Guidance

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**ECO4 Guidance: New Measures and Products V0.1 (draft for comment)**

| Subject | Details |
|---|---|
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This document sets out Ofgem's approach to administering applications and measures notified under the 'New Measures and Products' routes on ECO4, as provided for by the Energy Company Obligation (ECO) 2022 Order. This guidance is additional to the ECO4 Guidance: Supplier Administration and ECO4 Guidance: Delivery and should be read in conjunction with those guidance documents.

This guidance is for stakeholders who want to know about applying for and delivering new measures and products under ECO4. It explains each of the three routes available – standard alternative methodologies, data light measures, and innovation measures - and includes information on the application processes, eligibility requirements, and delivery of measures under each route.

# Contents

## About this Draft for Comment

This draft for comment guidance allows stakeholders to review the proposed changes and is a "live" document which should be used as guidance until our final version 1.0 is published.

We have published this document on a draft for comment basis alongside our ECO4 Administration Consultation Part 2[1] to seek views on our proposed administration of the NMAP routes on ECO4, as well as on the clarity and format of this document.

Please see the Ofgem ECO4 Administration Consultation Part 2 for further information on the type of feedback we are seeking, and on how to respond to the consultation.

The consultation closes on 18 July 2022, so stakeholders should ensure that responses are submitted in advance of that date.



[1] https://www.ofgem.gov.uk/publications/ofgem-eco4-administration-consultation-part-2

# 1. Introduction

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

1.2. The Energy Company Obligation (ECO), first introduced in 2013, is an energy efficiency scheme for Great Britain (GB) focusing on supporting low-income, vulnerable, and fuel poor households, through delivering energy efficiency measures. ECO aims to reduce carbon emissions, promote innovation, maintain security of energy supply, and reduce fuel poverty. Further information on ECO4 can be found in the ECO4 Guidance: Delivery.

1.3. ECO4 includes incentives designed to support the delivery of innovative measures that can provide further energy efficiency improvements, or that offer additional benefits, via 'new measures and products' (NMAP) routes. Participation under NMAP is optional, with energy suppliers not being obligated to deliver under these routes.

## NMAP routes

1.4. Under ECO4, delivery of innovative measures and products, where benefits and improvements may not otherwise be captured, ie through current deemed scores, will be possible via the following NMAP routes:

- **Standard alternative methodology (SAM) –** A route for awarding a new measure type for technologies deliverable under Publicly Available Specification (PAS) 2030:2019 or the Microgeneration Certification Scheme (MCS), not currently recognised in the Standard Assessment Procedure (SAP) nor deliverable on the scheme under an existing standard measure type.[3] The evidence of cost savings must be of a similar level as required for inclusion in SAP as a space heating measure. A successful application will result in a new measure type and partial project score being created.

[2] Net Zero Strategy: Build Back Greener (October 2021)
https://www.gov.uk/government/publications/net-zero-strategy
[3] 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).

- **Data light measures (DLM) –** A route for awarding a new measure type and set of scores for technologies not currently deliverable on the scheme under an existing measure type. The DLM route requires less extensive evidence to support the space heating cost savings than the SAM route. Applications must be for a technology certified by a party accredited to ISO/IEC 17065:2012. A successful application will result in the creation of a new data light measure type and a set of partial project scores. Each DLM will be capped at 1,250 qualifying actions per annum, under any specific DLM type description.

- **Innovation measures (IM) -** A route for awarding an uplift to measures that can demonstrate an improvement over comparable measures[4] currently deliverable under ECO. Following a successful application, a description of the IM will be published ,[5] and a score uplift can then be awarded to products meeting that description. Either a 25% or 45% uplift can be awarded – please see paragraph Error! Reference source not found. for further information. Please note that applications must include the specific product(s) that the applicant intends to promote as IMs. Measures delivered under this route are capped.

1.5. District heating connections (DHC) are eligible to apply for an alternative methodology, where SAP/RdSAP does not provide an appropriate calculation method. The route for DHC measures is slightly different, as there is an existing DHC measure type and PPS in ECO4. To qualify as an alternative methodology, it must be evidenced that the existing score and SAP 2012 do not provide an appropriate methodology. DHC measures cannot apply via the DLM route.

## Ofgem's role

1.6. Ofgem (Office of Gas and Electricity Markets) is the ECO administrator. This document provides guidance on how Ofgem ('we', 'our' and 'us' in this document) will administer the provisions relating to AMs, DLMs, and IMs in line with the ECO4 Order.[6]

[4] 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.
[5] Please see chapters 4.125 – 4.127 for further information on publishing IM descriptions.
[6] The Electricity and Gas (Energy Company Obligation) Order 2022: https://www.legislation.gov.uk/ukdsi/2022/9780348236606/part/1

# Using this document

1.7. This guidance is aimed at obligated suppliers (henceforth 'supplier(s)') and the broader supply chain, setting out our approach to administering applications, and measures notified under these routes, as provided for by the ECO4 Order. **This guidance applies to all measures notified under the above routes, other than ECO3 interim delivery measures, installed from 1 April 2022.**

1.8. Any IM, delivered according to ECO3 'interim' rules between 1 April 2022 and 30 June 2022 is eligible to receive the 25% IM uplift, as they were during ECO3, provided that the measure type is eligible in ECO4. For further information on delivering measures during this interim period, please see the ECO4 Guidance: Interim Delivery.[7]

1.9. It is important to note that only suppliers[8] can make an application under an NMAP route. If a member of the supply chain wishes to have their product or technology supported under the scheme, they must work with a supplier who can liaise with and submit the application to Ofgem.

1.10. The layout of this document is intended to make it as easy as possible for readers to access information that is relevant to them. Within each chapter, information is generally separated into guidance on applications, and guidance on delivery and guidance on notification.



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

[8] ECO obligated suppliers can be found at: https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/energy-company-obligation-eco-contacts-guidance-and-resources/eco-supplier-contact-details

# Associated Documents

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

**Government response to the Energy Company Obligation (ECO4: 2022 – 2026) consultation:**
https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026

**BEIS Innovation guidance:**

Not available at time of publication – please contact eco@ofgem.gov.uk for further information.

**Ofgem ECO4 Administration Consultation Part 2:**
https://www.ofgem.gov.uk/publications/ofgem-eco4-administration-consultation-part-2

**ECO4 Guidance: Delivery:**

https://www.ofgem.gov.uk/publications/draft-energy-company-obligation-eco4-guidance-delivery-v01

**ECO4 Innovation Measure Application Form:**

For the purpose of our ECO4 Administration Consultation Part 2, we have included the application forms in Appendix 3 of this document. Both application forms will be published separately as editable documents when the final V1.0 of this guidance is published.

**ECO4 Alternative Methodology Application Form:**

For the purpose of our ECO4 Administration Consultation Part 2, we have included the application forms in Appendix 3 of this document. Both application forms will be published separately as editable documents when the final V1.0 of this guidance is published.

# 2. NMAP General Eligibility and Delivery Requirements

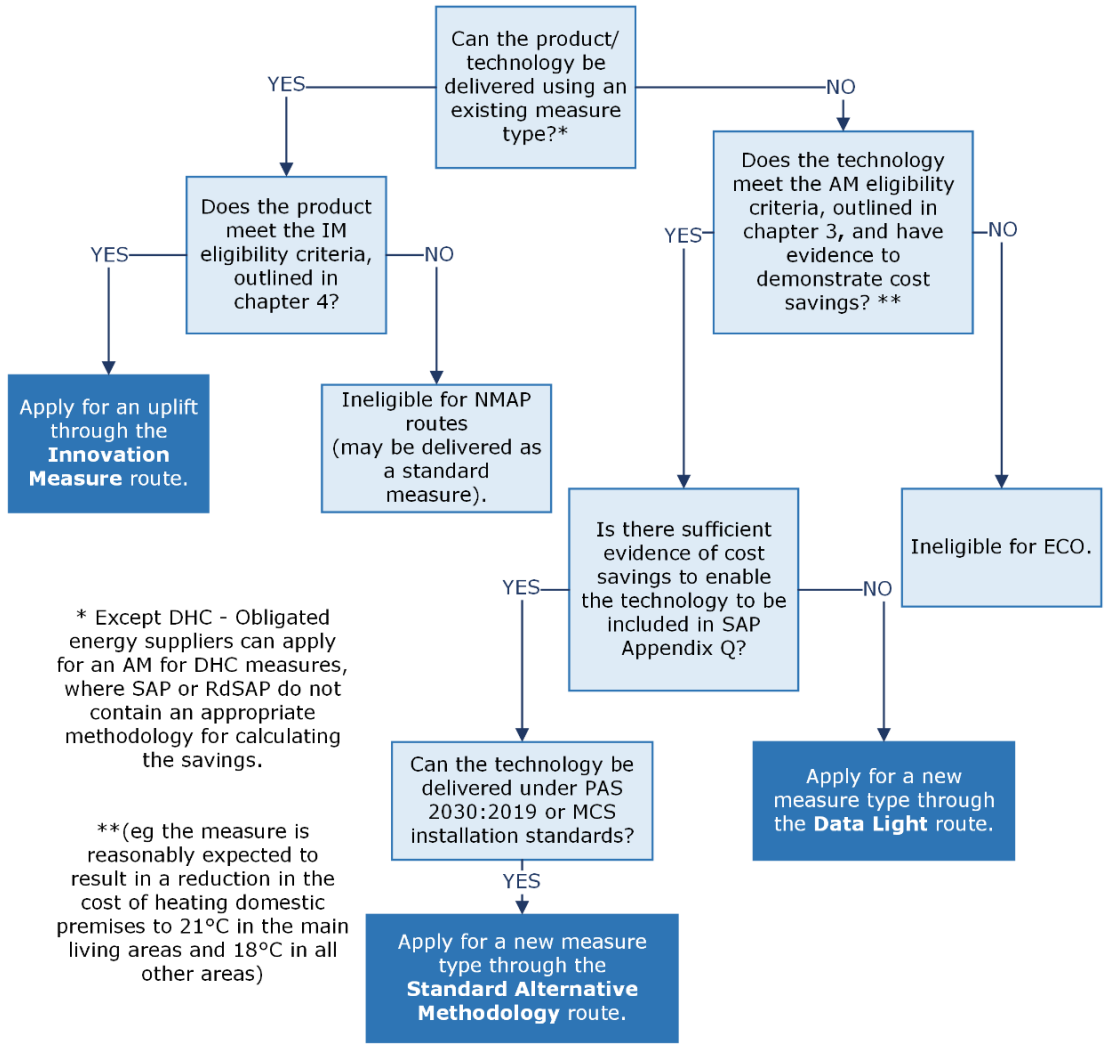
**Section summary**

This chapter includes information on eligibility and delivery requirements for all three NMAP routes (SAM, DLM, and IM). It is split into two sections on general eligibility and delivery & notification of NMAP measures. The former includes guidance on application eligibility requirements, whereas the latter includes information on the delivery and notification requirements of NMAP measures.

## General eligibility

2.1. When considering an application for one of the NMAP routes, Figure 1 can be used to identify which is most appropriate. Please note that this diagram is intended as a simple guide only. Further detail on eligibility requirements under each route is available in this section, and subsequent chapters of this guidance.

**Figure 1: Eligibility flowchart for NMAP routes**



**Eligibility requirements**

2.2. Each of the three NMAP routes have different requirements that should be considered before making an application. Table 1 below summarises requirements and outlines eligibility differences for each of the routes.

2.3. Applications via multiple NMAP routes will not be allowed in tandem. For example, where a measure type does not currently exist for a new measure, an AM or DLM application can be submitted. Only once approved, and if there are additional product specific benefits, not reflected in the measure type score, can an IM application be submitted.

**Table 1: Eligibility requirements for NMAP applications**

| | SAM | DLM | IM |
|---|---|---|---|
| **Outcome of successful application** | New standard AM measure type and set of partial project scores published. | New DLM type and set of partial project scores published. | New IM description published. Products meeting this description can receive the IM uplift.[9]<br>Applicant receives an additional uplift. |
| **Existing measure type** | Only be for the creation of a new measure type.[10] | Only be for the creation of a new DLM. | Only where the measure can be delivered under an existing measure type |
| **Standards** | Must be:<br>• a type of measure listed in Table A.1, A.2 or A.3 in Annex A to PAS | Must be certified by an organisation accredited to ISO/IEC 17065:2012 | Must be:<br>• a type of measure listed in Table A.1, A.2 or A.3 in Annex A to PAS 2030:2019,<br>• deliverable under MCS, or |

[9] Suppliers may contact Ofgem for products to be added to an existing IM description. Please see paragraph **4.16**.
[10] The only exception is DHC, suppliers can apply for an alternative methodology where SAP/RdSAP does not provide an appropriate calculation method for DHC.

| | SAM | DLM | IM |
|---|---|---|---|
| | 2030:2019, or<br>• deliverable under MCS | | • certified by an organisation accredited to ISO/IEC 17065:2012 |
| **Wholly or mainly non-renewable heating measures eligible?** | No | No | No |
| **Heat wholly or partly from biofuel, coal, oil or liquified petroleum gas eligible?** | No | No | No |
| **District heating connections eligible?** | Yes | No | No |
| **Repair eligible?** | No | No | No |

**Evidencing requirements**

2.4. When NMAP applications are submitted to Ofgem, regardless of the route, submission of robust[11] evidence is required to demonstrate that the measure meets the relevant criteria and can be delivered under ECO4. Where criteria are stated within an application form, provision of robust evidence, with sufficient detail to clearly demonstrate how these have been met, is required for appraisal by Ofgem and external technical advisors. Submission of evidence should follow the guidance within corresponding application forms and be GDPR compliant.

2.5. The examples of evidence in this document are not a definitive list and have been created to provide an indication of the level of detail that may support different criteria. If it is uncertain whether evidence will meet requirements, please contact the ECO team prior to applying.

2.6. In the case of evidence involving direct comparisons against measure types currently deliverable under ECO, or product(s) commonly available on the GB market, we expect

[11] Includes, but is not limited to, appropriate sample sizes, peer-reviewed, and independent.

to see the comparison of 'like for like' criteria and attributes, with substantive differences clearly identified and evidenced.

2.7. Each route will have distinct evidence requirements outlined in the relevant chapter of this document. Please read through the evidence requirements carefully to ensure the criteria are met.

2.8. Evidence should be robust and contain sufficient detail for appraisal. Supporting documents such as reports, and research papers submitted should be impartial and independent.

## Delivery and notification of NMAP measures

### Delivery

2.9. In addition to the specific eligibility criteria for each NMAP route, measures notified under SAM, DLM, and IM, must meet the general eligibility requirements of the ECO4 scheme as outlined in the ECO4 Guidance: Delivery.

2.10. Under ECO4, as part of the whole-house approach, to be granted a full project score (FPS),[12] a project must improve the property's SAP rating sufficiently to meet a minimum requirement (MR). Measures deliverable under NMAP can be installed as part of a retrofit project and count towards the relevant project MR. However, the uplift value associated with an IM will not count towards the MR.

2.11. Specific approved SAM or DLM measure types, and IMs may have additional requirements further to those outlined in this document. Please consult the list of approved SAM/DLMs and the ECO4 approved IMs document for further information on approved measure types and products.[13]

[12] See chapter 6 of the ECO4 Guidance: Delivery for further information on scoring ECO4 measures and projects.
[13] Both to be published following the publication of the final V1.0 of this document. ECO3 approved IMs: https://www.ofgem.gov.uk/publications/eco3-innovation

**Notification**

2.12. Notification to Ofgem of SAMs, DLMs, and IMs should be carried out in the same way as general measures under the scheme, as outlined in chapter 7 of the ECO4 Guidance: Delivery. Any requirements outlined in the ECO4 data dictionary[14] should also be met.

**Late measures**

2.13. The rules regarding late measures (automatic extensions and applications for extension to the notification deadline) apply in the same way to SAMs, DLMs, and IMs as to other measures notified under the ECO scheme, as outlined in the ECO4 Guidance: Delivery.

**Scores and uplifts**

2.14. Further information and examples on how scores and uplifts are calculated and applied to projects under ECO4, are available in chapter 6 of the ECO4 Guidance: Delivery.

2.15. All measures notified under ECO, including measures from NMAP routes, will receive a partial project score (PPS) applied throughout a retrofit delivery project, as individual measures are notified. When the MR for the project has been met and the last delivered measure has been notified, a full project score (FPS) may be awarded. In the case of IMs, the awarded uplift will be added to the FPS, but it will not result in an increase in a property's SAP rating and therefore will not count towards the MR for the project.

2.16. IMs will be awarded either a 25% or 45% uplift, with the applicant (ie supplier that submitted the application) receiving an additional 5% uplift – the 'applicant uplift'. The applicant uplift is intended to reward the supplier that spends any additional time or resources on the IM application process in order to deliver improved measures. More information on the IM uplifts is available in chapter 4 of this document. ECO3 IMs that are automatically carried into ECO4 will not be eligible to receive the 5% applicant uplift.

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

2.17. Further information on how the scores under each individual NMAP route are calculated, alongside detail on how uplifts may apply, is provided in each corresponding section of this document.

**Caps and over delivery**

2.18. Suppliers are responsible for monitoring their delivery of DLMs and IMs, in relation to their caps. For more information on supplier obligations, including caps, trading, and transfers, please view the ECO4 Guidance: Supplier Administration.

2.19. Under ECO4, there is no specific SAM measures cap, therefore suppliers can deliver as many SAM measures as they wish within any other relevant caps.

2.20. Each specific DLM type description will be capped at 1,250 qualifying actions per annum across the whole scheme. A supplier's share of this cap is halved where only one supply licence is owned. Over delivery will not be allowed once the cap is reached: any DLM delivered beyond the cap will not count towards the supplier's obligation.

2.21. The total delivery of IMs cannot exceed 10% of a supplier's total obligation, which is also subject to a 5% sub-cap on IMs of the same measure. The innovation uplift will only be awarded to a supplier where the cost savings do not exceed their innovation caps.

# 3. Alternative methodology routes

**Section summary**

This chapter contains information specific to the alternative methodology routes in ECO4. The chapter is split into three main sections – 'applications for SAM and DLM', 'completing the application form', and 'delivery and notification'. The first two sections are aimed at those who wish to understand more about making a SAM or DLM application, and the third section includes information on the delivery and notification requirements of measures delivered under the SAM/DLM routes.

## Applications for Standard Alternative Methodologies and Data Light Measures

3.1. A new measure type and set of partial project scores can be awarded for technologies that have evidence of space heating cost savings and are not currently deliverable in the scheme under an existing ECO4 measure type.

3.2. Applications must be submitted by suppliers.[15] It is the applicant's responsibility to ensure that any information submitted is complete and accurate.

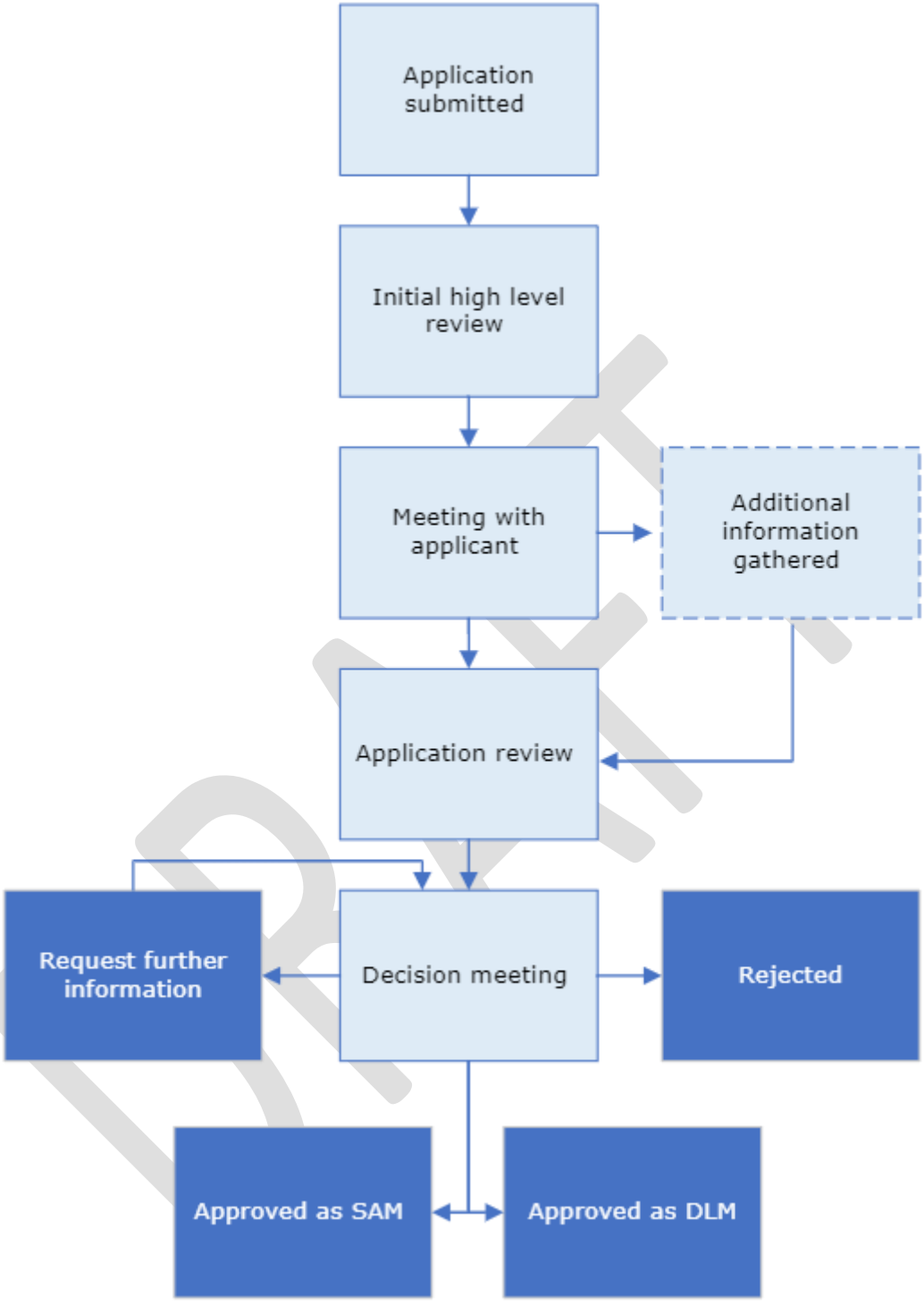
### Application process

3.3. Suppliers must submit completed applications, including supporting documents and evidence, to Ofgem for review. The purpose of the application process is to assess whether the technology meets the legislative criteria and can be delivered as a qualifying action under ECO4.

3.4. Figure 2 below outlines the application process for SAMs and DLMs.

[15] ECO obligated suppliers can be found at: https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/energy-company-obligation-eco-contacts-guidance-and-resources/eco-supplier-contact-details

**Figure 2: Alternative methodology application process**



## Application submission

3.5. The relevant application form is available on our website. The applicant must indicate if they are applying for a SAM, an alternative methodology for a district heating connection, or a DLM.

3.6. Before the supplier completes the application form, they can contact us via email to discuss the technology, as well as the supporting evidence available, to help determine the most appropriate application route.

3.7. Suppliers must submit completed applications, including supporting documents, to the NMAP folder on our secure file sharing service. If unsure of where to submit applications, suppliers should contact us at ECO@ofgem.gov.uk.

## Initial review

3.8. Once an application form is submitted, we will respond within 10 working days to confirm we have received the application and advise the target timescales to complete our initial review of the application.

3.9. Our initial review will check:

- The application form has been submitted by a supplier.
- All questions have been fully answered.
- The information provided is clear and consistent throughout the application with relevant supporting evidence.

3.10. Where an application has been submitted previously, we will also look to ascertain whether the reason(s) for rejection have been fully addressed.

## Meeting with applicant

3.11. Once we have conducted our initial review of the application, we will suggest a meeting with the applicant. This is an optional meeting but is an opportunity for the supplier to informally present their application to us and discuss any areas which require more detail. Ahead of the meeting, we will send any clarifications to the applicant to allow them to prepare. If relevant, the supplier may wish to invite

partners they are working with on the application to this meeting. The supplier should agree any other attendees with us ahead of the meeting.

### Additional information gathering

3.12. Following the initial meeting, if the applicant needs to gather more information, they will have up to six weeks to provide any additional information. If they cannot provide the information within this time frame, we will pause the application process and resume our assessment once all the information is provided.

### Application review and decision

3.13. Once we have all the relevant information for each of the criteria, we will decide whether to approve the measure type. Subject to demand and dependant on the number of applications received, decision meetings will be held quarterly. To inform our decision, we will receive input from stakeholders such as the Building Research Establishment (BRE) and TrustMark on areas including the cost saving methodology, supporting evidence and installation standards.

3.14. There are four possible decisions that could be made:

- Reject the measure – if the application does not sufficiently demonstrate that the measure meets the criteria.
- Request further information – if it is not clear from the application that the measure meets the criteria.
- Approve the measure as a DLM - if the application sufficiently demonstrates that the measure meets the criteria.
- Approve the measure as a SAM measure – if the application sufficiently demonstrates that the measure meets the criteria.

### Decision outcome and feedback

3.15. After the decision, we will aim to inform the applicant of the outcome and next steps within 10 working days.

3.16. If the application is approved, we will create a set of partial project scores for the measure type and, if required, convert the proposed bill saving into a SAP rating improvement (see section 3.73). This will allow the measure to be installed as part of a retrofit project and count towards the minimum requirement.

3.17. We will publish a description of the measure type, the date on which the application was approved, and any additional requirements relating to delivery on our website.[16] We will contact suppliers to confirm the publication.

3.18. Measures can be installed in eligible premises after the date on which the SAM or DLM application is approved. We will enforce this by checking that the date of completed installation (DOCI) of the measure is after the relevant application approval date.

3.19. If the application is rejected, we will provide feedback to help improve any future applications.



[16] This will be published following the publication of the final V1.0 of this document, and the approval of the first ECO4 AM.

## Completing the application form

3.20. The aim of the application form is to ensure the correct information is obtained in sufficient detail to allow assessment against the criteria set out in the ECO4 Order.

3.21. The application begins with a summary box, to ensure it is clear what route the application relates to. The applicant must state whether they are applying for a DLM, a SAM, or a district heating connection (DHC) alternative methodology.

3.22. The name of the applying supplier must be stated here. An application can only be made by a supplier.

**Question 6: Eligibility**

3.23. If the technology results in a space heating cost saving and is not captured by an existing ECO4 measure type (other than DHC) a supplier can apply for a new measure type and partial project score.

3.24. This section of the application should explain why an existing measure type and PPS is not appropriate for the technology.

3.25. The applicant must confirm that the technology is not partly or wholly fuelled by coal, oil, biofuel, or liquefied petroleum gas (LPG); and not wholly or mainly fuelled by other fossil fuels.

3.26. The applicant must also confirm that the measure is not a repair.

3.27. SAM applications can be made in respect of measures which have previously been awarded a DLM score, where the applicant has gathered significant additional evidence to support the cost savings. The applicant should state if there is an existing DLM score.

*District heating connections*

3.28. Suppliers can apply for an AM for district heating connection (DHC) measures, where SAP or RdSAP do not contain an appropriate methodology for calculating the savings.

3.29. This section of the application should clearly explain why the existing DHC scores, and SAP are not appropriate for the technology.

**Question 7: Measure type description**

3.30. Applications should propose a general description of the measure type with factual reference to the technology's characteristics and functionality (see Appendix 2 for examples). A measure type cannot be reserved for a specific named product.

3.31. The description should contain sufficient detail to distinguish the measure from other existing ECO4 measure types.

3.32. Where possible, manufacturers of similar products can work together with a supplier to apply for a new measure type. This will allow the measure description to fit a greater range of products.

**Question 8: Space heating cost saving mechanism**

3.33. For AM applications, the technology must be able to demonstrate a space heat saving when heating domestic premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas.

3.34. For DLM applications, technology must be reasonably expected to result in a reduction in the cost of heating domestic premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas.

3.35. The supplier should provide a detailed description of how the technology results in a space heating cost saving. The explanation should be clear to follow for a non-specialist and sufficiently detailed.

**Question 9: Methodology for calculating the cost savings**

3.36. The applicant must confirm that SAP 2012 does not provide a methodology for calculating the annual cost savings of the measure.

3.37. If the technology is recognised in SAP Appendix Q,[17] the application must outline how the space heating cost savings are modelled in Appendix Q. The applicant must

[17] The SAP Appendix Q database can be found here: https://www.ncm-pcdb.org.uk/sap/page.jsp?id=18

provide the cost saving for a typical property with reference to a given floor area ($m^2$) and starting intermediate SAP band.

3.38. If the technology cannot be modelled by SAP Appendix Q, the application must propose a methodology to calculate an annual heating cost saving for a typical property with reference to a given floor area ($m^2$) and starting intermediate SAP band.

3.39. The calculation methodology should be logical and detailed to allow a non-specialist to repeat the calculation.

3.40. Where possible, we expect the underlying assumptions to be consistent with the ECO4 scoring framework. The predicted cost saving of a measure should reflect the average saving for a property typical of the housing stock.

3.41. Where appropriate, the methodology should also incorporate an 'in-use factor' that accounts for sensitivity analysis (occupant and installation).

*District heating connection*

3.42. Suppliers can apply for an AM for DHC measures, where SAP or RdSAP do not contain an appropriate methodology for calculating the savings.

3.43. The application should propose a methodology to calculate an annual heating cost saving for a typical property with reference to a given floor area ($m^2$) and starting intermediate SAP band.

3.44. It should also include information on the level of improvement, having regard to the existing savings modelled by SAP. We will only consider a new methodology where the current scores do not already consider the technology and where the technology provides a significant cost saving improvement.

**Question 10: Evidence to support cost savings**

3.45. An application must include sufficient supporting evidence is required to develop a space heating cost saving calculation methodology.

3.46. For an AM application, we expect the supporting evidence to be of a similar level as is required for the SAP Appendix Q process.[18] We expect all supporting evidence to be robust and any supporting reports or studies to be independently reviewed and unbiased.

3.47. To be considered satisfactory, evidence must be able to demonstrate a causal link between the deployment of the measure and the cost savings.

3.48. For SAM applications, the following examples may provide appropriate evidence of space heating cost savings:

- If a technology operates independently of user intervention and has no scope for variable installation quality, a small-scale field trial (sample size: <10) or UKAS accredited laboratory test.
- If a technology that requires user intervention and has scope for variable installation quality. A field trial (sample size:10-100) may assess and compare the energy performance of a technology relative to a laboratory test.
- If a technology relies on user interaction. A field trial (sample size:100 -1000) may assess and compare the behaviour of users in the field with and without the technology.

3.49. For DLM, the level of evidence required to support the cost savings is expected to be less extensive than for the standard AM route. For example:

- Smaller scale field trials (sample size: <10).
- Calculations or modelling reflecting the annual cost savings post-delivery, when compared to heating costs prior to measure delivery.

3.50. Evidence will be assessed on a case-by-case basis and will be dependent on the technology type. The examples of evidence above are not an exhaustive list.

[18] Appendix Q of SAP allows new technologies and advanced versions of existing technologies to have their energy saving benefits evaluated for inclusion within SAP. Building Energy Performance Assessment - Support Website :Applying for recognition of a new technology category (Appendix Q) (ncm-pcdb.org.uk)

*District heating connection*

3.51. In the case of evidence involving direct comparisons against an existing measure type, we expect to see the comparison of 'like for like' criteria and attributes, with substantive differences clearly identified and evidenced.

**Question 11: Measure lifetime**

3.52. ECO4 scores are based on annual cost savings, therefore the lifetime of a measure is not employed to determine the cost savings in ECO4.

3.53. However, the lifetime of the measure must still be provided to benchmark appropriate guarantee requirements and supplement scheme reporting.

**Question 12: Appropriate standards**

3.54. SAM measures must demonstrate that the measure type is listed in PAS 2030:2019; or is a certified product under Microgeneration Certification Scheme (MCS); and can be supported by an appropriate Trustmark-licensed Scheme Provider adhering to the TrustMark Framework.

3.55. TrustMark's Framework requires compliance and certification with PAS 2035:2019 and PAS 2030:2019 standards, for all relevant ECO measures. Measures within the scope of MCS should be installed in accordance with the applicable MCS standard as well as PAS 2035.

3.56. For DLMs that are not referred to in PAS 2030:2019 or certified under MCS, the applicant should state an alternative standard that ensures the safety and efficacy of the measure on its installation. The standard must be certified by a body accredited to ISO/IEC 17065:2012.

*District heating connection measures*

3.57. DHC measures must be accompanied by appropriate consumer protection standards. Applications for DHC AMs need to demonstrate that the measure will be registered with the heat sector consumer protection body, Heat Trust, or demonstrate that they comply with equivalent standards to those provided by Heat Trust. Please see chapter 5 of the ECO4 Guidance: Delivery for further information on DHC consumer protection standards, including Heat Trust and equivalent requirements.

**Question 13: Projected delivery**

3.58. For SAM applications, the applicant should provide details of the approximate number of measures expected to be delivered and the timelines for installations if the application is approved.

3.59. If the application is for a DLM this question does not need to be completed as the number of DLM installations is capped.

**Question 14: Quality assurance and score monitoring**

3.60. TrustMark will be reviewing the quality assurance process and have full oversight of the monitoring process for ECO measures, excluding DHC and novel DLM.

3.61. The application should clarify whether existing quality assurance and score monitoring requirements apply to the measure. If applicable, the application should provide suggestions for new quality assurance and score monitoring questions.

**Question 15: Smart Technologies and Flexible Heating Systems**

3.62. Smart technologies or flexible heating systems are eligible to apply for a new ECO4 measure type and score. To be an eligible ECO4 measure all smart technologies need to provide evidence of space heating cost savings.

3.63. Smart technologies are those that can communicate in real time to respond to price signals and provide flexibility to the energy system to balance grid supply or demand through the ability to increase, decrease or shift in time, the consumption or generation of energy.

3.64. In addition, to the above requirements, smart technologies under ECO4 should outline how the measure meets the following additional criteria:

- The measure can be combined with a time-of-use tariff and will be used with a functioning electricity smart meter.

- The measure is smart enabled, ie it can respond in real time to communication signals to alter the rate or time of electricity flowing through the measure to provide demand side response services. At least one user interface is made available to the user.

- The measure can be installed with sufficient energy storage, and in a way that means the heating system will operate flexibly. Storage can take several forms including the heat stored in the fabric of the building, hot water storage, electric battery storage and heat batteries.

- The measure is safe and secure, referencing relevant standards and codes. As smart technologies are likely be internet connectable, applicants should also include relevant cyber security standards and codes.[19]



[19] The standard 'ETSI EN 303 645 - Cyber Security for Consumer Internet of Things (IoT): Baseline Requirements' provides a set of baseline provisions applicable to all consumer IoT devices.

# Delivery and notification

### General requirements

3.65. Measures approved via the above routes can be installed as part of an ECO4 retrofit project and count towards the minimum requirement. The application must be approved before the measure is installed.

3.66. The measure must be installed in accordance with the general eligibility requirements for ECO measures, outlined in the ECO4 Measures Table[20] and in the ECO4 Guidance: Delivery.

3.67. At notification, the supplier must indicate if the measure is a DLM or a standard AM or a DHC.

3.68. There is no specific SAM measure delivery cap. However, SAM measures must be delivered in accordance with any other relevant caps.

3.69. Each DLM type is capped at 1,250 qualifying actions per annum. The cap is split between suppliers based on their obligation. If a measure is delivered beyond a supplier's cap, it is not an eligible ECO measure and will not count towards the supplier's obligation.

3.70. Further information on caps is outlined in Chapter 4 of the ECO4 Guidance: Supplier Administration.

### Scoring

3.71. If an application is approved, we will create a set of partial project scores for the measure.

3.72. An average deemed cost improvement for each floor area segment and starting intermediate SAP band will be produced. Allowing the measure to be integrated with the existing PPS matrix.

[20] Not available at time of publication – please contact eco@ofgem.gov.uk for further information.

3.73. If required, we will convert the proposed cost saving into a SAP rating improvement. The SAP rating improvement can be derived by adapting SAP's procedure for calculating the SAP rating from the annual running costs using the energy cost rating formula.[21]

3.74. Before determining the finishing intermediate SAP band for a project and its full project score, we will add the 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 contributes to the minimum requirement.

3.75. The table shows an example of an average deemed cost and SAP rating improvement for each floor area segment and starting intermediate SAP band which could be produced. This will allow the measure to be integrated with the existing PPS. To ensure suppliers and the supply chain are aware of the contribution a measure will make to a project, the SAP rating improvement for the measure will be published in the PPS matrix.

3.76. For example, if a project had a finishing SAP rating of 51, determined via a post retrofit RdSAP assessment, the deemed SAP rating improvement of 3.6 for the measure would be added. Giving a final SAP rating of 54.6 and a low D finishing SAP band.

**Table 2: Example cost saving and SAP point saving created for a SAM measure**

| Starting SAP band Floor area <73m² | High D | Low D | High E | Low E | High F | Low F | High G | Low G |
|---|---|---|---|---|---|---|---|---|
| **Cost saving** | 274 | 293 | 321 | 353 | 398 | 447 | 512 | 583 |
| **SAP rating improvement** | 11.2 | 11.9 | 13.1 | 14.3 | 14.2 | 13.5 | 12.7 | 12.0 |

[21] SAP 2012 document – Chapter 13. https://www.bregroup.com/sap/standard-assessment-procedure-sap-2012/

# 4. Innovation Measures

**Section summary**

This chapter contains information specific to the IM route. The chapter is split into three main sections – 'applications for innovation measures', 'completing the application form', and 'delivery and notification'. The first two sections are aimed at those who wish to understand more about making an IM application, and the third section includes information on the delivery and notification requirements of measures delivered under the IM route.

## Applications for Innovation Measures

4.1. To incentivise the delivery of improved energy efficiency measures in ECO4, suppliers can apply for a product that offers an improvement over comparable measures to be approved as an IM and given an IM uplift.[22]

4.2. There are three types of uplift applicable to IMs:

- Where an improvement over comparable measures has been demonstrated, a 25% score uplift for a 'standard IM'.
- Where a 'substantial' improvement over comparable measures has been demonstrated, a 45% score uplift for a 'substantial IM'.
- A further 5% uplift is applied to measures promoted by the applicant (ie the supplier who submitted the application).

4.3. Suppliers must state in the application form whether they wish to apply for 'standard' or 'substantial' IM status. Further information on completing the application form can be found below, under the heading **Completing the application form**.

[22] Article 33(1) of the ECO4 Order

**General requirements**

4.4. Applications for IMs must be submitted by obligated suppliers. Suppliers must submit completed applications, including supporting documents, to the NMAP folder on our secure file sharing service on or before the submission deadlines listed on our website.[23]

4.5. Applicants are also encouraged to consult the minutes from previous ECO4 Technical Advisory Panel (TAP – see table 3 below) meetings to get a better understanding of the Panel's requirements. These are also published on our website.[24]

4.6. It is the applicant's responsibility to ensure that any information submitted is complete and accurate. We would expect most correspondence to be between us and the applicant but, where reasonable, manufacturers and innovators may be involved in the application process if the applicant remains party to any correspondence.

4.7. Table 3 outlines the roles and responsibilities of the key stakeholders involved in the IM application process.

**Table 3: Roles and responsibilities**

| Stakeholder | Responsibilities |
|---|---|
| Ofgem | - Administration of application process.<br>- Making decisions on applications.<br>- Appointing and chairing the TAP. |
| Technical Advisory Panel (TAP) | - Providing technical advice to Ofgem on the suitability of applications against a set list of criteria.<br>- Assessing applications for the 25% uplift and the 45% uplift. |
| Applicant (supplier submitting application) | - Completing and submitting the application and supporting evidence.<br>- Liaising with Ofgem to progress the application. |
| Innovator / Manufacturer | - No formal role in the application process. |

[23] Not yet available at time of publication – will be available when final V1.0 of this document is published.
[24] ECO3 TAP meeting minutes are published at: https://www.ofgem.gov.uk/publications/eco3-innovation

| | |
|---|---|
| | - May be invited to meeting to verbally respond to clarifications raised by the TAP.<br>- We expect that suppliers will liaise with innovators/manufacturers to ensure applications and responses are accurate. |

**Standard and substantial IMs**

4.8. All ECO4 IMs fall into one of two improvement categories, that affect which uplift they are eligible for:

- **Standard IMs** – IMs deemed to offer an improvement which are eligible to receive the 25% uplift.
- **Substantial IMs** – IMs deemed to offer a 'substantial' improvement which are eligible to receive the 45% uplift.

4.9. Provided they are eligible measure types (for example not wholly or mainly fuelled by non-renewables), IMs approved under ECO3 will be carried forward into ECO4 as standard IMs and will be eligible to receive the 25% uplift for the full duration of ECO4. However, they are not eligible to receive the 5% uplift for the supplier who submitted the application.[25]

4.10. Suppliers can apply for products approved as standard IMs to be considered for substantial IM status. For example, ECO3 approved IMs, or ECO4 IMs where additional evidence has been collected to demonstrate a substantial improvement. Suppliers should use the same application form used for all IM applications, but certain questions can be skipped, as outlined in the explanatory notes within the application form.[26]

**Eligibility requirements for applications**

4.11. Prior to starting an IM application, it is important applicants consider whether a product is in fact eligible to be approved as an ECO4 IM. For a product to be eligible under the IM route, it must:

[25] Article 58(5) of the ECO4 Order.
[26] For the purpose of the ECO4 administration consultation, the 'draft for comment' version of the application form can be found in Appendix 3 of this document.

1. Be deliverable under an existing ECO4 measure type.

2. Be capable of resulting in a reduction in the cost of heating domestic premises.

3. Be able to demonstrate an improvement[27] on comparable measures otherwise deliverable under ECO4.

4. Be one of the following:

    a. A type of measure listed in Table A.1, A.2 or A.3 in Annex A to PAS 2030:2019,

    b. a certified product under MCS, or

    c. certified to the installation standards stated in the application by a person accredited to ISO/IEC 17065:2012.

5. Not be the installation of equipment for the generation of heat wholly or partly from biofuel, coal, oil, or liquefied petroleum gas (LPG).

6. Not be the installation of equipment for the generation of heat wholly or mainly from a non-renewable source.[28]

7. Not be a DHC.

8. Not be a repair.[29]

**25% and 45% uplifts**

4.12. For the 25% uplift, applicants will need to be able to provide an explanation of how a product is an improvement on comparable measures. There are not prescribed improvement criteria that must be responded to for this assessment. We will assess the reasonableness of any explanation of an improvement provided, in line with the

[27] See paragraphs **4.12 – 4.14** and **4.91 – 4.119** for further information on improvements.
[28] See The Energy Act 2008, s100(3), available at: https://www.legislation.gov.uk/ukpga/2008/32/section/100.
[29] Article 34(2) of the ECO4 Order

overall aims of the ECO4 scheme. Further information can be found under **Improvement questions.**

4.13. For the 45% uplift, applicants will need to demonstrate a 'substantial' improvement on comparable measures. For this assessment, the improvement must be demonstrated against one or more of the following criteria:[30]

1. an increase in the annual cost savings of the measure,
2. a decrease in the cost of installation of the measure,
3. an increase in the durability of the measure,
4. an improvement in the overall environmental impact of the measure,
5. a reduction in the disruption to householders during the installation of the measure, and
6. other improvements consistent with the objectives of ECO4.

4.14. Each of these criteria will have a maximum potential score associated, with applications needing to score above a threshold to be awarded this uplift.

**The application process**

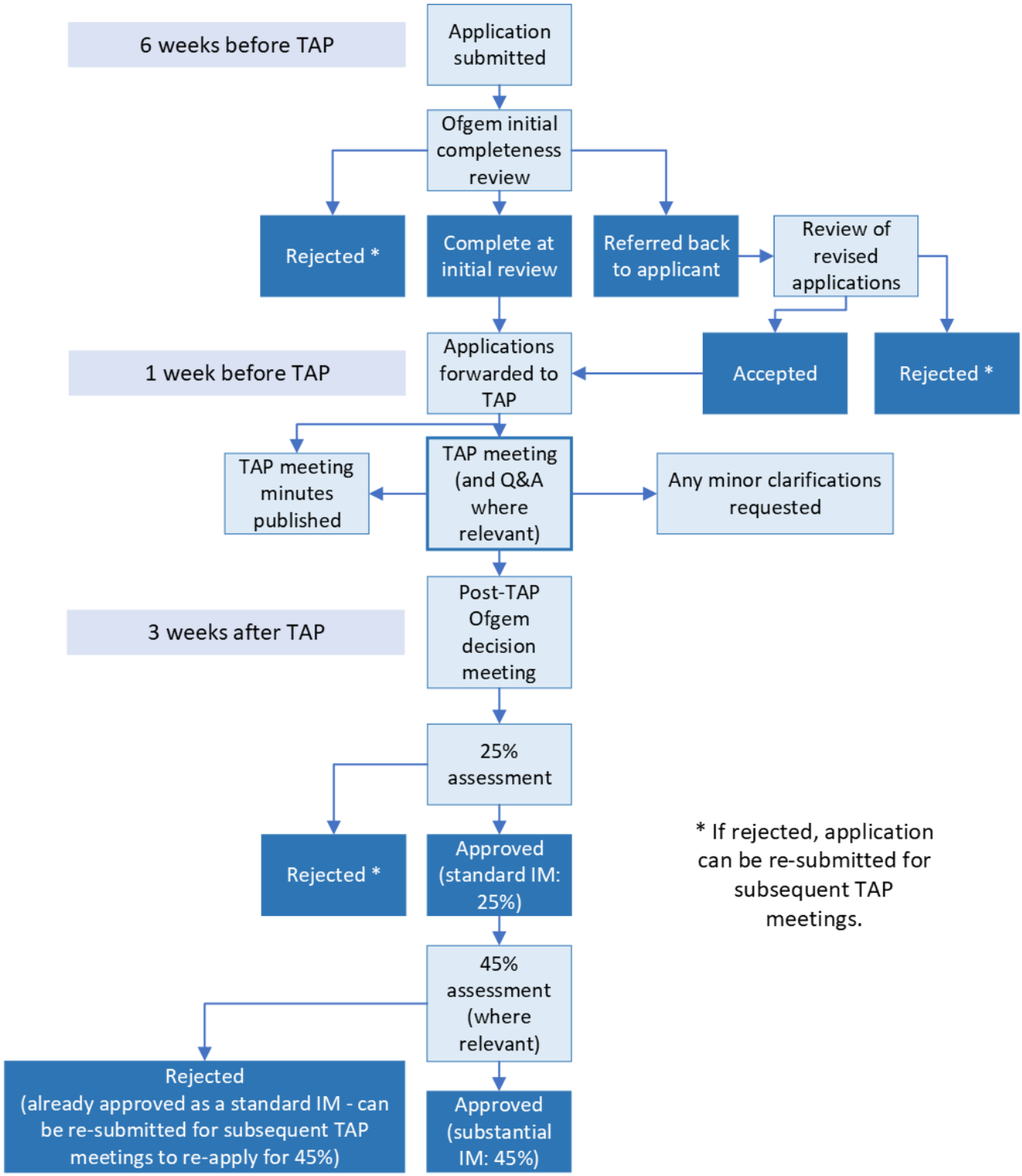
4.15. The following paragraphs explain the steps involved in the application process, and how long these will be expected to take. The process is also summarised in Figure 3 below.

4.16. In addition to fresh applications for new IMs, applications can also be made for products to be included under an existing IM description. This includes both ECO3 and ECO4 approved IMs. Suppliers should contact us if they would like to apply to have a product included under an existing description.

[30] Article 34(5) of the ECO4 Order

4.17. If we receive an application for a new IM, and we consider that the product fits within an existing IM description, we may decide that the product should be listed under that existing description.

**Figure 3: IM application process**



**Application submission / initial review** **6 weeks before TAP meeting**

4.18. Completed applications must be submitted to Ofgem 6 weeks prior to a scheduled TAP meeting – submission dates and TAP meeting dates will be published on our website.[31] Once the deadline has closed for submissions for each application round, we will start our internal review processes. Applications must be submitted to the NMAP folder on our secure file sharing site by close of business on the submission deadline.

4.19. The guidance for completing the application form, outlined within this chapter, should be read fully before completing the application form to ensure eligibility of the product, that each question is answered fully and appropriately, and that necessary supporting information and evidence is provided.

4.20. Applications will undergo an initial non-technical completeness review. Our initial review will check:

1. That all questions have been fully answered.
2. That eligibility requirements have been met.
3. The application form declaration has been signed by an employee of the supplier with sufficient authority.
4. The information and evidence provided is clear and consistent throughout the application form.
5. Where a question states evidence as 'mandatory', supporting evidence has been provided and is relevant.

4.21. Where an application for a product or measure has been submitted as part of a previous application round, we will also look to ascertain whether the reason(s) for rejection have been fully addressed.

[31] Not yet available at time of publication – will be available when final V1.0 of this document is published.

**Feedback sent to applicant / revision period** **4 weeks before TAP meeting**

4.22. We will usually take two weeks to complete our review. Once this has been determined, suppliers will receive an update on whether applications will be progressing to the TAP.

4.23. At this stage we will advise the applicant that their application is either:

1. Complete at initial review. The application has been determined to contain sufficient information; it will proceed to the scheduled TAP meeting.

2. Referred back to applicant for further information. Where an application is not considered sufficiently complete or is missing evidence to support claims it will be returned to the applicant. The feedback will highlight any relevant guidance to assist applicants in providing the full response(s) required. Applicants will have 2 weeks to implement feedback and provide further information.

3. Rejected. Where an application is considered to have not met the IM eligibility requirements, it will be rejected with feedback.

4.24. Where applicants would like further clarifications on feedback, a call may be arranged with Ofgem. Any verbal explanations that are relevant to our assessment should be followed up in writing.

**Review of revised applications** **2 weeks before TAP meeting**

4.25. Where an application has been 'referred back to applicant for further information' in the initial review process, applicants will have 2 weeks to provide further information and implement feedback for review by Ofgem. If further information is not provided by applicants for review at this stage, applications will be rejected.

4.26. Suppliers will be notified of the outcome of this review 1 week before the TAP meeting.

**Applications forwarded to TAP** **1 week before TAP meeting**

4.27. Applications that have successfully passed our initial 'completeness review' and 'review of revised applications' will be forwarded to the TAP, 1 week prior to the scheduled TAP meeting.

**Technical Advisory Panel (TAP) meeting**

4.28. The Technical Advisory Panel (TAP) is an advisory panel made up of representatives from Ofgem, BEIS, and four independent experts. The four independent experts will review applications and provide a recommendation to Ofgem as to whether applications should be awarded either a 25% or a 45% uplift. Further information on applying for the uplifts can be found in paragraph **4.91**.

4.29. The TAP will first assess applications for whether the product can be considered an improvement on comparable measures. They will consider whether the explanation of the improvement is reasonable and will consider the evidence provided.

4.30. Where an application is made for a product that is already approved as a standard IM, the TAP will move directly to the second assessment.

4.31. If this first assessment is passed, where relevant, the TAP will then assess whether the measure provides a substantial improvement. To assess the 45% substantial improvement uplift, the TAP will use a scoring matrix. The TAP will seek to reach a consensus and may raise clarifications and identify where further evidence is needed. The TAP's final score will inform our decision to approved or reject the application as a substantial IM.

4.32. The TAP will also consider information provided in applications on the standard of installation that will be followed in the promotion of the IM. The TAP may, where they wish, consider the suitability of product installation guides. This will not constitute an assessment or endorsement of the safety of the product, or its ability to be installed in compliance with any relevant standards.

4.33. Where appropriate, applicants may be invited to provide oral clarifications. This will consist of Q&A sessions held at the start of each TAP meeting and will be strictly for the purpose of giving the TAP members the opportunity to ask for clarifications on the information provided in the application. The clarifications sought by the TAP will be provided to the applicant in advance, following which the applicant should identify who will attend the Q&A session, and who they represent. Following oral clarifications, applicants may be requested to amend associated information in their applications in writing, on the basis of clarifications provided. Minutes will be taken and published. Applicants should ensure applications are submitted with enough detail to ensure oral clarifications are not required, and applicants should not regard Q&A sessions as a substitute to completing the application in full. Where Ofgem's initial completeness

check finds applications are incomplete or lacking critical information or clarity, they will be returned to applicants, and feedback will need to be addressed before an application can advance to the TAP.

**TAP minutes published** **2 weeks after TAP meeting**

4.34. We will compile minutes from each TAP meeting, which we will look to publish on our website two weeks after each TAP meeting. TAP meeting minutes can be found on our website.[32]

**Minor clarifications provided** **2 weeks after TAP meeting**

4.35. Following the TAP meeting, Ofgem may ask for minor clarifications on information or evidence provided. This must be provided within 2 weeks.

4.36. Major clarifications, such as where there is further evidence needed to substantiate any improvement claims, will not be possible at this stage. Instead, feedback will be provided following a decision having been made, which can be addressed in a new application to a subsequent TAP.

**Post-TAP Ofgem decision meeting** **3 weeks after TAP meeting**

4.37. Following the TAP meeting, Ofgem will decide on the outcome of applications, considering advice and recommendations from the TAP. For each application, there will be up to two decisions.

4.38. First, we will decide whether the explanation of how the product has demonstrated an improvement is reasonable. If we decide that the explanation is not reasonable, then we will reject the application with feedback.

4.39. Where an application has been made for a product that is already approved as a standard IM, we will not make this first decision.

4.40. Second, we will decide on whether a substantial improvement has been demonstrated. If the application is accepted, the measure will be awarded a 45% uplift. If the

[32] ECO3 TAP meeting minutes are published at: https://www.ofgem.gov.uk/publications/eco3-innovation

application is rejected, feedback will be provided, and the product will retain the 25% uplift.

4.41. Where an application is rejected, a fresh application can be submitted for one of the subsequent TAP deadlines, in which feedback should have been addressed.

**Publishing IM description** **7 weeks after TAP meeting**

4.42. If an application is approved, we are required by the ECO4 Order to publish a description of that IM on our website. Further information on this can be found in paragraphs **4.125 - 4.127**.

4.43. We will contact suppliers in the week following a decision being made to confirm the IM description. Suppliers will then have one week to confirm any changes to the description, which will be added to the ECO4 approved IM descriptions document.

4.44. Assuming there are applications approved from a given TAP meeting, this document will be updated seven weeks after every TAP meeting.

4.45. For the duration of ECO4, suppliers will be able to apply to Ofgem for any changes to be made to the description. For example, these might be changes to the name of the product approved as an IM.

# Completing the application form

4.46. The ECO4 IM Application Form can be found on the Ofgem website.[33] The aim of the application is to ensure the correct information is obtained in sufficient detail to allow assessment against the legislative criteria set out in the ECO4 Order.

4.47. Applications will not progress to the TAP until sufficient evidence is provided, and the application is considered complete. In order to reduce duplication of information, we recommend that applicants read the entire application form before beginning to answer questions.

4.48. The following guidance provides information on each of the questions on the application form, which are separated into four main sections:

1. Introductory questions.
2. Product questions.
3. ECO delivery/suitability questions.
4. Improvement questions.

4.49. All questions must be completed unless otherwise stated within this guidance or on the application form itself.

## Supplier declaration

4.50. The supplier declaration must be signed by an employee with sufficient authority of the supplier submitting the application. The application form states what the suppliers is confirming by signing the declaration.

4.51. The supplier is responsible for ensuring accurate and consistent information. If issues arise that raise doubts around the accuracy of the evidence and information provided,

[33] For the purpose of the ECO4 administration consultation, the 'draft for comment' version of the application form can be found in Appendix 3 of this document.

this will be investigated and the application may be rejected. Any fraudulent activity may also be reported to law enforcement agencies.

## Introductory questions

4.52. This section is intended to gather high-level information on the product being applied for, and in the case of re-submissions, to provide a summary of any new information/evidence provided.

### Question 1: Application name

4.53. Include the manufacturer name, model name/number, and any specific identifiers to be included under the IM description. Where relevant, the Agrément or MCS certification number should also be included.

4.54. Where multiple products/models are being applied for, these should be clearly stated.

### Question 2: Supplier name

4.55. State the name of the supplier submitting the application. This is the supplier that will receive the 5% applicant uplift if the application is approved.

### Question 3: Product description

4.56. This should be a brief, high-level description of what the product is and what it does. This is intended to provide a quick summary of the product, and does not need to be very detailed.

### Question 4: Eligibility requirements

4.57. This question is intended to check that the application meets the eligibility requirements for IMs. Applicants must check the relevant box for each requirement to confirm that the application is eligible.

### Question 5: Relevant history

4.58. This question is to gather information on whether the product being applied for has any relevant history that we should be aware of. For example, if the product has been accepted under other domestic or foreign schemes, or has previously received government funding.

**Question 6: Re-submission**

4.59. This question is for re-submissions of previously rejected applications, and is intended to provide a summary of what new information and evidence has been provided. The response should state the question number and briefly summarise what new information/evidence has been provided.

4.60. Where the re-submission addresses specific feedback provided when the previous application was rejected, additional detail should be provided to describe how this feedback has been addressed. Again, applicants should refer to any relevant question numbers where new information/evidence has been provided.

**Question 7: Application for a substantial IM**

4.61. This question is for re-submissions of previously approved applications, which includes those approved under ECO3, as well as those approved under ECO4 as standard IMs. Applicants should state whether the re-submission is for an ECO3 or an ECO4 approved IM.

4.62. Where the application is for an ECO4 approved standard IM to be re-assessed as a substantial IM, the application must include additional information/evidence. As above, if the application was previously deemed not to meet the substantial IM criteria, any specific feedback should be addressed and summarised in this response.

4.63. Where the application is for an ECO3 approved standard IM to be re-assessed as a substantial IM, it does not necessarily need to include any new information or evidence. However, where new information/evidence has been provided, this should be summarised within the response.

## Product questions

4.64. The questions in this section are intended to give Ofgem and the TAP a better understanding of what the product is, and how it works, in order to make a more informed determination of whether it can be considered an improvement.

4.65. Responses should be factual and impartial - applicants **should not** explain in this section how their product is an improvement on comparable measures.

### Question 8: Product overview

4.66. The response should include a technical description of what the product/system is and how it achieves a cost saving. It should also outline the function of the main components of the product/system, and describe how they fit together or interact. We expect that the level of detail required will differ for different types of measure. For example:

- **For fabric measures:** The response should include a description of the materials and components (for example basecoat, mesh, insulation material, render, fixings, etc.), along with their functions, and how they fit together in a completed installation.
- **For heating measures:** The response should briefly describe the technology used to produce heat, and whether the product is a standalone product or part of a central heating system. If part of a central heating system, the response should also include a brief description of the heat distribution system(s) that can be used (for example hydronic, warm air, etc.).
- **For heating controls (including if part of a heating measure application):** The response should include a description of each component of the system (for example programmer, hub, TRVs, sensors, etc.), how it connects to the heating system, and the technology used to communicate and/or connect with any other devices.

4.67. If the application is for multiple products/models, these should be clearly stated and differences described. Any possible variations should also be clearly stated, for example, if different insulation materials can be used, different renders/finishes, etc.

4.68. Supporting evidence is recommended for this question to clearly demonstrate how the product works using existing documentation. For example, technical data sheets, technical drawings, schematics, diagrams, etc.

**Question 9: User interaction**

4.69. This question is only required for products that utilise a user interface and require user interaction, for example smart heating controls. The response should describe how the user controls the product/system to ensure its best performance. For example, how does the householder interact with the product? Are there physical controls, a touch screen, a smartphone app? How much interaction is anticipated from the householder, is this required, how often?

4.70. Supporting evidence is recommended for this question to demonstrate how the user is expected to interact with the product. For example, user manuals, instructions, online resources, screenshots of an associated smartphone app, etc.

4.71. If the product does not require user interaction, then 'N/A' should be entered in the response to this question.

**Question 10: Product certification**

4.72. The response to this question should list any certification held for the product, including any certification number(s). Certificates listed must also be provided as an attachment.

4.73. Where the installation standard stated in **Question 12: Installation standards** is MCS, then MCS product certification is mandatory.[34]

4.74. Examples of certification include, but are not limited to, MCS product certification, and Agrément certification from organisations such as the BBA, KIWA, etc.

[34] Article 34(2)(e)(ii) of the ECO4 Order.

## ECO delivery and suitability questions

4.75. The following questions are used to assess the product's suitability for delivery under ECO4, in line with requirements of the ECO4 Order and ECO4 guidance.

### Question 11: ECO4 measure type and scoring

4.76. The response to this question should explain which existing measure type the product can be delivered under and why. It should also state and justify which Partial Project Scores (PPS) will be used if the application is successful.

4.77. Where the application is for a heating measure, this should also state which post-main heat source will be used and why it is appropriate.

4.78. Any applications for External, Internal, or Hybrid Wall insulation should also state which material can be used from Table 14 of the ECO4 Guidance: Delivery.

4.79. Further information on the measure types currently deliverable under ECO4 can be found in the ECO4 Measures Table[35], and in Appendix 2 of this document. The ECO4 Partial Project Scores Matrix can be found on our website.[36]

4.80. If there are no existing measure types or scores that are suitable for the product, an AM or DLM application must be submitted and approved prior to an IM application being submitted.

### Question 12: Installation standards

4.81. The application must state the installation standards that the measure will be installed in accordance with. These standards must include provisions designed to ensure the safety and efficacy of the measure on its installation. The ECO4 Order requires that IMs must be one of the following:[37]

- A type of measure listed in Table A.1, A.2 or A.3 in Annex A to PAS 2030:2019,

[35] Not available at time of publication – please contact eco@ofgem.gov.uk for further information.
[36] https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-consultation-scoring-methodology-part-1-and-2-decision
[37] Article 34(2)(e) of the ECO4 Order

- a certified product under MCS, or
- certified, by a person accredited to ISO/IEC 17065:2012, as conforming to the standards stated in the application.

4.82. As such, applicants must check the relevant box to confirm which installation standard the product falls under, stating the specific PAS 2030:2019 annex, or the specific MCS installation standard (MIS).

4.83. Where the measure cannot be installed under these standards, an alternative must be stated, and that standard must be certified by a person accredited to ISO/IEC 17065:2012. That standard would then be required for all subsequent measures installed under this route. We recommend that suppliers contact us at ECO@ofgem.gov.uk prior to submitting an application using an alternative installation standard.

4.84. A brief explanation must also be provided to describe how the standard is applicable to the installation of the product being applied for. We expect that this will be brief for most applications, but additional detail should be provided for more novel products.

**Question 13: TrustMark & PAS 2035 suitability**

4.85. All ECO4 measures (except DHC) must be lodged with TrustMark and delivered by TrustMark registered businesses, unless equivalence can be demonstrated. These questions are intended to provide a declaration as to whether the product can be delivered under the TrustMark and PAS 2035 framework.

4.86. Where the measure/product cannot be delivered under the TrustMark / PAS 2035 framework, we recommend that suppliers contact us at ECO@ofgem.gov.uk prior to submitting an application.

4.87. Question 13b should state whether any additional Quality Assurance is required to check that installations are completed correctly. TrustMark will be reviewing the quality assurance process and have full oversight of the monitoring process for ECO measures,

excluding DHC and novel DLM. Further information and guidance on TrustMark's Quality Assurance process can be found on their website.[38]

**Question 14: Evidence to be held by suppliers**

4.88. This question should state the evidence that can be held by suppliers to demonstrate that the measure installed is in fact one of the products meeting the IM description, listed on the approved IMs document.[39]

4.89. Where the innovation measure uses an improved installation process, additional evidence may be required to demonstrate that the correct process has been followed.

4.90. Further information on evidence to be held by suppliers can be found in paragraphs **4.134 - 4.137**.

## Improvement questions

4.91. The questions in this section are used to assess whether the product being applied for can be considered an 'improvement', and if so, whether it meets the requirements to be approved as a substantial IM. Applicants must state whether they are applying for the 25% or 45% uplift.

**Question 15: Comparable measures**

4.92. 'Comparable measures' means measures which would otherwise be promoted by suppliers (under the measure type outlined in Question 11: ECO4 measure type and scoring) and are commonly available on the market in Great Britain.[40]

4.93. The response must clearly define what is included under 'comparable measures' in the context of this application. A range of comparable measures within the relevant measure type should be considered, and comparison should not simply be made against the worst performing measure in each category. Assurance should also be

[38] https://www.trustmark.org.uk/tradespeople/eco-technical-monitoring
[39] To be published following the publication of the final V1.0 of this document. ECO3 approved IMs: https://www.ofgem.gov.uk/publications/eco3-innovation
[40] Article 32 of the ECO4 Order

provided to demonstrate an awareness of competing products and their features or functions, and that the comparisons are appropriate.

**Question 16: Standard improvement – 25% uplift**

4.94. For a product to be eligible for a 25% uplift, it must demonstrate reasonable explanation of an improvement on comparable measures. The *reasonableness* of this explanation will be assessed, with consideration to evidence provided.

4.95. Where an application is for a **standard IM only** (ie not for a substantial IM), there are no specific improvement criteria, and any improvement may be stated. We will assess the reasonableness of the explanation, consistent with the aims of the ECO4 scheme.

4.96. Where an application is for a **substantial IM**, a response to this question (for a standard IM) is still required, and there are again no specific improvement criteria. Applicants may wish to copy information provided in response to Question 18: Substantial improvement criteria, but this is not a requirement. If the application for a substantial IM is unsuccessful, only the response provided here will be used to determine whether the application can be approved as a standard IM. We will assess the reasonableness of the explanation, in line with the overall aims of the ECO4 scheme.

4.97. The description provided must detail how the product is an improvement on comparable measures. A clear comparison must be made with the 'comparable measures' defined in Question 15: Comparable measures.

4.98. Supporting evidence must be provided to back up any claims made. Evidence must be independent and robust – not commercial testing or case studies etc. Whether or not the product meets the improvement criteria is judged based on the robustness of the evidence provided.

**Question 17: Substantial improvement – 45% uplift**

4.99. For a product to be eligible for the 45% uplift, it must be able to demonstrate that it is a 'substantial' improvement on comparable measures. For this assessment, the improvement must be demonstrated against one or more of the following criteria:[41]

a. an increase in the annual cost savings of the measure,

b. a decrease in the cost of installation of the measure,

c. an increase in the durability of the measure,

d. an improvement in the overall environmental impact of the measure,

e. a reduction in the disruption to householders during the installation of the measure,

f. other improvements consistent with the objectives of ECO4.

4.100. Each of these criteria will have a maximum potential score associated, with applications needing to score above a threshold to be awarded this uplift. Applications will also be benchmarked against previous similar applications to ensure awarding is consistent.

**Question 18: Substantial improvement criteria**

4.101. The criteria outlined above are split into separate questions, where applicants must provide a qualitative assessment of how the product can be considered a substantial improvement. For each of the criteria, a clear comparison must be made with the 'comparable measures' defined in Question 15: Comparable measures.

4.102. Supporting evidence must be provided to back up any claims made. Evidence must be independent and robust – not commercial testing or case studies etc. Whether or not the product meets the improvement criteria is judged based on the robustness of the evidence provided.

[41] Article 34(5) of the ECO4 Order

4.103. Where the product does not meet one or more of the criteria, 'N/A' should be entered under those questions.

4.104. The following paragraphs include information on what can be included under each of the criteria.

*Increase in the annual cost savings of the measure*

4.105. The response should demonstrate any increased annual cost savings achieved by the measure when compared to 'comparable measures'. This includes costs to heat domestic premises (to 21°C in living areas and 18°C in all other areas), as well as any reduced cost of heating water or generation of electricity for use wholly or partly for use on the premises.[42]

4.106. Only cost savings that are not captured by the ECO4 FPS will be considered.[43] For example, where a heating measure is listed in the Product Characteristics Database (PCDB), the post-installation SAP rating will accurately reflect the cost savings achieved by the measure, and as a result, so will the FPS. In scenarios such as this, any increased cost savings cannot be considered when assessing whether the product is an improvement for the purposes of the IM application.

4.107. Expected savings should be quantified and evidence must be provided to back up any claims.

*Decrease in the cost of installing the measure*

4.108. The response should describe any reduced installation costs compared to the 'comparable measures' defined in Question 15: Comparable measures, including reductions in the cost of materials or the equipment needed to install the measure.

4.109. The response may also include any reduced labour costs resulting from faster installation times. The response must include a thorough description of the installation process in this case, and applicants must provide clear comparisons with comparable measures. Again, any claims must be backed up with robust evidence.

[42] Article 2(1) of the ECO4 Order.
[43] IM uplifts will be applied to the PPS for the measure and added to the FPS upon completion of the project. Please see chapter 6 of the ECO4 Guidance: Delivery for further information.

*Increase in the durability of the measure*

4.110. The response to this question should include an explanation of any improved durability when compared to the 'comparable measures' defined in Question 15: Comparable measures. This may include longer lifetimes, increased resilience in more extreme weather conditions, and products that are suitable for wider ranges of property types (for example, a product that was previously only suitable for concrete walls could now be used on masonry).

4.111. Again, any claims made in relation to increased durability must be backed up by robust evidence – for example, independently verified results of product testing.

*Improvement in the overall environmental impact of the measure*

4.112. The environmental impact criterion has been introduced to incentivise measures that can reduce the impact on the environment over the measure's lifecycle. This includes, but is not limited to:

1. Reduced greenhouse gas emissions.
2. Reduced emissions of other pollutants to land, air, or water.
3. Use of locally sourced and/or sustainable materials.
4. Sustainable water and land use.
5. Reduced ecological impact.

4.113. Robust evidence must be provided to support any claims made – for example, a product lifecycle assessment, carried out by a suitable qualified body in line with appropriate standards,[44] could be used to demonstrate that the product has a lower environmental impact when compared to similar product commonly available on the GB market.

*Reduction in the disruption to householders during the installation of the measure*

[44]ISO 14001 Environmental Management; ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines

4.114. Responses to this question should describe how the product offers a better customer journey, or how the installation process results in less disruption to the householder, when compared to the 'comparable measures' defined in Question 15: Comparable measures.

4.115. This may include, but is not limited to, easier installation practices requiring fewer operatives, less remedial works needed, less intrusive installation practices, or faster installation times.

4.116. Applicants should ensure that the response sets out the entire installation process in sufficient detail for the TAP to make an assessment on whether it can be considered an improvement.

4.117. Any claims made must be backed up with robust supporting evidence – for example, a timed study to demonstrate a faster installation time. Any timed studies must be sufficiently detailed, independently verified and include a range of installations.

*Other improvements*

4.118. Any improvements not covered under the criteria listed above should be explained and evidenced under 'other improvements'

**Question 19: Improvement limitations**

4.119. The response to this question should describe any limitations or caveats on the claimed improvements in the previous questions. For example:

- An insulation system may reduce the cost of installing the measure, but only when installed on low-rise properties under a certain height.
- A product may offer increased durability, but only when installed to a certain property type or archetype.
- Heating controls that may be able to increase the annual cost savings due to increased control over the heating system, but only when the user can comfortably operate a smartphone app.

# Delivery and notification

4.120. In addition to the requirements applicable to all ECO measures outlined in the ECO4 Guidance: Delivery, IMs have specific requirements relating to their delivery and notification. This section outlines those requirements – for guidance relating to applications for IMs, please see **Applications for Innovation Measures**.

**General requirements**

4.121. Any supplier can deliver any of the IMs listed on the ECO4 approved IMs document. However, only the supplier who submitted the application will be able to receive the additional 5% uplift, subject to the delivery caps outlined in paragraphs **2.18 - 2.21**. Please note that any ECO3 approved IMs are not eligible to receive the 5% applicant uplift unless they are re-submitted and approved as substantial IMs under ECO4.

4.122. Both standard and substantial IMs are only eligible for the associated IM uplift if they are completed after the date on which the application was approved. Any notified measures completed before the application approval date will not be eligible for the uplift.

4.123. Where a previously approved standard IM has been approved as a substantial IM, the higher 45% uplift will only apply to measures completed after the date on which the substantial IM application is approved, as outlined in paragraph **4.127**.

4.124. Subject to being permitted measure types/fuel types, IMs approved under ECO3 are automatically eligible as standard IMs under ECO4. Suppliers are also able to apply for ECO3 IMs to be approved as substantial IMs – please see **The application process** for further information.

**ECO4 approved IMs document**

4.125. As required by the ECO4 Order, we must publish information relating to any IM applications we approve. This information is published in the ECO4 approved IMs document, which can be found on our website.[45]

4.126. For all approved IMs, this document includes:

1. the IM number,
2. the IM description,
3. the date on which the application was approved,
4. products meeting the description,
5. any caveats or additional requirements relating to the delivery of the IM, and
6. Evidence to be retained by suppliers delivering IMs under the description.

4.127. Where the IM has been approved as a substantial IM, the document will also include:

7. A statement confirming that the measure has been approved as a substantial IM, and
8. the date on which the measure was approved as a substantial IM.

**Measure eligibility**

4.128. Different measure types on ECO have different eligibility requirements affecting the type of property they can be installed in. General eligibility requirements for ECO measures are outlined in the ECO4 Measures Table[46] and in chapters 3, 4 and 5 of the ECO4 Guidance: Delivery.

[45] To be published following the publication of the final V1.0 of this document. ECO3 approved IMs: https://www.ofgem.gov.uk/publications/eco3-innovation
[46] Not available at time of publication – please contact eco@ofgem.gov.uk for further information.

4.129. However, there are also scenarios where IMs have different eligibility requirements to standard ECO measures. Table 4 below outlines those scenarios – please note that this table only includes IM-specific eligibility requirements and the ECO4 Guidance: Delivery should be consulted for full requirements.

**Table 4: IM-specific eligibility**

| Scenario / property type | IMs eligible | Exceptions |
|---|---|---|
| Social Housing – Energy Performance Certificate (EPC) rated DEFG | Any IM | N/A |
| Heating measures in on-gas properties | Any IM that is a heating measure or heating controls. | N/A |
| Heating measures in off-gas properties | Any IM that is a heating measure or heating controls. | In the case of a replacement of an efficient heating system that is either working or broken down and economically repairable, the measure installed cannot be a measure of the same kind as the heating system being replaced. |
| All other tenure / measure types | No specific IM requirements – see chapters 3, 4 and 5 of ECO4 Guidance: Delivery for general eligibility requirements. | N/A |

**Uplifts and scores**

4.130. IMs delivered under ECO4 are eligible for either a 25% or 45% uplift, as well as the additional 5% uplift for the applicant.

4.131. These uplifts are applied to the deflated partial project scores (PPS) of any IMs within a project. Upon the minimum requirement being met and the project being complete, the value of the uplift(s) will be un-deflated and added to the full project score (FPS).

4.132. Suppliers notifying IMs to the ECO Register will not need to specify which uplift should be applied. Suppliers will only need to include the IM number in the notification, and the associated uplift will be applied automatically, including the 5% applicant uplift.

4.133. Further information on how uplifts, PPS, and FPS are calculated can be found in chapter 6 of the ECO4 Guidance: Delivery.

**Evidence to be held by suppliers**

4.134. As outlined in the ECO4 approved IMs document, only certain products are eligible to be delivered as IMs and receive the IM uplift.

4.135. As such, any supplier notifying an IM must hold evidence to demonstrate that the product/system installed is one of those listed under 'product(s) meeting description' on the approved IMs document.

4.136. Where the innovation measure uses an improved installation process, additional evidence may be required to demonstrate that the correct process has been followed.

4.137. Evidence must be from a source independent to the installer and manufacturer, and may include, but is not limited to:

1. A valid guarantee certificate which states the product/system installed.

2. Mid or post-install photographic evidence (geotagged and time-stamped/dated) which clearly shows the specific product installed / being installed.

# Appendices

**Index**

# Appendix 1: Abbreviations

| Abbreviation | Explanation |
|---|---|
| **AM** | Alternative Methodology |
| **ASHP** | Air source heat pump |
| **BEIS** | Department for Business, Energy and Industrial Strategy |
| **BBA** | British Board of Agrément |
| **BRE** | Building Research Establishment |
| **BSI** | British Standards Institute |
| **CWI** | Cavity Wall Insulation |
| **DHC** | District Heating Connection |
| **DLM** | Data Light Measure |
| **ECO** | Energy Company Obligation |
| **EPC** | Energy Performance Certificate |
| **ESH** | Electric Storage Heater |
| **EWI** | External Wall Insulation |
| **FPS** | Full Project Score |
| **FRI** | Flat Roof Insulation |
| **GSHP** | Ground source heat pump |
| **HETAS** | Heating Equipment Testing and Approval Scheme |
| **HHR** | High Heat Retention |
| **HPED** | High performance external doors |
| **IM** | Innovation Measure |
| **IWI** | Internal Wall Insulation |
| **LI** | Loft Insulation |
| **MR** | Minimum Requirement |
| **mCHP** | Micro Combined Heat and Power |
| **MCS** | Microgeneration Certification Scheme |
| **NMAP** | New Measures and Products |
| **PAS** | Publicly Available Specification |
| **PCDB** | Product Characteristics Database |
| **PCWI** | Party Cavity Wall Insulation |
| **PHI** | Park Home Insulation |
| **PPS** | Partial Project Score |
| **PRI** | Pitched Roof Insulation |

| | |
|---|---|
| **QA** | Quality Assurance |
| **RdSAP** | Reduced data Standard Assessment Procedure |
| **RIRI** | Room-in-roof Insulation |
| **SAM** | Standard Alternative Methodology |
| **SAP** | Standard Assessment Procedure |
| **SCoP** | Seasonal Co-efficient of Performance |
| **SEDBUK** | Seasonal Efficiency of a Domestic Boiler in the UK |
| **SFI** | Solid Floor Insulation |
| **TAP** | Technical Advisory Panel |
| **TRV** | Thermostatic Radiator Valve |
| **TTZC** | Time and temperature zone controls |
| **UFI** | Underfloor Insulation |

# Appendix 2: ECO measure descriptions

Existing measures deliverable under ECO4 are described below. This list should be considered when determining the eligibility under ECO4, and when considering the NMAP route through which an application should be made. Additional measures not described below may be eligible under ECO4, if uncertain please contact Ofgem prior to submitting an application.

This appendix is intended as a guide only and is not intended to provide any prescriptive guidance on the installation of any measures.

**Boiler measures**[47]

**Condensing gas boiler**[48]. A system fuelled by gas, with the primary heat exchanger supplemented with a condensing heat exchanger, which allows for water vapour in the exhaust gas to be condensed out, allowing for additional heat recover. The heat generated is transferred to a wet central heating system and can (but does not need to) be connected to a household water tank or be designed to also provide domestic hot water.

**Electric boiler**. Operates by employing electricity to heat water, via an element, the heated water can then be transferred to a wet central heating system and can (but does not need to) be connected to a household water tank to also provide domestic hot water, or be designed to also provide domestic hot water.

**Fuel cell mCHP**. A domestic sized micro Combined Heat and Power (mCHP) unit contains a low temperature fuel cell, which extracts hydrogen from natural gas to generate electricity at a lower cost. The heat generated by the system is transferred to a wet central heating system and can (but does not need to) be connected to a household water tank, or be designed to also provide domestic hot water. These may include a weather compensation measure enabling boiler thermostat adjustment, or a gas condensing module, enabling heat provision primarily during periods of peak demand.

**Biomass boiler**. A renewable energy source, generating heat via the boiler system through the burning of organic matter, most commonly wood, in the form of pellets, chips, or logs.

[47] For more information on boilers and boiler components, see Appendix 3 of the ECO4 Guidance: Delivery.
[48] Efficiency requirements may vary within each devolved nation and should be checked prior to measure delivery. In England and Wales, at the time of publication, includes hydraulic balancing.

The heat generated is then transferred to a wet central heating system and can (but does not need to) be connected to a household water tank, to also provide domestic hot water. Information provided by HETAS[49], on health and safety for this type of systems requires consideration, installers should also provide information and advice on sourcing and storing fuel.

**Air source heat pump (ASHP)[50]** A renewable energy source employing electricity to extract heat from outside air, using a vapour-compression refrigeration process and an external heat exchanger with a fan. There are two types:

a) **Air-to-air system**, transfers heat drawn from the surrounding air to an air based central heating system, that is not connected to a household water tank to also provide domestic hot water. This is not considered to be a renewable system in ECO4.

b) **Air-to-water**, transfers heat drawn from surrounding air, to water in a wet central heating system, and can (but does not need to) be connected to a household water tank, to also provide domestic hot water.

**Ground source heat pump (GSHP).** A renewable energy source composed of a ground-to-water system. Thermal energy is extract by passing a fluid through either ground or water (for example via a ground loop or borehole). This heat is then upgraded by a vapour compression refrigeration cycle before being transferred to a wet central heating system, and can (but does not need to) be connected to a household water tank, to also provide domestic hot water. A GSHP may also be comprised of a shared ground loop, considered as a DHC variant measure type, under ECO4. The ground loop length or size is directly proportional to the amount of heat generated.

**District heating connection (DHC)**

A heat network supplying heat from a central source of heat generation to a consumer interface, via pipes or conduits. The areas covered may vary significantly in size and should encompass at least two domestic premises in separate buildings or three domestic premises situated in a single building. Delivery typically includes a heat source, heat delivery network, a consumer heat interface, and a meter, through which each property is supplied. Under ECO,

[49] Heating Equipment Testing and Approval Scheme: https://www.hetas.co.uk/
[50] Regulations for each devolved nation, relating to delivery of this measure type, should be checked prior to delivery.

a new connection to district heating system is the eligible measure and requires the installation of a heat meter for each household, as well as registration with the Heat Trust, or equivalent.[51] The measure scoring is based on the source of heat generation, as listed in the SAP 2012. These are considered as:

a) **Combined heat and power (CHP)**, heat is recovered, or concurrently produced, from a single energy source generating electricity or mechanical power.

b) **Non combined heat and power (non-CHP)**, where heat is generated from a centralised heating combustion system, such as boilers employing fuels like gas or biomass, amongst others.

c) **Ground Source Heat Pump (GSHP) shared ground loop,** where two or more GSHP units in separate premises are connect to the same ground loop.

**Electric storage heaters (ESH)**

**High Heat Retention Electric Storage Heaters (HHR ESH).** An electric system which functions by storing thermal energy in an in-built "bank" over a set time period, such as overnight, for releasing heat during a time period when the zone is most at use, ie during the daytime. Features such as digital programmers, open window sensors, and electronic room temperature controls should be present to enable householder heating control, with a minimum energy efficiency rating of 38% for a heat output above 250W being met.[52] Under ECO, the manufactured responsiveness rating of 0.8 or above must be met when assessed against SAP, and HHR ESH must be included in the PCDB. HHR ESH are most beneficial in conjunction with off-peak electricity tariffs.

**Other heating measures**

**Thermostatic radiator valves (TRVs).** A simple mechanical valve comprised of two elements, with no electronic parts and no communication with the boiler. They control the temperature of each room by opening and closing automatically to control the flow of hot

[51] Further information on DHC, and delivery requirements can be found in chapter 5 of the ECO4 Guidance: Delivery.
[52] In line with required Lot 20 compliance, part of the European Ecodesign directive for receiving the CE mark. Please note this will be superseded by the UKCA, more information available in the following link: https://www.gov.uk/guidance/using-the-ukca-marking

water through the radiator they are fitted to, as the room temperature changes. TRVs can be manually adjusted to different settings to control the flow of hot water through the radiator.

**Time and temperature zone controls (TTZC).** Enable independent programming of temperature and heating times in at least two different areas or zones of a premise. This may be achieved either by separate plumbing heating circuits, with their own programmer and/or separate channels in the same programmer or using programmable, communicating, or smart TRVs. Under ECO, any programmable, communicating, or smart TRVs must be listed in the SAP PCDB.

**Programmer and room thermostat.** A programmer functions similarly to a timer but provides greater scheduling flexibility and enables automation of boiler and heating functions on pre-set times, scheduled on a weekly or daily basis, and a room thermostat, allows for control over the temperature of a central heating system by operating to the temperature stipulated. Together these enable a householder to set a target temperature for a room and programme different heating times throughout different days of the week, allowing broad time and temperature control of whole house heating systems.

**Compensation measures.** Alter the boiler thermostat temperature, to achieve higher boiler efficiency, by detecting differences in temperature. These detected temperature differences can be for:

a) **Weather compensation** includes a means for automatically measuring local outdoor temperature and control functionality for altering temperature flow from the boiler, in relation to the measured outdoor temperature. Enabling heating output to match heating load, by automatically or directly modulating heater output, or by controlling the on/off heater operator.

b) **Load compensation** includes a means for automatically measuring internal air temperature against the set point on a room thermostat, for altering the boiler flow temperature and preventing overheating. This is attained by direct modulation of the boiler output, or by controlling the on/off operation of the boiler.

**Solar PV.**[53] system composed of "solar cells", which are made from thin layers of semiconducting material, on a glass or metal base. When light shines on the material, a flow of direct current electricity is created, and passed through an inverter, which converts the electricity to 240V alternating current which can be used within the premises or exported to the grid.

**Insulation measures**

**External wall insulation (EWI).** External wall insulation solutions comprise a system of thermally insulating material, that are mechanically fixed to the exterior walls of a building and finished with protective weather resistant render(s), which may have a decorative finish, and reinforcing mesh. A U-value of 0.3 W/m$^2$K should be achieved, if not technically or functionally feasible, the wall should be upgraded to the best U-value possible.[54]

**Internal wall insulation (IWI).**[55] Insulation installed on the warm side of a wall, which can be moisture open, or moisture closed, dependent on individual property requirements. A range of materials, certified for use as IWI are available on the market, typically consists of either dry lining in the form of flexible thermal linings, laminated insulating plasterboard (known as thermal board), or built-up systems using fibrous insulation such as mineral wool. A new studwork frame or stud wall may be built to hold the insulation in place. Reveals and floor or ceiling voids require care to ensure airtightness and to prevent thermal bridging. A U-value of 0.3 W/m$^2$K should be achieved, if not technically or functionally feasible, walls should be upgraded to the best U-value possible.[56]

**Hybrid wall insulation (HWI).** A hybrid approach combines more than one type of wall insulation and is most prevalent with EWI and IWI, to ensure all external walls are insulated in a single dwelling. For example, it may be used in properties in conservation areas or where the outside appearance of a property cannot be changed, IWI can be employed 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.

[53] Further information on Solar PV, and delivery requirements can be found in chapter 5 of the ECO4 Guidance: Delivery.
[54] In line with Building Regulations Part L1, at time of publishing. Please note it may differ amongst devolved nations.
[55] IWI Installation: BEIS guide for best practice
[56] In line with Building Regulations Part L1, at time of publishing. Please note it may differ amongst devolved nations.

**Cavity wall insulation (CWI).** Where a dwelling has a gap between the outer and inner wall, it is considered of cavity wall construction, insulation may be achieved during construction, or retrospectively via injection between the masonry leaves. Three CWI measure variants are defined by their range of thermal conductivity - 0.027, 0.033, or 0.040. The main materials used are Mineral Wool (Glass or Rock Wool), EPS Bead (Polystyrene bead) and PU Foam (Polyurethane Foam), these may be BSI or BBA approved. A U-value of 0.55 $W/m^2K$ should be achieved, if not technically or functionally feasible, wall should be upgraded to the best U-value possible.[57] Where at least 50% of the cavity walls are originally insulated prior to retrospective CWI insulation, these are considered **CWI partial fill**.

**Party cavity wall insulation (PCWI).** Under ECO, is considered a dividing partition cavity wall, between two adjoining buildings, which is shared by householders within each premise, for example, a shared wall between two semi-detached bungalows. Examples on percentage calculations for PCWI are available in the ECO4 delivery guidance chapter 5.[58]

**Floor insulation**

**Suspended underfloor insulation (UFI).[59]** Consists of thermal insulation being placed in underfloor voids. Underfloor voids are present where the flooring finish is suspended above the sub-floor foundation using floor joists. Suspended timber ground floors are the most commonly encountered and consist of the finished timber floorboards being attached to floor joists.[60] Appropriately certified thermal insulation for UFI use, such as stone, glass, or sheep's wool, wool fibre, PUR, or PIR, should be employed to achieve a U-value of at least 0.25 $W/m^2K$.

**Solid underfloor insulation (SFI).[61]** Consists of thermal insulation beneath flooring finishes, directly in contact with the ground, ie no air cavity, such as those directly laid on subsoil, concrete (or similar). A range of appropriately certified materials can be used, such as EPS insulation boards, PUR, or insulating screed. Several additional layers may be included in conjunction with insulating materials, such as vapour control (if needed, which may be moisture open or closed) and airtightness layers, sealed with appropriate tape and comprised

[57] In line with Building Regulations Part L1, at time of publishing. Please note it may differ within devolved nations.
[58] Reference when eco4 guidance document is through finalisation
[59] Retrofit UFI installation: BEIS guide of best practice
[60] Suspended block and beam ground floors are not currently acknowledged, but a future update on the BEIS guide for best practice may result in inclusion.
[61] Retrofit SFI installation: BEIS guide of best practice link when avail.

of materials such as screed or limecrete to minimise thermal bridging and interstitial condensation. A U-value of at least 0.25 W/m$^2$K[62] should be achieved, were technically feasible.

**Roof and loft insulation**

**Loft insulation (LI).** Insulation in an area directly under the roof, installed between (and/or on top of) joists (ie area of the floor of the loft). The recommended thickness to be achieved is 270mm, and "top up" of pre-existing loft insulation is possible to meet such installation thickness recommendations, and remedial works to prevent damp pre-delivery and adequate ventilation post-delivery should be ensured. Existing loft insulation within a premises, is classified as either less than or equal to 100mm, or, greater than 100mm.

**Pitched roof insulation (PRI).** The application of insulation at rafter level to the sloping ceiling of a roof. Where viable, insulation can also be added either above or below the rafter zone, as well as to a vaulted ceiling with no loft space. Delivery of PRI under ECO4 will only be allowed within existing habitable rooms, with delivery to uninhabited cold loft spaces not being supported within the scheme. A U-value of 0.185 W/m$^2$K should be achieved, if not technically feasible, the pitched roof should be upgraded to the best U-value possible.

**Room in roof insulation (RIRI).**[63] RdSAP convention on 'Roof room/Attics'[64] should be used to determine whether an area is a room-in-roof or a separate storey. This states that to be classed as a room-in-roof and not as a separate storey, 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). Where a flat is entirely contained within a room-in-roof, a RIRI measure can be claimed for insulating the relevant elements. Measure installation includes, where present, stud walls, common walls, party walls, gable walls, sloping ceiling, flat ceiling, dormer windows, and residual areas.

**Flat roof insulation (FRI).**[65] Encompasses insulation for the area of the roof which is considered as being completely or almost level, with a possible pitch of up to approximately 10°. Waterproofing is supported by a structural roof deck, usually timber boarding supported on joists, joist depth will govern the thickness of the insulation. Insulation of FRI may be cold:

[62] In Building regulations part L, for England, Wales, and Northern Ireland, at time of publishing. Scottish regulations, at time of publishing, require a U-value of no worse than 0.18 W/m2K.
[63] Retrofit RIRI installation: BEIS best practice guidance
[64] RdSAP Conventions (bre.co.uk)
[65] FRI Installation: NFRC guide for best practice

with insulation placed above the ceiling, and waterproofing laid directly onto the deck, or warm: with insulation placed above the deck, beneath or on top of the waterproofing.[66]

**Other insulation measures**

**High performance external doors (HPED).** A broad range of external doors are available, they can be solid, partially glazed or fully glazed, with the glazing available being either double or triple glazing. The primary construction materials commonly available are uPVC, aluminium, timber, or a combination of these materials.

**Window glazing**. This covers factory made sealed window units only. It does not include windows with secondary glazing or external doors with double or secondary glazing (other than double glazed patio doors, which are surveyed as representing two windows). This can be single to double window glazing or improved double glazing and triple glazing, which reduce heat loss via a thermal barrier and improved draught proofing.

**Draught proofing or draught exclusion.** Entails preventing cold air coming in and preventing warm air from escaping via uncontrolled draughts. This is achieved by either controlling the inlet of air or sealing the space. 100% draught-proofing must be achieved when delivering this measure type under ECO.



[66] Regulations for each devolved nation, relating to delivery of this measure type, should be checked prior to delivery.

# Appendix 3: NMAP application forms

There are two NMAP application forms available – one for Alternative Methodology (SAM and DLM) applications, and one for IM applications.

Both application forms will be published separately as editable documents when the final V1.0 of this guidance is published. However, for the purpose of our ECO4 Administration Consultation Part 2, we have included them as an appendix to this 'draft for comment' version.

# ECO4 Application Form: Alternative Methodology

**Applications will not progress unless sufficient evidence is provided, and the application is considered complete. The following points are intended as a guide:**

- Questions should be read in conjunction with the ECO4 Guidance: New Measures and Products. Key paragraphs are referenced in the explanatory notes.
- All questions should be answered, using the word count as an indication of the level of detail required.
- Requirements outlined in explanatory notes and relevant sections of the ECO4 Guidance: New Measures and Products should be fully addressed.
- Additional evidence and supporting documents should be provided for certain questions as indicated in explanatory notes.
- Attachments should be concise and contain relevant information only. Where this is not possible, the relevant information within a document should be clearly stated.
- Additional evidence and supporting documents must be either embedded in the application form, or provided in a single zip folder, with individual files clearly named.

**Completing this application form**

The applicant must state whether they are applying for a Standard Alternative Methodology (SAM), a Data Light Measure (DLM) or DHC Alterative Methodology.

In order to reduce duplication of information, we recommend that applicants read the entire application form before beginning to answer questions.

| **Supplier Declaration** |
| --- |
| The supplier declaration must be signed by an employee with sufficient authority of the supplier submitting the application.<br><br>The supplier is responsible for ensuring accurate and consistent information. If issues arise that raise doubts around the accuracy of the evidence and information provided, this will be investigated, and the application may be rejected. Any fraudulent activity may also be reported to law enforcement agencies. |
| I confirm that:<br>1. To the best of my knowledge and belief, all relevant information is included in this application and the information is true and accurate.<br>2. If approved, measures delivered under this application will be delivered to ECO4 eligible households.<br>3. If approved, measures delivered under this application will fall under the DLM cap.[67]<br>4. If approved, measures delivered under this application will be delivered in accordance with Building Regulations and all other relevant standards as mandated by the ECO4 Order and/or the TrustMark framework. |
| Name:<br>Signed:<br>Date: |

[67] Please see Appendix 5 of the ECO4 Guidance: Delivery for further information on the DLM cap.

| ***1. Supplier name*** |
|---|
| What is the name of the ECO obligated supplier submitting the application? |
| Response |

| ***2. What route does the application relate to?*** |
|---|
| ☐ Standard Alternative Methodology<br>☐ DHC Alternative Methodology<br>☐ Data Light Measure |

| ***3. Is there any history related to the measure in this application?*** |
|---|
| If the measure has been accepted under other domestic or foreign schemes, or has previously received government funding, please provide details. |
| Response |

| ***4. Is this application a re-submission of a previously rejected application?*** |
|---|
| ☐YES ☐NO<br>If yes, please provide a summary below of the new information has been included. |
| Response |

| ***5. Is there an existing DLM?*** |
|---|
| ☐YES ☐NO<br>If yes, please provide a summary below of new evidence that has been included. |

Response

### *6. Eligibility requirements*

If the technology is not captured by an existing standard ECO4 measure type (other than DHC) a supplier can apply for a new measure type and partial project score. The technology must be able to demonstrate a space heat saving.
Why is an existing measure type and partial project score not appropriate for the technology?

See paragraphs 3.23 - 3.29 for further information on this question.

Response

**Please confirm:**

☐ Technology is capable of resulting in a reduction in the cost of heating domestic premises

☐ Technology is not partly or wholly fuelled by biofuel, coal, oil or liquefied petroleum gas (LPG)

☐ Technology is not wholly fuelled by other fossil fuels

☐ No existing standard ECO4 measure type **or** ☐ Application is for a DHC measure

### *7. Measure type description*

Provide a general description of the measure type with factual reference to the technology's characteristics and functionality. An application cannot be reserved for a specific named product.

See paragraphs 3.30 - 3.32 for further information on this question.

Response

**EVIDENCE:** Optional

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

### *8. Space heating cost saving mechanism*

The technology must be able to demonstrate a space heat saving when heating domestic premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas.

Provide a detailed description of how the technology results in a space heating cost saving. The explanation should be clear to follow for a non-specialist and sufficiently detailed.

See paragraphs 3.33 - 3.35 for further information on this question.

Response

**EVIDENCE:** Recommended

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

### *9. Cost saving calculation methodology*

Is the technology recognised in SAP Appendix Q?

☐**YES** (complete section 9a.) ☐**NO** (complete section 9b.)

a. Outline how the space heating cost savings are modelled in Appendix Q. Provide the cost saving for a typical property with reference to a given floor area ($m^2$) and starting intermediate SAP band.

See paragraphs 3.36 - 3.44 for further information on this question.

Response

**EVIDENCE:** Recommended
**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

b. Propose a methodology to calculate an annual heating cost saving for a typical property with reference to a given floor area ($m^2$) and starting intermediate SAP band.

Response

**EVIDENCE:** Recommended
**Word count:** 400

State evidence filename(s) and reference relevant page number(s)

Is the application for a DHC measure?

☐**YES** (complete 9c.)

☐**NO** (skip 9c.)

c. Explain why the existing PPS and SAP are not appropriate for the technology. Provide information on the level of improvement, regarding the existing cost savings modelled by SAP.

Response

**EVIDENCE:** Recommended
**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

***10. Evidence to support cost savings***

Provide a summary and attach the evidence to support the cost saving calculation methodology.

a. For a SAM application, we expect the supporting evidence to be of a similar level as is required for SAP Appendix Q.

See paragraphs 3.45 - 3.51 for further information on this question.

Response

**EVIDENCE:** Mandatory
**Word count:** 400

State evidence filename(s) and reference relevant page number(s)

b. For DLM, the level of evidence required to support the cost savings is expected to be less extensive than for the Alterative Methodology route.

Response

**EVIDENCE:** Mandatory
**Word count:** 400

State evidence filename(s) and reference relevant page number(s)

***11. Measure lifetime***

State the expected lifetime of the measure. This must be provided to benchmark appropriate guarantee requirements. Evidence must be provided to support the lifetime.

See paragraphs 3.52 - 3.53 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

***12. Appropriate installation standards***

a. Measures must be installed in accordance with an appropriate standard to ensure safety and efficacy of the measure. Indicate below the appropriate standard for the measure. Please note the "other standard" route is only applicable for DLM applications.

See paragraphs 3.54 - 3.57 for further information on this question.

☐ PAS 2030 & 2035:2019 – State annex:

☐ MCS – State MIS:

☐ Heat Trust:

☐ Other standard certified by an organisation accredited to ISO 17065– state standard:

**EVIDENCE:** Mandatory

**Word count:** 50

State evidence filename(s) and reference relevant page number(s)

b. If "other standard" please demonstrate the following criteria:
   - The certifying organisation is accredited to ISO 17065
   - Building Regulation compliance
   - Installation and maintenance instructions to ensure safety and efficacy
   - Performance expectations – how performance changes over time
   - Financial protection mechanisms – warranty and guarantee availability

Response

**EVIDENCE:** Mandatory
**Word count:** 400

State evidence filename(s) and reference relevant page number(s)

***13. Projected delivery***

For AM applications, provide the approximate number of measures expected to be delivered and the timelines for installations if the application is approved.

See paragraphs 3.58 - 3.59 for further information on this question.

Response

**EVIDENCE:** Optional
**Word count:** 100

State evidence filename(s) and reference relevant page number(s)

***14. TrustMark Quality Assurance and Score Monitoring***

Do existing quality assurance and score monitoring requirements apply to the measure? If applicable, suggest new quality assurance and score monitoring questions.

See paragraphs 3.60 - 3.61 for further information on this question.

Response

**EVIDENCE:** Recommended
**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

***15. Smart Technologies***

Smart technologies are those that can communicate in real time to respond to price signals and provide flexibility to the energy system to balance grid supply or demand through the ability to increase, decrease or shift in time, the consumption or generation of energy.

Smart technologies under ECO4 should outline how they demonstrate the following additional criteria:

- The measure can be combined with a time-of-use tariff and will be used with a functioning electricity smart meter.
- The measure is smart enabled, ie it can respond in real time to communication signals to alter the rate or time of electricity flowing through the measure to provide demand side response services. At least one user interface is made available to the user.
- The measure can be installed with sufficient energy storage, and in a way that means the heating system will operate flexibly. Storage can take several forms including the heat stored in the fabric of the building, hot water storage, electric battery storage and heat batteries.
- The measure is safe and secure, referencing relevant standards and codes. As smart technologies are likely be internet connectable, applicants should include relevant cyber security standards and codes.

See paragraphs 3.62 - 3.64 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

# ECO4 Application Form: Innovation Measures

**Applications will not progress to the TAP until sufficient evidence is provided, and the application is considered complete. The following points are intended as a guide:**

- Questions should be read in conjunction with the ECO4 Guidance: New Measures and Products. Key paragraphs are referenced in the explanatory notes.
- Unless otherwise stated, all questions should be answered, using the word count as an indication of the level of detail required.
- Requirements outlined in explanatory notes and relevant sections of the ECO4 Guidance: New Measures and Products should be fully addressed.
- Additional evidence and supporting documents should only be provided for certain questions as indicated in explanatory notes.
- Attachments should be concise and contain relevant information only. Where this is not possible, the relevant information within a document should be clearly stated.
- Additional evidence and supporting documents must be either embedded in the application form, or provided in a single zip folder, with individual files clearly named.

**Completing this application form**

This application form is separated into four main sections:

1. Introductory questions
2. Product questions
3. ECO delivery/suitability questions
4. Improvement questions

In order to reduce duplication of information, we recommend that applicants read the entire application form before beginning to answer questions.

| **Supplier Declaration** |
| --- |
| The supplier declaration must be signed by an employee with sufficient authority of the supplier submitting the application.<br><br>The supplier is responsible for ensuring accurate and consistent information. If issues arise that raise doubts around the accuracy of the evidence and information provided, this will be investigated, and the application may be rejected. Any fraudulent activity may also be reported to law enforcement agencies.<br><br>See paragraphs 4.50 - 4.51 for further information on this question. |
| I confirm that:<br>1. To the best of my knowledge and belief, all relevant information is included in this application and the information is true and accurate.<br>2. If approved, measures delivered under this application will be delivered to ECO4 eligible households.<br>3. If approved, measures delivered under this application will fall under the innovation measure (IM) caps.[68]<br>4. If approved, measures delivered under this application will be delivered in accordance with Building Regulations and all other relevant standards as mandated by the ECO4 Order and/or the TrustMark framework. |
| Name:<br>Signed:<br>Date: |

[68] Please see Appendix 5 of the ECO4 Guidance: Delivery for further information on caps.

# Introductory questions

This section is intended to gather high-level information on the product being applied for, and in the case of re-submissions, to provide a summary of any new information/evidence provided.

| ***1. Application name*** |
|---|
| What is the name of the product being applied for? |
| Include the manufacturer name, model name/number, and any specific identifiers to be included under the IM description. Where relevant, the Agrément or MCS certification number should also be included.<br>See paragraphs 4.53 - 4.54 for further information on this question. |
| Response |

| ***2. Supplier name*** |
|---|
| What is the name of the ECO obligated supplier submitting the application?<br>See paragraph 4.55 for further information on this question. |
| Response |

| ***3. Product description*** |
|---|
| Please provide a brief description of the product in no more than 50 words. |
| This should be a brief, high-level description of what the product is and what it does.<br>See paragraph 4.56 for further information on this question. |
| Response |

### *4. Eligibility requirements*

Answer the following questions using the checkboxes provided.

See paragraph 4.57 for further information on this question.

1. Capable of resulting in a reduction in the cost of heating domestic premises
   ☐**YES** ☐**NO**
2. Generation of heat, wholly or partly fuelled from biofuel, coal, oil or liquefied petroleum gas ☐**YES** ☐**NO**
3. Generation of heat, wholly or mainly fuelled from a non-renewable source
   ☐**YES** ☐**NO**
4. Repair of existing measure
   ☐**YES** ☐**NO**
5. District heating connection
   ☐**YES** ☐**NO**

### *5. Relevant history*

Is there any history related to the product in this application, or relevant facts that we should be aware of?

If the product has been accepted under other domestic or foreign schemes, or has previously received government funding, please provide details.

See paragraph 4.58 for further information on this question.

Response

### *6. Re-submission*

Is this application a re-submission of a previously rejected application?

☐**YES** ☐**NO**

If yes, please provide a summary below of what new information/evidence has been included, stating the question number and a brief description on how feedback from a previous application has been addressed.

See paragraphs 4.59 - 4.60 for further information on this question.

Response

| ***7. Application for a substantial IM*** |
| --- |
| Is this application for an already approved ECO4 standard IM to be assessed as a substantial IM? |
| **☐YES ☐NO**<br>If yes, please provide a summary below of any new information/evidence that has been included.<br>See paragraphs 4.61 - 4.63 for further information on this question. |
| Response |

# Product questions

The questions in this section are intended to give Ofgem and the TAP a better understanding of what the product is, and how it works, in order to make a more informed determination of whether it can be considered an improvement.

| ***8. Product overview*** |
|---|
| Describe in detail what the product is, how it works, and provide a breakdown of its components. |
| See paragraphs 4.66 - 4.68 for further information on this question. |
| Response |
| **EVIDENCE:** Recommended<br>**Word count:** 300 |
| State evidence filename(s) and reference relevant page number(s) |

| ***9. User interaction*** |
|---|
| Describe any interactions required by the householder to ensure the product's best performance.<br>If the product does not require user interaction, then 'N/A' should be entered in the response to this question. |
| See paragraphs 4.69 - 4.71 for further information on this question. |
| Response |
| **EVIDENCE:** Optional<br>**Word count:** 300 |
| State evidence filename(s) and reference relevant page number(s) |

| ***10.Product certification*** |
|---|
| List any certification held for the product(s) and, where relevant, include certification number(s). |
| Where the installation standard stated in question 12 is MCS, then MCS certification number is mandatory.[69]<br>Examples of certification include, but are not limited to, MCS product certification, and Agrément certification from organisations such as the BBA, KIWA, etc.<br>Any relevant certificates should be provided as an attachment.<br>See paragraphs 4.72 - 4.74 for further information on this question. |
| Response |
| **EVIDENCE:** Recommended (mandatory where installation standard is MCS)<br>**Word count:** 100 |
| State evidence filename(s) and reference relevant page number(s) |

[69] Article 34(2)(e)(ii) of the ECO4 Order.

# ECO delivery and suitability questions

The following questions are used to assess the product's suitability for delivery under ECO4, in line with requirements of the ECO4 Order and ECO4 Guidance.

| ***11.ECO4 measure type and scoring*** |
|---|
| State which ECO4 measure type and PPS can be used and explain why it is appropriate |
| See paragraphs 4.76 - 4.80 for further information on this question. |
| Response |
| **EVIDENCE:** Optional<br>**Word count:** 300 |
| State evidence filename(s) and reference relevant page number(s) |

| ***12.Installation standards*** |
|---|
| a. Which installation standards will the IM be installed in accordance with? |
| See paragraphs 4.81 - 4.84 for further information on this question. |
| ☐ PAS 2030:2019 – State annex:<br>☐ MCS – State MIS:<br>☐ Other – State standard: |
| b. Please provide a brief explanation of how the standard is applicable / covers that measure. |
| Response |
| **EVIDENCE:** Optional<br>**Word count:** 200 |
| State evidence filename(s) and reference relevant page number(s) |

| ***13. TrustMark & PAS 2035 suitability*** |
|---|
| a. Please confirm whether the product can be delivered under the TrustMark and PAS 2035 framework. |
| All ECO4 measures (except DHC and some DLM) must be lodged with TrustMark and delivered by TrustMark registered businesses. Please use the checkboxes provided to confirm whether the product can meet the requirements of the TrustMark framework.<br><br>Applicants should consider:<br>- Installation standards (must be PAS 2030 or MCS)<br>- TrustMark approved insurance backed guarantees<br>- Quality Assurance (see also question 13b)<br>- Compliance with Building Regulations<br><br>See paragraphs 4.85 - 4.87 for further information on this question. |
| ☐ Yes, the product and its associated installation process can be delivered in accordance with PAS 2035 and TrustMark's framework operating requirements.<br>☐ No – please state other arrangements for quality assurance and consumer protection: |
| Response |
| **EVIDENCE:** Optional (Mandatory if response is 'no')<br>**Word count:** 300 |
| State evidence filename(s) and reference relevant page number(s) |

b. State any additional Quality Assurance questions required to ensure the product has been installed correctly.

See paragraphs 4.85 - 4.87 for further information on this question.

Response

**EVIDENCE:** Optional
**Word count:** 100

State evidence filename(s) and reference relevant page number(s)

***14.Evidence to be held by suppliers***

What evidence can be held by suppliers to evidence that the correct product or process has been installed or followed?

See paragraphs 4.88 - 4.90 for further information on this question.

Response

**EVIDENCE:** Optional
**Word count:** 100

State evidence filename(s) and reference relevant page number(s)

# Improvement questions

The following questions are used to assess whether the product being applied for can be considered an 'improvement' on comparable measures. Applicants must state whether they are applying for the 25% or 45% uplift – the table below outlines the questions that must be completed depending on which uplift is being applied for.

| | If applying for 'standard' 25% uplift | If applying for 'substantial' 45% uplift | If applying for an already approved 'standard' IM to be approved as a 'substantial' 45% IM |
|---|---|---|---|
| Question 15 | Mandatory | Mandatory | Mandatory |
| Question 16 | Mandatory | Mandatory | Not required |
| Question 17 | Mandatory | Mandatory | Mandatory |
| Question 18 | Not required | Mandatory | Mandatory |
| Question 19 | Mandatory | Mandatory | Mandatory |

| ***15.Comparable measures*** |
|---|
| Describe the 'comparable measures' that the measure offers an improvement on. 'Comparable measures' means measures that would otherwise be promoted on ECO4 by the participant and are commonly available on the market in Great Britain. |
| See paragraphs 4.92 - 4.93 for further information on this question. |
| Response |
| **EVIDENCE:** Recommended<br>**Word count:** 300 |
| State evidence filename(s) and reference relevant page number(s) |

***16.Standard improvement – 25% uplift***

Describe how the measure is an 'improvement' on comparable measures.

If the application is for an already approved standard IM to be re-assessed as a substantial IM, this question can be skipped and 'N/A' should be entered.

See paragraphs 4.94 - 4.98 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 500

State evidence filename(s) and reference relevant page number(s)

***17.Substantial improvement – 45% uplift***

Please state whether you believe the product is a substantial improvement on comparable measures.

See paragraphs 4.99 - 4.100 for further information on this question.

☐**YES –** Please complete question 18 below.

☐**NO** – Please skip question 18 and move on to question 19.

***18.Substantial improvement criteria***

Against each of the criteria below, provide a qualitative assessment of how the measure is a substantial improvement on comparable measures.

'N/A' should be entered where any of the criteria are not being claimed.

See paragraphs 4.101 - 4.104 for further information on this question.

a. Increase in the annual cost savings of the measure

A clear comparison must be made with the 'comparable measures' defined in question 15.
See paragraphs 4.105 - 4.107 for further information on this question.

Response

**EVIDENCE:** Mandatory
**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

b. Decrease in the cost of installing the measure

A clear comparison must be made with the 'comparable measures' defined in question 15.
See paragraphs 4.108 - 4.109 for further information on this question.

Response

**EVIDENCE:** Mandatory
**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

c. Increase in the durability of the measure

A clear comparison must be made with the 'comparable measures' defined in question 15.

See paragraphs 4.110 - 4.111 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

d. Improvement in the overall environmental impact of the measure

A clear comparison must be made with the 'comparable measures' defined in question 15.

See paragraphs 4.112 - 4.113 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

e. Reduction in the disruption to householders during the installation of the measure

A clear comparison must be made with the 'comparable measures' defined in question 15.

See paragraphs 4.114 - 4.117 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

f. Other improvements

A clear comparison must be made with the 'comparable measures' defined in question 15.

See paragraph 4.118 for further information on this question.

Response

**EVIDENCE:** Mandatory

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)

***19.Improvement limitations***

Describe any limitations or caveats on the improvement(s) explained above

See paragraph 4.119 for further information on this question.

Response

**EVIDENCE:** Recommended

**Word count:** 300

State evidence filename(s) and reference relevant page number(s)