This document sets out Ofgem’s approach to administering applications and measures notified under demonstration actions, innovation measures and monitored measures as provided for by the Energy Company Obligation (ECO) 2018 Order. This guidance is additional to the ECO3: Supplier Administration and ECO3: Delivery guidance documents, and should be read in conjunction with that guidance.

It outlines:

a) Limits on the delivery of demonstration actions, innovation measures and monitored measures
b) Eligibility requirements for these measures
c) Scoring requirements
d) The application process and the application forms
e) The key requirements in the applications
f) The role of the panel and the decision making process
g) How measures should be notified and how we will administer measures delivered under these provisions
h) What any monitoring requirements are
i) Safety and aftercare arrangements for these measures
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1. Introduction

1.1 The Industrial Strategy\(^1\) commits the Government to supporting innovative manufacturers and installers, including small and new manufacturers and installers, who are developing new products. The Government wants to encourage new products that help to improve the energy efficiency of our housing stock further (when compared to more traditional measures), or that are designed and delivered using more cost-effective and efficient installation techniques.

1.2 Under ECO3, energy suppliers will be able to deliver up to 10% of their obligation through the installation of innovative measures to eligible households. There are two innovation routes under the scheme:

- **Demonstration actions** – measures that have previously been tested in a laboratory setting and now require testing at scale in a live environment, or are marketable products that are being sold in the market and may need additional support.
- **Innovation measures** – a measure that is different from those previously delivered under supplier energy efficiency obligations\(^2\) by having, for example, an improved material that can demonstrate improved energy efficiency performance, or an improved installation technique.

1.3 These routes are optional and energy suppliers do not have to deliver measures under them. However, to encourage participation by obligated suppliers, and to deliver new and improved measures into the scheme, a Lifetime Bill Saving score (for demonstration actions) or a deemed score uplift (for innovation measures) will be awarded to measures that are delivered under these routes.

1.4 In addition to innovation, suppliers will be able to use a new monitored measures route to deliver up to 10% of their obligation. This is also voluntary and is intended to allow suppliers the opportunity to use modern monitoring technology to measure the actual energy efficiency performance of homes that have received energy efficiency measures over time. Suppliers who use the monitored measures route will receive a score uplift if the measures that are being monitored are proven to deliver more savings than that assumed by the standard deemed score.

**NOTE**
The ECO3 Order\(^3\) and this document refer to the three innovation and performance monitoring streams as (i) Demonstration Actions, (ii) Innovation Measures and (iii) Monitored Measures. The BEIS policy guidance document refers to the same streams as (i) Demonstration Actions, (ii) Innovation Score Uplifts and (iii) In-situ Performance respectively.


\(^{2}\)Previous energy efficiency schemes for these purposes means ECO1 and ECO2. Article 2 of the ECO3 Order.

\(^{3}\)The Electricity and Gas (Energy Company Obligation) Order 2018.
**Ofgem’s role**

1.5 Ofgem (the Office of the Gas and Electricity Markets Authority) is the ECO administrator. This document provides guidance on how Ofgem (‘we’, ‘our’ and ‘us’ in this document) will administer the provisions relating to demonstration actions, innovation measures and monitored measures in the ECO3 scheme, in line with the ECO3 Order.

**This guidance**

1.6 This guidance is aimed at suppliers and the broader supply chain, setting out Ofgem’s approach to administering applications and measures notified under demonstration actions, innovation measures and monitored measures as provided for by the ECO3 Order. It outlines:

a) Limits on the delivery of demonstration actions, innovation measures and monitored measures
b) Eligibility requirements for these measures
c) Scoring requirements
d) The application process and the application forms
e) The key requirements in the applications
f) The role of the panel and the decision making process
g) How measures should be notified and how we will administer measures delivered under these provisions
h) What any monitoring requirements are
i) Safety and aftercare arrangements for these measures

1.7 Given that demonstration actions, innovation measures and monitored measures are new delivery routes under the ECO scheme, we expect that further guidance and clarifications may be required with respect to these provisions as the scheme progresses. We will review and update this Guidance document as necessary.

1.8 It is important to note that only obligated suppliers can make an application under one of these routes. If a member of the broader supply chain wishes to have their innovation or monitoring proposal supported under the scheme they need to work with an ECO obligated supplier who will liaise with and submit the application to Ofgem. We will not provide a view on the suitability of any proposal in advance of submission of a completed application.
Associated documents

The Electricity and Gas (Energy Company Obligation) Order 2018:

Energy Company Obligation 2018-2022: Policy guidance for obligated suppliers, manufacturers and installers on applying for Demonstration Actions, Innovation Score Uplifts and In-situ Performance:

Energy Company Obligation 2018-22 (ECO3) Guidance: Supplier Administration:

Energy Company Obligation 2018-22 (ECO3) Guidance: Delivery:

ECO3 Innovation Application Forms:
https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation
2. Delivery caps and meeting of obligations

2.1 Demonstration actions, innovation measures and monitored measures are all subject to delivery caps in ECO3.

Delivery caps

2.2 The overall delivery of demonstration actions and innovation measures cannot exceed 10% of an obligated supplier’s total obligation (the innovation cap).\(^4\) Demonstration actions and innovation measures are also subject to their own sub-caps:

a) an individual demonstration action cannot exceed 5% of an obligated supplier’s total obligation (the demonstration sub-cap).\(^5\)

b) innovation measures which fall within the same innovation measure description, i.e. are the same innovation measure type, cannot exceed 5% of an obligated supplier’s total obligation (the innovation sub-cap).\(^6\)

2.3 Monitored measures cannot exceed 10% of an obligated supplier’s total obligation.\(^7\)

Meeting of obligations

2.4 Any measure delivered under the scheme, including demonstration actions, innovation measures or monitored measures, cannot count towards a supplier’s Home Heating Cost Reduction Obligation (HHCRO) unless the installation is complete by 31 March 2022 (the end of the overall obligation period). Please see Chapter 6: Notification of completed measures for further information on when a demonstration action, innovation measure or monitored measure is considered to be complete.

2.5 Ahead of our final determination, and after the trading, transfer, re-election and final notification deadlines, we will determine the percentage of a supplier’s HHCRO delivered through demonstration actions, innovation measures or monitored measures.

2.6 Where a measure is delivered under more than one of these routes, e.g. the measure is both an innovation measure and a monitored measure, the measure will count towards each of the respective caps.

2.7 Where the savings for demonstration actions exceed a supplier’s 5% demonstration sub-cap, we will revoke our earlier approval of some of these measures with total savings as close to equal to the amount by which the limit was exceeded.

2.8 Where the savings for innovation measures which fall within the same innovation measure description exceed a supplier’s 5% innovation sub-cap, we will revoke our

\(^4\) Article 12(2) of the ECO3 Order.
\(^5\) Article 12(4) of the ECO3 Order.
\(^6\) Article 12(5) of the ECO3 Order.
\(^7\) Article 12(3) of the ECO3 Order.
earlier approval of some of these measures with total savings as close to equal to the amount by which the limit was exceeded.

2.9 Once we are satisfied that the sub-caps are not exceeded, we will assess whether the savings for a supplier's demonstration actions and innovation measures exceed the 10% innovation cap. If they do, we will revoke our earlier approval of some of these measures with total savings as close to equal to the amount by which the limit was exceeded.

2.10 In advance of any revocation of innovation measures, we will liaise with the relevant supplier and may encourage the supplier to apply for notified innovation measures to be designated as 'excess innovation measures' to ensure that the savings for the measures do not exceed the relevant caps. Please see the section “Excess innovation measure’ application” below for further information on how to apply to designate innovation measures as ‘excess innovation measures’.

2.11 Where the savings for monitored measures exceed the 10% monitored measures cap, we will revoke our earlier approval of some of these measures with total savings equal to the amount by which the limit has been exceeded.

2.12 In advance of any revocation of monitored measures, we will liaise with the relevant supplier and may encourage the supplier to apply to remove the ‘monitored measure’ classification from certain monitored measures, and re-score them to their original deemed score, to ensure that any additional savings for monitored measures do not exceed the cap.

2.13 If we are required to revoke approval of measures, we expect suppliers to work with us in order for us to determine which measures this will apply to. For further information on our refusal and revocation process please refer to Chapter 7 of the ECO3 Guidance: Supplier Administration.

Trading of obligations

2.14 All caps take into account any obligation trading made by the supplier. This means that the cap is the percentage of the supplier's final deliverable net obligation. For further information on trading please refer to Chapter 6 of the ECO3 Guidance: Supplier Administration.

Transfers of qualifying actions

2.15 Demonstration actions, innovation measures and monitored measures can be transferred in the same way as other measures. For further information on transfers please refer to Chapter 8 of the ECO3 Guidance: Supplier Administration.

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8 See Chapter: Eligibility Criteria of the BETS Policy Guidance.
2.16 Suppliers should be aware that once a qualifying action has been transferred, that measure will be counted towards the respective innovation or monitored measure caps of the supplier who is receiving the transfer.

‘Excess innovation measure’ application

2.17 Following notification of an innovation measure, a supplier can apply to Ofgem to designate that innovation measure as an ‘excess innovation measure’. Once a measure is designated as an ‘excess innovation measure’ that measure will no longer count towards the supplier’s relevant innovation caps. The measure will also be rescored to the original deemed score for the measure type (ie the 25% uplift will be removed). Please see Chapter 4: Determining ECO Savings for further information on how it will be rescored.

2.18 A supplier can also apply to redesignate an ‘excess innovation measure’ as an innovation measure. If redesignated, the measure will again count towards the supplier’s relevant innovation caps and be rescored.

2.19 An application must be made in writing to the ECO team by no later than 30 June 2022. The application should include the list of measures the supplier is intending to designate or redesignate. If the application is approved, the supplier will be required to amend the measure details on the ECO Register.

2.20 If a supplier wishes to submit an application to us, we encourage them to contact us as early in the process as possible.

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9 Article 29(4)(a) of the ECO3 Order.
10 Article 29(4)(b) of the ECO3 Order.
11 Article 29(5) of the ECO3 Order.
3. Eligibility

3.1 Demonstration actions, innovation measures and monitored measures all have to meet the general ECO scheme eligibility criteria relating to the measure, as well as the criteria in the relevant application, in order to be eligible under the scheme.

Measure eligibility

3.2 In addition to the specific eligibility criteria below, measures notified under demonstration actions, innovation measures and monitored measures must meet the general eligibility requirements of the ECO3 scheme. Suppliers should consult Chapter 3 of the ECO3 Guidance: Delivery for further information about these requirements.

3.3 In general, for innovation and monitored measures these eligibility requirements include those relating to the standards for installation of ECO measures ie they must be installed in accordance with PAS 2030\(^\text{12}\) (where relevant), building regulations and any other applicable regulations. Please refer to Chapter 2 of the ECO3 Guidance: Delivery for further information about standards relating to the installation of ECO measures.

3.4 An innovation measure may, in certain circumstances, not have specific installer standards associated with it. This could occur where the element of the application that is ‘materially different’ (ie innovative) is the installation method. Please refer to Chapter 8: Safety and Aftercare for information on what we expect regarding installation standards in these circumstances.

3.5 We recognise that a demonstration action may not be included in PAS 2030, or be at a point where it has been assessed against building regulations or other applicable regulations. The product may also have less comprehensive product certification than standard ECO measures. Suppliers should refer to Chapter 8: Safety and Aftercare to understand what we expect regarding installation standards and product certification for demonstration actions. Information relating to our requirements for monitoring equipment for demonstration actions and monitored measures can also be found in that chapter.

3.6 Where a product has not been assessed against building regulations or other applicable regulations, a supplier should confirm with the product owner that the product has been developed in accordance with them. Information regarding the status of the measure with respect to building regulations or other applicable regulations should be provided to the householder in writing in advance of the installation of a demonstration action.

Social Housing

3.7 Demonstration actions and innovation measures can be installed to social housing with an Energy Performance Certificate (EPC) energy efficiency rating of D (or below) under the ECO3 scheme.\(^\text{13}\) Monitored measures can only be delivered to social housing with

\(^\text{12}\) This is available for purchase on the BSI website: http://shop.bsigroup.com/ProductDetail/?pid=000000000030297314.

\(^\text{13}\) Article 15 of the ECO3 Order.

an EPC energy efficiency rating of E or below.\textsuperscript{14} Please refer to Chapter 2 of the ECO3 Guidance: Delivery for information on how to determine whether a premises is social housing, including how to determine that it is let below market rate.

3.8 A supplier must be able to either produce an EPC completed after installation of the measure which states that the energy performance of the premises is rated as band D, or produce an EPC completed before installation of the measure which states that the energy performance of the premises was rated as band D (or below). The EPC must be valid (dated within 10 years of lodgement) and be the latest to be lodged for that premises. The EPC report reference number (RRN) must be provided at notification.

3.9 The supplier must also collect a declaration signed by or on behalf of a social landlord providing assurance that the EPC reflects the current characteristics of the property. The signatory should have sufficient and appropriate authority to act on behalf of the social landlord.

3.10 The declaration must be made available to us on request.

**Fuel source, repair and DHS ineligibility**

3.11 For demonstration actions, innovation measures and monitored measures that are heating measures there are different eligibility requirements regarding heat generation sources, whether they are a repair and whether they are a District Heating Scheme (DHS) connection. These are set out in Table 1 below.

<table>
<thead>
<tr>
<th></th>
<th>Eligible if equipment generates heat wholly or partly from oil?</th>
<th>Eligible if equipment generates heat wholly from a non-renewable source (other than oil)?</th>
<th>Eligible if a repair?</th>
<th>Eligible if DHS connection?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstration action</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Innovation measure</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Monitored measure</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

3.12 Renewable sources of energy or technology include biofuels, biomass or solar power. A list of renewable sources and technologies is set out in section 100(4) of the Energy Act 2008.\textsuperscript{15}

\textsuperscript{14} Article 16(1)(b)(i) and (iv) of the ECO Order.

\textsuperscript{15} The Energy Act 2008 is available at: https://www.legislation.gov.uk/ukpga/2008/32/section/100.
3.13 Demonstration actions and innovation measures that generate heat wholly or partially from renewable sources are eligible under the scheme, provided they are ‘materially different’. Please refer to the section ‘Material Difference’ below for more information on this requirement. However, where the measure generates heat partially from a non-renewable source, the heat generated by the renewable source must contribute a significant proportion of the heat generated by the measure. This information will be assessed by the Technical Advisory Panel (TAP)\(^\text{16}\) and a recommendation made to Ofgem as to whether the renewable source is significant.

**Number of premises**

3.14 A measure installed at a single domestic premises is not eligible as a demonstration action.\(^\text{17}\) However, the number of installations proposed under a demonstration action must not be more than necessary to demonstrate the effectiveness of the measures at achieving cost savings.\(^\text{18}\) Please see section ‘Monitoring Cost Savings’ below and Chapter 7: Monitoring for other considerations relating to this requirement.

3.15 Information about the number of premises that a demonstration action is intended to be installed at, and that the intended installations are necessary to demonstrate the effectiveness of the measure, must be provided as part of the application. This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the number of planned installations is appropriate.

**Material Difference**

3.16 Demonstration actions and innovation measures must be ‘materially different’ to measures promoted by suppliers under ECO1 and ECO2. The following requirements also apply to demonstration actions and innovation measures respectively:

- Demonstration actions must be materially different to any measures delivered under ECO3 which are notified to Ofgem prior to the date the application is made.

- Innovation measures must be materially different to any measures delivered under ECO3 which are notified to Ofgem prior to the date the application is made, unless they fall within an existing innovation measure description.

3.17 Further information about the measures that have already been promoted by suppliers under ECO1 and ECO2 can be found in Annex 1. Suppliers should seek confirmation from the manufacturer or other relevant third party that the measure has not previously been delivered under ECO1, ECO2, or ECO3.

3.18 For clarity, only the supplier who has submitted the demonstration action application can deliver that demonstration action. However, once an innovation application has been

\(^\text{16}\) The Technical Advisory Panel (TAP) is a group of experts convened by Ofgem to aid in its assessment of the technical eligibility criteria in demonstration actions, innovation measures and monitored measures applications. For further information on the TAP please refer to Chapter 5 of this document.

\(^\text{17}\) Article 20(1) of the ECO3 Order.

\(^\text{18}\) Article 20(4)(d) of the ECO3 Order.
approved, any supplier can deliver measures that fall within that innovation measure description.

3.19 For the purposes of innovation, we will consider a range of factors when determining whether a measure is ‘materially different’. These include, but are not limited to:

a) the production method
b) the installation method
c) the materials used
d) the technology used
e) the expected costs of promoting the measure
f) the expected cost savings
g) other benefits of the measure. For example:
   o improved indoor air quality
   o improved thermal comfort
   o improved installation quality
   o greater ease of use to comparable measures
   o reduction in noise pollution
   o reduced cost of heating water (see 3.30 for further detail)

3.20 An explanation as to how the measure is materially different must be included in the application.

3.21 For innovation measures, suppliers must ensure that this description is sufficiently clear in order for Ofgem to determine whether a measure is in fact materially different. Suppliers must also explain how an innovation measure is an improvement on measures that they would otherwise promote under the scheme, or that have been promoted under ECO1 and ECO2. As part of the explanation for a measure being ‘materially different’, suppliers may also want to detail if and why the existing deemed score is not appropriate for the measure.

3.22 Suppliers should consider the following when providing information as to how an innovation measure is an improvement to other measures promoted under the scheme:

a) the energy efficiency of the measure
b) the ease of installation
c) the speed of installation
d) the cost of installation
e) whether the measure can be installed in a greater variety of homes

19 Article 20(6) of the ECO3 Order.
20 Article 21(2)(b)(i) of the ECO3 Order
21 Article 21(2)(b)(ii) of the ECO3 Order
f) whether disruption or other inconvenience caused by installation is reduced for the householder

3.23 This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the measure is materially different, and for innovation measures, whether the explanation as to how the measure is materially different is reasonable and that it is an improvement on measures that would otherwise be promoted under the scheme.

3.24 For clarity, materially different does not include:

a) installation of the same measure type at a different premises,22 or
b) delivering multiple measures to achieve economies of scale.

3.25 Economies of scale are already realised by delivery under the scheme.

Technology readiness

3.26 In order for a demonstration action to be eligible, the measure must be at Technology Readiness Level (TRL)23 8 or 9.24 TRLs are indicators of maturity of evolving technology. Levels 8 and 9 are assigned to the most developed technologies which have already been proven to work through completed tests and demonstrations and are ready to be rolled out, or have already been deployed in the market. This is to ensure that they are capable of making meaningful cost savings when installed under the ECO3 scheme.

3.27 A supplier must provide information and supporting evidence regarding the TRL of the measure. This could include, but is not limited to, laboratory test reports, field test results, sales figures, and grant aided project milestones.

Cost savings

3.28 Innovation measures and monitored measures must be capable of resulting in a reduction in the cost of heating for the householder.25 Demonstration actions are eligible if it is shown that the measures are reasonably expected to result in a reduction in the cost of heating the premises.26

3.29 A supplier must provide information regarding how a measure is capable of or reasonably expected to achieve cost savings in their application. This information will be assessed by the TAP and a recommendation made to Ofgem as to whether this requirement is considered to have been met.

22 Article 20(6)(a) of the ECO3 Order
24 Article 20(4)(f) of the ECO3 Order.
25 Articles 21(3)(a) and 22(4)(a) of the ECO3 Order.
26 Article 20(4)(a) of the ECO3 Order.
3.30 We note that measures could also save money in other ways, for instance by heating water or generating electricity for use by the household. For example, a measure that heats water which is used to both heat the home and as hot water would be eligible under the scheme (as this measure is capable of or reasonably expected to reduce the cost of heating a household). However, a measure that only reduced the cost of heating water for other purposes (e.g. for showers and baths) would not be eligible (as this would not reduce the cost of heating a home).

3.31 We expect the assumptions underlying calculated savings for measures to be consistent with the Standard Assessment Procedure (SAP) methodology. Measures for which the savings cannot be calculated in accordance with SAP may not be eligible for the scheme.

**Monitoring cost savings**

3.32 Suppliers must detail how they intend to monitor the cost savings achieved by a demonstration action, and how effective the measure is at achieving them, in the application. Both the monitoring and assessment methodologies must be reasonable. Monitored measures also require arrangements for monitoring the cost savings achieved by the measure, and these arrangements must be reasonable. The arrangements for monitored measures must also demonstrate that they are likely to improve the information available about the cost savings achieved by the measure. This information should be provided in the application.

3.33 In order to allow us to assess whether the proposals are reasonable, an explanation (where relevant) of the following information should be provided by the supplier as part of the application:

a) why the monitoring and assessment methodologies are suitable for the measure
b) why the monitoring and assessment methodologies are suitable for the premises
c) how the properties have been selected
d) how the conditions are representative of in-situ use
e) what the success measures are
f) information on how the results can be compared (for example against a control group or NEED) to assess performance
g) other options that were considered and the reasons for not proposing them
h) the cost of the proposed approach
i) the duration of the monitoring
j) the timings for reporting monitoring results to Ofgem

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27 Article 20(2)(a)(iii) of the ECO3 Order.
28 Article 20(2)(a)(iv) of the ECO3 Order.
29 Article 20(4)(c) of the ECO3 Order.
30 Articles 22(2)(a)(i) and 22(4)(b) of the ECO3 Order.
31 Article 22(4)(b) of the ECO3 Order.
32 The National Energy Efficiency Data-framework.
3.34 The TAP will assess this information and make a recommendation to Ofgem as to whether the proposals are reasonable.

3.35 For monitored measures, suppliers must also include a methodology based on the performance of the measure at the premises where it is installed for calculating the cost savings achieved by the measure in the application.\(^{33}\) This methodology must be reasonable.\(^{34}\) Please refer to Chapter 4: Determining ECO Savings for further information on what we expect this methodology to be. The TAP will assess the methodology and make a recommendation to Ofgem as to whether the methodology is reasonable or not.

3.36 For further information on monitoring requirements, including the considerations we will take into account when determining whether a proposed arrangement is reasonable, please refer to Chapter 7: Monitoring.

**Value for money**

3.37 Demonstration actions must be reasonably expected to provide value for money.\(^{35}\) When determining value for money, we will consider the estimated cost savings expected from the measures against the expected costs incurred through delivery of the action. We expect suppliers to deliver demonstration actions in the most cost effective way, and for the cost estimate provided to reflect this. Other considerations will include, but not be limited to:

a) the TRL of the measure
b) the installation method and skills required for it to be installed
c) the level of monitoring intended to be conducted
d) the aftercare arrangements required
e) whether the supplier intends to remove the measure after the demonstration action is complete
f) the number of households receiving the measure
g) the future benefits of the measure once rolled out to market

3.38 A supplier will be required to provide the estimated cost in pounds sterling they will incur through delivering the demonstration action in the application.\(^{36}\) These costs should include costs relating to:

a) installation of the measure (eg installer costs, cost of purchasing the product, cost of removal of the measure if planned at completion of the action),
b) the arrangements for monitoring whether the measure achieves cost savings

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\(^{33}\) Article 22(2)(a)(iii) of the ECO3 Order.

\(^{34}\) Article 22(4)(c) of the ECO3 Order.

\(^{35}\) Article 20(4)(b) of the ECO3 Order.

\(^{36}\) Article 20(2)(vii) of the ECO3 Order.
c) the arrangements for reporting the monitoring results to Ofgem

d) the arrangements for assessing the effectiveness of the measure at achieving cost savings, and

e) the arrangements for ensuring the safety of the measure, and aftercare arrangements ie repairing or removing any measure that is faulty and for preventing or remedying any adverse impacts caused by the measure on the domestic premises at which it is installed.

3.39 The supplier’s administrative costs can be included in the cost of delivery of the action. However, in order for the demonstration action to demonstrate value for money, we expect these costs to not be greater than 5% of the overall costs incurred by the supplier in delivering the action.37 Any costs not associated with delivery of the action must not be included in the cost estimates.

3.40 We expect the manufacturer or installer to be responsible for resolving any faults with the product or installation in the same way as for standard measures under the scheme and expect these costs to be included in the delivery costs. Suppliers must ensure that there is no double counting of costs in relation to faulty installations.

3.41 The TAP will assess the technical cost information and make a recommendation to Ofgem as to whether the demonstration action can reasonably be expected to provide value for money.

Safety and aftercare

3.42 Demonstration actions are required to have specific safety and aftercare arrangements in place in order to be eligible under the scheme. Information relating to these arrangements must be provided in the application. The TAP will assess this information and make a recommendation to Ofgem as to whether these arrangements are reasonable.

3.43 Suppliers should also ensure that there are safety and aftercare arrangements in place relating to the monitoring equipment and measure(s), if appropriate, for monitored measures.

3.44 Further information on the requirements for safety and aftercare arrangements for demonstration actions, monitored measures, and innovation measures can be found in Chapter 8: Safety and Aftercare.

Interaction with other scheme criteria

3.45 Demonstration actions, innovation measures and monitored measures can all contribute towards a supplier’s Solid Wall Minimum Requirement (SWMR) and Rural sub-obligation, provided the relevant eligibility criteria are met. Suppliers should refer to Chapter 3 and

37 See Chapter: Demonstration Actions of the BEIS Policy Guidance.
Chapter 4 of the ECO3 Guidance: Delivery for further information on SWMR and the Rural sub-obligation respectively.

3.46 As the score for a demonstration action is not determined using a deemed score, demonstration action measures cannot be classified as a solid wall alternative measure. Innovation measures and monitored measures can both be classified as solid wall alternative measures.

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38 See the definition of “solid wall action” in Article 11(5) of the ECO3 Order.
4. Determining ECO Savings

4.1 Demonstration actions, innovation measures and monitored measures are subject to separate scoring provisions under ECO3.

Scoring of demonstration actions

4.2 For a measure which is notified as a demonstration action, the score is calculated in accordance with the following formula:

\[ M \times 5.2 \]

Where ‘\( M \)’ is the lower of –

a) The actual cost of delivering the measure as stated in the notification of the demonstration action, and

b) The estimated cost of delivering the measure as stated in the demonstration action application.

4.3 In order to determine ‘\( M \)’ for each measure in a demonstration action, suppliers should divide the total cost (actual or estimated as applicable) of delivering the demonstration action by the number of measures included in the action.

4.4 The cost in this instance is the cost incurred by the supplier in delivering the demonstration action. Please refer to the ‘Value for Money’ section in Chapter 3: Eligibility for further information about what costs should be included when calculating ‘\( M \)’.

Scoring of innovation measures

4.5 For a measure which is notified as an innovation measure, the score is calculated in accordance with the following formula:

\[ N \times \text{P} \]

Where:

‘\( N \)’ is the deemed score for the measure

‘\( \text{P} \)’ is either – 1, for a measure designated to be an excess innovation measure

1.25, for all other innovation measures

4.6 Further information on excess innovation measures can be found in Chapter 2: Delivery caps and meeting of obligations.
4.7 Suppliers should refer to Chapter 6 in the ECO3 Guidance: Delivery when calculating 'N' (the deemed score) for innovation measures. Suppliers should ensure that all requirements for deemed scores in that document are also met for innovation measures. The innovation measure uplift above is also discussed in that chapter. Suppliers must ensure that the innovation measure uplift is not applied to the deemed score for that measure twice.

4.8 Where the measure is a wall insulation measure, the appropriate guarantee requirements still need to be met in order for the measure to be awarded a score.

**Scoring of monitored measures**

4.9 For a measure which is notified as a monitored measure, the score will be the higher of:

- the deemed score for the measure, or
- the score as calculated in accordance with the methodology stated in the monitored measure application.

4.10 In practice, the initial score notified will be the deemed score for the measure. It is only after monitoring is completed that a supplier would know whether the measure has resulted in additional cost savings in line with the methodology stated in the application and that the score is higher than the original deemed score.

4.11 We expect suppliers to use the methodology outlined by BEIS in their policy guidance for calculating the revised score for a monitored measure. This method applies an adjustment factor to the monitored cost savings achieved by the measure. Under this methodology the score will be calculated in accordance with the following formula:

\[
\frac{\text{Cost savings}}{\text{adjustment factor}}
\]

4.12 Cost savings in the above formula refers to the savings calculated by multiplying the annual energy savings achieved by the measure (as determined by the monitoring of the measure) by the appropriate retail fuel price and measure lifetime, in accordance with the following formula:

\[
\text{Cost savings} = (\text{Energy use}_t - \text{Energy use}_{t+1}) \times \text{retail fuel price} \times \text{measure lifetime}
\]

4.13 The adjustment factor to be applied will depend on the measure and property type. Adjustment factors are provided by BEIS in their policy guidance. Please note that adjustment factors are only currently available for certain measure types. If a supplier

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39 ‘N’ includes any other uplift applicable to the measure as calculated in accordance with article 32.


41 See ‘RdSAP fuel prices from July 2018’ under Downloads at [https://www.bre.co.uk/sap2012/](https://www.bre.co.uk/sap2012/)

42 [https://www.ofgem.gov.uk/sites/default/files/docs/2014/12/energy_companies_obligation_-measures_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2014/12/energy_companies_obligation_-measures_0.pdf)

wishes to monitor a measure type for which the adjustment factor is not currently provided, they should contact us as soon as possible.

4.14 If a supplier wishes to use a different methodology to calculate the score for a monitored measure, they should contact us as soon as possible.

4.15 Suppliers should refer to Chapter 6 in the ECO3 Guidance: Delivery when calculating the deemed score for monitored measures. Suppliers should ensure that all requirements for deemed scores in that document are also met for monitored measures.

4.16 Where a supplier wishes to amend the score for a monitored measure to one calculated in accordance with the methodology stated in their application, they should contact the ECO team. They will need to provide evidence that the monitoring has confirmed that the measure’s monitored performance is better than that assumed by the deemed score for the measure (when multiplied by the relevant adjustment factor). Once Ofgem is satisfied that the measure’s performance is better, the supplier will need to request to change the score of the measure to one calculated in accordance with the formula stated in the application.

4.17 Where the score for a monitored measure has been changed to one calculated in accordance with the methodology included in the application, we will publish a summary of the methodology used on our website.

4.18 Where the measure being monitored is a wall insulation measure, the appropriate guarantee requirements still need to be met in order for it to be awarded a deemed score or score calculated using the methodology for calculating cost savings included in the application.

4.19 Only measures that are included in an application for monitored measures will receive the uplift to their deemed score. Any measures subsequently notified but installed outside of those included in the application will only be awarded the original (ECO) deemed score for the measure.

**Scoring of measures delivered under more than one route**

4.20 If a measure is delivered under more than one innovation and monitored measures route, the supplier must notify the measure with a score calculated in accordance with the following provisions:

- For a measure which is a demonstration action and either or both an innovation measure and monitored measure, the score notified must be the score calculated in accordance with the demonstration action scoring provisions.

- For a measure which is an innovation measure and a monitored measure, the score notified must be the score calculated in accordance with the monitored measures scoring provisions.
5. Applications

Application requirements

General requirements

5.1 An application for demonstration actions, innovation measures or monitored measures can only be made by an obligated supplier and must be made before the installation of any relevant measure(s). Installers, manufacturers or others intending to use any of the innovation or monitored measure routes will need to work with an obligated supplier in order for measures to be supported under the scheme.

5.2 There are separate application forms for demonstration actions, innovation measures and monitored measures. Suppliers will be required to provide information relating to the eligibility criteria described in Chapter 3: Eligibility, as well as any other information we require in order to make a decision to approve or reject the application. Where appropriate, supporting documents should directly relate to a specific question asked in the application form. The relevant content in the supporting document should explicitly set out how that relates to the question.

5.3 As part of the application, applicants for demonstration actions are required to provide their consent to the publication of information that relates to the promotion, monitoring and assessment of the measure.

5.4 Applicants for monitored measures are required to provide their consent to the publication of information that relates to the methodology for calculating cost savings achieved by the measure.

5.5 If we approve an application for an innovation measure, we will publish the description of the innovation measure, and the date on which the application was approved, on our website. Successful innovation measure applications may also require the development of further guidance to ensure that the measure or method can be clearly understood by the wider ECO supply chain.

5.6 An application for innovation measures must be approved before any related innovation measure can be installed.

5.7 A supplier may choose, for the same measures, to make concurrent applications under each of the innovation and monitored measures routes. See paragraphs 2.6, 4.20 and 6.3 for further information about the potential implications in this instance. Please be aware that a measure may be an ‘innovation measure’ under ECO3 even if the supplier has not submitted an innovation measure application. See paragraph 6.3 for more information on this.

44 https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation
45 Article 20(2)(b) of the ECO3 Order.
46 Article 22(2)(b) of the ECO3 Order.
Applications for a new score

Demonstration actions

5.8 We recognise that following the delivery of a demonstration action, a supplier may wish to apply for that measure to be included in the ECO scheme as a standard measure going forward. In order for this to happen, an appropriate score (based on SAP where possible) will need to be established for that measure. In this instance suppliers should ensure that monitoring arrangements are in place to allow for evidence to be collected that can also be used to develop a score for the measure. Suppliers may wish to contact a relevant organisation directly or discuss with Ofgem the appropriate organisation to contact for ensuring the appropriate evidence or monitoring arrangements are in place for any potential new score.

5.9 Where a score is established based on SAP, this will often be done by assessing the product for entry onto the ‘Appendix Q’ database, which is part of SAP. Entry onto this database has the additional benefit of the measure having its specific performance being recognised in SAP assessments for new homes, as well as under ECO, potentially widening the market for the measure.

5.10 Suppliers will be asked in the application whether they intend to establish a score for that measure following delivery of the demonstration action.

Innovation measures

5.11 We expect an innovation measure in most cases to already have a deemed score. However, there may be circumstances where the application is for a new measure type which does not have a deemed score, or where the applicant believes that the measure is sufficiently different to other measures of that type supported under the scheme to warrant its own score.

5.12 In this instance, the application must include a proposal for a new scoring methodology for that measure. The proposed methodology will be reviewed as part of the application and, if approved, published on our website, alongside an explanation as to what is innovative with respect to the measure and confirm when and how the existing measure type will receive the uplift. The methodology must be approved before the innovation measure is notified to Ofgem.

5.13 In these circumstances it may be more appropriate for the supplier to apply under the demonstration action or monitored measures routes, particularly where further monitoring is required to provide evidence to support the new scoring methodology.

Monitored measures

5.14 Where the results for monitored measures evidence that the performance of those measures is significantly better than that assumed by the deemed score, a supplier may wish to establish a new score for that measure type. In this instance, as per demonstration actions, suppliers should ensure that the monitoring arrangements allow

47 https://www.ncm-pcbd.org.uk/sap/page.jsp?id=18
for evidence to be collected that can also be used to develop a new score for the measure. Suppliers may wish to contact a relevant organisation directly or discuss with Ofgem the appropriate organisation to contact for ensuring that appropriate evidence or monitoring arrangements are in place for any potential new score.

The Application Process

5.15 Suppliers must submit completed applications, including supporting documents, to Ofgem. Completed applications should be submitted via a supplier’s Huddle account.

5.16 An application process map can be found in Annex 2. A TAP recommendation process map, which details the outcomes of each of the possible TAP recommendations following an application review, can be found in Annex 3.

Initial assessment

5.17 Once submitted to Ofgem, all non-technical aspects of an application will first be assessed. This includes:

   a) general ECO3 eligibility
   b) the eligibility of the application under the relevant innovation route
   c) non-technical aspects of the claim for ‘materially different’ (demonstration actions and innovation measures only)
   d) the reasonableness of staff costs and overhead elements of the estimated cost (demonstration actions only)
   e) the non-technical aspects of safety and aftercare arrangements
   f) the overall completeness of the information on the application form

5.18 At this stage we will advise the applicant that their application is either (1) complete and will be put forward for further assessment, (2) is being referred back for further information (in which instance the applicant may re-submit the application), or (3) that it has been rejected.  

The TAP Process

5.19 Applications that pass the initial assessment will be referred to the TAP for further review. The TAP is an advisory panel made up of representatives from Ofgem, BEIS, and independent experts who will review the application in accordance with paragraph 5.20 below, and provide a recommendation to Ofgem as to whether to approve the application or not.

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48 An application will be rejected at this stage if it does not meet one of the eligibility criteria for the scheme. For example, it is a heating measure that is fuelled wholly or partially by oil.
5.20 The TAP will meet quarterly to assess submitted applications. The TAP will consider the responses to each question in the application and discuss the technical aspects of the application form and the supporting documentation. The TAP will have particular regard to the following, depending on the innovation route:

a) the robustness and reasonableness of the monitoring methodology\(^49\)
b) the reasonableness of the expected savings\(^50\)
c) the proposed scoring methodology\(^51\)
d) technical aspects of the claim for ‘materially different’ or ‘an improvement’\(^52\)
e) technical aspects of the costs of the action and whether these represent VfM\(^53\)
f) technical aspects of the safety and aftercare arrangements\(^54\)

5.21 As per the above, applications are required to comply with all relevant safety legislation, and the onus is on the applicant to demonstrate this clearly within their application. The TAP and Ofgem may query any issues with the applicant if there are any particular areas of concern relating to safety, however the responsibility for ensuring robust health & safety standards and arrangements associated with the application rests with the supplier.

5.22 The TAP will make a recommendation to Ofgem that the application should be either approved, approved subject to minor issues being resolved, referred back for further (specified) evidence or information to be provided, or rejected. Since the TAP operates on a consensual rather than voting basis, it may on occasion need to report to Ofgem that it could not reach agreement.

5.23 In the case where the TAP’s recommendation is to refer the application back to the applicant for further information, a “TAP offline process” will be triggered. This process will enable the TAP to assess the additional information provided by the applicant without having to delay its recommendation until the next TAP meeting.

5.24 The offline process is described in the TAP recommendation process map in Annex 3, and may involve more than one iteration. Following the necessary iterations the TAP will recommend to Ofgem that the application be either approved or rejected (or that the TAP could not reach agreement).

5.25 For each application, the TAP will submit to Ofgem a completed written assessment which includes the TAP’s reasoning against each response in the application and its overall recommendation. We will take the TAP’s written recommendation into account when making our decision to approve the application or not. If we approve an application, we will inform the supplier that their application has been successful. If we

\(^49\) For Demonstration Actions: Article 20 (2)(a)(iii), (iv) and (vi) of the ECO3 Order.
\(^50\) For Monitored Measures: Article 22 (2)(a)(i) and (ii) of the ECO3 Order.
\(^51\) For Monitored Measures: Article 22 (2)(a)(i) of the ECO3 Order.
\(^52\) For Demonstration Actions: Article 20 (4)(g) the ECO3 Order.
\(^53\) For Demonstration Actions: Article 20 (2)(a)(vii) and 20(4)(b) of the ECO3 Order.
\(^54\) For Demonstration Actions: Article 20 (2)(a)(v) of the ECO3 Order.
do not approve the application, we will provide reasons to the supplier as to why it has not been approved.

5.26 In circumstances where the TAP is unable to make a recommendation, the TAP will provide a written assessment of the application with an explanation as to why the TAP could not agree a recommendation. In this case, we will consider the assessment and other relevant evidence and make a decision on the application.

5.27 We intend that all completed applications submitted no later than 20 working days in advance of a TAP meeting will be assessed in the next meeting. Suppliers may wish to submit applications earlier, so that any issues identified in our initial eligibility and completeness checks can be resolved for the application to be resubmitted in time for that quarter’s TAP meeting. If the application does not meet the eligibility and/or completeness checks it may result in that application not being assessed by the TAP in that quarter. Suppliers are encouraged to inform Ofgem of any potential applications as early as possible in the quarter if they intend for their application to be reviewed by the TAP in that quarter. We will publish the TAP meeting schedule on our website, and the minutes of each TAP.
6. Notification of completed measures

Notification of measures

6.1 Demonstration actions, innovation measures and monitored measures should be notified to Ofgem in the same way as other measures under the scheme, once installation of the measure is complete. Please refer to Chapter 7 of the ECO3 Guidance: Supplier Administration for further information on the notification of completed measures.

6.2 Demonstration actions are considered to be complete once the arrangements for monitoring and assessing the effectiveness of the action, as specified in the application, have ended. Innovation and monitored measures must comply with the completion requirements as specified in Chapter 7 of the ECO3 Guidance: Delivery.

6.3 Suppliers must complete the “Innovation_Measure” field in the notification template,\(^{55}\) in accordance with the formatting prescribed within the data dictionary,\(^{56}\) in order to identify which measures fall under these categories. Where the measure has been approved under more than one route, the relevant route combination should be selected. Suppliers should be aware that in some instances, a measure included in a demonstration action or monitored measure application may already be an innovation measure under the scheme. A supplier should check whether the innovation measure descriptions published on our website match the demonstration action or monitored measure it is notifying and if it does, notify the relevant route combination (eg “Innovation Measure/Monitored Measure”).

6.4 Because demonstration actions and, in some instances, innovation measures, may result in new measure types being notified under the scheme, changes to the ECO Register may be required before they can be notified via the Register. We will work with suppliers to ensure that affected measures can be notified in a timely manner once an application has been approved.

Additional notification requirements

6.5 In order for the notification of a demonstration action to be considered complete, suppliers must provide information, in addition to the data provided in the notification template, relating to delivery of the measure.\(^{57}\) The information that a supplier must provide is:

a) the total cost incurred by the supplier in promoting and monitoring the demonstration action,

b) a breakdown of this cost,

c) information as to whether the demonstration action has achieved cost savings, and

d) an assessment as to how effective it was at achieving cost savings.

\(^{55}\) https://www.ofgem.gov.uk/publications-and-updates/eco3-notification-template


\(^{57}\) Article 24(1)(c) of the ECO3 Order.
6.6 This information must be provided to Ofgem separately to the notification template by the notification deadline for the relevant measures. If this information is provided after the deadline, notification of the demonstration action measures will be considered to be incomplete. A supplier should refer to the late measure provisions in this instance.

Late measures

6.7 The rules regarding late measures (automatic extensions and applications for extension to the notification deadline) apply in the same way to demonstration actions, innovation measures and monitored measures as other measures notified under the scheme. Suppliers should refer to Chapter 7 of the ECO3 Guidance: Supplier Administration for further information on these requirements.

Over and under delivery of measures

6.8 We expect delivery of demonstration actions, innovation measures and monitored measures to align with the delivery as specified in the respective application submitted to and approved by Ofgem. Where a supplier becomes aware that delivery of measures is deviating from that outlined in the application, they should contact the ECO team as early as possible.

Over delivery

6.9 Any measures installed in excess of those specified in the application for demonstration actions or monitored measures will not be eligible under these routes (and for demonstration actions, under the scheme as a whole). Suppliers do not need to specify the number of innovation measures they intend to deliver in an innovation measure application and therefore are able to deliver as many as they wish. However, a supplier will only be awarded the innovation uplift for innovation measures where the cost savings do not exceed the innovation sub-cap.

6.10 Where a supplier delivers excess innovation measures, they may apply for these measures to be redesignated as excess innovation measures (otherwise they will lose the savings). Please see Chapter 2: Delivery caps and meeting of obligations for further information on this requirement. Where a supplier delivers excess monitored measures, i.e. where the savings exceed the respective obligation cap, they can choose to notify these measures as standard measures under the ECO scheme.

Under delivery

6.11 In certain circumstances, under delivery of demonstration actions or monitored measures may affect the overall eligibility of the application for the measures. For example, under delivery of measures that are part of a demonstration action may result in the overall action no longer meeting the value for money requirement. This could mean that none of the measures installed as part of that demonstration action are eligible under the scheme. Suppliers should contact us as soon as possible if they become aware of under delivery of demonstration actions or monitored measures.

6.12 Because suppliers do not need to specify the number of properties to which they intend to deliver innovation measures, there is no impact of under delivery of these measures.
Monthly report to the Secretary of State

6.13 We will include the contribution that demonstration action measures, innovation measures and monitored measures make towards a supplier’s obligation in our monthly report to the Secretary of State and our public reports.

Fair and Transparent Processing

6.14 A supplier must ensure that any information obtained about the landlord or occupant of a property where a demonstration action, innovation or monitored measure is installed is processed in compliance with all applicable data protection laws. Suppliers should refer to the fair and transparent processing section in Chapter 7 of the ECO3 Guidance: Supplier Administration for more information about these requirements under the scheme.
7. Monitoring

7.1 This chapter discusses the requirements relating to monitoring of the cost savings (performance monitoring) for demonstration actions and monitored measures. It also details the technical monitoring requirements for each of the routes.

7.2 Innovation measures do not require performance monitoring arrangements to be eligible under the scheme.

7.3 As part of the application process, Ofgem will make a decision on the reasonableness of the arrangements for monitoring a measure. As such, any approval of an application does not represent:

a) that any installation equipment, or installation methodologies associated with monitoring a measure are compliant with the applicable:

(i) health and safety standards; and
(ii) building regulations (as applicable from time to time in England & Wales or Scotland);

b) any warranty or guarantee in relation to any installation equipment or installation works.

7.4 It is the responsibility of suppliers to ensure that the above matters are fully complied with as required.

Performance monitoring

General requirements

7.5 Demonstration actions and monitored measures both require performance monitoring to be conducted as part of the delivery of the measures. The monitoring arrangements must be able to measure the cost savings achieved by the measure. The arrangements may also be intended to assess other benefits of the measure, for example improvements in speed or cost of installation or a reduction in disruption to the householder. Please see section 3.19(g) for further examples of other benefits.

7.6 We recognise that these arrangements will differ according to the measure type that is being monitored. Suppliers must include the proposed monitoring methodology in the application. The methodology must be reasonable, and be able to clearly demonstrate the cost savings (and other benefits if applicable) achieved by the measure.

7.7 The application should clearly state how the methodology will ensure that the sample of measures being monitored is representative of the wider population, and how any bias

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58 As prescribed by articles 20(4)(c) and 22(4)(b) of the ECO3 Order.
59 Articles 20(2)(a)(iii) and 22(2)(a)(i) of the ECO3 Order respectively.
introduced by parameters outside the scope of the measures being installed is being accounted for. This includes, but is not limited to:

- External weather conditions (e.g., an abnormally mild winter)
- Household composition and occupancy patterns (e.g., number of people, demand temperature, duration of heating period)
- House type and size (e.g., large detached vs. small mid-floor flat, etc)

7.8 The methodology should include a suitable period of monitoring both before and after the installation of the measure(s), and the description of the methodology should include the justification for the length of the periods and whether they are in the same heating season or span two consecutive seasons.

7.9 Innovative methods of monitoring (e.g., inferring unmeasured results from smart meter data using learning/deductive algorithms, artificial intelligence etc) are acceptable in principle, provided that any innovative method has previously been proven to be as accurate as traditional, more sensor-intensive methods. It should also be noted that innovative monitoring methods will not remove the need to monitor a representative sample of homes for a suitable period before and after the installation of the measures.

7.10 We recognise that the number of measures monitored may be less than the number of measures to which the monitoring results are intended to apply to. A supplier will need to provide information in the application which evidences that the monitoring methodology can be reasonably extrapolated across the wider population of measures included in the application. If a supplier proposes to monitor less than 100% of the measures referred to in an application for demonstration actions, they must explain why this is a suitable approach in the application.

7.11 The TAP will review the proposed methodology as part of the application process, and will make a recommendation to Ofgem as to whether it is reasonable or not. The TAP may take a pragmatic approach to the well-known technical and cost constraints on monitoring a sample large enough (and for long enough) to prove strict statistical significance if the expected cost savings are small.

7.12 We expect the monitoring methodology to account for typical events that could impact on the monitoring results, such as the measure or monitoring equipment breaking down. However, during the period of monitoring, if there is an event that impacts the monitoring which has not been accounted for, suppliers must report this to us as soon as possible after they become aware of the event.

7.13 Suppliers must be able to produce, on request, evidence of monitoring. This could include receipts for monitoring equipment, contracts for the installation of monitoring equipment, and the monitoring data records.

Reporting of results

7.14 A supplier must report the results of performance monitoring to Ofgem once that monitoring is complete. For demonstration actions, this data is required as part of the
For monitored measures, this information is required in order for the supplier to apply to change the score for the measure to one calculated in accordance with the methodology included in the application. Please see Chapter 4: Determining ECO Savings for further information on how we expect this to be calculated.

7.16 The monitoring results should be submitted in the format of a summary report which includes confirmation of the measured energy savings, the length of the test, how the measure was monitored, evidence of a lack of bias in the sample selection and proof that the conditions over which performance has been measured are representative of in-situ use in normal circumstances (including, but not limited to, the mean internal temperatures and external weather conditions).

7.17 For demonstration actions, the report must also include the assessment of the effectiveness of the measures at achieving cost savings and other benefits where applicable. It must also include the total cost incurred by the participant in delivering the action, and a breakdown of this cost. This information is required as part of notification of the measure. Please see Chapter 6: Notification of completed measures for further information on this requirement.

7.18 For monitored measures, the report must also include the calculations for the new score for the measures (where applicable). Please see Chapter 3: Eligibility for further information on how we expect this score to be calculated. Please note, we expect suppliers to report the results of all monitoring to us, irrespective of whether the results support an amended score for the measures.

7.19 The detailed data which underlies the summary should be provided in an annexe to the report, accompanied by the analysis which led from the data to the summary findings. Where possible, evidence from NEED, a control group and/or other methodology (for example ECO deemed scores) should be cited, against which the monitored performance can be compared.

7.20 Where applicable, the supplier should also report the new proposed deemed score or appropriate methodology that might be used on the basis of the monitored data, with the supporting calculations.

Assessment of monitored results

7.21 For demonstration actions, we will assess the results of performance monitoring, as well as the cost information, alongside our wider assessment of the measures as part of notification. Once we are satisfied that the information that has been notified is correct, we will approve the measure on the ECO Register.

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60 Article 24(1)(c) of the ECO3 Order.
61 Article 24(1)(c)(iv) of the ECO3 Order.
62 Article 24(1)(c)(i) of the ECO3 Order.
63 Article 24(1)(c)(ii).
7.22 For monitored measures, we will assess the performance monitoring information and associated score calculations, and where we are satisfied that the information is correct, allow the supplier to amend the score for the relevant measures in accordance with the scoring methodology detailed in the application.

7.23 We may, in exceptional circumstances, refer the performance monitoring report information to the TAP for their review. If this occurs, we will inform the supplier.

**Technical and Score Monitoring**

**Demonstration actions**

7.24 In addition to the performance monitoring methodology included in the application for demonstration actions, suppliers must also include a technical and score monitoring methodology. This methodology must detail how the measures will be inspected from a technical and score monitoring perspective, who will conduct the monitoring, the proportion of measures to be monitored, as well as the relevant questions and timings of any monitoring.

7.25 We expect technical monitoring to be conducted by an independent third party. Furthermore, for measures that are intended to be delivered as standard measures under the scheme in the future, any learnings from the monitoring should be made available to other Technical Monitoring organisations.

7.26 Suppliers should ensure that the planned technical and score monitoring aligns as far as possible with existing requirements under the scheme.

7.27 The technical and score monitoring plan will be assessed by the TAP and a recommendation made to Ofgem as to whether the plan is reasonable.

**Innovation measures**

7.28 We expect, in most instances, that our existing technical and score monitoring requirements will apply to innovation measures. Where they do, these measures will be required to meet the requirements for the wider scheme. Please see Chapter 8 of our ECO3 Guidance: Delivery for further information on these requirements.

7.29 Where the existing requirements do not apply to an innovation measure, suppliers must detail in the application what changes or additional requirements are needed in order to include the measure in technical and score monitoring. A completed Pre-Installation Building Inspection (PIBI) may assist in identifying these.

**Monitored measures**

7.30 The existing technical and score monitoring requirements apply to monitored measures in the same way as other standard measures delivered under the scheme. An additional question has been included in the standard TM question set relating to the presence and functioning of monitoring equipment for monitored measures.
8. Safety and Aftercare

8.1 In order to deliver demonstration actions under the scheme, suppliers must ensure that there are reasonable arrangements in place to ensure that these measures are safe, can be installed in a safe way, and that any issues with the measures following installation can be identified and resolved as quickly as possible. We also expect suppliers to ensure that any monitoring equipment installed (as part of a demonstration action or monitored measure) is safe for its intended use and that there are arrangements for resolving any issues with the equipment during and after the monitoring period. These requirements are discussed in further detail below.

8.2 The safety and aftercare requirements for innovation measures and monitored measures are also detailed below.

8.3 As part of the application process, Ofgem will make a decision on the reasonableness of the arrangements for ensuring the safety of the measure, for repairing or removing any measure that is faulty and for preventing or remedying any adverse impacts caused by the measure on the domestic premises at which it is installed. In addition, the reasonableness of safety and aftercare arrangements for innovation and monitored measures will be considered in connection with the corresponding application. As such, any approval of an application does not represent:

a) that any materials, equipment or methods used are compliant with the applicable:
   - current version of PAS 2030 at the time of installation;
   - health and safety standards;
   - insulation industry standards; and
   - building regulations (as applicable from time to time in England & Wales or Scotland);

b) any warranty or guarantee in relation to safety or aftercare arrangements.

8.4 It is the responsibility of suppliers to ensure that the above matters are fully complied with as required.

Demonstration actions

Safety

8.5 We recognise that it may not be economically or technically feasible for a measure intended to be delivered as a demonstration action to have a product standard and/or installation standard. However, in order for a demonstration action application to be approved suppliers need to provide assurance that there are arrangements in place to

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64 As prescribed by article 20(4)(c) of the ECO3 Order.
65 As made under article 21(1) or article 22(1) of the ECO3 Order.
66 See Chapter: Demonstration Actions of the BEIS Policy Guidance.
ensure the product is safe to use for its intended purpose and can be installed safely, and the installation method meets any applicable safety standards.

8.6 Where product and installation standards or certification do exist, suppliers must be able to evidence that the measure meets these.

8.7 Where product standards do not exist, suppliers must provide information in the application about the arrangements for ensuring the safety of the measure, and how they are working to achieve a product standard and/or certification for the measure. They should also explain why the measure does not currently have a product standard or certificate, for example further testing in a live environment is required, or that the cost of agreeing a standard before submitting an application for a demonstration action is prohibitive. Evidence should be provided to support this information.

8.8 Suppliers should provide details of the following in the application:

a) the fire safety certification that exists for the measure
b) the electrical safety certification that exists (if applicable) for the measure
c) the accreditation/testing body they are working with
d) the testing has been conducted to date
e) the certification of standards that have been provided by the laboratory
f) confirmation that the product has undergone relevant health and safety checks for its intended purpose

8.9 Where installation standards do not exist, suppliers should provide information (including supporting documentation) about the arrangements for ensuring that installation of the measure is safe within the scenario for which it has been tested and is being conducted by a competent person. Information about how they are working to achieve installation standards for the measure should also be provided.

8.10 Suppliers should provide details of the following in the application:

a) the installer they are working with and their relevant accreditation
b) confirmation that the measure will be installed in line with PAS 2030 standards where appropriate
c) any other information to support a) and b) or that is relevant to safety

8.11 Suppliers should also provide information (including supporting documentation) relating to the safety of the equipment being used to monitor the performance of the measure, and assurance that this equipment will be installed by a competent person.

8.12 This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the arrangements are reasonable.
Aftercare

8.13 Reasonable aftercare arrangements must be in place to ensure that measures installed as part of a demonstration action do not have a detrimental effect on the householder or their property, during and/or after the action. A supplier must include information detailing the aftercare arrangements for the measure in the application. Installation includes, in these circumstances, the measure and the monitoring equipment.

8.14 Energy efficiency measures should also include a handover requirement which includes minimum aftercare provisions. We would expect a handover process (or equivalent) to apply in all circumstances, including for measures not referred to in PAS 2030 or other official standards.

8.15 In all circumstances, following installation, repair or removal of a measure, the property should be re-instated to at least the condition it was in prior to the commencement of the installation, repair or removal works.

8.16 The aftercare arrangements should make reference to the following non-exhaustive list:

a) how a faulty installation will be identified and either repaired or removed, including response times
b) circumstances under which a faulty installation would be either repaired or removed
c) guarantees or warranties that are in place for the measure (including whether these are insurance backed), and their duration
d) information regarding the operation and maintenance of the measure that will be provided to the householder, including warranty information and contact details for the householder in case of any questions or arising faults
e) servicing arrangements in place for mechanical products, as well as information regarding availability of parts
f) provisions for redressing any damage caused to the property as a result of the installation or removal of the measure (where appropriate)
g) whether or not the monitoring equipment will be removed and (where appropriate) the arrangements that will be put in place to achieve this

8.17 This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the arrangements are reasonable.

Innovation measures

Safety

8.18 In general, we expect measures installed as part of an innovation measure application to meet relevant product and installer standards, and as such demonstrate that they are safe. However, where it is the installation method of an innovation measure application that is ‘materially different’, we recognise that existing installation standards may not apply.
8.19 In these circumstances, suppliers should provide information about the arrangements for ensuring that installation of the measure is safe and will be conducted by a competent person. Information about how they are working to achieve installation standards for the measure should be provided. Please refer to the list at 8.10 for specific information that should be included in the application form.

8.20 This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the arrangements are reasonable.

Aftercare

8.21 There are no specific aftercare arrangements for innovation measures beyond those that already exist under the wider scheme.

Monitored measures

Safety

8.22 Measures installed as part of a monitored measures application must meet the general eligibility requirements of the ECO3 scheme relating to product and installer standards. Suppliers must also ensure that the monitoring equipment installed complies with product standards where applicable, and that the equipment is installed by a competent person.

8.23 Information about the monitoring equipment (e.g., whether it is a data logger, smart meter or other type of equipment) and how the supplier is ensuring it will be installed in a safe way and by a competent person should be included in the application form. The supplier must also confirm that the monitoring equipment will not impact on the validity of any warranty or guarantee relating to the measure, or if it does, the mitigating actions that are being taken to ensure the householder is not adversely impacted.

8.24 This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the arrangements are reasonable.

Aftercare

8.25 There are no specific aftercare arrangements for monitored measures beyond those that already exist under the wider scheme. However, suppliers must ensure that appropriate aftercare arrangements for the monitoring equipment is also provided. The arrangements for the monitoring equipment detailed in the application form should make reference to the following non-exhaustive list:

a) how faulty equipment will be identified and either repaired or removed, including the response times for responding to householder queries and visiting the household when an issue has been reported

b) the circumstances under which faulty equipment would be either repaired or removed

c) the information regarding the operation and maintenance of the equipment that will be provided to the householder, including contact details for the householder in case of any questions or arising faults
d) the servicing arrangements in place for mechanical equipment, as well as information regarding availability of parts

e) provisions for redressing any damage caused to the property as a result of the installation or removal of the measure (where appropriate)

f) whether or not the monitoring equipment will be removed and (where appropriate) the arrangements that will be put in place to achieve that

8.26 This information will be assessed by the TAP and a recommendation made to Ofgem as to whether the arrangements are reasonable.
## 9. Appendices

### Annex 1: Measures promoted by suppliers under ECO1 and 2

The following table lists the measure types that have been notified to Ofgem under ECO1 and ECO2.

<table>
<thead>
<tr>
<th>Heating measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler</td>
</tr>
<tr>
<td>District Heating System</td>
</tr>
<tr>
<td>- Biomass</td>
</tr>
<tr>
<td>- Combined Heat and Power</td>
</tr>
<tr>
<td>- Gas/Oil</td>
</tr>
<tr>
<td>- Ground Source Heat Pump</td>
</tr>
<tr>
<td>- Multi fuel</td>
</tr>
<tr>
<td>Heat meters for District Heating Systems</td>
</tr>
<tr>
<td>Air Source Heat Pump</td>
</tr>
<tr>
<td>Solar Photovoltaics</td>
</tr>
<tr>
<td>Biomass boiler</td>
</tr>
<tr>
<td>Electric Storage Heaters</td>
</tr>
<tr>
<td>- Fan Storage</td>
</tr>
<tr>
<td>- High Heat Retention</td>
</tr>
<tr>
<td>- Slimline</td>
</tr>
<tr>
<td>Heating Controls</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insulation measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard To Treat Cavity</td>
</tr>
<tr>
<td>- Cavity Wall Insulation</td>
</tr>
<tr>
<td>- Solid Wall Insulation</td>
</tr>
<tr>
<td>External Wall Insulation</td>
</tr>
<tr>
<td>- Solid walls</td>
</tr>
<tr>
<td>- Non solid walls</td>
</tr>
<tr>
<td>Internal Wall insulation</td>
</tr>
<tr>
<td>- Solid walls</td>
</tr>
<tr>
<td>- Non solid walls</td>
</tr>
<tr>
<td>Cavity Wall Insulation</td>
</tr>
<tr>
<td>- External wall insulation</td>
</tr>
<tr>
<td>- Internal wall insulation</td>
</tr>
<tr>
<td>Standard Cavity Wall Insulation</td>
</tr>
<tr>
<td>- 0.027 U-Value</td>
</tr>
<tr>
<td>- 0.033 U-Value</td>
</tr>
<tr>
<td>- 0.040 U-Value</td>
</tr>
<tr>
<td>Party Wall Cavity Insulation</td>
</tr>
<tr>
<td>Park Home External Wall Insulation</td>
</tr>
<tr>
<td>Loft insulation</td>
</tr>
<tr>
<td>Rafter insulation</td>
</tr>
<tr>
<td>Room in Roof insulation</td>
</tr>
<tr>
<td>Draft Proofing</td>
</tr>
<tr>
<td>Flat Roof Insulation</td>
</tr>
<tr>
<td>Hot Water Cylinder Insulation</td>
</tr>
<tr>
<td>Passageway Walk-through Doors</td>
</tr>
<tr>
<td>Under Floor Insulation</td>
</tr>
<tr>
<td>Window Glazing</td>
</tr>
<tr>
<td>- Single to double</td>
</tr>
<tr>
<td>- Improved double glazing</td>
</tr>
</tbody>
</table>
Annex 2: Application process map

- **Recommended step:** Supplier & Ofgem pre-application discussion
- **Supplier submits application**
  - Ofgem undertakes screening checks of application
    - Complete application
      - Ofgem undertakes initial (non-technical) eligibility checks
        - Application passes initial eligibility checks
          - Technical Assessment Panel (TAP) receives application for review (10 working days before TAP meeting).
            - TAP meeting
              - TAP assesses the technical eligibility aspects of the application
                - TAP recommends one of the following:
                  1. Approve absolutely
                  2. Approve subject to minor issues being resolved/clarified
                  3. Decline absolutely
                  4. Decline, but merit for future application
                  5. Referred back to applicant
                    (See TAP recommendation process map)
            - TAP recommends one of the following:
              1. Approve absolutely
              2. Approve subject to minor issues being resolved/clarified
              3. Decline absolutely
              4. Decline, but merit for future application
              5. Referred back to applicant
                (See TAP recommendation process map)
    - Incomplete Application
      - Refer back to supplier
- **At least 20 working days before TAP meeting**
  - Reject application & provide feedback
    - Application fails initial eligibility checks
      - At least 20 working days before TAP meeting

Annex 3: TAP recommendation process map

1. Approve absolutely
   - Following TAP, Ofgem consider recommendation
     - Ofgem consider recommendation
       - Ofgem approve
       - Ofgem reject
     - Inform supplier with feedback

2. Approve subject to minor issues being resolved/clarified
   - For example, the TAP recommend approval subject to the required evidence/clarification being provided within specified timescales
   - Ofgem requests specific evidence/clarification
     - Clarification provided by supplier within 10 working days of Ofgem request
     - Ofgem considers recommendation and further evidence
       - Ofgem approve
       - Ofgem reject
     - Reject if response not provided within timescale
     - Inform supplier with feedback

3. Decline absolutely
   - If the application does not meet the requirements of the ECO3 Order, or as required in the BEIS policy guidance & Ofgem guidance
   - Following TAP, Ofgem consider recommendation
     - Ofgem consider recommendation
       - Ofgem approve
       - Ofgem reject
     - Inform supplier with feedback

4. Decline, but merit for future application
   - For example, if the measure type is eligible, but the application does not meet the value for money test, it may be possible to resolve this in a future application
   - Following TAP, Ofgem consider recommendation
     - Ofgem consider recommendation
       - Ofgem approve
       - Ofgem reject
     - Inform supplier with feedback

5. Referred back to applicant (TAP offline process)
   - To provide further evidence as required by the TAP, so that further additional evidence can be considered without the need for TAP member to reconvene a formal meeting
   - Ofgem requests specific information
     - Information provided by supplier within 10 working days of Ofgem request
     - TAP members considers further information by email
       - TAP members may require yet further information, multiple times.
       - TAP members consider recommendation
         - TAP makes final recommendation (See options 1-4)

Process coordinated and recorded by Ofgem

Publish Ofgem decision and TAP minutes
Annex 4: Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEIS</td>
<td>Department for Business, Energy and Industrial Strategy</td>
</tr>
<tr>
<td>BSI</td>
<td>British Standards Institute</td>
</tr>
<tr>
<td>DHS</td>
<td>District Heating Scheme</td>
</tr>
<tr>
<td>ECO</td>
<td>Energy Company Obligation</td>
</tr>
<tr>
<td>EPC</td>
<td>Energy Performance Certificate</td>
</tr>
<tr>
<td>HHCRO</td>
<td>Home Heating Cost Reduction Obligation</td>
</tr>
<tr>
<td>LBS</td>
<td>Lifetime Bill Saving</td>
</tr>
<tr>
<td>NEED</td>
<td>National Energy Efficiency Data-Framework</td>
</tr>
<tr>
<td>PAS</td>
<td>Publically Available Specification</td>
</tr>
<tr>
<td>PIBI</td>
<td>Pre Installation Building Inspection</td>
</tr>
<tr>
<td>RdSAP</td>
<td>Reduced data Standard Assessment Procedure</td>
</tr>
<tr>
<td>RRN</td>
<td>Report Reference Number</td>
</tr>
<tr>
<td>SAP</td>
<td>Standard Assessment Procedure</td>
</tr>
<tr>
<td>SWMR</td>
<td>Solid Wall Minimum Requirement</td>
</tr>
<tr>
<td>TAP</td>
<td>Technical Advisory Panel</td>
</tr>
<tr>
<td>TM</td>
<td>Technical Monitoring</td>
</tr>
<tr>
<td>TRL</td>
<td>Technology Readiness Level</td>
</tr>
</tbody>
</table>
Annex 5: Glossary

A

A wall insulation measure accompanied by appropriate guarantee receives the relevant standard lifetime. An appropriate guarantee must meet the criteria listed in our guidance. Appropriate guarantees which we have reviewed, and consider meet the criteria, are listed on our website.

B

Building regulations covers the Building Regulations 2010 in England and Wales, and the Building (Scotland) Regulations 2004 in Scotland.

C

Cost savings means, in relation to a measure:

- The money that would be saved by that measure over its expected lifetime in heating domestic premises to 21 degrees Celsius in the main living areas and 18 degrees Celsius in all other areas.
- Where it also results in savings in the cost of heating water, the money that would be saved by the measure over its expected lifetime in heating water in those premises.

Where it also results in the generation of electricity the money that would be saved by the measure over its expected lifetime in generating electricity for use at those premises, excluding any electricity generated for the purpose of heating the premises or for heating water.

D

Deemed scores determine the contribution certain measures make towards a supplier’s HHCRO obligation. Deemed scores are fixed scores for each measure type that are determined using three or four variables.

Domestic premises are separate and self-contained premises used wholly or mainly for domestic purposes. A mobile home is considered domestic premises if it is a caravan and is used as a dwelling.

E

The ECO Register is our IT system which suppliers can use to notify and manage completed ECO measures, and submit applications for approval of transfers.

H

The Home Heating Cost Reduction Obligation (HHCRO) is the installation of heating qualifying actions, including insulation and the repair and replacement of boilers and electric storage heaters, to households deemed to be low income or living in fuel poverty. Measures
can be delivered to premises that are occupied by someone in receipt of specific benefits (the help to heat group), listed in a local authority declaration, or social housing premises with an EPC energy efficiency rating of E, F or G.

**L**

**Lifetime** is the estimated lifetime for measures. Standard lifetimes are available in the ECO3 Measures Table which is available on our website.

**M**

A **measure** is a qualifying action, including adjoining installations.

**N**

The **notification deadline** is the end of the month following the month in which installation of the measure was completed.

The **notification template** describes the information that suppliers must include as part of the monthly notification for a particular type of completed measure.

**O**

The **overall obligation period** is the period from 3 December 2018 to 31 March 2022.

**P**

**Promotion** is where a supplier is a cause of a measure being installed. This is normally where a supplier funds all or part of the measure and funding is arranged prior to installation.

**Q**

A **qualifying action** means a heating qualifying action (HHCRO).

**R**

The **Reduced data Standard Assessment Procedure (RdSAP)** is a simplified version of SAP that requires fewer data inputs. RdSAP 2012 should be used for all ECO3 measures, where RdSAP is used to calculate the score.

The **rural sub-obligation** requires suppliers to achieve at least 15% of their total HHCRO by promoting measures to premises in a rural area. Where a supplier fails to meet this requirement, it will fail to achieve its HHCRO. Suppliers must install measures against this sub-obligation by 31st March 2022.
S

**Savings** refers to scores.

A **score** is the contribution that a measure makes towards a supplier’s total HHCO in pounds sterling (£). The score is calculated using the cost saving and the relevant uplift, where applicable.

**Score monitoring** verifies, through site visits, whether certain inputs used to calculate measure savings, relating to the characteristics of the premises or the measure, are accurate.

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

The **solid wall minimum requirement (SWMR)** is a requirement that means the amount of cost savings (as detailed in Table 5 of the Supplier Administration Guidance) must be achieved through the delivery of solid wall insulation (SWI) or to solid walled properties achieving the equivalent savings as SWI.

The **Standard Assessment Procedure (SAP)** is a methodology developed by the Building Research Establishment (BRE) on behalf of the Government, to calculate the energy and environmental performance of dwellings. SAP 2012 should be used for ECO2 measures.

A **supplier** is a licence-holder where on 31 December of either 2017, 2018, 2019 or 2020:

- it was supplying more than the minimum number of customers outlined for each stage in Chapter 2 of the ECO3 Guidance: Supplier Administration and,
- had supplied more than the threshold amount of electricity and/or gas (outlined in Chapter 3 of the ECO3 Guidance: Supplier Administration) to domestic customers during the year ending on that date.

T

The **Technical Advisory Panel (TAP)** is a group of experts convened by Ofgem to aid in its assessment of the technical eligibility criteria in demonstration actions, innovation measures and monitored measures applications.

**Technical monitoring** verifies, through site visits, whether a measure has been installed to the relevant installation standards by a person of appropriate qualification and expertise, and whether it complies with the relevant ECO eligibility criteria.

U

**Uplifts** are applied to scores where required by the ECO3 Order, and mean that the score for a measure is higher than would be the case were it based on cost savings alone. They replace the ECO2t concept of ”multiplier”. Where a deemed score measure is eligible for an uplift, there will be a version of the score for that measure in the deemed score matrix which incorporates the uplift. Uplifts in ECO3 include:

- non-mains gas insulation uplift
- broken central heating and broken ESH uplifts
- LA flex F&G non-PRS uplifts
- innovation uplifts
**U-value** is the rate of heat transmission through a material or building element in W/m²K, and is widely referred to in building standards and SAP/RdSAP.

**W**

**Wall insulation** means insulation of a cavity wall and solid wall insulation.