



Department for
Business, Energy
& Industrial Strategy

ENERGY COMPANY OBLIGATION

2022-2026

Policy Guidance for obligated suppliers,
manufacturers and installers on applying for
Innovation Measures, Alternative
Methodology and Data Light Measures

July 2022



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1 Introduction

The Energy Company Obligation scheme

- 1.1 The Energy Company Obligation (ECO) requires obligated energy suppliers to deliver energy efficiency and heating measures to homes in Great Britain. These measures help households to keep their homes warmer, reduce their energy bills and reduce carbon emissions. The scheme started operating in January 2013 and has delivered over 3.5 million improvements in around 2.4m homes.
- 1.2 The principal objectives of the ECO4 scheme are to: help alleviate fuel poverty and accelerate progress to meet fuel poverty targets; (ii) contribute to carbon reduction targets in the domestic sector, (iii) reduce the costs of meeting the UK's renewable energy target through promoting more efficient energy use, and (iv) encourage innovation in the industry.
- 1.3 The Government has extended ECO to run until March 2026 at an increased value of around £1bn per year.
- 1.4 ECO reduces heating costs for people whose homes it improves, thereby reducing fuel poverty. ECO4 aligns with the new Sustainable Warmth Strategy for England, and the Low Income and Low Energy Efficiency (LILEE) metric. The scheme provides greater support to the least energy efficient homes, making greater progress against our fuel poverty targets. It is fully focussed on low income and vulnerable households.
- 1.5 The Electricity and Gas (Energy Company Obligation) Order 2022 ("the ECO Order") are the regulations that relate to the fourth ECO scheme (ECO4). ECO4 will run until 31 March 2026¹.

The Obligation Target and Measure Scoring

- 1.6 Under ECO, obligated energy suppliers are given a statutory target to deliver their share of the obligation. Under ECO4, the target is based on annual bill savings (ABS). The focus of the scheme remains a home-heating cost reduction obligation to alleviate fuel poverty aimed at low income and vulnerable households living in the least energy efficient homes and least able to afford energy efficiency measures without financial support. ECO4 has a "minimum requirement" to improve the Standard Assessment Procedure (SAP) rating of band D and E homes to at least an SAP band C, and SAP band F and G homes to at least an SAP band D.
- 1.7 Government sets out the overarching scoring methodology and requirements for the scheme in the response to the consultation².

¹ The full details of the scheme are available on the gov.uk website at:

<https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>.

² www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026

Innovation under ECO3 and ECO4

- 1.8 Since ECO3, innovation mechanisms have been included within ECO to support innovation in domestic energy efficiency.
- 1.9 Government is keen to continue supporting products and installation techniques which offer improvements in energy efficiency outcomes, wider societal benefits and the experience of consumers. As well as benefitting households in the short term, this should also bring longer-term benefits.
- 1.10 'Under ECO3, innovation saw a total of 7 Demonstration Actions (DAs) approved with 410 DA measures delivered, and 16 Innovation Measures (IMs) approved and 7,132 delivered.³. These accounted for 0.67% of all measures delivered under ECO3. Suppliers could also deliver In Situ Performance/Monitored Measures under ECO3 however this delivery pathway was not employed.
- 1.11 For ECO4, the DA mechanism has been removed as it is not considered an appropriate vehicle for the testing of single measures in fuel poor households or addressing the current gaps in support and barriers to SAP inclusion.
- 1.12 Anecdotal evidence revealed that one of the main barriers to IM delivery was the blanket uplift level of 25%, which did not fully support the delivery of more costly measures with greater benefits. This issue meant that some suppliers would undergo the application and approval process, and subsequently be unable to deliver these more costly IMs, instead opting to deliver the standard counterpart as this would be more cost effective for them.
- 1.13 The 'materially different' requirement for IMs under ECO3 has been removed for ECO4.
- 1.14 There are two levels of IM uplift: 25% for an application with a reasonable explanation around improvement against commonly available products and 45% for substantial improvement with regards to specific criteria (see table 2).
- 1.15 Energy suppliers can meet up to 10% of their obligation through delivering IMs to eligible households. A maximum of 5% of their obligation can be met through promoting a single IM product. This is to encourage a diversity of IMs.
- 1.16 IMs, Standard Alternative Methodology (SAM) measures, and Data Light Measures (DLMs) – both of which are also referred to as New Measures and Products (NMAP) in the Office of Gas and Electricity Market's (Ofgem) innovation guidance - will continue to be optional under the scheme, with energy suppliers only participating if they wish to.

Alternative Methodology

- 1.17 Measures installed under the SAM and DLM routes described in this guidance are both considered 'Alternative Methodology' (AM) measures. Both will be scored through the

³ Table 2.8 <https://www.gov.uk/government/statistics/household-energy-efficiency-statistics-headline-release-june-2022>.

AM route and have a separate score that is compatible with the wider ECO4 scoring methodology.

- 1.18 The inclusion of the DLM route alongside the SAM route under the AM pathway will enable scores to be produced for measures below the data threshold for recognition in SAP, but with robust enough data to form the basis of an ECO4 score. Further detail on this route is available in chapter 5.
- 1.19 Measures delivered under the SAM and DLM routes will not count towards the 10% IM cap. However, if the measure is subsequently approved as an innovation measure, it would then count towards the IM cap.
- 1.20 For DLMs, there is a scheme-wide cap of 5,000 per measure type. Each supplier's share of that 5,000 is equivalent to their share of the overall ECO4 target.
- 1.21 When we refer to measure type, we mean measures which fall under the same description submitted to and published by Ofgem.

The Purpose of this Guidance Document

- 1.22 This guidance is predominantly aimed at obligated suppliers, manufacturers and installers who wish to participate in innovation under the ECO4 scheme.
- 1.23 The document sets out details of the policy background for IM, SAM and DLM routes under the ECO4 scheme and provides guidance on:
 - Measure Eligibility Criteria for IMs, SAMs and DLMs – the criteria that measures need to demonstrate to be eligible for inclusion under the scheme;
 - Innovation Measures – why the scheme has retained the IM mechanism for innovative energy efficiency and heating measures, the associated reforms, the new scoring matrix and uplifts and the criteria under which measures are assessed. This also includes detail on rewarding obligated suppliers for sponsoring a promoted approved IM application.
 - Standard Alternative Methodologies – why the scheme has retained SAMs as a route to innovative measure delivery and the criteria under which SAMs will be assessed, including information on the specific safety, efficacy and installation standards that AMs need to demonstrate to receive support under ECO4.
 - Data Light Measures – why the scheme has introduced the DLM route, the criteria by which measures will be assessed and information on the specific safety, efficacy and installation standards that DLMs need to demonstrate to receive support under ECO4.

The Role of Ofgem as Scheme Administrator

- 1.24 Ofgem is the ECO4 scheme administrator. To allow for expert assessment of a range of criteria, a Technical Advisory Panel (TAP), appointed by Ofgem, will assess applications for IMs. The TAP will make a recommendation to Ofgem, who will make the final decision on the IM application. The main role of the TAP will be to assess proposals and

provide a recommendation to Ofgem on whether or not the application should be approved, and if so, the appropriate level of uplift. This will include a consideration that each measure can meet the product installation and consumer protection standards for the wider ECO4 scheme. These can be the same as or equivalent to the standards required for all ECO4 measures (TrustMark requirements, Publicly Available Specifications (PAS), and Microgeneration Certification scheme (MCS)). They will also consider whether the proposal meets the threshold for a standard or substantial uplift. This is explained further in chapter 4.

- 1.25 Ofgem have published separate guidance setting out their application and administrative process for IM, SAM and DLM routes via their NMAP guidance. This is available on the Ofgem website.

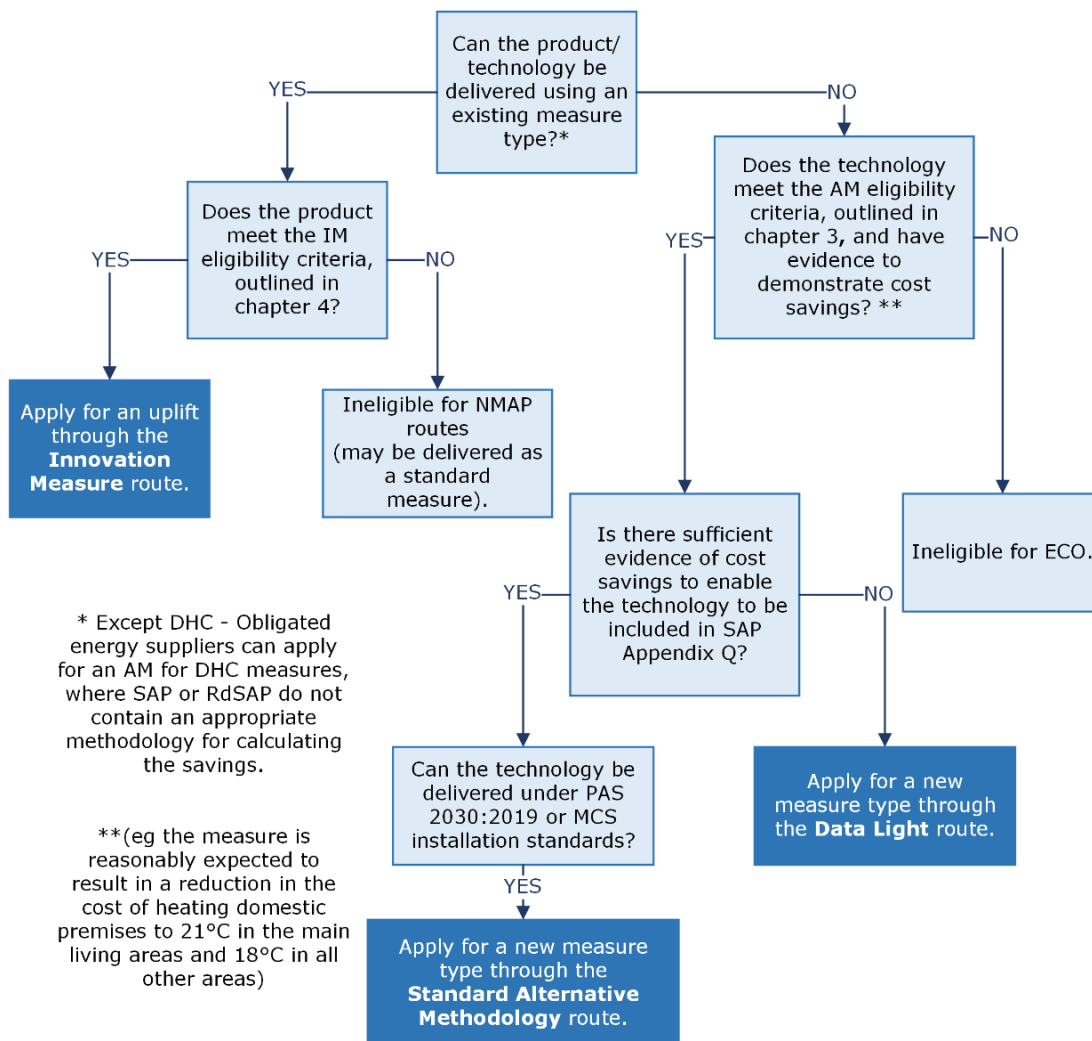
Further Information

- 1.26 Enquiries relating to this guidance should be directed to the ECO team in BEIS at: beisecoteam@beis.gov.uk.
- 1.27 Enquiries relating to the application process should be sent to Ofgem at: eco@ofgem.gov.uk.

2 Measure Eligibility Criteria

- 2.1 Measures will only be accepted into the scheme under the IM, SAM or DLM routes if they meet the required eligibility criteria for the scheme.
- 2.2 BEIS and Ofgem will not become involved in any commercial discussions or agreements between suppliers and third parties, but BEIS would expect any commercial and exclusivity issues to be taken into account by suppliers and third parties before the application is submitted to Ofgem. This may include payment schedules or progress report arrangements.
- 2.3 Chart 1 below sets out the routes that suppliers can take to obtain support under ECO4.

Chart 1: Routes to gaining support under ECO4 Innovation



- 2.4 Suppliers are encouraged to consider which route their product or measure will fall under prior to making an application to Ofgem.
- 2.5 To be eligible for support under ECO4, IMs will need to demonstrate that:

- they have a reasonable explanation⁴ of how a measure is an improvement on other comparable measures that are commonly available on the market in Great Britain and would otherwise be delivered by the sponsoring supplier as an ECO4 eligible measure;
- the measure description stated in the application is accurate and contains sufficient detail to distinguish the measure from comparable measures;
- the measure is listed in PAS 2030:2019, a certified product under MCS or is certified to standards stated in the application;
- the standards stated in the application include provisions designed to ensure the safety and efficacy of the measure following its installation;
- the measure is not wholly or partly fuelled by coal, oil, biofuel or Liquid Petroleum Gas (LPG); and
- the measure is not wholly or mainly fuelled by other fossil fuels (e.g. a heating measure that uses a combination of renewable energy and eligible fossil fuels such as natural gas, where the home is already connected to the gas grid)⁵,
- the measure is not a district heating connection (see section on District Heating Connection), and
- the measure is not a repair.

2.6 SAM measures and DLMS will need to demonstrate that:

- they should be considered as either a standard AM or DLM
- the Standard Assessment Procedure (SAP) does not already provide a methodology for calculating the annual cost savings of the measure;
- the measure description stated in the application is accurate and contains sufficient detail to distinguish the measure from other measures commonly available on the market in Great Britain;
- the methodology for calculating the annual costs savings of the measure stated in the application is reasonable;
- the standards stated in the application include provisions designed to ensure the safety and efficacy of the measure following its installation;
- in the case of SAM measures, the measure results in bill savings through the reduction in the cost of heating premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas, alongside supporting evidence that is sufficient to enable a methodology for calculating the annual cost savings of the measure to be established under Appendix Q of the Standard Assessment Procedure;

⁴ For a substantial uplift of 45%, there are additional separate requirements for the application. The application must include; the measure description, a qualitative assessment as to whether the measure is a substantial improvement on comparable measures according to set criteria, and such other information relating to the measure as the Administrator may require.

⁵ Renewable heating system means equipment for the generation of heat wholly or mainly by means of a source of energy or technology mentioned in section 100(4)(a) or (c) to (h) of the Energy Act 2008.

- for SAMs, the measure is a type of measure listed in Table A.1, A.2 or A.3 in Annex A to PAS 2030:2019; or a certified product under MCS;
- in the case of DLMs, are reasonably expected to, at a minimum, result in the reduction in the cost of heating premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas, with an estimated amount of bill savings expected, alongside supporting evidence;
- for DLMs, the measure is certified to the standards stated in the application by a person accredited to ISO/IEC 17065:2012;
- the measure is not wholly or mainly fuelled by from a non-renewable source (eg. a heating measure that uses a combination of renewable energy and eligible fossil fuels such as natural gas, where the home is already connected to the gas grid)⁶; and
- the measure is not wholly or partly fuelled by coal, biofuel, oil or LPG;
- the measure is not a repair;
- the measure is not a district heating connection (see section on District Heating Connections).

2.7 IMs, SAMs and DLMs must meet the general measure eligibility criteria of the ECO4 scheme unless otherwise stated.

2.8 In keeping with the scheme's overarching objectives, measures will only be eligible if they form part of an ECO4 project and can contribute to meeting the minimum requirement (MR), where:

- any SAP band F or G property treated must be improved to at least a band D⁷, and
- any SAP band D or E property treated must be improved to at least a band C⁸.

2.9 Further to this, all measures under ECO4, including innovative measures, must reduce the cost of heating a household but could also save money in other ways, for example by heating water or generating electricity for use by the household. Please see the cost saving definition under The Electricity and Gas (Energy Company Obligation) Order 2022, article 2 to understand what other money saving may be available.

Fossil Fuel Exclusion

2.10 Measures delivered under any of these routes cannot be fuelled at all by coal, biofuel, oil, or LPG and cannot be wholly or mainly fuelled by non-renewables. Measures can be partly fuelled by other fossil fuels. This exclusion is to encourage the uptake of innovative insulation or renewable energy efficiency measures.

2.11 Biofuels are also excluded under ECO4.

⁶ Renewable heating system means equipment for the generation of heat wholly or mainly by means of a source of energy or technology mentioned in section 100(4)(a) or (c) to (h) of the Energy Act 2008.

⁷ See chapter 4 'Scoring' <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>

⁸ Ibid.

2.12 Further detail around eligible fuel types for ECO4 is available in the Ofgem Delivery Guidance⁹.

2.13 These criteria are outlined in more detail further on in this document.

⁹ See the ongoing Ofgem Energy Company Obligation Guidance Consultations here:
<https://www.ofgem.gov.uk/publications/ofgem-eco4-administration-consultation-part-2>

3 Supplier Obligation Caps and Methodologies

Supplier Obligation Caps

- 3.1 IMs and DLMs are subject to delivery caps under ECO4.
- 3.2 The overall delivery of IMs cannot exceed 10% of an obligated supplier's total obligation. BEIS will monitor the delivery of innovation under ECO4. If monitoring reveals that there is compelling evidence to increase this cap this may take place during the scheme. However, this would require consultation and a change to the regulations.
- 3.3 There is a 5% sub-cap on the delivery of single innovation measures of the same type to encourage a wider range of innovative products under ECO4.
- 3.4 For DLMs, there is a scheme-wide cap of 5,000 per measure type. For example, if a supplier or suppliers submit two successful DLM applications, 5,000 of each could be delivered across the scheme. Each supplier's share of that 5,000 is equivalent to their share of the overall ECO4 target.
- 3.5 There is no delivery cap for SAM measures. Moreover, the value of SAM measures and DLMs in annual bill savings does not contribute to either IM cap. However, if the AM measure is subsequently approved as an innovation measure then it would count towards the IM cap.

Methodology

- 3.6 All applications to Ofgem regarding AM measures and DLMs should set out the relevant methodology pertaining to the measure in question. This must include evidence of how the measure achieves a heating cost saving.
- 3.7 Where possible, evidence from the National Energy Efficiency Data-Framework (NEED), a control group and/or other methodology (as agreed) should be cited, against which the application can be compared.

4 Innovation Measures

Supporting Innovation Measures under ECO4

- 4.1 The specific proposals and the outcome of these proposals in addition to the rationale for these decisions is set out in Government’s Response to the ECO4 Consultation¹⁰.
- 4.2 We recognise that the scope of the ECO3 Order and IM assessment criteria meant certain benefits of new and innovative products were not captured by the scheme and could not be approved, despite some of these measures providing additional benefits.
- 4.3 Further to this, providing greater support to products and processes that have lower environmental impacts in the way they are manufactured or installed will also contribute to Government’s wider Net Zero target. This could encourage suppliers to opt for more sustainable products if they meet performance standards. For example, increasing the amount of UK timber used in ECO would reduce the embedded emissions of products and help increase the amount of locked-in carbon in our homes and buildings. Some such products will be new to market, lack economies of scale and be more expensive. Encouraging their deployment would help reduce their costs over time, enabling them to compete with established measures.
- 4.4 Table 1 sets out the broad differences between innovation routes under ECO3, and what we intend to accomplish via the reforms for ECO4.

	ECO3	ECO4
Uplifts	25% uplift	25% or 45% uplift on IM Partial Project Score (PPS)
	No additional reward for sponsoring supplier	5% uplift for the sponsoring supplier
Caps	Capped at 10% of supplier’s obligation	Capped at 10% of supplier’s obligation
	5% sub-cap for IM and DA routes (not measure specific)	5% sub-cap for IMs (measure specific)
Criteria	Products must demonstrate that they are a materially different improvement from measures previously delivered under ECO	The application must demonstrate that products are an improvement on measures commonly available in the GB market to achieve a 25% uplift, or a substantial improvement to achieve a 45% uplift

¹⁰ <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>

	Criteria: increased bill savings, ease or speed of installation, potential for reduced cost of installation, increase in range or number of houses installations can take place in, reduced disruption to the householder	Criteria: “improvement” (as determined by the TAP), where the consideration for the 45% uplift may include one of the following; increase in the cost savings of the measure, reduced disruption to the householder, increase in the durability of the measure, decrease in the cost of the installation, reduced environmental impact.
Role of the TAP	TAP provide Ofgem with a recommendation on whether to award an uplift or not – ‘is it an improvement? Y/N’	TAP provide Ofgem with a recommendation on whether the application is reasonable and, if so, if there is substantial improvement in the proposed measure.

ECO4 Improvement Criteria

4.5 Under ECO4, the IMs substantial improvement criteria has changed to:

- increased cost savings of heating the household by the measure;
- increase in the durability of the measure;
- reduced disruption to the householder during the installation process;
- decrease in the cost of installation of the measure;
- reduction in the overall environmental impact of the measure; and
- other criteria as the TAP and Ofgem see fit.

4.6 The objective of increased durability encompasses both a longer lifetime of a product as well as the suitability of the product to be installed in a wider range of property types.

4.7 The objective of the reduced disruption criterion is to give recognition to products that offer a better customer journey.

4.8 The environmental impact criterion has been introduced to reduce the impact of ECO4 measures on the environment. This includes, but is not limited to: reduced waste and pollution from manufacture and installation; reduced lifecycle carbon emissions, for example, through the use of natural and/or local and/or recycled materials.

Assessment Approach

- 4.9 Ofgem will first assess whether applications are complete, that they meet general IM eligibility requirements, and that any necessary information and evidence to support the application has been provided.
- 4.10 There are now two uplift levels for eligible measure applications. Following assessment by the TAP that the application is suitable for use under ECO4 and that there is sufficient evidence, they will recommend either a 25% or 45% uplift. In the case of the substantial improvement (45%) uplift, the application will be weighted and averaged to ensure consistent scoring, thereby indicating which level of uplift a measure should receive. Sponsoring suppliers will need to make a qualitative assessment of whether the product is a substantial improvement. Applicants must state which uplift they are applying for and Ofgem will assess it against the corresponding criteria accordingly.
- 4.11 The 25% uplift is for an application showing a reasonable explanation of how the measure is an improvement compared with commonly available products and processes in the GB market that would otherwise be delivered under ECO4. If the TAP agrees that the application provides a reasonable explanation, the TAP will submit this recommendation to Ofgem.
- 4.12 The 45% uplift is for an application that shows a substantial improvement, with specific reference to at least one of the criteria listed under 4.15.
- 4.13 The evidence will be expected in the form of an application to Ofgem, with supporting evidence that will be passed onto the TAP. This evidence may include but is not limited to: examples where the measure has been installed and the outcomes; academic research on the measure; prototypes and the testing of these prototypes; how the measure complies with Building Regulations (where relevant) and expected costs of the installation of the measure. The TAP and Ofgem may request further evidence where they are not satisfied that the evidence provided enables them to make a decision on the eligibility of a proposed measure or uplift associated with an application.
- 4.14 Ofgem does not intend to publish an exact guide to meeting the criteria for a 25% or 45% uplift, as applications will be reviewed on a case-by-case basis. They will, however, publish the indicative scoring matrix for the substantial improvement uplift.
- 4.15 Table 2 sets out the improvement criteria for eligible measures.

Criteria	Examples
Increase in Cost Savings of the Measure	Improved performance that is directly related to expected bill savings, including reduced cost of heating water or generation of electricity for use wholly or partly on the premises
Reduced disruption to householder	Easier or faster installation practices, less remedial works needed; less intrusive

	installation practices, faster installation times; incorporated storage
Increase in the durability of the measure	Products that are more durable in more extreme weather conditions, products that are suitable for wider ranges of wall types (for example, a product that was previously suitable for concrete walls could now be used on masonry), a longer lifetime of the measure
Decrease in the cost of installation of the measure	Where cost of materials or the apparatus needed to install the measure is reduced. ¹¹
Overall environmental impact	Products made from low environmental impact materials, lower use of toxic chemicals, re-use/recycle at end of life, re-used/recycled content, raw materials in production and lower embedded emissions at production

Score Uplift

- 4.16 Following assessment by the TAP and its recommendation to Ofgem, if an application is approved and demonstrates a reasonable explanation of an improvement over products commonly available in the market, they will receive a 25% uplift to the PPS.
- 4.17 However, if the TAP agrees that the application successfully demonstrates a substantial improvement against the criteria listed in Table 2 above – through the employment of the scoring matrix – the product will be recommended to receive the higher 45% uplift to the PPS.
- 4.18 All successful IM applications made under ECO3 would retain the 25% uplift as a minimum. Sponsoring suppliers and installers can apply for the higher uplift. For applications that were unable to be determined under ECO3, applicants may submit a new application under ECO4. It is worth noting that any new application will be subject to the eligibility criteria and evidence requirements for ECO4.
- 4.19 The following two boxes are examples of IM applications successfully getting the 25% uplift for an improvement where the explanation in the application for why the measure is an improvement is considered reasonable, ; and a substantial improvement, where the IM is awarded the 45% uplift.

Example 1: Solid Wall Insulation Innovation Score Uplift for a gas heated property with a floor area of 80m², starting at SAP band E

¹¹ Please note this does not include reduced time for installation, which is already included in the 'Reduced disruption to the householder' criteria above.

A sponsoring ECO-obligated energy supplier submits an IM application for a new Solid Wall Insulation (SWI) product. It is a different material that can be installed in 25% less time than traditional SWI. The IM application is successful and is deemed to provide a reasonable explanation of the improvement (supported by evidence) being awarded the 25% uplift. It is delivered under the scheme. **For each IM measure delivered, the supplier receives a score 25% higher than the PPS for non-IM SWI.** This is calculated by multiplying the existing PPS by 1.25, using the formula:

Non-IM PPS *1.25 = Annual Bill Savings Score

The undeflated PPS for external SWI in a pre-retrofit band E gas-heated property with a floor area of 80m² is £637.30. This means the SWI measure receives a score of $1.25 * £637.30 = £796.63$ for this property.

Example 2: Solid Wall Insulation IM uplift for a gas heated property with a floor area of 80m², starting at SAP band E

A sponsoring ECO-obligated energy supplier submits an IM application for a new Solid Wall Insulation (SWI) product. It uses a different material and can be installed in 25% less time and has a 50% lower U-value than standard SWI. The application is successful – which contains appropriate certification for the new insulation product and strong evidence to support substantive improvement claims – is deemed to provide a substantial improvement, receiving the 45% uplift. **For each IM measure delivered, the supplier receives a score 45% higher than the PPS for non-IM SWI.** The additional score from the IM uplift is calculated using the formula:

Non-IM PPS *0.45 = Score for a 'substantial improvement' IM

The above value would then be added to the score for the whole house retrofit, and subject to the PPS deflation rate where the MR is not met.

The undeflated PPS for improving a pre-retrofit band E gas-heated property with a floor area of 80m² is £637.30. This means the SWI measure score of $1.45 * £637.30 = £924.01$ for this property.

Ensuring that Innovation Measures meet the Necessary Standards

- 4.20 It is essential that measures installed meet the necessary standards to provide assurance to the householder that they are safe and effective.
- 4.21 The scheme eligibility criteria and requirements are set out in chapter 2. IMs will be required to show that they meet the requirements of the scheme, including compliance with the relevant PAS, MCS or equivalent standards.

Installation Standards and Guarantees

- 4.22 The application must demonstrate that measures meet all relevant industry standards as required by ECO, such as product certificates and Building Regulations.

- 4.23 As with the previous ECO3 scheme, and outlined in the ECO Order 2022, ECO4 requires that all ECO measures, except for certain district heating system measures and novel DLMS, must be delivered by TrustMark Registered Businesses. As part of TrustMark's quality monitoring and compliance process, measures installed under ECO4 mandate at least a two-year insurance backed guarantee to be provided to the customer, extending to a minimum 25-year insurance backed guarantee for certain insulation measures, and all IMs will be expected to meet these requirements¹².
- 4.24 The application must also demonstrate that the measure will be installed to high installation standards that meet the wider scheme requirements. Most energy efficiency measures installed under ECO must be compliant with PAS 2030:2019 and PAS 2035:2019. Any new IM must be able to demonstrate compliance with these or equivalent standards. Where relevant, IMs must demonstrate compliance with MCS.

¹² More information regarding TrustMark's financial protection can be found at; <https://www.trustmark.org.uk/tradespeople/financial-protection>

5 Standard Alternative Methodology and Data Light Measures

Supporting Newer Energy Efficiency Measures

- 5.1 Some newer and/or innovative measures are not recognised in the Standard Assessment Procedure (SAP) and, without intervention, would not be scored through the scheme.
- 5.2 SAP's Appendix Q and the Product Characteristics Database (PCDB) currently offer routes for these products to acquire recognition between updates. For most advanced products, this process requires very expensive large-scale field trials to produce the data necessary.
- 5.3 However, measures in SAP's Appendix Q do not count as existing products and processes and, therefore, can get a SAM or DLM score.
- 5.4 To ensure that the scheme's scoring requirements are not prohibitive of new measures, they will be scored through one of two AM routes in ECO4: standard AM and DLM route. Any score created under either of these mechanisms would be compatible with the wider scheme scoring methodology; this includes contributing to the MR.
- 5.5 The new DLM route will enable scores to be produced for measures without large amounts of data. This data refers to the data needed to determine the exact cost savings of a specific product as well as the interaction with other products and processes in a whole-house retrofit. Generally, scores produced via this route would be expected to require less data than that necessary for SAP recognition.
- 5.6 This is a voluntary mechanism for suppliers. Delivered measures with SAM or DLM scores will contribute to supplier obligations, and therefore contribute towards overcoming barriers to these innovative measures being delivered in ECO4.
- 5.7 Ofgem sets out in its scoring consultation what evidence is required for measures applying for the AM and DLM routes.

ECO4 Criteria

Standard Alternative Methodology

- 5.8 Measures will be eligible for the SAM route if they:
 - do not have a PPS at the start of ECO4;
 - achieve cost savings via reducing the cost of heating a home, with an estimated amount of expected cost savings;
 - are deliverable to ECO4 eligible households;
 - have sufficient data to be considered a SAM measure;

- are not wholly or partly fuelled by coal, oil, biofuels, or LPG; and
 - are not wholly or mainly fuelled by other fossil fuels (e.g. a heating measure that uses a combination of renewable energy and eligible fossil fuels such as natural gas, where the home is already connected to the gas grid)¹³.
- 5.9 Further to this, the application would need to set out a methodology for calculating the bill savings delivered by the measure.
- 5.10 The application should demonstrate how the measure will be covered by TrustMark guarantees and standards.
- 5.11 The application requirements are set out in Ofgem's NMAP guidance document.

District Heating Connections under AMs

- 5.12 Some district heating connections (DHC) and their associated systems can be very complex depending on the property and circumstances they are installed in. Recognising this and feedback to Government's consultation on the ECO4 scheme, we will continue to allow – as in ECO3 – suppliers to apply to Ofgem for AM to calculate DHC scores.
- 5.13 DHCs are the only measures in ECO4 that can receive a DHS AM score where a PPS is already available for the measure at the start of the scheme.
- 5.14 Otherwise, requirements for SAM applications for DHC measures are:
- that neither SAP or RdSAP contain an appropriate methodology for calculating the annual cost savings for that DHC;
 - the proposed AM is appropriate for calculating the annual cost savings; and
 - the AM can be published by or on behalf of the Secretary of State.

Data Light Measures

- 5.15 We proposed via the ECO4 consultation to introduce the DLM route. This offers suppliers an opportunity to support advanced measures that have enough evidence to demonstrate that they can result in a home heating cost reduction and form the basis of an ECO4 score, but which are not included in SAP.
- 5.16 If a score is being sought via this route, measures would be expected to meet the following criteria:
- do not have a PPS at the start of ECO4;
 - achieve cost savings via reducing the cost of heating a home, with an estimated amount of expected cost savings;
 - are deliverable to ECO4 eligible households;

¹³ Renewable heating system means equipment for the generation of heat wholly or mainly by means of a source of energy or technology mentioned in section 100(4)(a) or (c) to (h) of the Energy Act 2008.

- have sufficient data to be considered a DLM measure;
 - are not wholly or partly fuelled by coal, oil, biofuel, or LPG; and
 - are not wholly or mainly fuelled by other fossil fuels (e.g. a heating measure that uses a combination of renewable energy and eligible fossil fuels such as natural gas, where the home is already connected to the gas grid)¹⁴.
- 5.17 The application should set out the measure description, an explanation and evidence for how the measure is expected to achieve annual costs savings, a methodology for calculating the annual costs savings and evidence of its accuracy, the standards with which the measure conforms, and such other information as the Administrator may require.
- 5.18 The application requirements are set out in Ofgem’s NMAP guidance document.

Smart Technologies and Flexible Heating Systems

- 5.19 Where a SAM or DLM application is submitted for a smart technology or flexible heating system, in addition to the above standard requirements, Ofgem could consider additional criteria which includes that the measure is combined with a time-of-use tariff, will be used with a functioning electricity smart meter and that the measure is smart-enabled, safe, secure and installed with sufficient energy storage.
- 5.20 A measure is considered smart-enabled where the device included in the measure has the ability to respond in real time to communication signals, using digital technologies, to deliver a service. The device included in the measure has smart functionality if:
- a. it is able to send and receive information via a communications network and has the ability to be remotely configured;
 - b. it is able to respond to signals or other information received by it by: (i) increasing or decreasing the rate of electricity flowing through the measure; or (ii) changing the time at which electricity flows through the measure;
 - c. it is capable of using the functionality referred to in (a) and (b) to provide demand side response services;
 - d. at least one user interface is incorporated in the measure or otherwise made available to the owner.
- 5.21 To ensure that the measure is safe it should be installed in line with the necessary standards. More information is provided onwards from paragraph 5.22 below.

¹⁴ Renewable heating system means equipment for the generation of heat wholly or mainly by means of a source of energy or technology mentioned in section 100(4)(a) or (c) to (h) of the Energy Act 2008.

- 5.22 A smart technology or heating system will likely be internet connectable, and so cyber security is an important consideration. Applicants should provide information detailing how cyber security is achieved, including referencing relevant standards and codes¹⁵.
- 5.23 To enable the smart technology or heating system to operate flexibly, the property will need to be fitted with energy storage so that the property has a source of heat during periods when it is not drawing electricity from the grid. Energy storage, simply put, stores energy for when it is needed. Storage can take several forms including the heat stored in the fabric of the building (e.g. a well-insulated home will have lower heat loss), hot water storage, electric battery storage and heat batteries (phase change materials).

Scoring for SAMs and DLMs

- 5.24 If an application for an SAM or DLM is successful, the supplier will receive the PPS for their measure.
- 5.25 All AMs measure scores will contribute towards the MR where they are installed. However, they will not be reflected in the property's SAP rating if they are not recognised in SAP.
- 5.26 Ofgem published a methodology for converting AM scores into an expected SAP improvement. These improvements will form the basis for determining how these measures will count towards an ECO4 Project's MR¹⁶. AM scoring has also been covered as part of Ofgem's first scoring consultation. Detail on both can be found in their NMAP guidance.

Ensuring that SAMs and DLMs meet the Necessary Standards

- 5.27 It is essential that measures installed meet the necessary standards to provide assurance to householders that they are safe and effective.
- 5.28 The scheme eligibility criteria and requirements are set out in chapter 2 and all SAMs and DLMs will be required to show that they meet the requirements of the scheme.

Installation Standards and Guarantees

- 5.29 The application must demonstrate that measures meet all relevant safety requirements as set out in the ECO4 Order, such as product certificates and Building Regulations.
- 5.30 The application must also demonstrate that the measure will be installed to high installation standards that meet the wider scheme requirements. For example, measure types listed in PAS should be installed to PAS 2035:2019 standards and, if relevant, MCS. Those not in PAS should be meet an equivalent, recognised standard.

¹⁵ 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.

¹⁶ SAP 2012 document, Chapter 13, page 35. This document can be found here:

<https://www.bregroup.com/sap/standard-assessment-procedure-sap-2012/?cn-reloaded=1>

- 5.31 SAM measures to be recognised in PAS2030 or certified in MCS. This is necessary to reduce any risk associated with SAMs, delivery of which is not capped.
- 5.32 We recognise that some new and innovative products and processes will not be included in PAS and are working with industry experts and TrustMark to understand how these can be incorporated into PAS and ECO4.
- 5.33 If new measures are not captured under the relevant PAS updates, this may pose problems in scheme design, e.g., how Retrofit Coordinators would go about including these within the Medium-Term Improvement Plan, installation standards, and compliance with the PAS.
- 5.34 The British Standards Institution has confirmed that PAS 2035:2030 is moving to an annual review and revision programme. We will continue to engage with them on pathways to PAS inclusion for IMs and DLMs.
- 5.35 We expect that the redress mechanisms for AMs will be the equivalent to what would be expected under the wider ECO scheme.
- 5.36 As with the previous ECO3 scheme, and outlined in the ECO Order 2022, ECO4 requires that all ECO measures, except for certain DHS measures and novel DLM, must be delivered by TrustMark Registered Businesses. As part of TrustMark's quality monitoring and compliance process, measures installed under ECO4 mandate at least a two-year insurance backed guarantee to be provided to the customer, extending to a minimum 25-year insurance backed guarantee for certain insulation measures, and all AMs will be expected to meet these requirements¹⁷.

¹⁷ More information regarding TrustMark's financial protection can be found at <https://www.trustmark.org.uk/tradespeople/financial-protection>.

6 Abbreviations

Abbreviation	Meaning
ABS	Annual Bill Savings
AM	Alternative Methodology
BRE	Building Research Establishment
DLM	Data Light Measure
MR	Minimum Requirement
NEED	National Energy Efficiency Data-Framework
NMAP	New Measures and
PAS	Publicly Available Specification
SAM	Standard Alternative Methodology
TAP	Technical Advisory Panel

7 Energy Company Obligation Scheme Eligible Benefits

7.1 In order to be eligible under the ECO4 scheme, the householder or one of the occupants residing at the property of the householder must be in receipt of one of the following benefits:

- Income based Jobseekers allowance
- Income related Employment & Support Allowance
- Income Support
- Pension Credit Guarantee Credit
- Working Tax Credit
- Child Tax Credits
- Universal Credit
- Housing Benefit
- Pension Credit Savings Credit
- Child Benefit

Table [3] below shows Child Benefit Income Caps (before tax and national insurance) which are taken from the ECO3 thresholds and inflated to 2022 figures, rounded to nearest £100.

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

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