

Energy Company Obligation (ECO)

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Energy Company Obligation (ECO2t): Explanatory notes for monitoring (version 2.2)

Introduction

Under the Energy Companies Obligation (ECO), obligated energy companies are required to monitor the quality of installations and the accuracy of scores (technical and score monitoring, respectively). Energy companies must instruct suitably qualified independent agents to carry out technical monitoring and score monitoring on a sample of ECO measures that they have installed.

Please see Chapter 10 of our ECO2t Guidance: Delivery¹ for details of the requirements for technical monitoring and score monitoring.

This document provides explanatory notes for the questions asked during technical and score monitoring. Ofgem has developed the questions through consultation with industry and obligated energy companies. The questions must be used for all ECO technical monitoring and score monitoring conducted on measures installed from 1 April 2017.

This document applies to all inspections conducted on measures installed from 1 August 2017 and replaces the previous document Energy Company Obligation (ECO2): Explanatory notes for monitoring (Version 2.1).

Changes in this version: *We added the section on Consumer Contribution research.*

¹ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2017-18-eco2t-guidance-delivery>

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General note on monitoring questions

The technical and score monitoring questions available on our website must be used for all ECO technical and score monitoring conducted on measures installed from 1 April 2017. Suppliers may produce their own version of the monitoring question forms by adding additional monitoring questions if they wish. However, any bespoke monitoring forms must include all of our published technical and score monitoring questions. Where all Ofgem monitoring questions are not included in a bespoke form, any monitoring conducted using this form will not be accepted.

The most current version of the question set can be found on the ECO2t monitoring webpage². The relevant version of the question set at the time of publication of these explanatory notes is the ECO2 Technical and Score Monitoring question set v2.5.

Responses to additional questions added by the supplier should not be submitted to Ofgem. Where a measure fails a question which is not included in our published technical and score monitoring questions, we would not consider this to be a technical or score monitoring fail and we would not expect the results of these additional questions to be reported to us.

Monitoring agent independence

Monitoring inspections must be conducted by a suitably qualified monitoring agent who is independent from:

- a) the supplier
- b) the installer
- c) any party involved in the installation of the measure
- d) any party involved in the assessment of the measure, and
- e) any party that has control or ownership of the premises.

We will be satisfied that a monitoring agent is independent if he or she is not an employee of any of the parties listed above.

We appreciate there are some scenarios where it may not be immediately clear whether a monitoring agent is independent of the parties listed above. We have outlined below three such scenarios reported to Ofgem as reasonably common, and in each case have explained our position to help the industry understand our expectations in relation to the independence of monitoring agents.

Scenario 1. *An installer commissions a monitoring agent to undertake quality checks on a percentage of their installations (which could be up to 100% of their work) prior to notification of those measures. An obligated energy supplier commissions the same monitoring agent to visit and conduct further post-installation inspections on the same measures. In this situation, it is acceptable for the same monitoring agent to undertake this activity, as long as the monitoring agent remains independent of the installer and the energy supplier in all other respects.*

If the quality checks commissioned by the installer are done using the Ofgem monitoring questions, the results of these inspections should be submitted to Ofgem as part of the monitoring results, provided they meet all other relevant requirements.

² <https://www.ofgem.gov.uk/publications-and-updates/eco2t-monitoring>

Scenario 2. A monitoring agent completes a **mid-installation** inspection for an installer. The monitoring agent is subsequently commissioned to complete a **post-installation** inspection on the same measure in the same property by an obligated energy supplier. In this situation the monitoring agent can complete this subsequent inspection as long as the monitoring agent remains independent of the installer and the supplier in all other respects. Both inspections should be reported to Ofgem as part of the supplier's monitoring submission.

Scenario 3. A monitoring agent provides pre-installation surveys covering the technical requirements of the installation of a measure to an installer. The monitoring agent is contracted to an obligated energy supplier that subsequently asks the monitoring agent to complete independent inspections on the quality of the work. In this situation the monitoring agent can complete this subsequent inspection as long as the monitoring agent remains independent of the installer and the supplier in all other respects.

Technical monitoring

Technical monitoring is intended to ensure that a measure has been installed in accordance with the relevant standards defined in our Guidance³.

Mid-installation and post-installation inspections

Technical monitoring inspections should take place at either:

- **Mid-installation:** Mid-installation inspections are required for the following measure types:
 - External Wall Insulation (EWI)⁴
 - Internal Wall Insulation (IWI)
 - Flat Roof Insulation (FRI)
 - Party Cavity Wall Insulation (PCWI)
 - Room-in-Roof Insulation (RIRI)
 - Under Floor Insulation (UFI).
- **Post-installation:** Post-installation inspections are required for all measure types that are included in Technical Monitoring.

For measure types subject to both mid-installation and post-installation inspections, monitoring must be conducted according to the following requirements:

- Two percentage points of the 5% minimum monitoring requirement for each relevant measure type are composed of mid-installation inspections, and
- Two percentage points of the 5% minimum monitoring requirement for each relevant measure type are composed of post-installation inspections.

³ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2017-18-eco2t-guidance-delivery>

⁴ Where a finishing layer (e.g. render) is applied to a solid wall insulation measure, mid-installation inspections should take place after the insulation has been fitted but before the finishing layer has been applied

The remaining percentage point, and any monitoring conducted in addition to the minimum 5% monitoring requirement, can be composed of mid-installation inspections, post-installation inspections or a combination of the two.

Example: A supplier has notified 1,000 RIRI measures in a quarter. The supplier has monitored 80 measures (8%). Of these, at least 20 (2%) must be mid-installation inspections and 20 (2%) must be post-installation inspections. The remaining 40 inspections can be split between mid-installation and post-installation inspections in whatever way the supplier deems appropriate.

Where the number of measures notified for a particular measure type for which both mid-installation and post-installation questions apply is fewer than 100 in any particular quarter, the minimum monitoring requirement is a single inspection and this can be conducted at mid-installation or post-installation stage.

Installing measures in accordance with the Publicly Available Specification (PAS)

All measures referenced in PAS need to be installed in accordance with PAS and the monitoring agent should be making these checks for all relevant measures when performing a technical inspection. In addition, a number of technical monitoring questions refer specifically to PAS. This is the case for questions verifying the competency of the operatives completing the installation, or where an aspect of the installation is specifically referred to in PAS. A measure must be checked against the version of PAS that was in force at the time of installation. The list of PAS versions and the time they were in force is shown in Table 1.

Table 1. Summary table of the PAS versions relevant to ECO2t, including the dates of their relevance.

Start Date	End Date	PAS Version
01 January 2014	31 May 2017	PAS 2030:2014 (Edition 1)
01 February 2017	To present	PAS 2030:2017 (Edition 1)

The questions in the ECO2t monitoring question set referring specifically to PAS are EWI.1, IWI.1, LI.4 and LI.5.

Consumer Refusal

Supplier and installers should be aware that if a consumer refuses to have part of a measure installed this may result in a "fail" at inspection. This is because consumer refusal could result in the measure not being PAS compliant and the property being at greater risk of future problems such as condensation and damp. Monitoring Agents will still mark the inspection as a "fail" even if the only reason for the fail was customer refusal and was outwith the supplier or installer's control. There may be exceptions to this (e.g. installing part of a measure would result in a health or safety risk). To mitigate the likelihood of this situation arising, suppliers or installers should ensure, in advance of the installation, that the consumer is happy to have *all* aspects of the measure installed prior to going ahead with the installation. If the consumer refuses, then the supplier and installer reserves the right to not fund/install the measure.

Standards to which RIRI must be installed

Room-in-roof insulation measures must be installed in accordance with the relevant version of PAS. To aid with this determination guidance provided by the NIA and ATMA can be used⁵. This should be read in conjunction with questions RIRI.1, RIRI.2, RIRI.3, RIRI.4, RIRI.5, RIRI.6, RIRI.7, RIRI.8, RIRI.9 and SMQ.13.

Standards to which EWI must be installed

External wall insulation measures must be installed in accordance with the relevant version of PAS. To aid with this determination guidance provided by the NIA and ATMA can be used⁶. This should be read in conjunction with questions EWI.1 through to EWI.20.

Park Home External Wall Insulation Systems

Although Park Home External Wall Insulation Systems is a measure type within the ECO2t Measures Table, we anticipate few of this measure type will be installed. Therefore, for monitoring requirement purposes, these will be considered as part of External Wall Insulation (EWI) and not subject to a separate 5% monitoring requirement.

When performing an inspection on a Park Home External Wall Insulation System the monitoring agent should, for technical monitoring, complete all current External Wall Insulation questions with the exception of EWI.1 and EWI.2. This is because these two questions concern whether the measure has been installed in accordance with PAS, which Park Home External Wall Insulation Systems is not listed under. In response to EWI.1 and EWI.2 the monitoring agent should use the 'N/A' option. For score monitoring the monitoring agent should complete the "All Measures" questions (SMQ.1 through to SMQ.5) and the EWI (Park Homes only) question (SMQ.9). Note SMQ.9 only applies to Park Homes and should not be used for score monitoring other EWI installations.

Air Source Heat Pumps, Ground Source Heat Pumps and Biomass Boilers

There are no monitoring questions designed specifically for the following measure types:

- Air source heat pumps (ASHP)
- Ground source heat pumps (GSHP)
- Biomass boilers (BB)

This is because the above measure types, when notified to Ofgem, are notified as either qualifying or non-qualifying boilers, rather than as individual measure types. For technical monitoring purposes these measures should be considered either New Boilers or Boiler Repairs depending on circumstances. As such either questions BR.1, through to BR.3, or questions NB.1 through to NB.6, should be completed for the above measure types, and the 'N/A' option used where applicable. For score monitoring the monitoring agent should complete the "All Measures" questions only (SMQ.1 through to SMQ.5). For Core Monitoring purposes the monitoring results for the above measure types should be incorporated into New Boiler or Boiler Repair results as appropriate.

⁵ <http://www.nia-uk.org/consumer/news/new-room-in-roof-insulation-and-external-wall-insulation-industry-documents/>

⁶ <http://www.nia-uk.org/consumer/news/new-room-in-roof-insulation-and-external-wall-insulation-industry-documents/>

Although there is no requirement to monitor or report 5% of ASHP, GSHP or BB separately, the Monitoring Agent should be made aware in advance of the type of Boiler or Heat Pump that is to be inspected. This is to ensure that the Monitoring Agent sent to undertake the inspection is qualified to do so. When notifying a measure, suppliers should ensure the *post main heating source* field is completed as this will identify the type of boiler or heat pump that the measure is. This information should be provided to the Monitoring Agent prior to any inspections so they are aware of the measure type that they are inspecting.

Guidance for individual questions

BR.1/NB.1: Where pipework has either been replaced, exposed, or been made accessible as part of the work within an unheated space within the building envelope, has this been insulated?"

Where the pipework passes through a heated space it does not need to be insulated and the monitoring agent should answer "Pass" in response to BR.1/NB.1. If the space, however, is unheated then insulation is required to pass these questions.

CWI.1: Is the insulation material suitable for use with the property's exposure level to wind driven rain?

Cavity wall insulation may not be suitable for installation in all premises of cavity wall construction, for example for premises with high exposure to wind driven rain. Monitoring agents should determine the suitability of a measure considering the premises to which it has been installed alongside the insulation product used, and should refer to the manufacturer's specifications.

We appreciate that it may not always be possible to determine the specific product used. In such cases the monitoring agent should identify whether the product is composed of bead, foam or mineral fibre, and make a determination based on this as to whether the material is suitable given the property's level of exposure to wind driven rain.

Where it is not possible to determine the specific product or whether the product is a bead, foam or mineral fibre product, the monitoring agent should record 'Unable to validate'.

CWI.2: Does the form of the construction of the property suggest that it was suitable for the material that has been installed?

The monitoring agent will need to assess using the manufacturer's specifications whether there is any reason why the material used is not suitable considering the construction of the property. Considerations could include whether the material used is suitable given the level and state of the damp proof course, and they could include the frame type, for example timber/metal, and whether the material used is suitable for this frame. Please note that these examples are not exhaustive.

CWI.3: Does the current condition of the property suggest that it was suitable for the material that has been installed?

This question is about the general condition of the property. When answering this question, the monitoring agent should make an assessment using the manufacturer's specifications as to whether there was any reason why the material used was not appropriate. For example, are there signs that water could penetrate the cavity?

DHS.1: *Is 50% or more of all roof areas or exterior facing walls insulated?*

DHS.2: *Are any of the following true:*

- *One or more parts of the exterior facing walls of the multi-storey building in which the premises is located are of solid wall construction;*
- *All cavity walls have been insulated with cavity wall insulation; or*
- *Any cavity walls which have not been insulated have visible signs to indicate they cannot be insulated with cavity wall insulation.*

DHS.1 and DHS.2 do not verify the installation quality of the measure itself, but whether the pre-conditions as set out in our Guidance⁷ have been met.

When assessing whether DHS.1 has been met, the agent should make sure that any loft insulation present is of at least 100mm.

Pre-condition 2 (which relates to premises located in multi-storey buildings not including the top floor of the multi-storey building) is concerned only with exterior facing walls that are of cavity wall construction type. If there are cavity walls that 'cannot be insulated' with cavity wall insulation, it is not necessary to treat these cavity walls with external or internal wall insulation.

EWI.2: *Has the pre-installation building inspection been completed fully in accordance with the relevant version of PAS?*

The pre-installation building inspection referred to in this question is the inspection defined in PAS section 6.2, and covers the suitability of the installation method and the energy efficiency measure design.

What to do if an agent records a measure as a technical monitoring "fail"

The monitoring agent who completes the monitoring questions for a measure must record whether the measure is a "pass" or "fail". If the measure is a fail the monitoring agent must also record each question (and its number) against which the measure has failed.

Suppliers must notify us of all measures that fail monitoring, along with their response to each fail. More information on how we expect this information to be submitted to us can be found in the ECO2t Supplementary Guidance for Monitoring.

We expect suppliers to remedy the fail and, in doing so, avoid losing savings for the measure. When the supplier undertakes remedial work, the supplier must re-inspect the installation again after the work is completed. More information about this can be found in the ECO2t Supplementary Guidance for Monitoring.

We expect a supplier to make reasonable efforts to contact the occupant to conduct remedial work or a re-inspection. In some instances a supplier may be unable to access premises (termed 'non-access').

⁷ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2017-18-eco2t-guidance-delivery>

More details of how a supplier can evidence instances of 'non-access' and our response to these instances can be found in our ECO2t Supplementary Guidance for Monitoring⁸.

Where there is a 'Fail' against a mid-installation question

Suppliers are permitted to remediate a measure at mid-installation (i.e. before the measure is completed). However, technical monitoring agents do not have the authority to halt work; the onus is upon the supplier to resolve any 'fails'.

If a measure fails at the mid-installation stage and is fixed upon inspection (so it is a pass), this should still be reported as a fail in the first instance but can be marked a remediated and re-inspected. Where a measure fails at the mid-installation stage and cannot be fixed during the inspection, it is permissible to conduct remedial work at a later stage, as long as work has not proceeded beyond a point where the failure cannot be re-inspected.

Where an installation is aborted due to a fail, the inspection must still be reported to Ofgem.

Remote re-inspections

Suppliers may choose to remotely re-inspect the 38 questions marked as suitable in the ECO2 Technical and Score Monitoring question set v2.5⁹. Where these questions fail a technical monitoring inspection, they can only be re-inspected remotely in cases where it has been deemed possible by the technical monitoring agent during their original site inspection. We do not allow the remote re-inspection of any technical monitoring question that is not listed as suitable in the monitoring question set.

Remedial work must be evidenced using photographs taken from the same view as during the original site inspection. All photographs must be captured using a suitably high resolution, and the date on which the photo was taken, location of the premises and the measure being assessed recorded. Where possible, we expect all photographic evidence to be GPS location-stamped.

A supplier does not need to provide this evidence when submitting monitoring results, but should be able to make it available upon request.

If the documentary evidence provided for remote re-inspection does not provide sufficient certainty for the technical monitoring agent to determine that remedial work has been completed to the required standard, the monitoring agent must undertake a site audit.

Suppliers must indicate on their technical monitoring reports that a measure has been remotely re-inspected so that we can monitor trends in failure rates for all remotely re-inspected measures.

Where possible, the remote re-inspection should be conducted by a representative of the same technical monitoring company and preferably by the same technical monitoring agent who conducted the original site audit. The monitoring agent may request further evidence and suppliers may implement additional processes to increase the accuracy of remote re-inspections, or enhance consumer protections.

⁸ <https://www.ofgem.gov.uk/publications-and-updates/eco2t-monitoring>

⁹ <https://www.ofgem.gov.uk/publications-and-updates/eco2t-monitoring>

Score monitoring

Score monitoring is intended to ensure that the inputs used to calculate the carbon saving or cost score of a measure are accurate. The score monitoring questions assess whether the parameters used to select the deemed score are an accurate reflection of the property. There are no score monitoring questions for measures not scored using deemed scores.

Score monitoring inspections should only take place at the post-installation stage. Further details of the score monitoring requirement are available in *Chapter 10: Technical monitoring, score monitoring, audit and fraud prevention* of the Delivery Guidance¹⁰.

Score monitoring agents must either be:

- a) in England and Wales, an accredited Domestic Energy Assessor or a Green Deal Advisor,
or
- b) in Scotland, members of Approved Organisations.

Where a supplier would like to use an agent with a different/equivalent qualification it should contact us.

Guidance for individual questions

SMQ.2: Does the heating system installed match the notified heating system, or has the appropriate proxy been used where applicable?

All measures scored using the deemed scores methodology are scored in relation to the heating system installed at the property. This question therefore applies to all measures scored using the Deemed Scores methodology; not just those where the heating system has changed.

There are eleven standard heating systems with deemed scores under ECO2t. Please see the Deemed Scores Matrix¹¹ for more information on these heating systems. For any heating system that isn't included in this list, we will use the below table which identifies the appropriate heating system that can be used as a scoring proxy.

¹⁰ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2017-18-eco2t-guidance-delivery>

¹¹ <https://www.ofgem.gov.uk/publications-and-updates/eco2t-deemed-scores>

Deemed scores proxy heating sources		
Pre-main heating source	Carbon savings	Cost savings
None present	Electric room heaters	Electric room heaters
Gas district heating system	Gas boiler	Gas boiler
Oil district heating system	Oil boiler	Gas boiler
LPG district heating system	LPG boiler	Gas boiler
Biomass district heating system	0 (N/A)	Gas boiler
Oil room heaters	Electric room heaters	LPG boiler
LPG room heaters	Oil boiler	Electric room heaters
Heat pumps central heating	Gas boiler	Oil boiler
Wood/biomass central heating	0 (N/A)	Solid fossil fuel boiler
Wood/biomass room heating	0 (N/A)	Solid fossil fuel boiler
Electric Underfloor Heating	Electric storage heaters	Electric storage heaters
Gas-fuelled warm air systems	Gas boiler	Gas boiler
LPG-fuelled warm air system	LPG boiler	LPG Boiler
Electric-fuelled warm air system	Electric boiler	Electric boiler
Bottled LPG central heating*	LPG boiler	LPG boiler
Bottled LPG room heater*	Oil boiler	Electric room heaters

*where the property is not a park home

SMQ.3: *Does the property type match the notified property type?*

The list of acceptable property types can be found below:

- a) Semi-detached house
- b) Detached house
- c) End-terrace house
- d) Mid-terrace house
- e) Semi-detached and end-terrace bungalow
- f) Detached bungalow
- g) Mid-terrace bungalow
- h) Flat with two or fewer external walls
- i) Flat with three or more external walls
- j) Maisonette with two or fewer external walls
- k) Maisonette with three or more external walls
- l) Single park home (only for use with park home insulation)
- m) Double park home (only for use with park home insulation)

Where it is not straightforward to identify the relevant property type, we have provided further guidance and some examples of more unusual situations in *Chapter 7: Deemed Scores* of our ECO2t Guidance: Delivery¹².

SMQ.4: *Does the number of bedrooms match the notified number of bedrooms?*

If there is uncertainty regarding the number of bedrooms in the dwelling, the following definition can be used as a guide.

¹² <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2017-18-eco2t-guidance-delivery>

A room can be included in the bedroom count if it meets all of the below criteria;

- a) it is additional to a kitchen, living space and dining space;
- b) it meets the SAP definition of a habitable room;
- c) it can accommodate a standard sized single bed horizontally; and
- d) it is not a conservatory.

For clarity, the following are some examples of rooms that would not be considered as bedrooms:

- a) any room without a window
- b) any room that is intended for use as a lounge, kitchen, dining room, kitchen-diner, conservatory, sunroom, utility room, bathroom, en-suite, cloakroom, hallway, stairs, landing or garage.

SMQ.5: Is the notified percentage of property treated a reasonable reflection of the actual percentage of property treated when rounded to the nearest multiple of 10%?

When calculating a deemed score, the percentage of property treated (POPT) will always be a multiple of 10%. For example, where the percentage of property treated is found to be 58%, it is reported to Ofgem as 60%. A percentage calculated by the monitoring agent of anywhere between 55% and 64% would achieve a POPT value of 60%.

Where the monitoring agent calculates the POPT to be 54%, and the original score was calculated based on a POPT of 55%, the percentages used to calculate the deemed score would be 50% and 60%, respectively. The application of 'reasonable reflection' here would allow the monitoring agent to take a practical approach and determine whether it is conceivable, based on the characteristics of the property, that the POPT could be calculated so that the nearest multiple of ten is 60%.

The use of the 'reasonable reflection' aspect of this question will only apply when there is a difference of 10% between the determination of the monitoring agent and the installer AND when a small difference in the measured percentage of property treated would have led to a rounding to another multiple of 10% (as in the example above).

We will not prescribe exactly how much tolerance a monitoring agent should exercise when calculating the POPT, but we only expect the above situation to occur in a limited number of instances. We leave it to the expertise of the monitoring agent to recognise such situations and take a pragmatic approach.

SMQ.8: Has the correct measure type been selected for the part of the door that is glazed?

There are two types of high performance external doors recognised under ECO; those with more than 60% of the door surface glazed and those with less than or equal to 60% of the door surface glazed. The monitoring agent should check that correct type has been selected by calculating the percentage of the door that is glazed.

SMQ.9: Does the park home size match the notified park home size?

This question only applies to EWI installed in a park home. The monitoring agent should ensure the park home has been measured and notified accurately.

SMQ.10: *Does the type of electric storage heater installed match the type of electric storage heater notified?*

Below is a list of the electric storage heater (ESH) types eligible under ECO2t:

- a) Slimline Electric Storage Heater
- b) High Heat Retention Electric Storage Heater
- c) Fan Storage Heater

Each of these ESH types provides a slightly different score. The score monitoring agent should verify that the installer has claimed the score appropriate for the type of ESH that was installed in the property. Please refer to *Chapter 7: Deemed Scores* of our ECO2t Guidance: Delivery¹³ for more information relating to these measure types.

SMQ.11: *Does the type of boiler installed match the type of boiler notified?*

Below is a list of the boiler types eligible under ECO2t:

- a) Gas
- b) Non-gas:
 - Oil
 - LPG
 - Electric
 - Biomass

Each of these boiler types provides a different score. The SMA should verify that the installer has claimed the score appropriate for the type of boiler that was installed in the property. Please refer to our ECO2t Measures Table¹⁴ for more information relating to these measure types.

SMQ.14: *Does the wall construction type notified match at least 50% of the total external wall area of the property?*

By 'wall construction type' we are referring to whether the wall is of solid wall construction or cavity wall construction.

SMQ.16: *Is the notified age band a reasonable reflection of the age band of the property?*

When answering this question, the monitoring agent should take a pragmatic approach and consider whether it is conceivable that the property could be fairly assessed as being in the notified age band. This is what we mean by 'reasonable reflection'.

¹³ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2017-18-eco2t-guidance-delivery>

¹⁴ <https://www.ofgem.gov.uk/publications-and-updates/eco2t-measures-table>

Please see the below table for a list of the different age bands.

Age band (England and Wales)	Age band (Scotland)
A (before 1900)	A (before 1919)
B (1900-1929)	B (1919-1929)
C (1930-1949)	C (1930-1949)
D (1950-1966)	D (1950-1964)
E (1967-1975)	E (1965-1975)
F (1976-1982)	F (1976-1983)
G (1983-1990)	G (1984-1991)
H (1991-1995)	H (1992-1998)
I (1996-2002)	I (1999-2002)
J (2003-2006)	J (2003-2007)
K (2007 onwards)	K (2008 onwards)

SMQ.17: *Is the notified thickness of insulation a reasonable reflection of the thickness of the insulation that was installed at the property?*

When answering this question, the monitoring agent should take a pragmatic approach and consider whether it is conceivable that the insulation thickness could be fairly assessed as being the notified thickness. This is what we mean by 'reasonable reflection'.

Consumer contribution research

On 1 August 2017, we introduced a third category of questions to the monitoring questionnaire.¹⁵ This category contains three questions that we use to gather data on contributions made by consumers to their ECO measures.

The consumer contribution research strand is completely separate from both technical and score monitoring. We only use monitoring inspections as a mechanism to collect the consumer contribution data. Use of these questions by suppliers is voluntary, as is the participation of the consumer. There is no minimum monitoring requirement for the consumer contribution questions.

Measures cannot 'fail' on a consumer contribution question, and the results of consumer contribution research do not impact on any of the monitoring processes, including pathways to compliance. Consumer contribution research data is reported to Ofgem separately.

Consumer contribution questions can be asked at both mid-installation and post-installation stage, where feasible. There is not target percentage for either mid-installation or post-installation inspections for the consumer contribution questions.

Because the consumer contribution research questions ask for information from the occupant(s) of the premises, participation is restricted to adults. TMAs must ensure that the questions are posed to an adult, and must not ask them of children.

Guidance on using the consumer contribution questions

CC.1: *I, the TMA, confirm that I have read the above statement to the consumer and they have confirmed that they consent to take part in the survey.*

¹⁵ <https://www.ofgem.gov.uk/publications-and-updates/eco2t-monitoring>

This question is used to record that the consumer has consented to answer the two questions on consumer contributions. The statement that the question refers to is included in our monitoring question set, and reads as follows:

"Ofgem has asked monitoring agents to conduct a short survey as part of ECO monitoring visits to collect data that will be used to evaluate and design the ECO scheme. This research is being conducted on behalf of the Department for Business, Energy and Industrial Strategy (BEIS). Your participation in this survey is voluntary. If you decide to participate you may withdraw at any time. If you decide not to participate in this survey it will not impact anything delivered to you as part of the ECO scheme. If you agree to take part, I will complete the survey on your behalf. The survey will take approximately 2 minutes. The information you provide will be linked to the information that Ofgem already holds regarding your ECO measure. Ofgem will share your survey response data with BEIS. This data will be processed and shared in accordance with Ofgem's privacy policies. In responding to this survey you are confirming that you understand the above information and that you are in a suitable position to respond to the questions. Are you happy to proceed with the survey?"

If the consumer consents to participate in the survey, the monitoring agent should record **Yes**. If the consumer does not consent, the monitoring agent should record **No**.

CC.2: *Have you or anyone else in the household contributed towards the cost of the measure?*

This question only refers to contributions made by occupants of the domestic premises where the measure was installed. The consumer should not provide information on contributions that may have been provided by another party, for instance the landlord. Further, it should be made clear to the consumer that they should only consider any contributions relating to the measure being monitored and not any other upgrades that may have occurred at the same time.

If the consumer does not know if a contribution was made (for instance, because the installation of the ECO measure was dealt with by another member of the household), the monitoring agent should record **Don't know**. If the consumer is unsure whether or not their contribution was solely for the ECO measure, the monitoring agent should record **Don't know**. If the consumer does not want to say whether or not a contribution was made, the monitoring agent should record **No response**.

CC.3: *If **Yes** to question CC.2: how much has been contributed?*

If the consumer has contributed to their ECO measure, the amount should be recorded here. The amount should be recorded rounded to the nearest whole number. No text should be entered into this field.

If the consumer knows that a contribution was made, but does not know the amount (for instance, because the contribution was made by another member of the household), the monitoring agent should record **Don't know**. If the consumer does not want to divulge the information, the monitoring agent should record **No response**.

Recording a fail

What to do if an agent records a measure as a monitoring 'fail'

We expect measures that fail score monitoring to be re-scored within three months of the last day of the month in which the monitoring agent identified the failure. If a measure is not re-scored within six months of the last day of the month in which the failure was identified by the

monitoring agent, we will revoke an earlier decision to attribute savings to the measure or refuse to attribute savings to it.

Disputing a fail

Suppliers may dispute a monitoring agent's finding and wish to correct it rather than take one of the actions described above. If this is the case, suppliers should raise this dispute with the monitoring agent. If the monitoring agent agrees that the measure should not have failed, please mark the fail as an 'Overturn' in the relevant section of the 'Responding to Fails' template. For more information on Overturns, please refer to our Supplementary Guidance for Monitoring.

What to do if an agent finds that a notified measure has not been installed

If a measure has not been installed, the monitoring agent should fail the measure on every question for that measure type. The monitoring agent should also report this measure to the supplier. As well as reporting the measures as a monitoring fail, the supplier should report it to the ECO Rejections team as a non-compliant measure. If the supplier suspects the measure has been deliberately misrepresented, it should also report it to the E-Serve Counter Fraud team at Counterfraud@ofgem.gov.uk.

Contact us at eco@ofgem.gov.uk where there is any doubt over the outcome of a question.

Appendix 1

Table 2. Summary table of monitoring required for each measure type

Measure Type	Monitoring Category*	Subject to Technical Monitoring	Subject to Score Monitoring	Mid-installation Questions Apply
Internal Wall Insulation Systems, for: a solid brick wall built before - 1967 (England and Wales) - 1965 (Scotland)	IWI	Yes	Yes	Yes
Internal Wall Insulation Systems, for: a solid brick wall built after - 1967 (England and Wales) - 1965 (Scotland)	IWI	Yes	Yes	Yes
External Wall Insulation Systems, for: a solid brick wall built before - 1967 (England and Wales) - 1965 (Scotland)	EWI	Yes	Yes	Yes
External Wall Insulation Systems, for: a solid brick wall built after - 1967 (England and Wales) - 1965 (Scotland)	EWI	Yes	Yes	Yes
Internal non-brick solid wall insulation	IWI	Yes	Yes	Yes
External non-brick solid wall insulation	EWI	Yes	Yes	Yes
External Wall Insulation for Cavity Walls	EWI	Yes	Yes	Yes
Internal Wall Insulation for Cavity Walls	IWI	Yes	Yes	Yes
Park Home External Wall Insulation Systems	EWI (see note on page 6)	Yes	Yes	Yes
Cavity Wall Insulation (0.040)**	CWI	Yes	Yes	
Cavity Wall Insulation (0.033)**	CWI	Yes	Yes	
Cavity Wall Insulation (0.027)**	CWI	Yes	Yes	
Party Cavity Wall Insulation	PCWI	Yes	Yes	Yes

Loft Insulation: where there is less than or equal to 100mm pre-existing insulation	LI	Yes	Yes	
Loft Insulation: where there is greater than 100mm pre-existing insulation	LI	Yes	Yes	
Flat Roof Insulation	FRI	Yes	Yes	Yes
Room in Roof Insulation - residual area insulated	RIRI	Yes	Yes	Yes
Room in Roof Insulation - residual area uninsulated	RIRI	Yes	Yes	Yes
Under Floor Insulation	UFI	Yes	Yes	Yes
Hot Water Cylinder Insulation	HWCI		Yes	
Draught Proofing	DP	Yes	Yes	
Window Glazing - single to double	WG	Yes	Yes	
Window Glazing - improved double glazing	WG	Yes	Yes	
High Performance External Doors with less than or equal to 60% glazing area	HPED		Yes	
High Performance External Doors with greater than 60% glazing area	HPED		Yes	
Qualifying gas boiler replacement - non-gas boiler installation - no pre-existing heating controls	NB	Yes	Yes	
Qualifying gas boiler replacement - non-gas boiler installation - pre-existing heating controls	NB	Yes	Yes	
Qualifying gas boiler replacement - gas boiler installation - no pre-existing heating controls	NB	Yes	Yes	
Qualifying gas boiler replacement - gas boiler installation - pre-existing heating controls	NB	Yes	Yes	
Qualifying non-gas boiler replacement - no pre-existing heating controls	NB	Yes	Yes	
Qualifying non-gas boiler replacement - pre-existing heating controls	NB	Yes	Yes	
Non-qualifying boiler installation	NB	Yes	Yes	
Qualifying boiler repair - no pre-existing heating controls	BR	Yes	Yes	
Qualifying boiler repair - pre-existing heating controls	BR	Yes	Yes	

Qualifying electric storage heater replacement (QESH) - slimline	NESH	Yes	Yes	
Qualifying electric storage heater replacement (QESH) - fan storage	NESH	Yes	Yes	
Qualifying electric storage heater replacement (QESH) - High Heat Retention	NESH	Yes	Yes	
Electric storage heater replacement (ESH) - slimline	NESH	Yes	Yes	
Electric storage heater replacement (ESH) - fan storage	NESH	Yes	Yes	
Electric storage heater replacement (ESH) - High Heat Retention	NESH	Yes	Yes	
Qualifying electric storage heater repair - slimline (1 year warranty)	ESHR	Yes	Yes	
Qualifying electric storage heater repair - slimline (2 year warranty)	ESHR	Yes	Yes	
Qualifying electric storage heater repair - fan storage (1 year warranty)	ESHR	Yes	Yes	
Qualifying electric storage heater repair - fan storage (2 year warranty)	ESHR	Yes	Yes	
Qualifying electric storage heater repair - high heat retention (1 year warranty)	ESHR	Yes	Yes	
Qualifying electric storage heater repair - high heat retention (2 year warranty)	ESHR	Yes	Yes	
Heating Controls	HC	Yes	Yes	
District Heating Connections - Upgrade (Biomass boiler)	DHS	Yes		
District Heating Connections - Upgrade (Gas/oil boiler)	DHS	Yes		
District Heating Connections - Upgrade (CHP)	DHS	Yes		
District Heating Connections - Upgrade (Energy from Waste)	DHS	Yes		
District Heating Connections - Upgrade (Ground Source Heat Pump)	DHS	Yes		
District Heating Connections - Upgrade (Air Source Heat Pump)	DHS	Yes		

District Heating Connections - Upgrade (Multi Fuel)	DHS	Yes		
District Heating Connections - New Connection (All generator types)	DHS	Yes		
District Heating Connections - Heat Meters	DHS	Yes		
Air Source Heat Pump	NB or BR (see note on page 6)	Yes	Yes	
Ground Source Heat Pump	NB or BR (see note on page 6)	Yes	Yes	
Biomass Boilers	NB or BR (see note on page 6)	Yes	Yes	
Photovoltaics	PV		Yes	

* **IWI** – Internal Wall Insulation, **EWI** – External Wall Insulation, **CWI**- Cavity wall Insulation, **PCWI** – Party Cavity Wall Insulation, **LI**- Loft Insulation, **FRI**- Flat Roof Insulation, **RIRI** – Room in Roof Insulation, **UFI** – Under Floor Insulation, **HWCI** – Hot Water Cylinder Insulation, **DP** – Draught Proofing, **WG** – Window glazing, **HPED** – High Performance External Door, **NB** – New Boiler (replacement boiler), **BR** – Boiler Repair, **NESH** – New Electric Storage Heater, **ESHR** – Electric Storage Heater Repair, **HC** – Heating Controls, **DHS** – District Heating System, **PV** – Photovoltaic.

** The values alongside the CWI measure names refer to the thermal conductivity of the product.