

Guidance

Energy Company Obligation (ECO3): Supplementary guidance for monitoring (version 1.1)

Publication date: 9 July 2019

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As per the Energy Efficiency Directive¹, Ofgem has been given direction to continue carrying out monitoring under ECO3. In accordance with this letter, obligated energy companies are required to monitor the quality of installations and the accuracy of scores (technical and score monitoring, respectively).

This guidance note should be read in conjunction with Chapter 8 of the ECO3 Guidance: Delivery², the ECO3 Explanatory Notes for Monitoring³, the ECO3 Technical and Score Monitoring Question Set⁴, and the letter of direction dated 11 January 2019 from Secretary of State to Ofgem on administering technical monitoring.

¹ <https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-efficiency-directive>

² <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2018-22-eco3-guidance-delivery>

³ <https://www.ofgem.gov.uk/publications-and-updates/eco3-monitoring>

⁴ <https://www.ofgem.gov.uk/publications-and-updates/eco3-monitoring>

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1. The monitoring requirements

This note explains what our expectations are with respect to monitoring in the ECO3 period. All suppliers are required to carry out technical and score monitoring on a sample of measures notified and report the results of this monitoring to us quarterly. This document provides further information on the technical and score monitoring process, Ofgem's requirements and how we will respond to poor performance.

Monitoring is a quality assurance process under ECO that ensures measures installed under the scheme meet the relevant standards of installation and are scored correctly. The monitoring process is split into two strands: Technical Monitoring (TM) which verifies that measures were installed correctly, and Score Monitoring (SM) which verifies that installers selected the correct score for a measure. Suppliers must use the monitoring questions published on the ECO3 Monitoring page of the Ofgem website⁵. The question set contains both TM and SM questions.

We consider TM and SM as separate activities and will assess them independently of each other. The requirements and processes set out in this document are applied to TM and SM separately. For example, this means that to meet its 5% monitoring requirement, the supplier must conduct TM on 5% of its measures, and SM on 5% of its measures. A supplier cannot meet its requirement by, for example, conducting 3% TM and 2% SM.

Where this document refers to 'monitoring', it is in reference to the requirements and processes applicable to both TM and SM. Where either strand of monitoring is treated differently, Ofgem will specify which type of monitoring is being referred to.

The monitoring and Pathways to Compliance requirements are outlined in this document, Chapter 8 of the ECO3 Guidance: Delivery⁶ and the ECO3: Explanatory Notes for Monitoring⁷. We expect suppliers to take a proactive approach to monitoring. Suppliers should be undertaking additional monitoring or assurance work where applicable before we request it.

1.1. The monitoring requirement

An obligated supplier must monitor at least 5% of the measures they notify within a quarter, and report the unaltered results of this monitoring to Ofgem. Section 5 of this document sets out how suppliers should report monitoring results.

The quarter a measure falls into is generally determined by its notification period. This is the month after the month of installation. For example, if a measure is completed and handed over in January 2019, its notification period is February 2019.

The quarter a late measure falls into is determined by its submission date. A late measure is any measure which is notified after its notification period. Its submission date is the date it is eventually notified.

The number of measures notified in a monitoring quarter is therefore composed of:

- All the measures with a notification period within the quarter that were notified by the end of the quarter; AND,
- All the measures with a notification period before the quarter, which were notified during the quarter (late measures).

⁵ <https://www.ofgem.gov.uk/publications-and-updates/ECO3-monitoring>

⁶ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2018-22-eco3-guidance-delivery>

⁷ <https://www.ofgem.gov.uk/publications-and-updates/eco3-monitoring>

The table below explains which measures are included for each of the ECO3 monitoring quarters.

Quarter	Months covered	Which measures are included?
Q1	November 2018 – January 2019	Measures notified on time with a notification period of November 2018, December 2018 or January 2019 AND Any 'Early Action' measures. Measures completed between 1 October and 3 December 2018 and notified by 28 th February 2019 ⁸ .
Q2	February 2019 – April 2019	Measures (not including 'Early Action measures') notified on time with a notification period of February, March or April 2019, AND Any late measures with a notification period before April 2019 and a submitted date in February, March or April 2019.
Q3	May 2019 – July 2019	Measures notified on time with a notification period of May, June or July 2019, AND Any late measures with a notification period before July 2019 and a submitted date in May, June or July 2019.
Q4	August 2019 – October 2019	Measures notified on time with a notification period of August, September or October 2019, AND Any late measures with a notification period before October 2019 and a submitted date in August, September or October 2019.
Q5	November 2019 – January 2020	Measures notified on time with a notification period of November 2019, December 2019 or January 2020 AND Any late measures with a notification period before January 2020 and a submitted date in November 2019, December 2019 or January 2020.
Q6	February 2020 – April 2020	Measures notified on time with a notification period of February, March or April 2020 AND Any late measures with a notification period before April 2020 and a submitted date in February, March or April 2020.
Q7	May 2020 – July 2020	Measures notified on time with a notification period of May, June or July 2020 AND Any late measures with a notification period before July 2020 and a submitted date in May, June or July 2020.
Q8	August 2020 – October 2020	Measures notified on time with a notification period of August, September or October 2020, AND Any late measures with a notification period before October 2020 and a submitted date in August, September or October 2020.
Q9	November 2020 – January 2021	Measures notified on time with a notification period of November 2020, December 2020 or January 2021 AND Any late measures with a notification period before January 2021 and a submitted date in November 2020, December 2020 or January 2021.

⁸ <https://www.ofgem.gov.uk/publications-and-updates/energy-company-obligation-2018-22-eco3-guidance-delivery>

Q10	February 2021 – April 2021	Measures notified on time with a notification period of February, March or April 2021, AND Any late measures with a notification period before April 2021 and a submitted date in February, March or April 2021.
Q11	May 2021 – July 2021	Measures notified on time with a notification period of May, June, July 2021, AND Any late measures with a notification period before July 2021 and a submitted date in May, June or July.
Q12	August 2021 – October 2021	Measures notified on time with a notification period of August, September or October 2021 AND Any late measures with a notification period before October 2021 and a submitted date in August, September or October 2021.
Q13	November 2021 – January 2022	Measures notified on time with a notification period of November 2021, December 2021 or January 2022 AND Any late measures with a notification period before January 2021 and a submitted date in November 2021, December 2021 or January 2022.
Q14	February 2022 – April 2022	Measures notified on time with a notification period of February, March or April 2022, AND Any late measures with a notification period before April 2022 and a submitted date in February, March or April 2022.

Suppliers are allowed to conduct both SM and TM on the same measure. The TM inspection and SM inspection can be carried out by the same person at the same time, provided the monitoring agent has the necessary qualifications for both types of monitoring.

For an inspection to count towards the monitoring requirement for a quarter, it must fall within the definition of that quarter as set out above. Suppliers must ensure that the inspection results they submit are relevant to the quarter for which they are submitted. Inspections on measures that do not fall within the scope of a quarter for which they are reported will not be counted.

1.2. Representativeness requirements

To ensure that the monitoring conducted by a supplier is representative of both the installers used and the measure types notified, a supplier must:

- Monitor at least 5% of measures in each monitoring category⁹ notified in a quarter ('monitoring category rate'), and;
- Monitor at least 3% of measures notified as being installed by a single installer in a quarter ('installer rate').

If a supplier does not achieve the required monitoring rate for an installer, we will place the set of measures with insufficient monitoring on a pathway to compliance. Section 3 sets out what the pathways to compliance are and what actions suppliers must take to progress measures through a pathway to compliance.

We determine whether the monitoring rate has been met based on the exact value of the monitoring rate. This means that the monitoring rate must be exactly on or above the

⁹ See Appendix 1 for details of which measure types fall into the different monitoring categories.

monitoring requirement. It is not sufficient for the monitoring rate to 'round up' to the monitoring requirement.

1.3. Requirement for small sets of measures

We recognise that it can be difficult to achieve the above rates for small sets of measures. If a supplier notifies fewer than 100 measures for a single monitoring category or installed by a single installer, the supplier only needs to monitor one measure to meet the monitoring requirement. If the supplier does not monitor at least one measure of a set of fewer than 100 measures, these measures will be placed on a pathway to compliance.

Throughout this document, an installer that has delivered fewer than 100 measures in a quarter for a single supplier will be referred to as a 'small installer'.

There may be instances where inspection agents are unable to gain access to a property to conduct an inspection. These situations will be referred to as 'non-access'. Section 4 sets out the process Ofgem expects suppliers and monitoring agents to follow where this occurs. Suppliers must report instances of non-access to us with their monitoring results. If a supplier is unable to meet its monitoring requirement because of non-access, this will be taken into account as a mitigating circumstance.

1.4. Requirements for the inspection stages

Inspections can be conducted at two stages: either during the installation of the measure (mid-installation) or after the installation of the measure has been completed (post-installation). Mid-installation inspections are required for monitoring categories which have mid-installation questions included in the ECO3 Monitoring Questions set.

SM is only carried out at the post-installation stage. There are no mid-installation questions for SM.

All measure types require post-installation TM. However, the following monitoring categories also require mid-installation TM:

- External Wall Insulation
- Internal Wall Insulation
- Cavity Wall Insulation (Mid-installation inspection required for partial fill cavity wall insulation measures)
- Party Wall insulation
- Flat roof Insulation
- Room in Roof insulation
- Under floor insulation
- Solar PV
- First Time Central Heating¹⁰
 - o B_First_time_CH_[walltype]
 - o DHS_New_Connection when the tenure is Social E, F and G
- Innovation Measures¹¹

¹⁰ Although there is only one question specifically for first time central heating measures, all other relevant questions in the monitoring question set should be applied to a first time central heating measure. It's therefore possible that technical monitoring questions, mid- or post- installation, and score monitoring questions could apply

¹¹ Although there is only one question specifically for innovation measures, all other relevant questions in the monitoring question set should be applied to an innovation measure. It's therefore possible that technical monitoring questions, mid- or post- installation, and score monitoring questions could apply

For all of the above monitoring categories except Cavity Wall Insulation and Innovation Measures, a supplier must conduct at least 2% monitoring at the mid-installation stage, and 2% at the post-installation stage. Any further monitoring can be split between mid-installation and post-installation stages at the supplier's discretion.

This requirement applies only to the monitoring category as a whole. Suppliers do not need to achieve the same split between mid-installation and post-installation inspections for individual installers. Ofgem's Explanatory Notes for Monitoring¹² contains more information on the split between mid-installation and post-installation inspections, including examples on how to determine the required number of inspections for either stage.

For Innovation measures, we will not require two percentage points of the minimum requirement to be composed of mid-installation inspections. However, we will monitor trends and where we find consistently low levels of monitoring at the mid-installation stage for innovation measures we may take appropriate action. Any inspections conducted on Innovation measures should be attributed to the Innovation monitoring category.

For Cavity Wall Insulation, we will not require two percentage points of the minimum requirement to be composed of mid-installation inspections. This is due to the fact that the mid-installation question will only apply to Partial Fill Cavity Wall Insulation, and not to all measures in the Cavity Wall Insulation monitoring category. However, we will monitor trends and where we find consistently low levels of monitoring against Partial Fill Cavity Wall Insulation measures we may take appropriate action. All inspections conducted on Partial Fill Cavity Wall Insulation should be attributed to the Cavity Wall Insulation monitoring category.

The First Time Central Heating monitoring category consists of B_First_time_CH_[walltype] measures and DHS_New_Connection measures when the tenure is Social E,F and G as outlined in the ECO3 Measures Table¹³. The First Time Central Heating mid-installation technical monitoring question applies to these measures. The post-installation questions for First Time Central Heating boiler measures are the New Boiler questions. The post-installation questions for First Time Central Heating District Heating System measures are the District Heating System questions. Any inspections conducted on First Time Central Heating measures should be attributed to the First Time Central Heating monitoring category.

1.5. Fail rates

Monitoring is designed to ensure that measures are installed to the relevant standards and scored accurately. We consider a set of measures delivered by a single installer to have met these criteria if the percentage of measures that failed an inspection is less than or equal to 10%. If the fail rate is greater than 10% Ofgem will require suppliers to take further actions to provide us with confidence in the quality and accuracy of the measures concerned. An individual measure that failed a monitoring inspection is referred to as a 'fail'.

Ofgem will take action in response to fail rates at a per installer level. Ofgem will monitor the fail rates at a monitoring category level and may take appropriate action where we identify high failure rates.

The fail rate will determine the pathway a subset of measures is placed on as different fail rate severities have different requirements. More information on this is provided in Section 3.

¹² Found at: <https://www.ofgem.gov.uk/publications-and-updates/ECO3-monitoring>

¹³ Found at: <https://www.ofgem.gov.uk/publications-and-updates/eco3-measures-table>

1.6. Monitoring agent independence

Monitoring agents need to be independent from the parties involved in the installation of the measure. This means that a monitoring agent cannot be directly employed by a supplier, installer or managing agent involved in the installation of the measure. Monitoring agents may however offer other services to parties involved with the installation of a measure, such as conducting separate quality assurance checks for installers. More detailed information on what Ofgem considers to be an appropriate level of independence is provided in Ofgem’s Explanatory Notes for Monitoring¹⁴.

All inspections conducted must use the ECO3 Monitoring Question Set as a minimum. The inspections must be carried out by a suitably qualified and independent monitoring agent. It is expected that the results of all monitoring inspections are reported to Ofgem. This means that suppliers may submit monitoring that was arranged or commissioned by other parties in the supply chain, provided it meets Ofgem’s requirement and the supplier has obtained the results directly from the monitoring agent.

¹⁴ Found at: <https://www.ofgem.gov.uk/publications-and-updates/ECO3-monitoring>

2. Responding to fails

When a measure fails monitoring, suppliers must take action to address the cause of the failure to avoid losing the savings for that measure. The supplier must complete the relevant actions by the end of the month that is six months later than the month in which it identified the fail. For example, if a supplier identifies a TM failure on 18 June 2019, it must have completed the necessary actions and reported them to Ofgem by the end of December 2019.

If a supplier does not take the necessary action to address the cause of the failure within the six-month period, we will reject the measure. Suppliers are encouraged to complete the actions as early as possible.

2.1. Technical monitoring fails

If a measure fails TM, the supplier must arrange for remedial works. Once the measure has been remediated, it must be re-inspected to verify that the cause of the failure has been addressed. A failed measure is only considered to have been resolved once it has passed re-inspection or the supplier has provided suitable non-access evidence for the re-inspection.

2.2. Score monitoring fails

If a measure fails SM, the supplier must re-score the measure and the new score must be notified to Ofgem. The supplier may need to submit a measure change request for the score correction to take effect. The fail is considered resolved when the new score has been successfully notified to Ofgem.

2.3. 'Overturning' a fail

There may be instances where a supplier or installer disputes that a measure has failed an inspection. If the monitoring agent accepts the arguments put forward by the supplier or installer, the agent may change the outcome of the inspection from a fail to a pass. This is referred to as an 'overturn'. A supplier must retain evidence from the monitoring agent explaining why the measure has been overturned as Ofgem may choose to audit this evidence. Ofgem has no involvement in any disputes between suppliers, installers and monitoring agents.

Overturned monitoring fails will no longer be considered a fail and they do not require remediation or re-scoring. The fail rate for a subset of measures is recalculated each time a supplier reports an overturn. If the fail rate for a subset of measures drops to 10% or lower, as a result of overturns, that subset of measures will be taken off the pathway to compliance as long as the minimum monitoring requirement has been met.

2.4. Reporting progress on fails

For information on how to report a response to a fail (RtF) to Ofgem, please see Section 5.

3. Pathways to compliance

When a supplier has reported that a subset of measures has either not achieved the monitoring requirement, or has exceeded the trigger fail rate of 10%, it must undertake additional actions to provide Ofgem with confidence in the quality and/or accuracy of this subset of measures. When this happens, we consider this subset of measures to be placed on a 'pathway to compliance'.

What is a subset of measures?

A subset of measures is a group of measures either installed by the same installer or of the same monitoring category.

A subset of measures is always defined with reference to a single supplier and a single quarter.

Suppliers will be informed which subset of measures have been placed on a pathway to compliance when their monitoring results are confirmed to them at the end of the month following the month in which suppliers report their monitoring results. Ofgem will provide monthly pathway reports to suppliers.

There are two types of additional actions suppliers will be asked to undertake:

- **Additional monitoring:** The supplier must conduct further monitoring inspections on the subset of measures.
- **Additional assurances:** The supplier must provide Ofgem with documentary evidence demonstrating that actions have been taken to ensure the measures were installed to the right standards and/or scored accurately and that similar issues will not arise in the future. The nature of the evidence will depend on the fail rate for the subset of measures.

If a supplier fails to complete the necessary actions for the pathway to compliance that a subset of measures is on, we may eventually decide to reject all measures in that subset that haven't passed a monitoring inspection conducted by an independent monitoring agent.

As long as a subset of measures is on a pathway to compliance, the approval for these measures will be suspended and the measures will be placed in the 'Internal Query' status on the ECO Register. This includes measures that were previously in the 'Approved' status. Once the subset of measures is removed from the pathway to compliance, the measures in that subset will be restored to their original status.

3.1. Pathways to compliance for insufficient monitoring

A subset of measures will be placed on a pathway to compliance ('a pathway') if the supplier did not achieve the monitoring requirement for this subset. As set out above, the required monitoring rates are:

For subsets of measures made up of 100 or more measures:

- 5% of all measures of the same monitoring category, and
- 3% of all measures installed by the same installer

For subsets of measures made up of fewer than 100 measures:

- At least 1 measure

If a supplier has not met these criteria for a subset of measures, this subset will be placed on a **Monitoring Pathway to Compliance**¹⁵ until the supplier has met the monitoring requirement.

Additional monitoring is only required for the subset of measures placed on a pathway to compliance for a monitoring deficiency. Suppliers will be informed of the reason a subset of measures is to be placed on a pathway to compliance.

Suppliers must complete the additional monitoring by the end of the month three months after the month in which Ofgem notified the supplier that a subset of measures was placed on a pathway to compliance. For example, if we inform a supplier in November 2019 that a subset of measures is on a pathway for insufficient monitoring, the supplier must complete the additional monitoring and report it to us by the end of February 2020.

3.2. Pathways to compliance for high fail rates

A subset of measures will be placed on a **Fail Rate Pathway to Compliance**¹⁶ if it has a fail rate higher than 10%. A pathway to compliance for high fail rates is only triggered with reference to measures delivered by the same installer. There is no pathway to compliance for high fail rates with respect to measures of the same monitoring category.

We will only place a subset of measures on a pathway to compliance for a high fail rate if the supplier has met the monitoring requirement for this subset. If a supplier has not met the monitoring requirement for a subset, it must first complete the pathway for the monitoring deficiency. This means that a subset of measures can be placed on two consecutive pathways: first on a Monitoring Pathway, and then on a Fail Rate Pathway.

When a subset of measures is placed on a pathway to compliance for high fail rates, Ofgem will first ask the supplier for **additional monitoring**. This is monitoring conducted over and above the minimum monitoring requirement. The amount of required additional monitoring will depend on the fail rate for the subset of measures.

Once the supplier has completed the additional monitoring, Ofgem will assess whether as a result of the additional inspections, the fail rate for this subset of measures has changed. If the fail rate has fallen below the 10% trigger point, the subset of measures will be removed from the pathway to compliance. If the fail rate is still above the 10% trigger point, we will ask the supplier for **additional assurances**. The type of assurances required will depend on the fail rate of the subset of measures.

The table below sets out the requirements for the Fail Rate Pathway based on the fail rate reported for a subset of measures by the supplier. As explained above, the additional monitoring requirement is based on the quarterly monitoring results submitted by the supplier. The additional assurance requirement is based on the combined quarterly monitoring and additional monitoring results for an installer.

¹⁵ See Appendix 2 for a process flow of a Monitoring Pathway to Compliance

¹⁶ See Appendix 2 for a process flow of a Fail Rate Pathway to Compliance

Table 1: Pathways to compliance requirements

Fail rate	Additional monitoring required	Additional assurances required
>10-25%	5%	Improvement plan Communication from senior management
>25-50%	10%	Improvement plan Communication from senior management Root cause identification Revisits of measures affected by root cause
>50%	15%	Improvement plan Communication from senior management Root cause identification Revisits of measures affected by root cause

A supplier must complete all the additional actions for a pathway to compliance for high fail rates by the end of the month six months after the month in which we informed the supplier that a set of measures was placed on the pathway to compliance. For example, if we inform a supplier that a subset of measures is placed on a fail rate pathway to compliance in August 2019, it must have completed all actions (both additional monitoring and any additional assurances) by the end of February 2020.

If a supplier does not complete the additional actions for a pathway by the set deadline, Ofgem will not have sufficient confidence in the quality and/or accuracy of the measures and may reject the measures in the subset that haven't passed a monitoring inspection conducted by an independent monitoring agent.

3.3. Additional monitoring

Additional monitoring inspections are identical to normal monitoring inspections. They must be conducted using Ofgem's monitoring question set, and the inspections must be carried out on measures that fall within the scope of the quarter for which a subset of measures is placed on a pathway to compliance. For example, if a group of measures is placed on a pathway to compliance for the second quarter of ECO3 (notification periods of February to April 2019), then additional monitoring must take place on measures notified in this period. Additional Monitoring conducted on measures that fall within a different quarter will not be counted. We will also not accept additional monitoring inspections on measures that have already been inspected for Core Monitoring, unless the inspection takes place at a different installation stage, or for measures without a valid measure reference number (MRN).

When Ofgem determines the number of additional monitoring inspections that a supplier needs to conduct, we will take into account any monitoring that the supplier has already conducted in excess of the monitoring requirement.

Example: A supplier has monitored 7% of an installer's measures. This installer had a fail rate of 12%, which has an additional monitoring requirement of 5%. The total requirement for this installer then becomes 3% (minimum requirement) + 5% (additional monitoring requirement) = 8%. Because the supplier has already monitored 7% of this installer's measures, they only need to conduct 1% more monitoring to meet the additional monitoring requirement.

If a supplier has already conducted sufficient monitoring on a subset of measures that the additional monitoring requirement is met immediately, this subset will be moved directly to the 'additional assurances' stage of the pathway to compliance.

Ofgem will inform suppliers of the number of additional monitoring inspections that they need to undertake with respect to an installer placed on a pathway.

Section 5 below sets out how suppliers should report their additional monitoring results.

3.4. Additional Assurance

If the fail rate for a subset of measure still exceeds 10% after the supplier has completed additional monitoring, Ofgem will ask for additional assurances. The purpose of these assurances is for the supplier to demonstrate that there is no systemic problem with the quality of installation and/or the accuracy of the scores of the measures in the subset. After the supplier has completed additional monitoring we will determine which additional assurances are required based on the *effective fail rate*. The effective fail rate is the fail rate based on all inspection results (core and additional monitoring) for a subset of measures.

Table 1 above sets out which types of assurance Ofgem require for a given failure rate. Below we have set out what we expect for each type of assurance:

- **Improvement plan:** A plan put forward by the installer demonstrating changes they have adopted or intend to adopt (e.g. training, work practice etc.) to ensure the same deficiencies do not reoccur in the future.
- **Communication from senior management:** A letter/e-mail from either the installer or supplier acknowledging the high failure rate and detailing what steps will be taken in response.
- **Root cause identification:** An analysis done by the installer to identify any common factors between the measures that failed monitoring.
- **Revisits of measures identified by root cause:** If the root cause analysis points at a common reason why the measures have failed, the installer should revisit all other properties that share this common factor. For instance, if the fails are all associated with one particular operative, the installer should revisit all properties with measures installed by this operative. This is in addition to any additional monitoring already conducted. The results from the revisits do not need to be submitted as additional monitoring, but the supplier must demonstrate that revisits were carried out by providing the MRNs and confirm that any issues found were addressed.

We have set out how suppliers should report their additional assurance in Section 185 below.

3.5. Pathways to compliance for small installers

Installers with fewer than 100 measures notified in a quarter, classified as small installers, will not be assessed against the 10% failure point to trigger a pathway, but instead, against a 2:1 pass-to-fail ratio. Therefore, small installers who achieve a 2:1 or better pass-to-fail ratio will not be placed on a pathway to compliance for high fail rates, even if their fail rate exceeds 10%.

If a small installer has not achieved the 2:1 pass-to-fail ratio, Ofgem will place the small installer on a pathway to compliance. The additional monitoring requirement for this small installer will be equal to the number of passes they need to achieve the 2:1 pass-to-fail ratio. For example, if an installer reported 4 inspections, of which 2 failed, they would need to conduct at least 2

further inspections. If these inspections both pass, the installer would have inspected 6 measures with 4 passes to 2 fails, thereby achieving the required 2:1 ratio.

A small installer which achieves the 2:1 ratio will be removed from the pathway to compliance. If the small installer reports more fails and the 2:1 ratio is not achieved, the installer will progress to the additional assurances stage of the pathway to compliance.

3.6. Waiving additional assurances

We do not use a separate approach to additional assurances for small installers. However, Ofgem recognises that in some cases, the supplier may prefer to monitor all measures for an installer in a quarter instead of providing additional assurances. If a supplier chooses to conduct 100% monitoring on an installer, we will waive all additional assurance requirements, with the exception of the improvement plan and where necessary, the remediation, re-score and re-inspection of any measures which failed inspection. This waiver applies to all installers, regardless of the number of measures they have delivered in a quarter. However, we anticipate that this option will only be feasible for installers with relatively low delivery.

If a supplier does not achieve 100% monitoring due to non-access, we will consider the subset of measures on a case by case basis. The supplier must have evidence of non-access for all measures it did not inspect. Ofgem's decision in these cases will depend on the achieved monitoring rate, the effective failure rate and any other assurances the supplier might be able to provide.

Conversely, where a supplier has ceased working with a particular installer, the supplier does not need to submit an improvement plan as part of their additional assurances, however, Ofgem does require the remediation and re-inspection or re-score, of any measures which failed inspection.

4. Non-Access

This section sets out the process a supplier must follow when a monitoring agent is not able to access a property for an inspection. Ofgem distinguishes between two different types of non-access:

1. Inability to access a property for a monitoring inspection (either quarterly monitoring or additional monitoring),
2. Inability to access a property to carry out remedial works following a TM fail, or to re-inspect the remedial works.

A supplier may use this process to demonstrate that an inspection was attempted, but, due to circumstances beyond their control were not able to complete it.

4.1. Non-access for monitoring inspections

Ofgem recognises that not every attempted inspection a supplier arranges to meet its monitoring requirement will be successful. Suppliers must report to us any measures that they attempted to inspect, but where the monitoring agent was unable to gain access. Ofgem use this information for two objectives:

1. To determine the percentage of monitoring visits that are successful,
2. For cases where the supplier is unable to achieve the monitoring requirement for a subset of measures because it has exhausted the number of measures available for inspection.

Ofgem recognises the possibility that when a subset of measures is very small, a supplier will not meet the monitoring requirement because it cannot gain access to a sufficient amount of, or any, properties. In these cases, we will not place this subset of measures on a pathway to compliance if the supplier can demonstrate it has attempted to access all properties within the subset of measures. Suppliers will be asked to provide evidence of this through either, a statement in writing from the monitoring agent that an inspection was attempted and/or a statement from an occupant that they do not wish for their property to be inspected. The statement could include, but is not limited to, an email from the monitoring agent confirming the unsuccessful visitation attempts. Suppliers can contact Ofgem if they believe they have other forms of suitable evidence.

Suppliers do not need to submit the evidence to Ofgem, but will need to report non-access inspections to us.

In the event that a supplier has been unable to monitor any measures installed within a subset but have attempted to access every single property, we will refer to this as 100% non-access and place the subset onto a monitoring pathway. Suppliers will be required to provide non-access evidence for all measures in a subset for at least 10% of the total of number of measures on 100% non-access pathways. Acceptable evidence is outlined in Section 4.2 below.

4.2. Non-access for remedial works and re-inspection of remedial works

When a measure fails TM, the supplier must conduct remedial works to address the reason the measure failed the original inspection. After completing the remedial works, the measure should be re-inspected to verify that the original cause of the failure has been successfully addressed.

A supplier must always arrange for the cause of a TM fail to be remediated. If the supplier cannot gain access to a measure and is therefore unable to complete the remedial works, Ofgem will reject the measure.

If a supplier has carried out the remedial works to a measure, but is not able to conduct the re-inspection, Ofgem may decide not to reject the measure. This is conditional on the supplier providing evidence it was not able to access the property and that remedial works have been carried out.

The evidence requirements for non-access in the case of re-inspections is more stringent than for non-access in the case of a normal inspection. The supplier must make a reasonable attempt to contact the consumer to arrange for the re-inspection. One form of evidence that we will accept is proof that a letter, as described below, was sent by the supplier to the legal owner/occupier by recorded post or courier and was either:

- returned to the supplier following failed delivery, or
- accepted by the owner/occupier.

However, please note this requirement is not achieved if the letter is left with someone other than the legal owner/occupier (e.g. another occupant in the house, including children).

A supplier can demonstrate that the recorded letter was returned to the supplier by retaining the returned signed letter, along with the confirmation from the mail or courier service that it had attempted, but failed, to pass the letter to the owner/occupier.

A supplier can demonstrate that the recorded letter was accepted by the owner/occupier by retaining a copy of the signed letter sent to the owner/occupier and confirmation from the mail or courier service that the owner/occupier signed for the letter. If the owner/occupier has accepted the letter, the supplier can claim non-access only if the owner/occupier does not respond within two weeks of accepting the letter, or informs the supplier that they will not allow the supplier access for a re-inspection.

Suppliers do not need to submit this evidence to Ofgem with their monitoring reports, but will need to hold this evidence as we may ask for this evidence upon audit.

Contents of the letter to the owner/occupier

The recorded letter must, at a minimum, contain:

- 1) the reason for the re-inspection, including details of the original TM fail.
- 2) a clear explanation of what the re-inspection involves.
- 3) contact details to allow the owner/occupier to arrange the re-inspection, including an email address and an additional free method of contact, and
- 4) the link to the Ofgem Inbox (ECO@Ofgem.gov.uk), accompanied by a statement to the effect that the occupant should contact Ofgem if the supplier fails to conduct the re-inspection mentioned in the letter.

Alternative methods

Suppliers may use methods other than a recorded letter to evidence non-access. The information above only sets out what Ofgem would expect a supplier to do if they choose to use a recorded letter. If a supplier wants to use another method to evidence non-access, they should contact us before doing so.

5. Reporting information to Ofgem

Suppliers must submit all their monitoring results and additional assurances to Ofgem via Huddle, using the templates that we have provided. Ofgem distinguishes between the following four types of information:

- Quarterly (Core) monitoring
- Response to fail (RtF)
- Additional monitoring
- Additional assurances

When submitting information via Huddle, the supplier should tag the members of the Ofgem Monitoring Team on Huddle by typing “@Ofgem ECO3 Monitoring” in the comments tab. This will make sure that a notification is sent to all Ofgem staff working on monitoring.

5.1. Quarterly (Core) Monitoring

Suppliers must report the result of all inspections they conducted for a quarter. This includes passes, fails and instances of non-access. It also includes inspection results for measures that the supplier has chosen not to notify to Ofgem¹⁷. We will also refer to the results of quarterly monitoring as ‘Core Monitoring’.

Suppliers must report Core Monitoring results for TM and SM separately.

Suppliers must submit Core Monitoring results using the Core Monitoring Template, which is available on our website¹⁸. Ofgem will not accept results provided in a different format. The Core Monitoring template has the following sections:

- Summary Sheet
- Installer Failure Rates
- Results (Notified)
- Results (Not Notified)
- Response to Fails
- Reference Lists

Below we have detailed how a supplier should complete each of these sections.

Summary Sheet

This section of the template should be populated for each monitoring category and must show the number of measures notified and monitored, along with any failed inspections. This section also contains a list of all Core Monitoring questions. For each question, the supplier must record: the measures that passed, the measures that failed, and where applicable, the number of ‘N/A’ or ‘Unable to validate’ results.

Results (notified)

This section of the template must contain the line-by-line inspection results for all measures, **except those that the supplier has chosen not to notify to Ofgem**. It must contain the following information:

¹⁷ This only applies to measures the supplier chooses not to notify at all. Measures that the supplier chooses to notify late should be reported for the quarter during which they are eventually submitted.

¹⁸ <https://www.ofgem.gov.uk/publications-and-updates/ECO3-monitoring>

- Measure reference number (this *must* be the same number the supplier notified to the ECO Register)
- The monitoring agent
- The inspection date
- The inspection stage (this applies to TM only)
- The inspection result (either pass, fail, or non-access)
- The question number(s) which the inspection failed on (this only applies to measures that failed the inspection and should match the numbering used in the ECO3 Monitoring Question Set. If a measure failed on multiple questions, these should be separated by a semicolon (;)).

Inspection results (not notified)

This part of the template must contain line-by-line inspection results for measures that the supplier has chosen not to notify. **It should not be used for measures that the supplier expects to notify late. Inspection results for measures that are notified late must be submitted for the quarter in which the late measure itself is notified to Ofgem.** The supplier must provide additional information for these measures because Ofgem does not have a record of these measures on the ECO Register. The following information must be provided:

- The address of the property
- The monitoring agent
- The inspection date
- The inspection stage (this applies to TM only)
- The inspection result (either pass, fail or non-access)
- The question numbers an inspection failed on (this only applies to measures that failed the inspection and should match the numbering used in the ECO3 Monitoring Question Set. If a measure failed on multiple questions, these should be separated by a semicolon (;)).
- The measure type (the entry must match a measure type from the ECO3 Measures Table)
- The installer name
- The obligation category

Response to Fails

It is possible that a supplier has completed the necessary response to fail actions (i.e. rescore or remedial works) before the inspection result is reported to Ofgem. For these measures, the supplier should include their results in the RtF part of the Core Monitoring Template. This process is completed in the same manner for Technical and Score Additional Monitoring and for any standalone RtF submissions submitted on the RtF template. Instructions for these templates are included below.

If at the time of reporting quarterly (core) monitoring a supplier has no remedial or rescore confirmation for measures which failed, they can leave this part of the template blank.

Submitting the template

Suppliers must submit the Core Monitoring template by the end of the month following a quarter. Please note that the reporting deadline was only extended for Quarter 1 of ECO3. For all other quarters Core Monitoring must be submitted as normal. The deadlines for each quarter are given in the table below:

Table 2: Core Monitoring reporting deadlines

Quarter	Notification periods covered in quarter	Reporting deadline
Q1	November 2018 – January 2019	22 March 2019
Q2	February 2019 – April 2019	31 May 2019
Q3	May 2019 – July 2019	31 August 2019

Q4	August 2019 – October 2019	30 November 2019
Q5	November 2019 – January 2020	29 February 2020
Q6	February 2020 – April 2020	31 May 2020
Q7	May 2020 – July 2020	31 August 2020
Q8	August 2020 – October 2020	30 November 2020
Q9	November 2020 – January 2021	28 February 2021
Q10	February 2021 – April 2021	31 May 2021
Q11	May 2021 – July 2021	31 August 2021
Q12	August 2021 – October 2021	30 November 2021
Q13	November 2021 – January 2022	28 February 2022
Q14	February 2022 – April 2022	31 May 2022

Measures without the required data will not be counted towards a supplier’s monitoring requirement. If the supplier provides a substantial number of measures without the correct data, we may ask the supplier to resubmit the entire template.

Inspecting a single measure twice

Ofgem acknowledge that in some cases, the same measure may be inspected at both the mid-installation and post-installation stage. Whilst we recognise that in some cases this is appropriate to assess the quality of the installation, we would not encourage suppliers to undertake this practice too frequently as it undermines the monitoring process. Ofgem will assess the number of measures that are inspected twice, and contact the supplier if we believe this number is too high.

5.2. Response to fails (RtFs)

Suppliers must inform us of the progress they have made in remediating or rescored measures every month. They must do this by returning a monthly ‘response to fails’ (‘RtF’) template which can be found within the SM and TM additional monitoring templates¹⁹. The deadline to submit the RtF template is the 17th of each month, except where this is not a working day, in which case it is the first working day after the 17th. Ofgem will process the RtF template by the end of the month in which it was submitted. Ofgem will provide suppliers with an overview of all outstanding fails after we have completed the assessment of an RtF file.

Suppliers must only report the fails that have been resolved when they submit the RtF. Fails for which they have made either no progress, or incomplete progress (i.e. only remedial works) should not be included. These measures can be reported once the supplier has completed all the necessary actions.

Suppliers can also use the RtF template to report any overturns (see Section 2). Overturns can only be reported using the RtF template.

Technical monitoring

The RtF template for TM has the following fields:

- Measure reference number
- Remedial works complete (Yes/No)
- Passed re-inspection complete (Yes/Non-access)
- Overturn (Yes/No)
- Rejected (Yes/No)

¹⁹ <https://www.ofgem.gov.uk/publications-and-updates/ECO3-monitoring>

The last field should only be used if the measure is rejected for a reason other than monitoring, or if the supplier has decided not to complete remedial works for the measure.

Only the following combinations of entries indicate that a technical fail has been resolved, and are therefore accepted:

Table 3: Technical Monitoring response to fails template

Type of resolution	Remedial Works Complete	Passed re-inspection	Overturn	Rejected
Successful remediation	Yes	Yes	No	No
Re-remediation without re-inspection	Yes	Non-access	No	No
Overturn	No	No	Yes	No
Measure rejected for other reason	No	No	No	Yes

Score monitoring

The RtF template for score monitoring has the following fields:

- Measure reference number
- Measure rescored (Yes/No)
- Old score
- New score
- Measure Remediated (only applicable to TRV measures)
- Overturn (Yes/No)
- Rejected (Yes/No)

The last field should only be used if the measure is rejected for a reason other than monitoring, or if the supplier has decided not to complete remedial works for the measure.

If the rescoring of the measure produces a new score that is equal to the old score, the supplier can report this by recording 'Yes' in the 'Measure rescored' field and the old and new scores in the 'Old score' and 'New score' fields respectively. Ofgem may ask suppliers for evidence demonstrating why there is no difference between the two scores.

Only the following combinations of entries indicate that a scoring fail has been resolved, and are therefore accepted:

Table 4: Score monitoring response to fails template

Type of resolution	Measure Rescored	Old Scores	New Scores	Remediated (TRV only)	Overturn	Rejected
Rescore	Yes	[Old Score]	[New Score]	N/A	No	No
Overturn	No	N/A	N/A	N/A	Yes	No
Rejection	No	N/A	N/A	N/A	No	Yes
Remediated (TRV)	Yes	[Old Score]	[New Score]	Yes	No	No

5.3. Additional Monitoring

Suppliers must inform us every month of the progress they have made for installers on a pathway to compliance. After Ofgem places an installer on a pathway to compliance, we will inform the supplier if additional monitoring is required. Ofgem will also inform the supplier of how many additional monitoring inspections must be conducted.

Suppliers must use the Additional Monitoring Template to report the results of additional monitoring²⁰. Additional monitoring for TM and SM must be reported separately. For each type of monitoring, the supplier must submit the additional monitoring inspections for all pathways (ie for all quarters) in one template. The Additional Monitoring Template has three parts:

- Results (Notified)
- Results (Not Notified)
- Response to Fails

Results (Notified)

This part of the template must contain the line-by-line inspection results for all notified measures. It must contain the following information:

- Measure reference number (this *must* be the same number the supplier notified to the ECO Register)
- The monitoring agent
- The inspection date
- Inspection Stage (If TM)
- The inspection result (either pass, fail, or non-access)
- The question number(s) an inspection failed on (this only applies to measures that failed the inspection and should match the numbering used in the ECO3 Monitoring Question Set. If a measure failed on multiple questions, these should be separated by a semicolon (;)).

As stated in the Additional Monitoring section in Section 3 Ofgem will not accept additional monitoring inspections on measures without a valid measure reference number, or on measures for which the supplier has already submitted an inspection.

Ofgem will allocate additional monitoring inspections to the correct quarter based on the notification period and submission date for a measure on the ECO Register. Where there is a discrepancy between the quarter provided by the supplier, and the quarter assigned by Ofgem, we will inform the supplier.

Results (Not Notified)

This part of the template must contain the line-by-line inspection results for all not notified measures. It must contain the following information:

- The monitoring agent
- The inspection date
- The inspection stage (if TM)
- The inspection result (either pass, fail, or non-access)
- The question number(s) an inspection failed on (this only applies to measures that failed the inspection and should match the numbering used in the ECO3 Monitoring Question Set. If a measure failed on multiple questions, these should be separated by a semicolon (;)).
- The measure type
- The installer name
- The date of completed installation
- The flat no. or name
- The building no.
- The building name
- The street name
- The town

²⁰ <https://www.ofgem.gov.uk/publications-and-updates/ECO3-monitoring>

- The post code

Ofgem will allocate additional monitoring inspections to the correct quarter based on the notification period and submission date for a measure on the ECO Register. Where there is a discrepancy between the quarter provided by the supplier, and the quarter assigned by Ofgem, we will inform the supplier.

Response to Fails

It is possible that a supplier has completed the necessary response to fail actions (i.e. rescoring or remedial works) before the inspection result is reported to Ofgem. For these measures, the supplier should include their results in the RtF part of the Additional Monitoring Template. This process is completed in the same manner for Technical and Score Additional Monitoring and for any standalone RtF submissions submitted on the RtF template. Instructions for these templates are included above.

5.4. Additional assurance

Suppliers can submit additional assurance for an installer on a pathway to compliance at any time. Additional assurances must be submitted via Huddle. Suppliers must utilise the Additional Assurances Template available on our website to enable us to assess the additional assurances and respond to the supplier in a timely manner.

5.5. Submitting installer name or measure type changes

Occasionally, a supplier may need to change the name of an installer or change the measure type after it has been notified to Ofgem. In addition to contacting the measure changes process, suppliers should contact the monitoring team to allow us to update our analysis.

Suppliers must use the Monitoring Installer/Measure Type Change Template to report any name change for an installer or updated measure types.

The Installer/Measure Type Change Template has two tabs with four columns per tab:

The Installer Name Changes Tab contains:

- Quarter
- Measure Reference Number
- Previous Installer Name
- Current Installer Name

The Measure Type Changes Tab contains:

- Quarter
- Measure Reference Number
- Previous Measure Type as per the ECO3 Measures Table
- Current Measure Type as per the ECO3 Measures Table

These files should be uploaded to Huddle and suppliers should tag the members of the Ofgem ECO Monitoring team. These changes can be provided along with Quarterly and Additional Monitoring submissions, or as a standalone submission at any point.

5.6. Reporting timelines

Ofgem aim to provide suppliers with regular updates following their submissions. In general, Ofgem aim to adhere to the following timelines:

Table 5: Reporting timelines

Process	Timeline
Core monitoring	By the end of the month following the reporting deadline.
Additional monitoring	By the end of the month in which the Additional Monitoring was submitted.
Response to fails	By the end of the month in which the RtF file was submitted
Additional assurances	It is more difficult to adhere to a specific timeframe because the amount of work increases proportionally with the number of assurance pieces we receive. We recognise, however, the risk that longstanding pathways can pose to suppliers and their supply chain and so will aim to respond to assurance submissions within 20 working days of receiving them.

6. Appendix 1 Monitoring Categories

Table 6: Summary table of monitoring required for each monitoring category

Measure Type	Monitoring Category ¹	Subject to Technical Monitoring	Subject to Score Monitoring	Mid-installation Questions Apply
Solid wall - External Insulation	EWI	Yes	Yes	Yes
Solid wall - Internal Insulation	IWI	Yes	Yes	Yes
Cavity Wall - External Insulation	EWI	Yes	Yes	Yes
Cavity Wall - Internal Insulation	IWI	Yes	Yes	Yes
Cavity wall insulation (0.040) ²	CWI	Yes	Yes	No
Cavity wall insulation (0.033) ²	CWI	Yes	Yes	No
Cavity wall insulation (0.027) ²	CWI	Yes	Yes	No
Partial cavity wall insulation	CWI	Yes	Yes	Yes
Party cavity wall insulation	PWI	Yes	Yes	Yes
Loft insulation where there is greater than 100mm pre-existing insulation	LI	Yes	Yes	
Loft insulation where there is less than or equal to 100mm pre-existing insulation	LI	Yes	Yes	
Flat roof insulation	FRI	Yes	Yes	Yes
Draught proofing	DP	Yes	Yes	
Higher performance external doors with greater than 60% glazing area ²	HPED	Yes	Yes	
Higher performance external doors with less than or equal to 60% glazing area ²	HPED	Yes	Yes	
Park home insulation - floor	UFI	Yes	Yes	Yes
Park home insulation - roof	LI/FRI ³	Yes	Yes	Yes
Park home insulation - wall	EWI	Yes	Yes	Yes
Room-in-roof insulation insulated	RIRI	Yes	Yes	Yes
Room-in-roof insulation uninsulated	RIRI	Yes	Yes	Yes
Under floor insulation	UFI	Yes	Yes	Yes
Window glazing - improved double glazing	WG	Yes	Yes	
Window glazing - single to double	WG	Yes	Yes	
(Boiler) Broken replacement - no pre-existing heating controls	NB ⁴	Yes	Yes	

(Boiler) Broken replacement - pre-existing heating controls	NB ⁴	Yes	Yes	
(Boiler) Repair - no pre-existing heating controls	BR ⁴	Yes	Yes	
(Boiler) Repair - pre-existing heating controls	BR ⁴	Yes	Yes	
(Boiler) Upgrade - no pre-existing heating controls	NB ⁴	Yes	Yes	
(Boiler) Upgrade - pre-existing heating controls	NB ⁴	Yes	Yes	
(Electric Storage Heater) Broken replacement - fan storage	NESH	Yes	Yes	
(Electric Storage Heater) Broken replacement - high heat retention	NESH	Yes	Yes	
(Electric Storage Heater) Repair - fan storage	ESHR	Yes	Yes	
(Electric Storage Heater) Repair - high heat retention	ESHR	Yes	Yes	
(Electric Storage Heater) Upgrade - fan storage	NESH	Yes	Yes	
(Electric Storage Heater) Upgrade - high heat retention	NESH	Yes	Yes	
New connection ⁵	DHS	Yes		
CHP upgrade	DHS	Yes		
Heat meters	DHS	Yes		
Heating controls	HC	Yes	Yes	
Smart thermostat (pre-existing programmer and room thermostat)	HC	Yes	Yes	
Smart thermostat (no pre-existing programmer and room thermostat)	HC	Yes	Yes	
TRV	HC	Yes	Yes	
Solar PV	PHV	Yes	Yes	Yes
(Boiler) First time central heating (FTCH)	FTCH ⁶	Yes	Yes	Yes
(DHS New Connection if tenure is Social E, F, G) First time central heating (FTCH)	FTCH ⁶	Yes	No	Yes
Innovation Measures ⁷		Yes	Yes	Yes

¹ **EWI** – External Wall Insulation, **IWI** – Internal Wall Insulation, **CWI**- Cavity wall Insulation, **PWI** – Party Cavity Wall Insulation, **LI**- Loft Insulation, **FRI**- Flat Roof Insulation, **DP** – Draught Proofing, **HPED** – High Performance External Door, **UFI** – Under Floor Insulation, **RIRI** – Room in Roof Insulation, **WG** – Window glazing, **NB** – New Boiler (replacement boiler), **FTCH** – First Time Central Heating, **BR** – Boiler Repair, **NESH** – New Electric Storage Heater, **ESHR** – Electric Storage Heater Repair, **DHS** – District Heating System, **HC** – Heating Controls, **PHV** – Photovoltaic.

² The values alongside the CWI measure names refer to the thermal conductivity of the product.

³ The Loft Insulation and Flat Roof Insulation questions should be applied to Park Home – Roof measures as appropriate.

⁴ Boiler measures also include the following renewable heat sources; air source heating pumps, ground source heating pumps and biomass boilers.

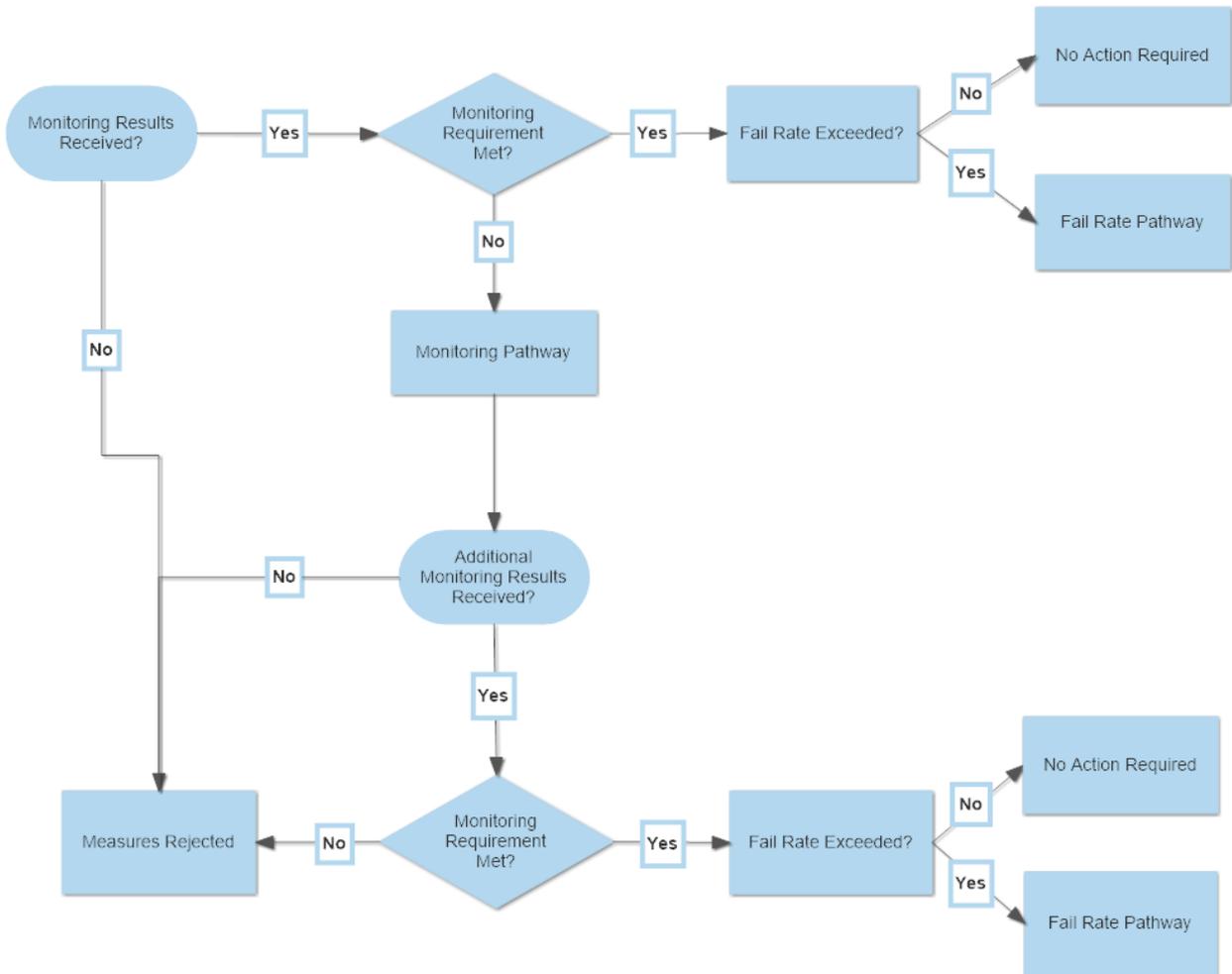
⁵ DHS New connections when the tenure is social E, F and G falls under the FTCH monitoring category.

⁶ FTCH monitoring category includes Boiler measures and DHS New connection measures when the tenure is Social E, F and G

⁷ Although there is only one question specifically for innovation measures, all other relevant questions in the monitoring question set should be applied to an innovation measure. It's therefore possible that Technical Monitoring questions, mid- or post-installation, and score monitoring questions could apply.

7. Appendix 2 – Flow diagrams

7.1. Monitoring pathway process flow



7.2. Fail rate pathway process flow

