heat source which is not in Table 21: Post-Main Heat Sources for Heating Measures, they should contact us prior to any installations taking place.

Percentage of Property Treated (POPT)

- 6.64. The published [partial project scores](#) take into consideration that it is often not possible to treat 100% of a property when a particular measure is installed.
- 6.65. 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.
- 6.66. 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.
- 6.67. 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 6.70. Suppliers do not need to notify Ofgem of the score for the measure – this will be calculated and awarded by the ECO4 Register.

- 6.68. 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

POPT is determined using the formula below:

$$\text{POPT} = \frac{A}{C} \times 100$$

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%

- 6.69. 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.
- 6.70. 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.

- 6.71. 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 <73m². 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.
- 6.72. 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:

$$\frac{128}{0.95} \times 0.5 = £67.37$$

- 6.73. Actual POPT, when expressed as a percentage (e.g. 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

- 6.74. When calculating POPT, there are some general measure-specific principles which should be considered. These principles are outlined in 6.75 – 6.132.

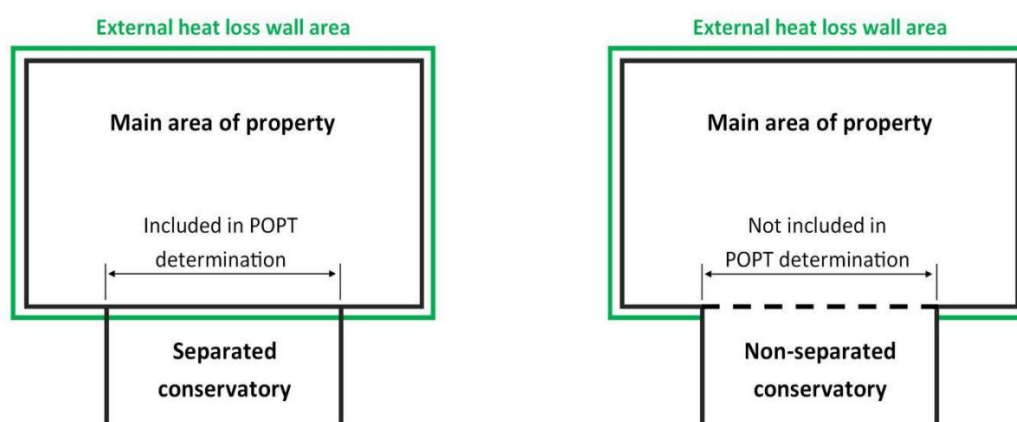
Wall Insulation

- 6.75. For wall insulation, POPT is 100% when the total external heat loss wall area of the property is insulated as part of the measure, where the external heat loss wall area is calculated as the net area of walls after subtracting the area of windows and doors. The wall(s) of a flat which are adjacent to an unheated corridor should be considered as an external heat loss wall. Corridor walls that do not form part of the heat loss perimeter of a property do not contribute to the POPT of a wall insulation measure.⁸³
- 6.76. 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

⁸³ Please refer to RdSAP convention 2.03 for further detail.

be awarded without modification. However, if it is less than 67%, the score will be calculated in accordance with paragraph 6.70.

- 6.77. 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 must be removed from the POPT.
- 6.78. Where some of the external heat loss wall area cannot be insulated as part of the installation, the percentage of that wall area must 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.
- 6.79. 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 must be removed from the POPT.
- 6.80. 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.
- 6.81. 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 $\geq 67\%$ (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 (e.g. an extension), then only one measure should be notified, with $>67\%$ POPT.
- 6.82. 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 13: POPT Diagram for Properties with Fully Glazed Conservatories

- 6.83. 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 13.
- 6.84. 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.
- 6.85. 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.
- 6.86. 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.
- 6.87. 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.
- 6.88. Table 22 presents examples of calculating POPT for wall insulation.

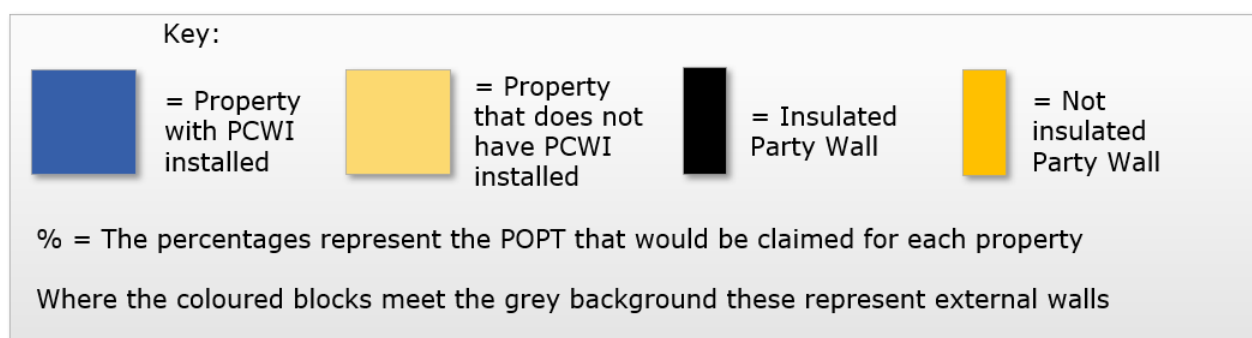
Table 22: Examples of POPT Calculations for Wall Insulation

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.	<p>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.</p> <p>If 20m² of the available 35m² 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.</p> <p>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+".</p>

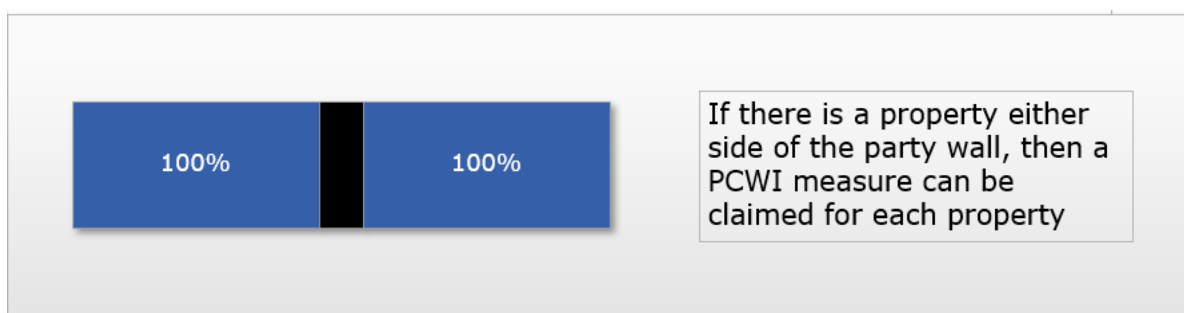
Party Cavity Wall Insulation (PCWI)

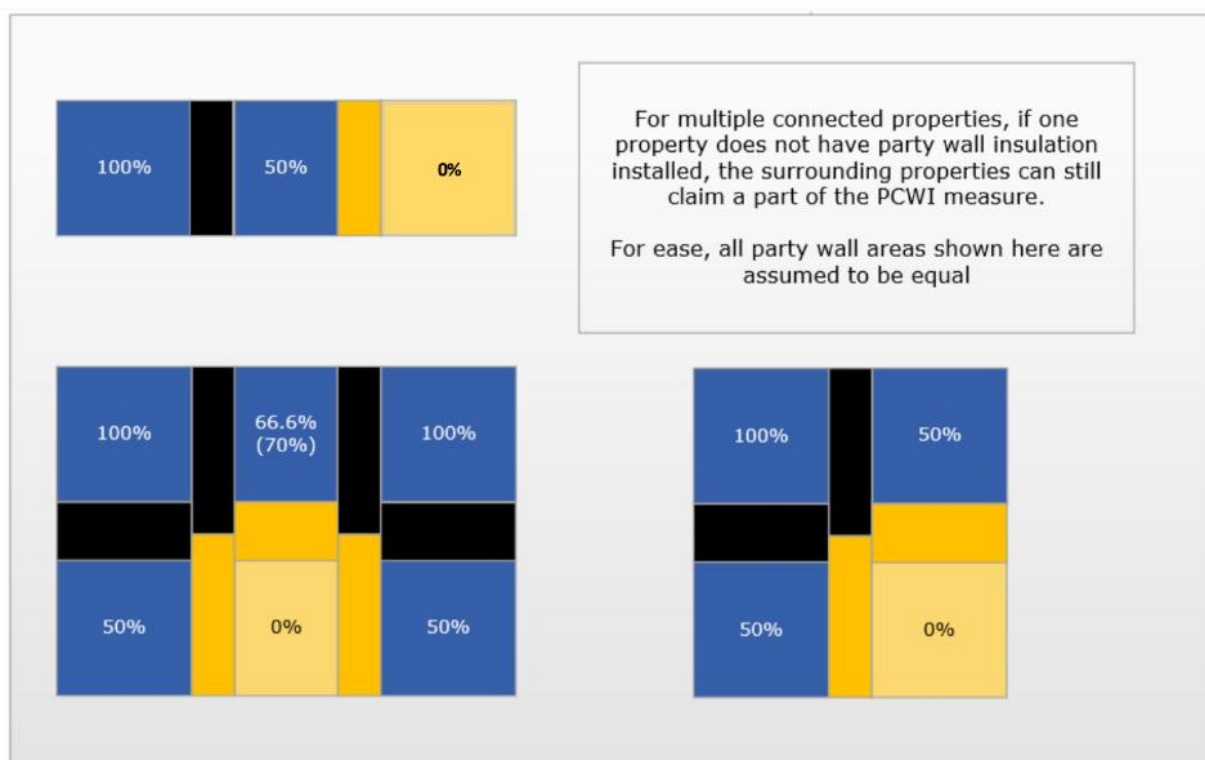
- 6.89. For party cavity wall insulation, 100% POPT is the insulation of all party cavity walls. POPT should be calculated based on the area of the party cavity walls that has been insulated, divided by the total area of party cavity wall.
- 6.90. When claiming for multiple adjacent party wall measures, 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.
- 6.91. 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.
- 6.92. The examples of PCWI installations in Figure 14 show how the POPT changes depending on the number of party walls which have been insulated.

Figure 14: Examples of Calculating POPT For PCWI



Example 1:



Example 2:**Loft Insulation**

- 6.93. Where part of a loft has already been insulated, the area with no pre-existing insulation can be claimed as loft insulation $\leq 100\text{mm}$. 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 $\leq 100\text{mm}$) 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 $> 100\text{mm}$) and the POPT reduced accordingly.
- 6.94. 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 notified – one LI $\leq 100\text{mm}$ measure with a POPT of 60%, and one LI $> 100\text{mm}$ measure with a POPT of 40%.

Roof Insulation

- 6.95. 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.

- 6.96. When calculating POPT for a roof insulation measure, the plan area (i.e. 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.
- 6.97. 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.
- 6.98. The roof area of conservatories (separated or non-separated) should not be included in the determination of POPT.
- 6.99. 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.
- 6.100. 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 5.14 onwards. The wall type will generally be timber frame.
- 6.101. 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 6.95 explains what is considered to be 100% of a RIRI measure.

- 6.102. 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.
- 6.103. 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.
- 6.104. If there is no residual lost area surrounding the RIR, the 'residual area insulated' score should be claimed.
- 6.105. 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 (i.e. it could be left uninsulated, but the POPT would need to be reduced accordingly).
- 6.106. Table 23 presents examples of calculating POPT for roof insulation for dwellings with different roof constructions.

Table 23: 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 example loft insulation or flat roof insulation.	POPT is 100%.
Example 2: a property has a total roof area of 100m ² , where 28m ² is	Where the property has multiple roof types, for example a flat roof and a pitched roof, all roof areas should be considered when calculating POPT.

<p>flat roof and 72m² is pitched roof.⁸⁴</p>	<p>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.</p> <p>The area covered by the pitched roof is 72m² of the total 100m² 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.</p> <p>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.</p>
<p>Example 3: a ground floor flat has a single storey extension which comprises 20% of the heated area of the property.</p>	<p>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</p>
<p>Example 4: a property with a single pitched roof of 80m² containing an RIR with a floor area of 20m².</p>	<p>If only the loft area surrounding the RIR is insulated (i.e. as a loft insulation measure), the POPT would relate to the loft area insulated, which is 60m² of the total 80m² roof area.</p> <p>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 only loft insulation is being carried out and the RIR is not insulated.</p>
<p>Example 5: a property has a single pitched roof containing a RIR.</p>	<p>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,</p>

⁸⁴ For the purposes of calculating POPT for roof insulation measures, roof areas should be measured in the horizontal plane i.e. the area of a pitched roof is equal to the area of floor beneath it.

	<p>and the published score will be awarded without modification.</p> <p>If the residual area is insulated, the deemed score for 'room-in-roof insulation – residual area insulated' should be selected.</p> <p>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.</p>
<p>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 100m², of which the pitched roof containing the RIR has a plan area of 72m², which includes any residual areas, and the flat roof has a plan area of 28m².</p>	<p>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%.</p> <p>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.</p> <p>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%.</p> <p>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.</p> <p>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.</p>

Heating Measures

- 6.107. 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.
- 6.108. 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.
- 6.109. 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 required to be notified if the 67% requirement is not met.
- 6.110. 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.
- 6.111. Where a programmer and room thermostat, smart thermostat, TTZC or compensation measure is installed, the POPT is the percentage of the home heated by the heating system the measure controls. If a home already has a programmer and only a room thermostat is installed, the measure may still be claimed and POPT calculated as above – the same applies if only a programmer is required. However, where both are installed, only one measure may be notified.
- 6.112. Where thermostatic radiator valves (TRVs) are installed, POPT should reflect the proportion of the home heated by the radiators receiving TRVs.

Boilers

- 6.113. 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.

- 6.114. Where a boiler measure (including a heat pump) is installed alongside an existing boiler such that both heat sources serve the same heating circuit, the POPT for the installed boiler must be reduced by 50%.
- 6.115. 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

- 6.116. 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.
- 6.117. Where only some of the ESH in a property are eligible for an upgrade, the POPT must be reduced accordingly.
- 6.118. Table 24 presents examples of how POPT is calculated for heating measures.

Table 24: 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	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

and not economically repairable, and the other two are inefficient.	6.69. 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 are installed to upgrade the inefficient ESHs and are sized and positioned to ensure that all parts of the property are adequately heated.	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 awarded will be modified to account for this.

Solar Photovoltaics

6.119. 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.

6.120. 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.

6.121. 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

6.122. The partial project score is based on an installed capacity of 2.5 kWp. We consider the installed capacity to be the peak power (kWp) of the PV array, or if the peak power (kWp) cannot be found, the declared net capacity (DNC) stated on the MCS certificate may be used instead. 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.

- 6.123. Solar PV measures may be delivered as part of an ECO project to homes, where a pre-existing Solar PV system is already present. However, only the additional generation capacity should be included in the POPT calculation. Please see paragraphs 5.215 - 5.216 for more information on the maximum amount of installed capacity that can be scored.
- 6.124. The delivery of Solar PV measures where a home has a pre-existing Solar PV system should be notified employing current Solar PV requirements as set out in this Delivery Guidance and [Data Dictionary](#), but only the additional generation capacity should be included in the POPT calculation. This means any pre-existing Solar PV generation capacity a home has prior to the ECO project commencing must not be notified in conjunction with the Solar PV measure delivered.

Orientation and Inclination

- 6.125. 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).
- 6.126. The OI factor represents the expected energy yield when considering the orientation and inclination values of a particular installation.
- 6.127. Suppliers should select the appropriate OI factor based on the orientation and inclination of a specific installation using Table 25. 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.
- 6.128. Where more than one array of PV panels is being installed (i.e. 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.

6.129. Where the orientation or inclination factors are not listed in Table 25, the figure should be rounded to the nearest figure provided.

Table 25: OI Factors for Solar PV Installations of Different Orientation and Inclination

		Orientation																								
		North		North West			West			South West			South			South East			East		North East			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°
Inclination	90°																									
	80°																									
	70°																									
	60°																									
	50°																									
	45°																									
	40°																									
	35°																									
	30°																									
	20°																									
	10°																									
	0°																									

Key:	
Band colour	OI factor (%)
	35
	55
	74
	86
	93
	100

Calculating POPT for Solar PV

6.130. POPT for Solar PV measures is calculated using the formula below:

$$\text{Solar PV POPT} = \frac{\text{Installed Capacity (kWp)}}{2.5 \text{ (kWp)}} \times \text{OI Factor (\%)}$$

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 25.

6.131. 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

6.132. Table 26 presents examples of how POPT is calculated for Solar PV measures.

Table 26: 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 25, the OI factor is 93%.	$\text{Solar PV POPT} = \frac{4}{2.5} \times 93 = 148.8$ <p>POPT is rounded to the nearest whole number giving a POPT of 149%.</p>
Example 2: a 2 kWp Solar PV installation with an orientation of 60° south-east and an inclination of 35°. Using Table 25, the OI factor is 86%.	$\text{Solar PV POPT} = \frac{2}{2.5} \times 86 = 68.8$ <p>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.</p>
Example 3: a 3 kWp Solar PV installation with an orientation of -15° south / south-west and an inclination of 35°. Using Table 25, the OI factor is 100%.	$\text{Solar PV POPT} = \frac{3}{2.5} \times 100 = 120$ <p>POPT is 120%.</p>
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°.	<p>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%.</p>

Building Extensions

- 6.133. 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 3.48 for more information.
- 6.134. 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

- 6.135. 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 a % multiplier while increase refers to fixed values. The available uplifts and increases are given in Table 28 in Appendix 5 – Uplifts, Increases, Deflators, Caps and Requirements.
- 6.136. 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. Innovation measures must meet the eligibility requirements for their underlying measure type – see 6.157.

(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 18). 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.

- 6.137. The off-gas rural uplift is only eligible for off-gas properties in rural areas in Scotland and Wales.
- 6.138. 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.
- 6.139. 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.
- 6.140. The repair or replacement of heating systems or ESH is capped for specific circumstances. See Table 31 for detail of caps in ECO4.
- 6.141. 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.

- 6.142. 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 100m² is improved from a low band F to a low band D, the FPS received is £1072.⁸⁵ 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).
- 6.143. 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

- 6.144. 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 from 4.81.
- 6.145. 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:
- Low - £50 - 200 actual spend (mid-point = £125)
 - Medium - £201 - 500 actual spend (mid-point = £351)
 - High - £501 - 1000 actual spend (mid-point = £751)
 - Highest - £1001 - £1500 actual spend (mid-point = £1251).
- 6.146. The cost ranges apply to all BFR issues that are rectified in a particular property i.e. 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.
- 6.147. 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.
- 6.148. The BFR increase is calculated using the BFR spend and the following formula:

⁸⁵ Score taken from the FPS matrix available at: <https://www.ofgem.gov.uk/guidance/eco4-scores>

$$\text{BFR Increase} = \frac{\text{Mid-point of BFR actual spend cost range category}}{\text{Cost per £ bill saving of improving the household}}$$

6.149. The cost per £ bill saving of improving the household is taken from the [ECO4 final stage impact assessment](#) 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:

$$\text{BFR Uplift} = \frac{751}{17.83} = £42.12$$

6.150. 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 BFR against the repair spend lodged with Trustmark to ensure accuracy of notified data.

Example Score Calculations with Uplifts

6.151. Example 1: A rural and off-gas property in Scotland with a starting intermediate SAP band of low E and floor area of 150m² 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.
- 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 150m² 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:

$$\text{Total score} = £1100.79 + £42.12 + £56.25 = £1199.16$$

6.152. 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 + 0.25 + 0.1. This is:

$$\text{Total score awarded} = £123.2 + £165 + £270 = £558.2$$

New Measures and Products

6.153. 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:

Standard Alternative Methodology (SAM)

6.154. A route for awarding a new measure type for technologies deliverable under Publicly Available Specification (PAS) 2030:2023 or the Microgeneration Certification Scheme (MCS), not currently recognised in the Standard Assessment Procedure (SAP 2012 and SAP 10) nor deliverable on the scheme under an existing standard measure type.⁸⁶ 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.

Data Light Measures (DLM)

6.155. 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.

Innovation Measures (IM)

6.156. A route for awarding an uplift to measures that can demonstrate an improvement over comparable measures⁸⁷ 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

⁸⁶ 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).

⁸⁷ See 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.

25% or 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.

- 6.157. Innovation measures must meet the eligibility requirements for their underlying measure type. For example, an innovation measure which is a heating measure must meet the relevant requirements of articles 26-30 of the [ECO Order](#).
- 6.158. These routes all involve an application process before the measures can be delivered.
- 6.159. 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](#) for further information.

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. 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 e.g. 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. 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 from 6.38.

Timing of Measure and Project Notifications

- 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):
- Initial project notification
 - Measure 1
 - Measure 2
 - 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 2030:2023 and 2035:2023, 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 [ECO4 Guidance](#).

[Supplier Administration](#) along with further guidance on defining when a measure is complete.

- 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:
- 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
 - 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 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 (i.e. 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](#). 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.

8. Monitoring, Audit and Fraud Prevention

Technical 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. 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](#).
- 8.3. Measures not lodged on the TrustMark Data Warehouse (i.e. district heating connection measures, other than those that are the installation of a ground source heat pump at a domestic premises, which draws heat from a shared ground loop supplying multiple premises), will be subject to the Ofgem monitoring programme.

Audit

- 8.4. 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.
- 8.5. 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 Guidance: Supplier Administration](#). 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 Guidance: Supplier Administration](#).
- 8.6. 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.

ECO4 Flex Audit

- 8.7. Suppliers are expected to provide and hold sufficient evidence for all Flex projects and measures to ensure eligibility and compliance requirements have been met.
- 8.8. We may send suppliers an annual sample of projects and measures that they have notified, and request that they carry out due diligence checks to ensure they comply with scheme requirements.
- 8.9. Where we find evidence held and provided by the supplier to be insufficient or incorrect, this evidence may look to be reviewed with LAs. Compliance action may be taken if not rectified.

Fraud Prevention

- 8.10. Ofgem takes fraud seriously. A dedicated Counter-Fraud team undertakes activities to detect, prevent and deter fraudulent activity across ECO.
- 8.11. 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.
- 8.12. A supplier is expected to mitigate the risk of fraud within its ECO activity. This should include, but is not exclusive to:
- Identifying and mitigating fraud risks.
 - Controls to ensure savings determined using deemed scores, SAP assessments, EPCs, or alternative methodologies are correct. This list is not exhaustive.
 - 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.
 - Robust processes for getting regular, reflective activity reports from in-house installers and third parties.
 - Continued scrutiny of in-house and third-party activity to ensure compliance with the [ECO4 Order](#) and Ofgem guidance.

- Suitable, senior manager oversight of activity and reporting.
 - Processes to ensure accurate and reflective reporting to us, and
 - Processes for handling, 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.
- 8.13. 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.
- 8.14. 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.
- 8.15. All suppliers are invited to attend the ECO Industry Fraud Prevention and Compliance Committee,⁸⁸ a forum for discussing common fraud risks and issues across the industry and to drive best practice.
- 8.16. Suppliers should, in all instances, promptly report any instances of suspected fraud to the Ofgem Counter-Fraud team (counterfraud@ofgem.gov.uk).
- 8.17. 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.
- 8.18. 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.

⁸⁸ 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.

- 8.19. In addition, where evidence of fraud is found this should be reported by the obligated supplier to [Action Fraud](#) or the Police.⁸⁹ We will also refuse or revoke approval of any fraudulent ECO measures.

Documentation Guidelines

- 8.20. 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.
- 8.21. This section outlines the existing requirements and expectations when it comes to the completion of documentation and notification / lodgement of information in the ECO4 Register or on the TrustMark database that is used to support the eligibility and compliance of an ECO measure or project.
- 8.22. 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

- 8.23. We have worked with energy suppliers to develop the following standards, which must be followed as a minimum.

Evidence must be complete

- 8.24. 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.
- 8.25. All documentation must be legible, including where photographic evidence of documents (e.g. benefit letters) is taken. All forms must be clear and

⁸⁹ If the fraud is ongoing, it should be reported directly to the Police.

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.

- 8.26. Information provided in documentation should be consistent across documents.
- 8.27. 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.
- 8.28. 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.
- 8.29. Evidence should be provided as standalone files, in '.pdf' format where possible, and not embedded within other documents or files.
- 8.30. All photos used to support the eligibility or compliance of a measure must be date and geo-stamped. Photos used as evidence should retain accurate information and not have their details tampered with.

Digital Software Use

- 8.31. 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. It must not be possible to auto-populate fields which require information specific to a premises or measure, such as dates or signatures.
- 8.32. 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.
- 8.33. Operatives must ensure that any fields are not modified at a later date unless a new version is created and resigned by the appropriate signatory. 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 or signature of documents that were completed electronically.

- 8.34. The format of any document must be compatible with standard software so that they can be opened and read by Ofgem and suppliers without the need to purchase new or additional software.
- 8.35. 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, i.e. the brand of the application should not show on paperwork which has been manually completed and wet signed.
- 8.36. Where customers have signed documents electronically or as a wet signature, they must have access to documents after any works are completed. This can include paper versions of documents.
- 8.37. Software can be used to auto-generate digital signatures, provided:
- Meta data for these signatures is attached or available upon request following audit. The meta data must show the date and time and the name of the individual who signed.
 - The appropriate individual applies their signature individually to each box that requires a signature.
- 8.38. Where we have reason to believe people have not applied their own signature to individual boxes that require signatures, the project may be rejected.

Signature Application

- 8.39. Signatures and dates must only be used where they are applied or embedded uniquely in the documents by the relevant person. Wet signatures must be applied with a pen and electronic signatures preferably with a stylus, although use of a finger is also acceptable. Any signatures, whether digital, wet or electronically applied with a finger or stylus, must be applied individually to each box by the relevant individual. Following any investigation, measures connected to documentation containing signatures where there is evidence that they were not uniquely applied by the relevant signatory may be rejected.
- 8.40. There should be no amendments to signatures or dates.

- 8.41. Sections of documents which have been signed should not be modified after signing. Where it is necessary to do so, a new version should be created and re-signed by the appropriate signatory, as per paragraph 8.33.
- 8.42. Households may be required to sign multiple documents, but in doing so it provides us with the assurance that they have seen, read and understood the contents of each document.
- 8.43. Installers should ensure the signatures and signature boxes are accessible and should provide instructions on how to complete these correctly if necessary.

GDPR considerations

- 8.44. 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.

Signature Practices that are Not Permitted

- 8.45. Many of the documents required for measure submission are declarations. In signing them, the party is confirming the information recorded 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.
- 8.46. Users of ECO documents should 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.
- 8.47. 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

- 8.48. Where Ofgem detects any suspected fraudulent activity including falsifying statements and forging signatures and determines fraudulent activity has

occurred, this will result in the associated measure or project being processed for rejection. In addition, matters may be reported to the Police, Action Fraud, or other law enforcement agencies such as Trading Standards.

Signatures Being Signed 'On Behalf' of Someone Else

- 8.49. Signatures should be given by the appropriate party in question. Where operative signatures are required, 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.
- 8.50. The signature should not be provided by any other individual, for example a colleague or office staff, 'on behalf' of the operative.
- 8.51. Where the eligible consumer is unable to sign, for example due to a disability, we may allow someone to sign on their behalf. This should be a relative, neighbour, friend or similar and should not be the operative or retrofit coordinator or another member of the supply chain.
- 8.52. Please reach out to ECO@ofgem.gov.uk to request signatures on behalf of the consumer to be allowed in specific cases. If allowed, a declaration should be provided alongside the forms with sufficient explanation of the consumers circumstances. The individual signing on behalf of the consumer must sign everywhere the signatory applies and should not sign in the name of the person they are signing on behalf of. The rest of the signature guidance applies, and declarations must be provided at the time of notification to the supplier. Declarations and requests to the ECO mailbox to sign on behalf of someone else will not be accepted at a later date or retrospectively.
- 8.53. Following any investigation, measures connected to documentation containing signatures where there is evidence that they were not signed uniquely or applied digitally by the relevant signatory may be rejected.

Photocopying

- 8.54. 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.

- 8.55. To reiterate, signatures must be obtained for each individual document whether it is the signature of the operative, customer, landlord or property management company.
- 8.56. Photocopying or screen grabbing 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

Appendix 1 – ECO4 Associated Documents

Appendix 2 – Premises and Occupant Requirements

Appendix 3 – Boiler Information Pack

Appendix 4 – Electric Storage Heaters (ESH) Information Pack

Appendix 5 – Uplifts, Increases, Deflators, Caps and Requirements

Appendix 6 – Insulation Precondition Age Band Table

Appendix 7: ECO4 Flex Process for Local Authorities

Appendix 8: ECO4 Abbreviations Table

9. Appendix 1 – ECO4 Associated Documents

9.1. Table 27: Forms for ECO4 outlines our ECO4 Forms along with a brief description of each document.

Table 27: Forms for ECO4

ECO4 Template	Purpose of ECO4 template	Mandatory Signatories
ECO4 & GBIS Eligibility Requirements and Pre-Installation Declaration	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. Also used to collect project-level information before the installation of measures takes place.	<ul style="list-style-type: none"> • Retrofit Co-ordinator or DHC Installer • Landlord / Social Landlord • Owner • Occupier
ECO4 & GBIS Post-Installation Declaration	To collect post-installation information on the measures installed. To collect customer and supply chain declarations to sign off on ECO4 requirements.	<ul style="list-style-type: none"> • Installer • Occupier • Owner • Retrofit Co-ordinator or DHC Installer

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.	<ul style="list-style-type: none"> • Surveyor / assessor / operative / installer or similar • Retrofit coordinator or DHC installer
ECO4 & GBIS Pre-Existing Loft Insulation Declaration	To declare the presence or absence of pre-existing loft insulation. It can be used either for ECO4 or Great British Insulation Scheme. Where loft insulation is installed, this declaration must be completed and physically secured to the inside of the loft.	<ul style="list-style-type: none"> • Installer • Occupier/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:
- Documents should be from official organisations (eg bank or mortgage society) or government departments, with the exception of Ofgem templates and tenancy agreements.
 - The necessary information on the documents should be clearly visible.
 - The dates on the documents should fit within the given timeframe as indicated throughout this guidance note.
 - 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.
 - 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.
 - 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.

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:
- The Land Register maintained by His Majesty's Land Registry for England and Wales, or
 - 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.⁹⁰ 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.

⁹⁰ 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:
- 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 and Pre-Installation Form ([Template 2: Landlord and occupier statement where no written tenancy agreement exists](#)).
 - 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, i.e. 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'.
- 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 (e.g. 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.
- 10.18. Where the relevant interest is not registered, the supplier must provide different evidence depending on whether:
- The person who owns the relevant interest occupies the premises ('the owner occupier'), or
 - the person who owns the relevant interest lets the premises to a tenant ('the owner landlord').

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 to demonstrate that the owner-occupier has the current right to occupy the premises (i.e. the premises have not been leased to another person). The supplier will need to provide a copy of one of the following:

- Title deeds (we will accept other deeds and legal declarations that explicitly state that the person owns the premises)⁹¹, or
- 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
- A completed Ofgem [template](#) 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.

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 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,

⁹¹ 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.

or

- A completed Ofgem [template](#) 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.

Supporting Information for Demonstrating the Relevant Interest

- 10.22. If the documentation listed proves inconclusive, i.e. the relevant interest belongs to a corporation, the supplier must ensure the entity is not a social landlord (see 10.25).
- 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 premises (see 10.49).
- 10.24. If the supporting information for demonstrating the relevant interest is complicated due to the death of the registered owner of the property, suppliers should contact Ofgem on a case-by-case basis to discuss the available evidence.

Social Housing

Identifying Social Landlords

- 10.25. A social landlord means, in respect of premises in **England and Wales**:
- A local housing authority, within the meaning of section 1 of the [Housing Act 1985](#)
 - A housing association, within the meaning of section 5 of the Housing Act 1985
 - A housing trust, within the meaning of section 6 of the Housing Act 1985
 - A charity, within the meaning of section 1 of the [Charities Act 2011](#)

- A person listed in section 80(1) of the Housing Act 1985 (Wales only), or
 - A body registered as a social landlord under Chapter 1 of Part 1 of the Housing Act 1996 (Wales only).
- 10.26. A social landlord means, in respect of premises in Scotland, a person so described in section 165 of the [Housing \(Scotland\) Act 2010](#).
- 10.27. 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

- 10.28. The Homes and Communities Agency provide a list of [registered providers of social housing](#).
- 10.29. The Charity Commission holds a [register of organisations that have been recognised as charitable in law](#). Not all charities must register.

Wales

- 10.30. The Welsh Ministers maintain a [public register of social landlords](#).

Scotland

- 10.31. The Scottish Housing Regulator maintains a [register of social landlords](#).

Determining Market Rate

- 10.32. 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 tenancy agreement, and
 - Statistics showing the premises were rented at or above market rate.
- 10.33. When determining whether the property is let at below market rate the rent figure should not include the additional cost of service charge.

England

10.34. 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.

Scotland and Wales

10.35. 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:⁹²

- **Scotland:** the 30th percentile of market rents can be found in column 3 of the [Local Housing Allowance \(LHA\) methodology table](#).
- **Wales:** The 30th percentile of market rents can be found in column 2 of the [LHA table](#).

10.36. 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.

Evidence for Mobile Homes

10.37. 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 (i.e. a HTHG member or a household identified as eligible by a local authority).

⁹² 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.

10.38. 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

10.39. Documents must establish that an occupant of the premises was an HTHG member at some point during the promotion of the measure.

10.40. 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.

10.41. There are several ways to show the customer is an HTHG member. The supplier can produce one of the following:

- a matched DWP reference number
- an HTHG benefit letter
- 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 from paragraph 3.150 onwards.

10.42. Further information on the WHD Core Group notice and the DWP match eligibility route can be found from paragraph 3.136.

10.43. If using benefit letters to prove HTHG eligibility, with the exception of Child Benefit award notices, the letter 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:

- 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
- 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.

- 10.44. Online services are available for UC recipients which provide customers' up-to-date benefit entitlement information.
- 10.45. 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.
- 10.46. We do not require full 'proof of benefit' letters or award notices. To evidence HTHG eligibility, we only need the page(s) that show:
- official letter headed paper from HMRC, DWP/Jobcentre Plus, HM Government or the Pension Service
 - 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
 - relevant date (either of the letter, start or end of the benefit), and
 - confirmation that a customer receives a qualifying benefit.
- 10.47. The HTHG benefit types for the purposes of ECO4 are:
- Income based Jobseekers Allowance (JSA),
 - Income related Employment and Support Allowance (ESA),
 - Income Support (IS),
 - Pension Credit Guarantee Credit (PCGC),
 - Working Tax Credit (WTC),
 - Child Tax Credit (CTC),
 - Universal Credit (UC),
 - Housing Benefit,
 - Pension Credit Savings Credit (PCSC),
 - Child Benefit.

Other Official Documents which can Evidence Occupancy

- 10.48. 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.

10.49. Any official documents addressed to that person at the address where the measure is to be installed, such as:

- an extract from the electoral or open register
- a utility bill,⁹³ a landline phone bill, or a tv license
- a mortgage statement, a bank statement,
- an NHS letter, or
- any other official documentation as agreed with Ofgem.

10.50. 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.

10.51. 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

10.52. There are cases where a person changes their name, with the result that:

- 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
- the person's new name appears on HTHG benefit documents or other official correspondence (described above).

10.53. 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 [ECO4 Templates to evidence private domestic premises](#).

⁹³ 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.

Children and Qualifying Young Persons

10.54. 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 of ECO if they are being looked after by a local authority,⁹⁴ and that authority has placed them in the home of someone proposing to adopt them.

Guidance on Redacting Information

10.55. 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.

10.56. 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:

- The amount the customer receives from their benefit. You only need to show that they receive that benefit.
- For HTHG routes which are not means tested (e.g. Income Support or State Pension Credit), you do not need to show the customer's income or savings.
- National Insurance numbers should not be visible. These are often shown on the front page and should not be used as a unique identifier.

10.57. When processing any personal data or sensitive personal data, suppliers are reminded of their duties to comply with the requirements of data protection law.

10.58. 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

⁹⁴ For Universal Credit Recipients see Article 4(6) of the Universal Credit Regulations.

information up to the 30 September 2022. It is the suppliers' responsibility to keep up to date with any changes to requirements.

Example Letters

10.59. These are some examples of different types of letters that you may encounter.

10.60. 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.

10.61. 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.

10.62. Please find example letters for following benefit letters in the following:

- Income-based Jobseeker's Allowance (JSA),
- Income-related Employment and Support Allowance (ESA),
- Income Support (IS),
- Pension Credit Guarantee Credit (PCGC) and Pension Credit Savings Credit, (PCSC),
- Working Tax Credit (WTC),
- Child Tax Credit (CTC),
- Universal Credit (UC), [not included in this guidance version],
- Housing Benefit,
- Child Benefit (subject to income caps and composition),
- 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:



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

Example 2: Pension Credit benefit Award Notice letter

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

Example 3: Working Tax Credit (WTC),

PERSON A
421 HAPPY WAY
HAPPY
HA1 PP7

Textphone 0345 300 3905
For our opening hours go to
www.gov.uk/contact-hmrc

TCO PRESTON
GREAT BRITAIN
PR1 4AT

Date: 13 May 2022

Amended tax credits award for 06/04/2021 to 05/04/2022

PERSON A
PERSON B

National Insurance Number AB123456C
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 4: 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
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Family elements

Total Child Tax Credit elements	£1,500.00
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Reduction due to your income	£500.00
------------------------------	---------

Amount for the period	£1,000.00
-----------------------	------------------

Example 5: 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@huntingdon.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

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

Any weekly amount deducted to repay a Housing Benefit overpayment will be shown here.

The weekly amount due to be paid to you or your landlord.

The start date this award period relates to.

Dependant deductions: £14.55

This is the amount of rent we use to work out your entitlement. This may not be the total rent you pay.

NON-DEF NAME	GROSS INCOME (WK)	INCOME BAND	DEDUCT (HB)	DEDUCT (CTAX)
ANNA	£0.00	16-not work, 25+ IS	£14.55	

We have used the following information to work out your weekly benefit:
Claim based on income related ESA

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.

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

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,
 51 Marys Street, Huntingdon, PE29 3TH
 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

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

HOUSING BENEFIT

£82.62

£0.00

£82.62

£150.00

£150.00

£0.00

£0.00

NON-DEP NAME

GROSS INCOME (WKL)

INCOME BAND

DEDUCT (HB)

DEDUCT (CTAX)

HOUSING BENEFIT

£82.62

£0.00

£82.62

£150.00

£150.00

£0.00

£0.00

FINANCIAL DETAILS:

Your weekly earnings: £0.00

Your partner's weekly earnings: £251.66

Any other income (converted to wkl): £179.60

Assumed Income from £10K Capital: £0.00

TOTAL WEEKLY INCOME: £431.26

Disregarded income: £61.50

Less Expenses: £0.00

INCOME USED IN CALCULATION: £369.76

APPLICABLE AMOUNT:

Family premium: £17.45

Young Person: £66.90

Young person (between 18 & pension age): £114.86

Young person: £66.90

TOTAL APPLICABLE AMOUNT: £266.10

CLAIM 2

CLM 305


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CLAIM 2

CLM 305

Page 1 of 1

**Example 6: Child Benefit entitlement details, including weekly rate calculations
(on following page)**

 HM Revenue & Customs	Child Benefit
Donald Duck 1 The Pond POOLE SW1 1MS	Child Benefit Office HM Revenue and Customs BX9 1GT
	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.	

How your child benefit is worked out

Total weekly rates from 11 April 2022

Basic amounts:

Huweg: £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-childcare

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:
- Defining boilers and heating systems
 - Replacement boilers
 - Eligible boiler measures in ECO
 - Determining whether a boiler is broken down or inefficient
 - Carrying out boiler assessments, and
 - 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:
- Heat exchanger
 - The fuel supply system
 - Boiler and burner control system
 - Air supply and exhaust fans
 - Flue connections within the boiler case
 - Expansion vessel and / or fill and expansion header tanks
 - Programmer / timer (one that is integral to the boiler)
 - Circulation pump
 - Condensate drain system
 - Burner assembly

- 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:

- Radiator circuit
- Heating circuit
- Heat emitters (radiators as well as underfloor or vents)
- Flue
- Room thermostats and thermostatic radiator valves (TRVs)
- Mains boiler or other heat source (indoor or outdoor unit)
- Cold water tank
- Expansion tank
- Hot water storage tank
- Control valves
- 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:
- Boiler replacement
 - Upgrade of an inefficient boiler
 - 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 installer must list the symptoms observed and state the steps taken to reach their conclusion in the Energy Company Obligation (ECO): [Pre-Installation Heating Checklist](#). See 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 installer 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 installer 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 heating system or DHC. The boiler will only be eligible for replacement as a broken heating system where:
- The required replacement parts for the boiler are not available (i.e. 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
 - The actual cost of repair is greater than the cost of replacing the boiler, or
 - 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 installer, 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 installer 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 e.g. 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:
- The boiler name plate
 - Installation certificates
 - 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 (e.g. 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 installer 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 installer 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 installer 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 installers 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 installers who meet industry competency standards for that particular fuel type.

- 11.30. All installers 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, installers 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 installer should sign the relevant section of the [ECO4 Pre-Installation Heating Checklist](#). See 5.254 for more 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 installer 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 installer 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 installer 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, i.e. 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 installer'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

installer, 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](#). 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.

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 at a property that has ESH or an electric heating system as its pre-main heat source.⁹⁵
- 12.3. Replacement ESHs must be installed in accordance with [Publicly Available Specification \(PAS\) 2030](#) 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:
- Broken ESH replacement
 - Broken ESH repair
 - Upgrade of an inefficient ESH with an efficiency of equal to or less than 0.2, or installation of an ESH where there is neither an efficient nor inefficient heating system in the property.

⁹⁵ This means the actual PMHS and not the proxy being used for scoring.

- 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 installer should list the symptoms observed and the steps taken to reach their conclusion that the ESH is broken down in the [ECO4 Pre-Installation Heating Checklist](#).

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:
 - The required replacement parts for the ESH are not available (i.e. 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).
 - The insulation in the ESH contains asbestos and therefore cannot be removed to access broken part.

- The actual cost of repair is greater than the cost of replacing the ESH.
- 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 the final option listed 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](#).
- 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 installer, 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 installer when calculating the actual cost of repair should, where applicable, include those listed above, plus the cost of a warranty of at least one year. 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 (e.g. replacing damaged insulation), the cost of these works should be included in the actual cost of repair (subject to those works being carried out). See 12.28 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 installer').
- 12.21. The installer 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:

- Who is considered to have appropriate skill and experience, and
- 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 'installer'). Appropriate skill and experience can be demonstrated by the installer 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 installer 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 installer(s) and must be made available to us on request. All steps taken by the installer in determining if the ESH is broken down or inefficient should be recorded in the checklist, as well as the installer'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 installer'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 installer, 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 year as per the [TrustMark requirement](#). 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.

13. Appendix 5 – Uplifts, Increases, Deflators, Caps and Requirements

13.1. This appendix contains tables listing all the various uplifts, increases, deflators, caps, and minimum requirements in ECO4.

Table 28: Uplifts and Increases in ECO4

Uplift or Increase	Limit on uplifts in project	How uplift or increase is applied	Rate / value	How and when uplift or increase should be notified	Eligible properties
Efficient heating system repair	1	Fixed value increase	£140 ⁹⁶	Applicable measures	All SAP bands, owner-occupied properties only
Efficient heating system replacement	1	Fixed value increase	£140 ⁹²	Applicable measures	All SAP bands, owner-occupied properties only
Efficient ESH repair	No limit	Fixed value increase	£40 ⁹²	Applicable measures	All SAP bands, owner-occupied properties only
Efficient ESH replacement	No limit	Fixed value increase	£40 ⁹⁶	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 ⁹⁷	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

⁹⁶Annual bill savings. Note these fixed values may appear higher in the scoring matrix due to the floor area uplift.

⁹⁷ There are four values of BFR uplift available. Please see 6.145 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 29: 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 30: 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 HHCR)	Each ECO-obligated energy supplier
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Table 31: Caps in ECO4

Cap	What does the cap limit?	Value	Impact of project / measure breaching cap ⁹⁸
Innovation Measure - general	% of obligation awarded to innovation measures (cost savings value + innovation uplift)	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 (cost savings value + innovation uplift)	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, i.e. 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

⁹⁸ Whether a cap has been breached and any subsequent scoring impacts will occur after final determination.

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
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. ⁹⁹	Equivalent to 20,000 across ECO4. Each supplier's share of this is equivalent to their share of total ECO4 obligation	Measure not scored

⁹⁹ 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 – Insulation Precondition Age Band Table

14.1. This table sets out the U value required by current building regulations for given building elements and construction types, and the RdSAP age bands are assumed to meet these values. Overwritten u-values in the RdSAP XML files for elements supersede acceptable age bands.

Table 32: Insulation Precondition Age Bands

Building element	Country	Construction type	Target U value	Acceptable RdSAP Age bands	Acceptable years of construction
Walls	England & Wales	<ul style="list-style-type: none"> Stone as built (all) Solid Brick as built Cob as built System build as built Timber frame as built Timber frame with internal insulation 	0.3	K, L, M	2007 Onwards
		<ul style="list-style-type: none"> Stone/Solid Brick with 50mm external or internal insulation Cob with 50mm external or internal insulation 	0.3	I, J, K, L, M	1996 Onwards

		<ul style="list-style-type: none"> System build with 50mm of external or internal 			
		<ul style="list-style-type: none"> System build with 100mm of external or internal 	0.3	G, H, I, J, K, L, M	1983 Onwards
		<ul style="list-style-type: none"> Stone/Solid Brick with 100mm external or internal insulation 	0.3	F, G, H, I, J, K, L, M	1976 Onwards
Walls	England & Wales	<ul style="list-style-type: none"> Stone/Solid Brick with 150mm+ external or internal insulation Cob with 100mm+ external or internal insulation System build with 150mm+ external or internal insulation 	0.3	All	All
		<ul style="list-style-type: none"> Cavity as Built 	0.55	I, J, K, L, M	1996 Onwards
		<ul style="list-style-type: none"> Unfilled cavity with 50mm+ external or internal insulation Filled cavity with 50mm+ external or internal insulation 	0.55	All	All
		<ul style="list-style-type: none"> Filled Cavity 	0.55	F, G, H, I, J, K, L, M	1976 Onwards
Walls	Scotland	<ul style="list-style-type: none"> Stone as built (all) Solid brick as built Cob as built 	0.17	None	None

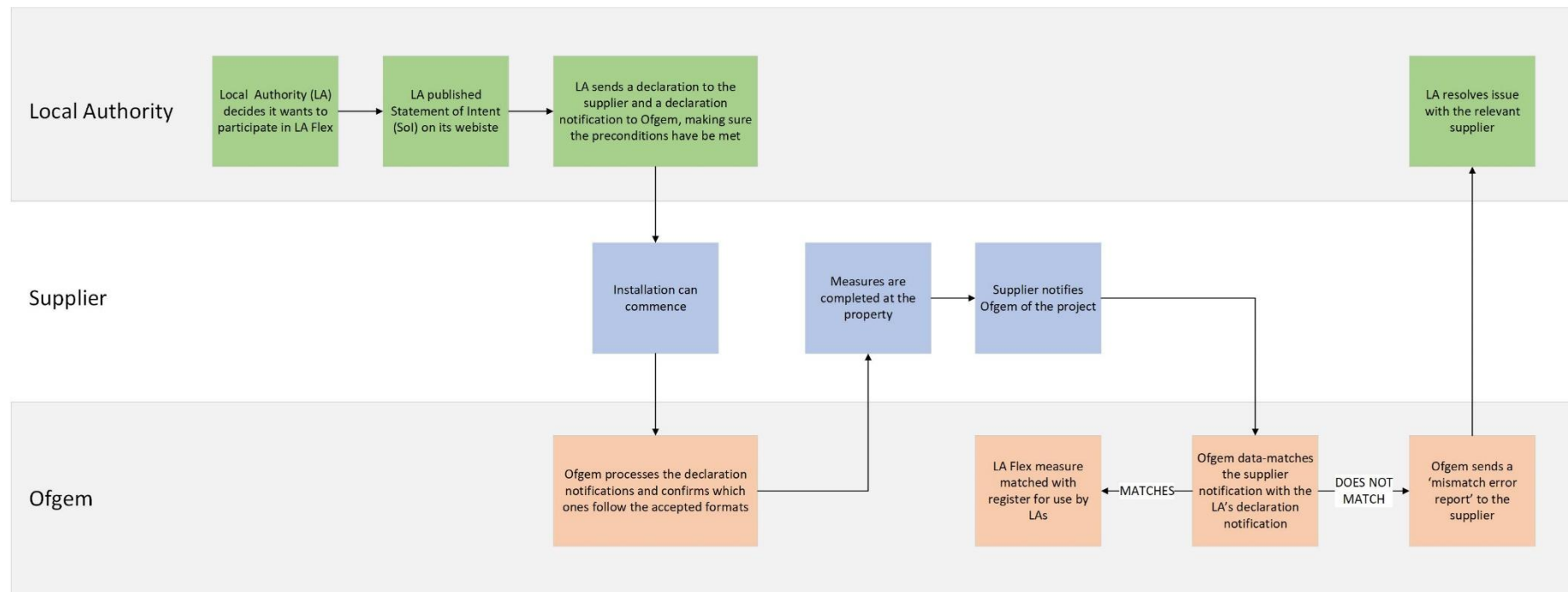
		<ul style="list-style-type: none"> Filled Cavity Timber Frame as built Timber frame with internal insulation System build as built 			
		<ul style="list-style-type: none"> Cob with 50mm external or internal insulation 	0.17	M	2024 Onwards
Walls	Scotland	<ul style="list-style-type: none"> Stone/solid brick with 50mm external or internal insulation Unfilled cavity with 50mm external or internal insulation Filled cavity with 50 and 100mm external or internal insulation System build with 50mm external or internal insulation Cob with 100mm external or internal insulation Cob with 150mm external or internal insulation 	0.17	L, M	2012 Onwards
		<ul style="list-style-type: none"> Stone/solid brick with 100mm external or internal insulation System build with 100mm external or internal insulation 	0.17	K, L, M	2007 Onwards
		<ul style="list-style-type: none"> Stone/solid brick with 150mm external or internal insulation 	0.17	I, J, K, L, M	1999 Onwards

		<ul style="list-style-type: none"> • System build with 150mm external or internal insulation • Unfilled cavity with 150mm external or internal insulation 			
		<ul style="list-style-type: none"> • Stone/solid brick with 200mm external or internal insulation • Unfilled cavity with 200mm external or internal insulation • Filled cavity with 150mm external or internal insulation • System build with 200mm external or internal insulation 	0.17	F, G, H, I, J, K, L, M	1976 Onwards
		<ul style="list-style-type: none"> • Filled cavity with 200mm external or internal insulation 	0.17	All	All
Roof	England & Wales	<ul style="list-style-type: none"> • Pitched slates or tiles insulation at rafters⁹ • Flat roof • Room-in-roof, slates or tiles¹⁰ • Thatched roof • Thatched roof, room-in-roof¹⁰ 	0.16	M	2023 Onwards
		<ul style="list-style-type: none"> • Pitched Slates or tiles, insulation between joists or unknown⁸ 	0.16	J	2003 Onwards

Roof	Scotland	<ul style="list-style-type: none"> Pitched slates or tiles, insulation between joists or unknown (insulation thickness unknown)⁹ Pitched slates or tiles, insulation at rafters (insulation thickness unknown)¹¹ Flat roof Room in roof, slates or tiles¹⁰ Thatched roof Thatched roof, room-in-roof¹⁰ 	0.12	None	None
Floor	England & Wales	<ul style="list-style-type: none"> Solid ground Suspended ground 	0.25	<i>Floor U-Values are not determined by age band</i>	
Floor	Scotland	<ul style="list-style-type: none"> Solid ground Suspended ground 	0.15	<i>Floor U-Values are not determined by age band</i>	
Park Home Insulation	All	<ul style="list-style-type: none"> N/A 	0.3 - Walls 0.26 - Floors 0.2 - Roofs	None	None
Party Cavity Wall	All	Meets prescribed standards if all party cavity walls are filled			

15. Appendix 7: ECO4 Flex Process for Local Authorities

Flowchart outlining ECO4 Flex Process for Local Authorities, also showing interactions with Suppliers and Ofgem



16. Appendix 8: 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
CWI	Cavity wall insulation
DA	Devolved authority
DESNZ	Department for Energy Security and Net Zero
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

Abbreviation	Explanation
HMO	Houses in multiple occupation
HMRC	HM Revenue and Customs
HTHG	Help To Heat Group
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

Abbreviation	Explanation
PPM	Pre-payment meter
PPS	Partial Project Score
PRI	Pitched roof insulation
PRS	Private rented sector
RdSAP	Reduced Data Standard Assessment Procedure
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