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Energy Companies Obligation (ECO)

Technical Monitoring Report

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Issue **3**

This report presents the results of independent technical monitoring of the installation quality of ECO measures. We are publishing this report as part of our commitment to transparency and will discuss the findings with energy companies, industry groups and accreditation bodies, to drive improvements in installation quality. The report covers measures monitored between 1 April and 30 June 2014. This report does not include monitoring of measures installed in anticipation of the recent amendments to the ECO legislation. The information provided in this report is based on the most recent results submitted to Ofgem by suppliers, and is subject to change.

What is technical monitoring?

Ofgem requires energy companies to carry out technical monitoring to verify the quality of installation of their ECO measures. Technical monitoring is designed to ensure that ECO measures comply with relevant standards of installation. Failure to comply with these standards can result in a loss of savings passed on to consumers. The monitoring must be conducted by qualified independent agents. Measures are assessed against a standard questionnaire developed by Ofgem, energy companies and industry experts[1]. Energy companies are required to conduct monitoring for 5 per cent of measures each quarter, across a representative sample of measure types, geographical areas, installers and obligations.

The results of technical monitoring are submitted, unaltered, directly to Ofgem each quarter by energy companies. Energy companies are able to respond to fails during the following quarter, and identify fails reported in error that may then be reclassified as passes. This process is ongoing, and final failure rates may be lower than those presented in this report.

If a measure fails to comply with a standard relating to its installation, Ofgem expects the supplier to remedy the fail. If the fail is not adequately remedied Ofgem will investigate to determine if further action is warranted and, where appropriate, may refuse to credit the supplier with having achieved savings from the measure. Ofgem is working with energy companies to increase the accuracy of technical monitoring and improve the quality of measures installed under the ECO scheme.

Technical monitoring installation failure rates

Technical monitoring was carried out on 15,965 measures between 1 April and 30 June 2014. Of these, 2,264 measures failed to comply with a standard of installation of the measure. These fails have been split into two categories. Type 1 fails are those that could moderately or significantly reduce the ability of a measure to deliver carbon or cost savings. Type 2 fails are those that have little or no direct impact on the carbon or cost savings produced by a measure (see appendix 1). We are highlighting these Type 2 fails to drive improved quality for customers benefiting from the ECO scheme.

Fig. 1) Technical monitoring results by quarter

The table below shows the failure rate split by quarter. Failure rates for past quarters can change as suppliers may identify 'false fails' that can be overturned by Ofgem, or report additional monitoring from that quarter. As such, the failure rates reported here for past quarters may vary from previously published reports, and the failure rate for the current quarter is subject to change as results are revised.

Monitoring Period	Installation Failure Rate[2]
Jul-Sept 2013	10.8%
Oct-Dec 2013	9.0%
Jan-Mar 2014	9.3%
Apr-Jun 2014	14.2%

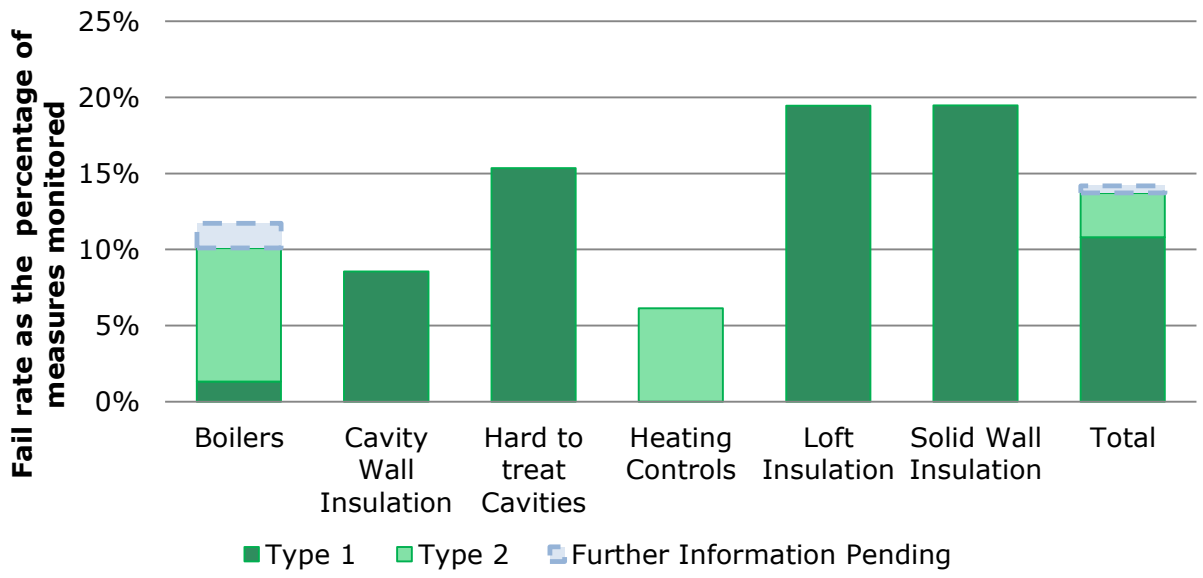
These results show an increase in the fail rate between 1 April and 30 June 2014. We are working with energy companies to discover the reasons behind this increase.

[1] https://www.ofgem.gov.uk/ofgem-publications/86418/tmqsv211final-07052014.pdf

[2] Includes Type 1 and 2 fails, and those with further information pending.

Fig. 2) Installation fails as a percentage of all monitored measures[3]

The graph below shows the results for all monitored measures for 1 April to 30 June 2014, and results split by measure category[4]. The most commonly failed questions relating to these measures are provided in appendix 2. We are awaiting further information from energy companies on some recorded fails before determining if they are Type 1 or 2 fails, or if they should be amended to passes.



Ofgem's response to technical monitoring results

Ofgem expects energy companies to actively work to improve the quality of ECO measure installations. To incentivise this improvement, required monitoring rates are linked to technical monitoring performance. If a supplier reduces their average failure rate below 5 per cent, over a defined period of three quarters, they will be permitted to conduct monitoring at a reduced level. Where appropriate, Ofgem can revoke the savings attributed to a measure that fails technical monitoring if adequate remedial work is not carried out.

We are currently consulting on changes to the technical monitoring regime for the next ECO obligation period (ECO 2). These changes are intended to make the regime more responsive and targeted to high failure rates. **The deadline for responses is 9am 21 January 2015**. The consultation document can be found on the consultation page of the Ofgem website.

Still have questions?

For enquiries regarding ECO (with the exception of the media), please contact the ECO team via email at ECO@ofgem.gov.uk. For all media enquiries, please contact the press office on 0207 901 7246.

[3] 'Solid wall insulation' includes internal and external wall insulation measures.

[4] We have only included individual measure categories where more than 100 inspections have been reported for that measure. However 'Total Measures' includes *all* measures with recorded fails.

Appendix 1: Definition of Type 1 and Type 2 fails[1]

Type 1 fails

Ofgem classifies Type 1 fails to be those that can moderately or significantly reduce the ability of a measure to deliver savings to consumers.

Examples and explanations

Measure type	Question
Loft Insulation	Q28) Has insulation been close butted?
Cavity Wall Insulation	Q27) Have all injection holes been made good?
Boiler Repairs and Boiler Replacements	Q23) Is the boiler connected to a functioning domestic heating (and, if applicable, hot water) system?

- If loft insulation has not been close butted, cold air can pass through the insulation, reducing its effectiveness. A failure on this question also shows that the insulation is susceptible to condensation and damp, which may result in degradation of the insulation, and a reduction in its performance.
- If injection holes are not made good following installation of cavity wall insulation, condensation and damp may degrade the insulation, resulting in a reduction in its performance.
- A boiler that is not connected to a functioning heating system will be unable to provide heating and hot water to a home, and therefore will not deliver any savings to the occupant.

Type 2 fails

Ofgem classifies Type 2 fails as those that may have little or no direct impact on the carbon or cost savings attributed to the measure, but still impact on the quality of the installation or indicate that installers have not followed best practice.

Examples and explanations

Measure type	Question
Boiler Repairs and Boiler Replacements	Q27) Does the occupant confirm they know how to use the new boiler?
Boiler Repairs and Boiler Replacements	Q28) Is all reinstatement work to an acceptable standard?

- Boiler question 27 could be failed if an installer failed to inform the occupant how to use their boiler, or the occupier may not have been present at installation. In either case, the boiler may be functioning, but we expect that sufficient instructions on how to operate boilers are provided to occupants.
- Reinstatement work includes tasks such as repainting around a new boiler, or refilling drill holes, which do not affect the performance of the boiler in most instances. However, failures on this question still reflect issues with the installation of the measure.

Project plan questions

The Ofgem technical monitoring questionnaire also includes installation questions about the project plans used during the installation of ECO measures. When technical monitoring inspections occur after the installation of the measure, these questions are treated as 'for information only' as it is not expected that project plans are kept on site post-installation. For the purpose of this report, they are therefore not treated as fails.

[1] Note that this distinction is separate, and not analogous, to the major/minor classification used in past technical monitoring of energy efficiency schemes

Appendix 2: Commonly failed questions

The most commonly failed questions for each measure shown in the report are listed below.

Boiler Installation, Boiler Repair, Heating Controls	
Q28) Is all reinstatement work to an acceptable standard?	Type 2
Q26) Are the water pipes connected to the cylinder insulated?	Type 1
Q27) Does the occupant confirm they know how to use the new boiler/controls?	Type 2

Cavity Wall Insulation	
Q27) Have all injection holes been made good? (Post installation question only)	Type 1
Q26) Does the drilling pattern ensure an even distribution of material, and conform to the appropriate materials compliance certificate? (Post installation question only)	Type 1

Hard-to-Treat Cavity Wall Insulation	
Q34) Does the drilling pattern ensure an even distribution of material, and conform to the appropriate materials compliance certificate? (Post installation question only)	Type 1
Q35) Have all injection holes been made good? (Post installation question only)	Type 1

Heating Controls	
Q22) Does the occupant confirm they know how to use the new controls?	Type 2

Solid Wall Insulation (The two most common fails relate to external wall insulation)	
Q43) Has the finishing coat/cladding been applied as specified in the project plan and is the installation water tight? (Post installation question only)	Type 1
Q42) Are the insulation boards bonded and/or anchored as specified in the project plan? (Post installation question only)	Type 1

Loft Insulation	
Q31) Has the loft hatch been properly draught-proofed as specified in PAS 2030:2012?	Type 1
Q30) Has the loft hatch been properly insulated as specified in PAS 2030:2012?	Type 1