

Energy Company Obligation (ECO)

ECO2 monitoring report

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Issue 2

Introduction

This report presents the results of independent monitoring of ECO2 measures. Suppliers conduct three types of monitoring: Technical Monitoring, Score Monitoring and Best Practice Monitoring. Technical Monitoring and Score Monitoring are requirements in our ECO guidance, whereas Best Practice Monitoring is optional.

We publish this report as part of our commitment to transparency and to provide information that will help drive improvements in quality in the energy efficiency industry. The report covers ECO measures that fall within the scope of the monitoring requirement for Quarter 2 of ECO2 (July 2015 – September 2015).

Summary

For both Technical and Score Monitoring the monitoring rate was slightly less than that reported for Quarter 1, although it was still well over the required threshold of 5%. The failure rate for Technical Monitoring was up compared to Quarter 1. The percentage of failed inspections that were subsequently overturned was slightly higher.

For Score Monitoring, the results were very similar to Quarter 1, especially when overturned inspections are taken into account.

One addition to the [report](#) for Quarter 1 is that this report also includes information on the number of measures and installers that were placed on a Pathway to Compliance. This information was not included for Quarter 1 because no measures were placed on a Pathway for that quarter. We will continue to include this information in future reports.

The numbers in this report were last updated on 20 May 2016.

Technical Monitoring

This part of the report covers the results of Technical Monitoring conducted for ECO2 Quarter 2 (July 2015 – September 2015).

Technical Monitoring is a compliance regime under ECO that requires obligated suppliers to commission on-site inspections of at least 5% of measures installed in a quarter, conducted by an independent party. This is to ensure that measures delivered under ECO are installed to the appropriate standards and are capable of generating the claimed carbon or cost savings. Suppliers must resolve issues with measures that fail a Technical Monitoring inspection and may lose the savings associated with the measure if they do not do so.

Suppliers must also monitor at least 3% of measures installed by a particular installer¹. If the failure rate for an installer is 10% or greater, we consider the installer to be 'at risk' and they will be placed on a Pathway to Compliance. As part of this Pathway, we may ask the supplier to provide us with additional monitoring or assurances for this supplier.

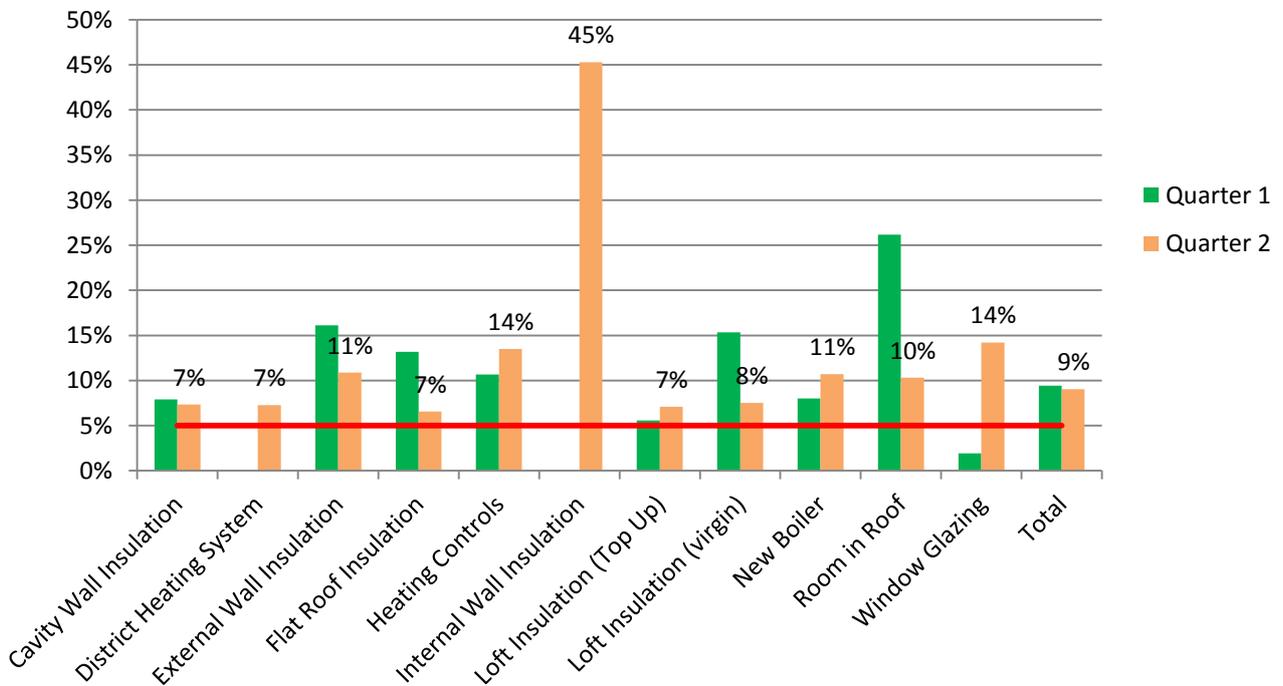
For more information on the Pathways to Compliance is available on [our website](#).

¹ The requirement for installers who deliver fewer than 100 measures in a quarter is for one measure to be monitored.

Monitoring rates

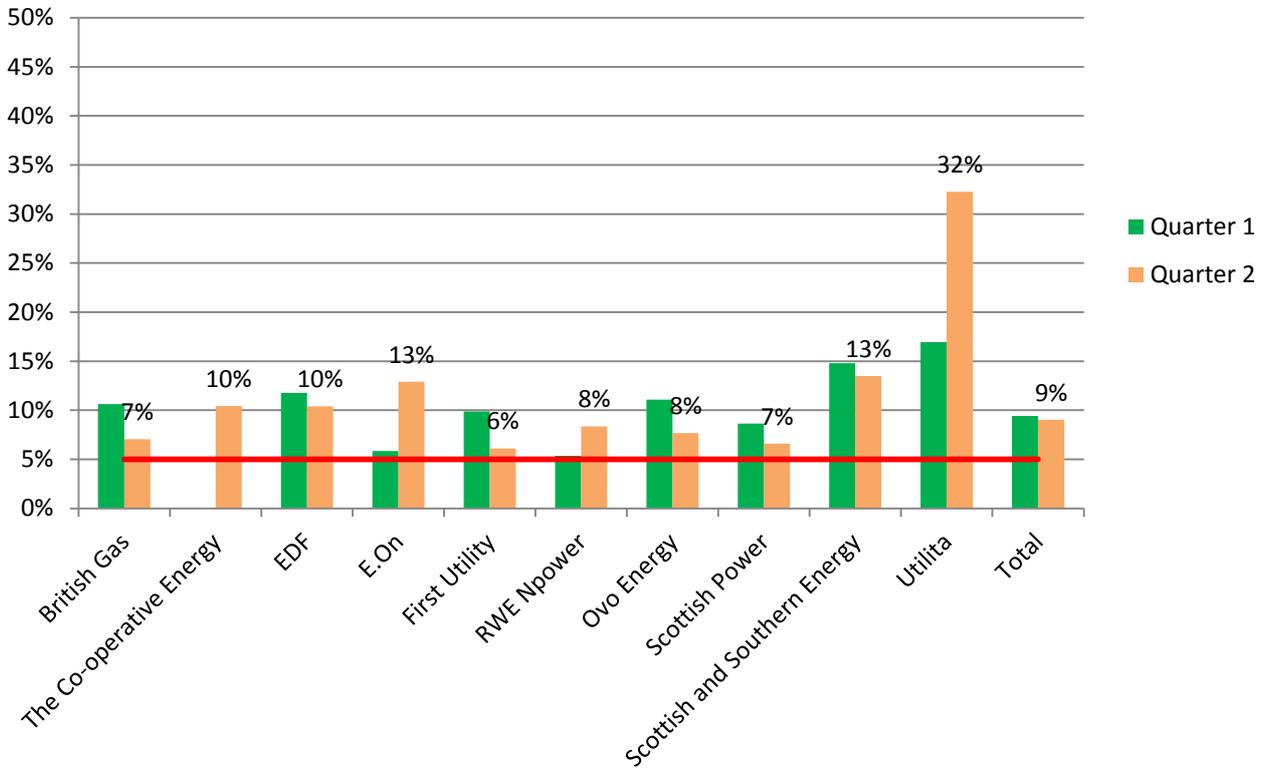
Technical monitoring was carried out on 8,290 measures, amounting to 9% of all measures that fall within the technical monitoring requirement for the quarter (91,823)². The graphs below show the monitoring rates for all notified measures in Quarter 2, by measure type (Fig. 1) and obligated supplier (Fig. 2). The average monitoring rate is indicated by a dark green column. The red line indicates the required level of Technical Monitoring (5%). Percentages in the graphs are only shown for the most recent quarter. Previous quarters have been included for comparison. Note that Figures 1 and 3 only include those measure types for which more than 100 measures fell within the monitoring requirement for the quarter.

Fig. 1) Installation monitoring rates as a percentage of all notified measures per measure category



² For the definition of the monitoring requirement, please see our [ECO2 Guidance: Delivery](#), sections 9.6 to 9.14.

Fig. 2) Installation monitoring rates as a percentage of all notified measures per supplier



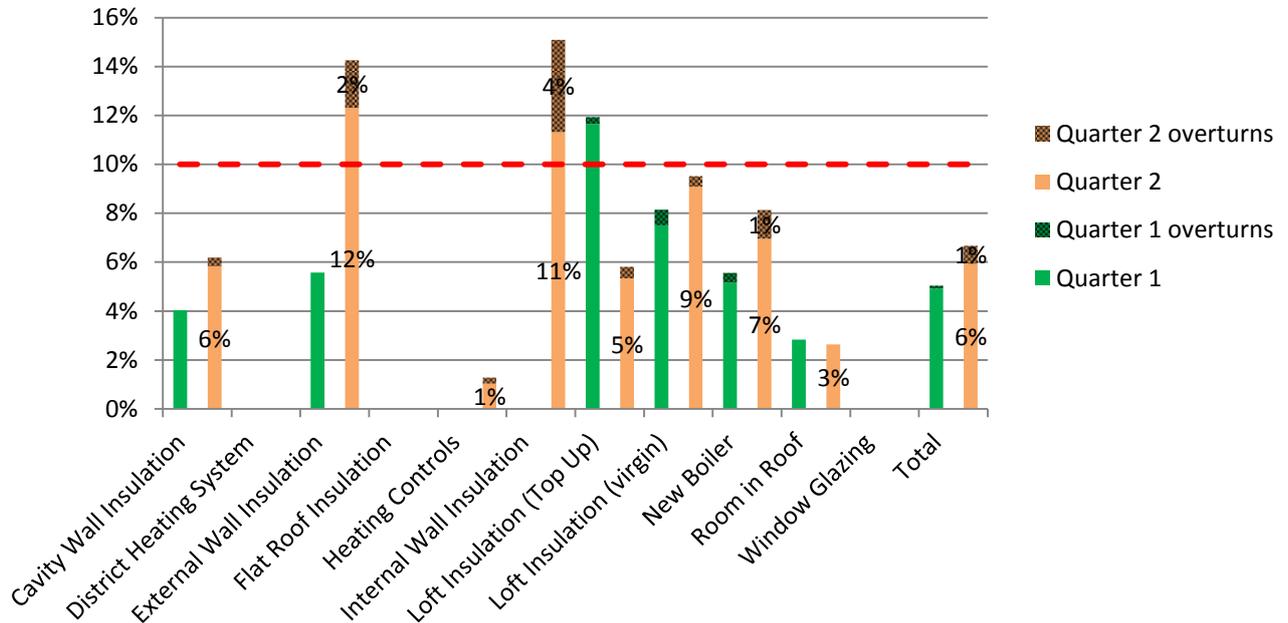
Failure rates

Five hundred and fifty three of the 8,290 measures monitored failed to comply with a standard of installation of the measure (~6%). The graph below shows the installation failure rates for all monitored measures in Quarter 2 by measure category. The average failure rate for all measure categories/suppliers is provided by the dark green column, while the red line indicates the Technical Monitoring failure threshold (10%). Percentages in the graphs are only shown for the most recent quarter. Previous quarters have been included for comparison.

In some cases, a Technical Monitoring Agent may decide that their initial assessment was incorrect and that a measure that failed an inspection had actually passed. We refer to these inspections as 'overturns'.

Suppliers report overturns to us on a monthly basis. We then adjust the previously reported failure rates to take any overturns into account. In the figure below, the number of overturned measures is represented by the dotted area at the top of the columns. The most commonly failed questions relating to these measures are provided in the commonly failed questions section below.

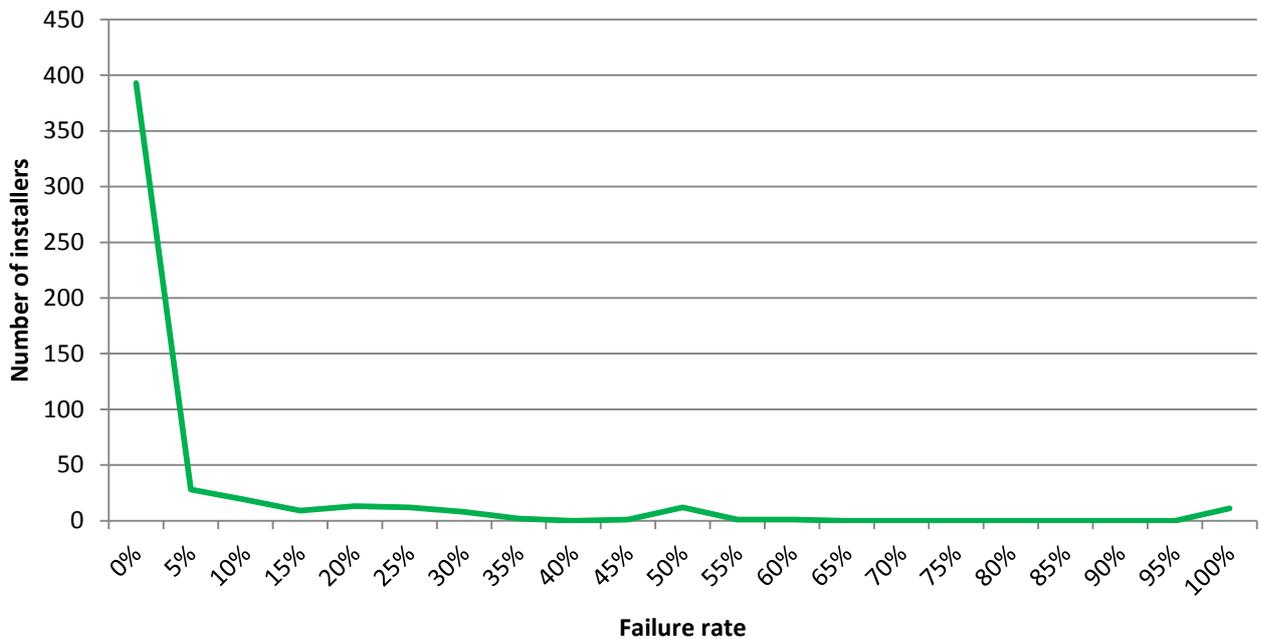
Fig. 3) Installation failure rates as a percentage of all monitored measures per measure category



Industry Performance

The graph below shows the distribution of installer performance. It shows the number of installers within a particular failure rate interval. Intervals have been set at 5% increments. Because installers are assessed in relation to a specific supplier, any installer who delivers to more than one supplier will appear in this graph multiple times.

Fig. 4) Frequency of installer failure rates



Pathways to Compliance

As part of ECO2, we have introduced the 'Pathways to Compliance' to address poor performance in a more targeted and effective manner. Across all suppliers, the total number of installers that were placed on a Pathway to Compliance under Technical Monitoring in Quarter 2 was 80. This corresponds to 20.6% of all 389 installers included in this monitoring period. As in Figure 4, installers are counted separately for each supplier. Installers who are placed on a pathway for more than one supplier are therefore counted multiple times. The total number of measures placed on the Pathway is 8,957, amounting to 10% of all measures that fell within the Technical Monitoring requirement for the quarter.

We ask suppliers to conduct additional monitoring, or provide us with additional assurances, for their installers who are placed on a Pathway. When we have received sufficient assurances about the quality of the measures delivered by a particular installer, this installer will be taken off the pathways for this supplier. Figures 5 and 6 show the progress suppliers have made in providing us with such assurances. The first figure shows the number of installers that were placed a Pathway to Compliance, split out between those installers that have since been moved off the Pathway and those that are still on it. The second figure displays the number of measures placed on a Pathway, split between those still on a Pathway and those moved off it. Figure 6 also shows the percentage of measures placed on a pathway as a percentage of all measures notified within the monitoring period.

Fig. 5) Number of installers on/off pathway

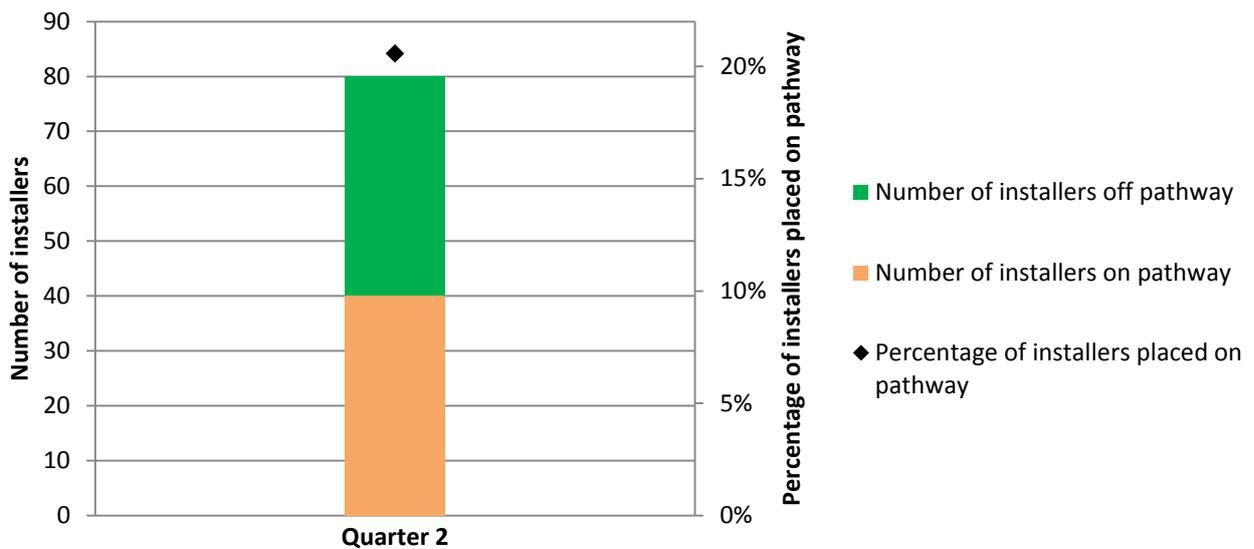
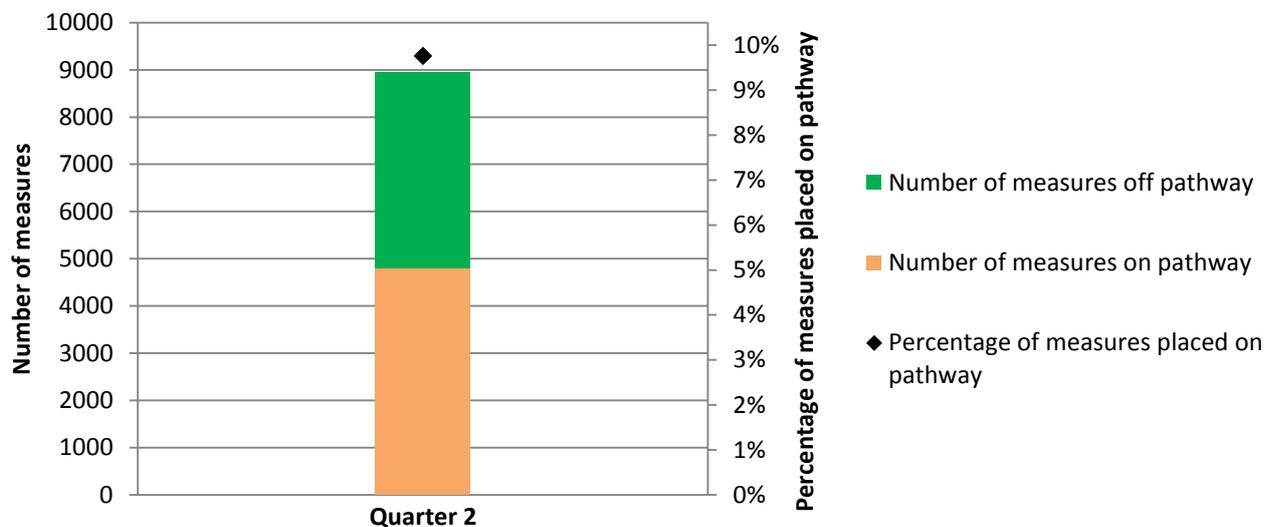


Fig. 6) Number of measures on/off pathway



Commonly failed questions

The tables below list the most commonly failed questions for each measure type. Only questions that have a failure rate of 3% or higher have been included. Suppliers must resolve issues with measures that fail a Technical Monitoring inspection and may lose the savings associated with the measure if they do not do so.

| Loft Insulation (virgin) | | |
|--------------------------|---|-----------|
| Question No. | Question | Fail rate |
| LIV.6 | Is a signed and completed virgin loft insulation declaration present in the loft? | 8.3% |
| LIV.5 | Has the loft hatch been draught proofed as specified in PAS 2030:2014? | 3.5% |

| External Wall Insulation | | |
|--------------------------|---|-----------|
| Question No. | Question | Fail rate |
| EWI.13 | Where services have penetrated the insulation board have these been sealed appropriately? | 6.6% |
| EWI.15 | Has the render/cladding been fully applied? | 3.9% |

| New Boiler | | |
|--------------|---|-----------|
| Question No. | Question | Fail rate |
| NB.2 | If holes or openings have been made through the fabric of the premises due to the installation of a new boiler, have they been made good? (including condensate pipe, pressure relief valve, gas flue terminals) | 6.5% |
| NB.1 | Where a boiler and hot water storage vessel have been repaired or replaced, have any associated replacement pipes or pipes that have been exposed as part of the works or are now otherwise accessible been insulated where possible? | 4.2% |

| New Electric Storage Heater | | |
|-----------------------------|----------|-----------|
| Question No. | Question | Fail rate |

| | | |
|--------|---|------|
| NESH.2 | Does the Electric Storage Heater activate and produce heat? | 5.3% |
|--------|---|------|

| Internal Wall Insulation | | |
|--------------------------|--|-----------|
| Question No. | Question | Fail rate |
| IWI.8 | Is the insulation continued 400mm along all party and solid partition walls? | 4.3% |

| Loft Insulation (top up) | | |
|--------------------------|--|-----------|
| Question No. | Question | Fail rate |
| LITU.5 | Has the loft hatch been draught proofed as specified in PAS 2030:2014? | 3.2% |

Score Monitoring

Score Monitoring is a compliance regime under ECO that requires suppliers to commission on-site inspections of at least 5% of measures installed in a quarter, conducted by an independent party. This is to ensure the carbon savings of measures delivered under ECO are calculated accurately and correctly reflect the characteristics of the premises where the measure was installed. Suppliers must rescore measures that fail a Score Monitoring inspection and may lose the savings associated with the measure if they do not do so. This part of the report covers the results of Score Monitoring conducted for ECO2 Quarter 2 (July 2015 – September 2015).

Suppliers must also monitor at least 3% of measures installed by a particular installer³. If the failure rate for an installer is 20% or greater, we consider the installer to be 'at risk' and they will be placed on a Pathway to Compliance. As part of this pathway, we may ask the supplier to provide us with additional monitoring or assurances for this supplier. For more information on the Pathways to Compliance, please see [here](#).

Monitoring rates

Score Monitoring was conducted 8,110 measures, corresponding to 9% of all measures that fall within the Score Monitoring requirement for the quarter (89,873)⁴. The graphs below show the monitoring rates for all notified measures in Quarter 2, by measure type (Fig. 7) and obligated supplier (Fig. 8). The average monitoring rate is again indicated by a dark green column, while the red line indicates the required level of Score Monitoring (5%). Percentages in the graphs are only shown for the most recent quarter. Previous quarters have been included for comparison. Note that Figures 7 and 9 only include those measure types for which 100 or more measures fell within the monitoring requirement for the quarter.

³ The requirement for installers who deliver fewer than 100 measures in a quarter is for one measure to be monitored.

⁴ For the definition of the monitoring requirement, please see our ECO2 Guidance: Delivery, sections 9.6 to 9.14. Please note that the difference between the number of measures that fall within the technical monitoring and score monitoring requirements is due to District Heating System (DHS) measures, which are excluded from score monitoring.

Fig. 7) Score monitoring rates as a percentage of all notified measures per measure category

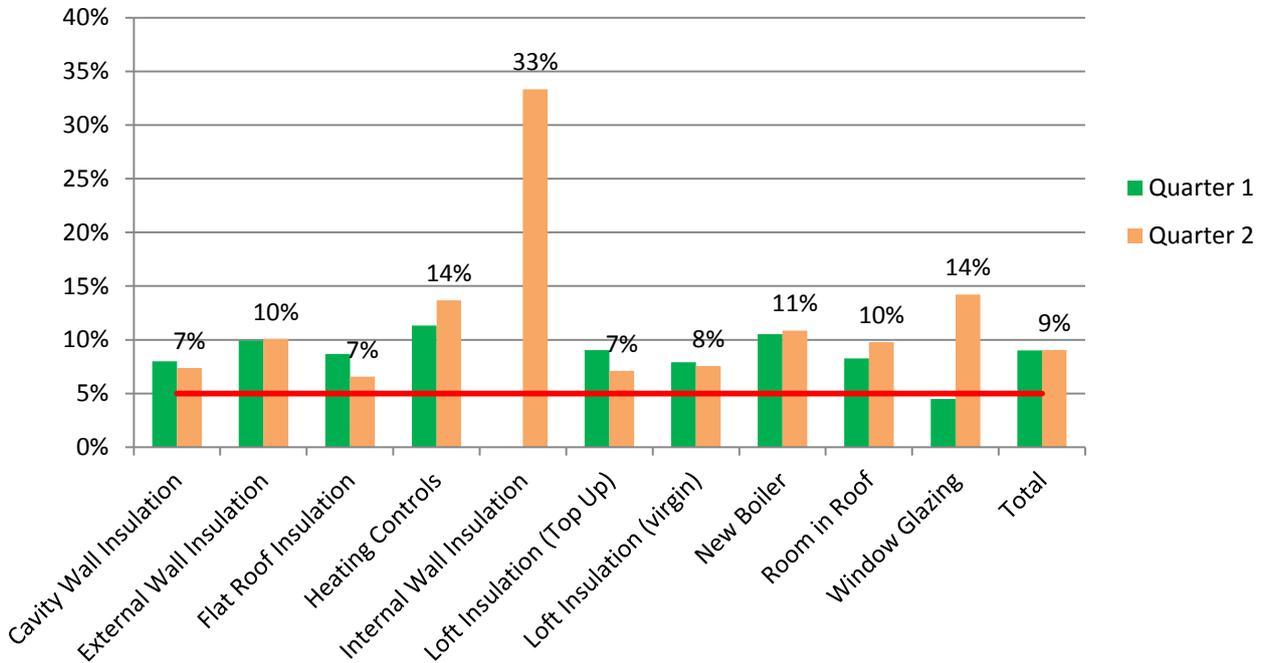
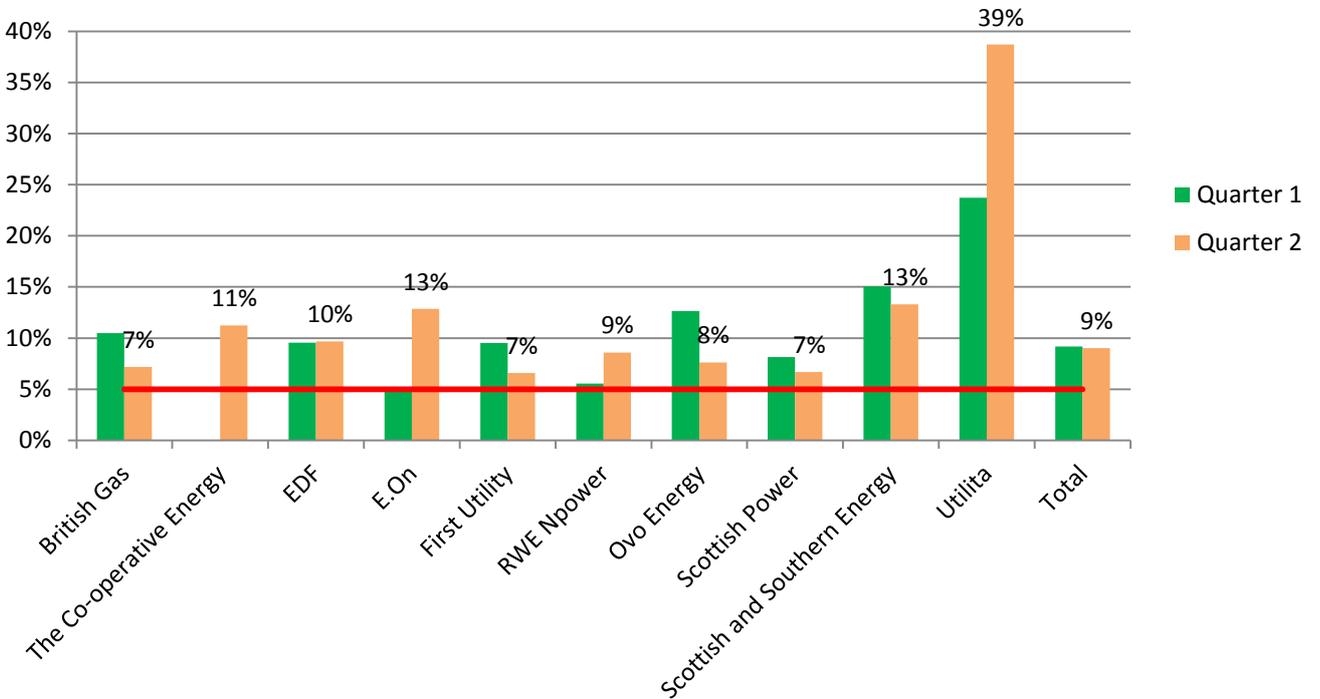


Fig. 8) Score monitoring rates as a percentage of all notified measures per supplier

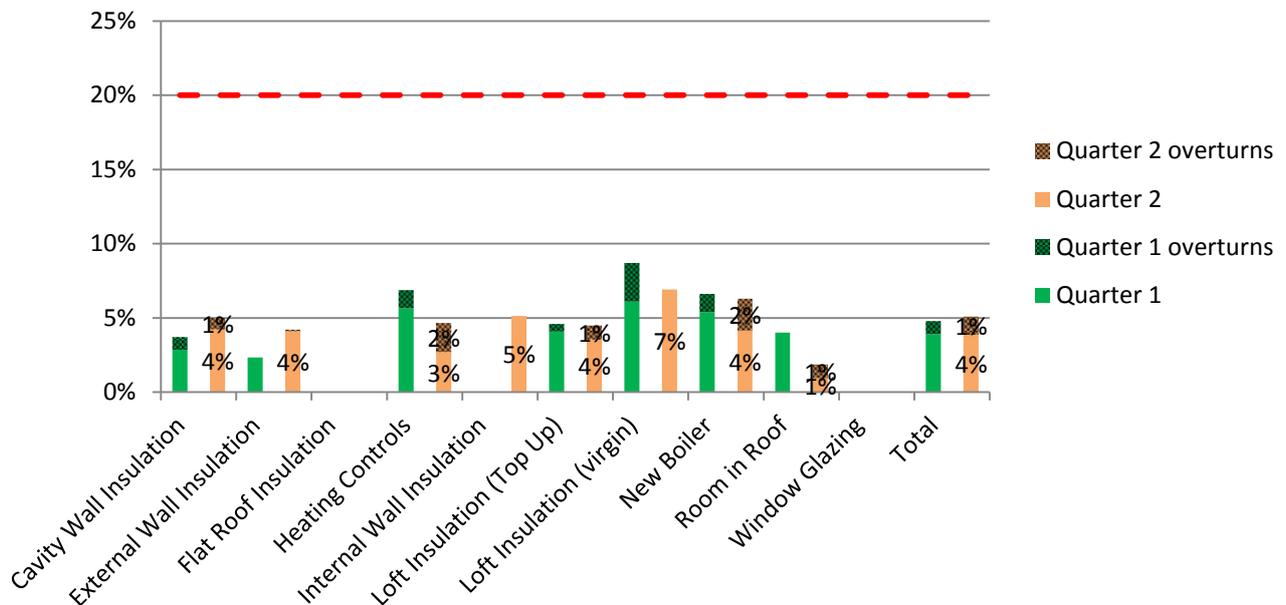


Failure rates

Four hundred and eleven of the 8,110 measures monitored showed a discrepancy between the data recorded by the original assessor and the score monitoring agent (~4%). The graphs below provide the score failure rates for all monitored measures in Quarter 2 by measure category. The average failure rate for all measure categories/suppliers is given by the dark green column. The red line indicates the Score Monitoring failure threshold (20%). Percentages in the graphs are only shown for the most recent quarter. Previous quarters have been included for comparison.

Similarly to Technical Monitoring, a Score Monitoring Agent may sometimes decide that their initial assessment was incorrect and overturn a previously reported fail. When suppliers report overturned inspections to us, we adjust the reported failure rates to take these into account. The number of overturned measures is represented by the dotted area at the top of the columns.

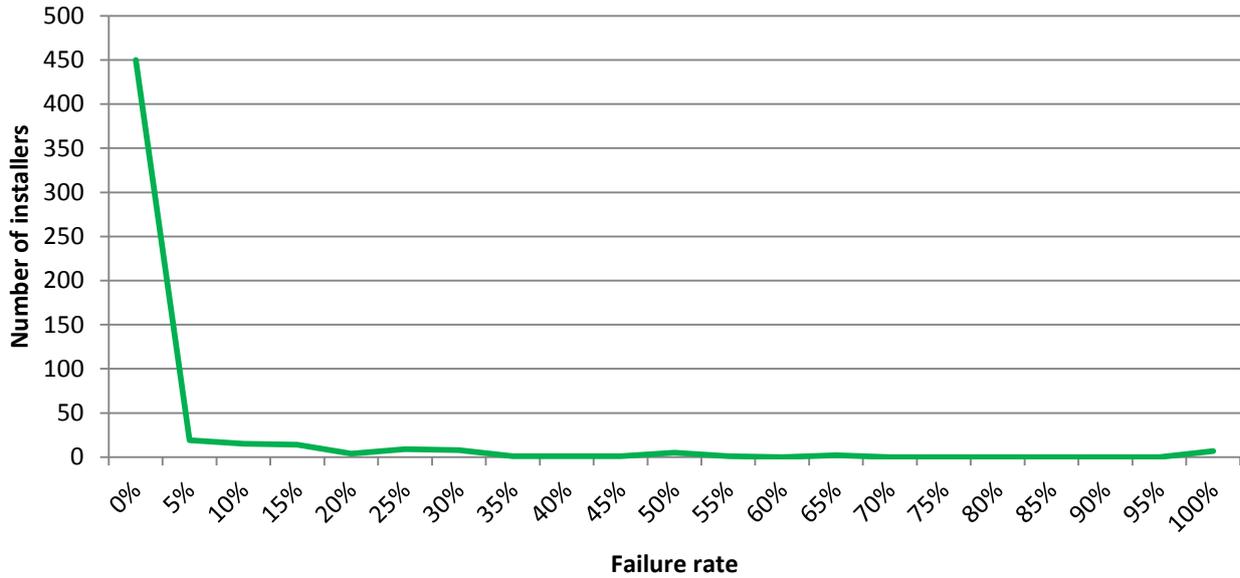
Fig. 9) Score failure rates as a percentage of all notified measures per measure category



Industry Performance

The graph below shows the distribution of Score Monitoring failure rates per installer. It shows the number of installers within failure rate intervals of 5%.

Fig. 10) Frequency of installer failure rates



Pathways to Compliance

Across all suppliers, the total number of installers that were placed on a Pathway to Compliance for Score Monitoring was 30. This corresponds to 8.3% of the total number of installers which measures were monitored in this quarter (360). As in Figure 4, installers are counted separately for each supplier. Installers who are placed on a Pathway for more than one supplier are therefore counted multiple times. The total number of measures placed on the pathway is 3,192, amounting to 3.6% of all measures that fell within the Score Monitoring requirement for the quarter. Figure 11 shows the number of installers that have now been taken off a Pathway. Figure 12 shows the same for the number of measures.

Fig. 11) Number of installers on/off pathway

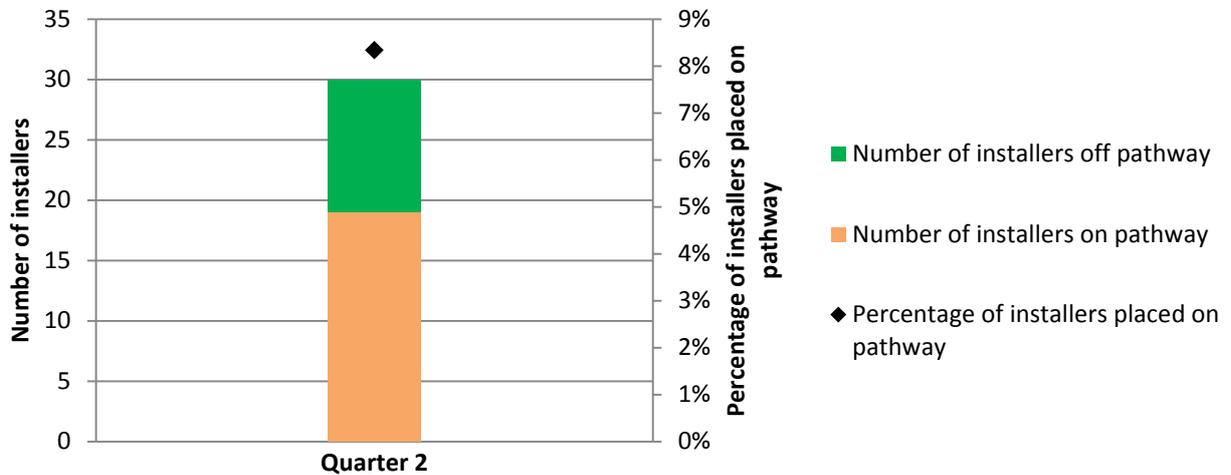
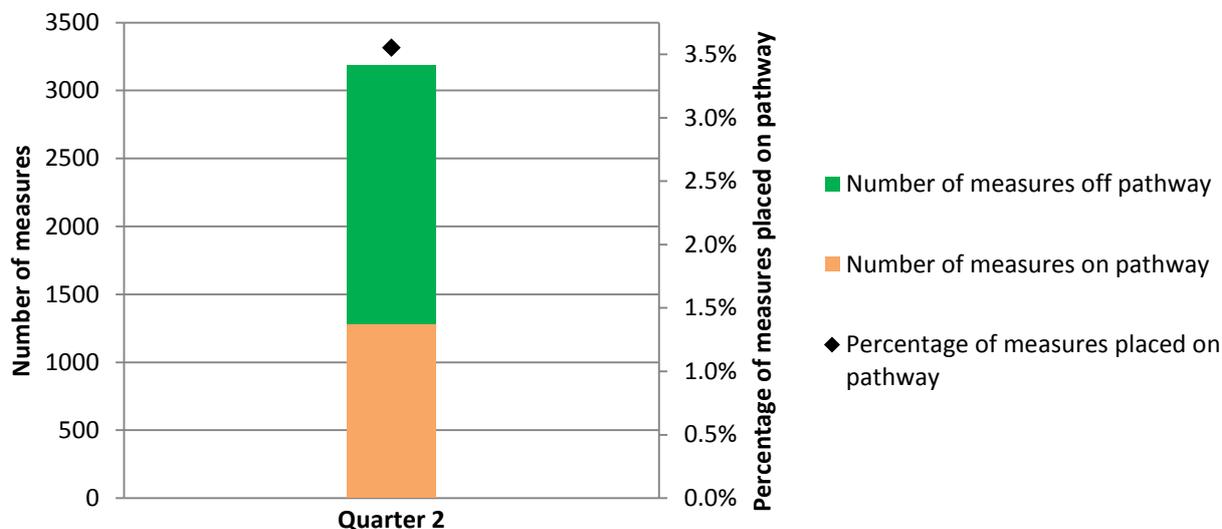


Fig. 12) Number of measures on/off pathway



Commonly failed questions

The tables below list the most commonly failed questions for each measure type. Only questions that have a failure rate of 3% or higher have been included.

| Loft Insulation (virgin) | | |
|--------------------------|---|-----------|
| Question No. | Question | Fail rate |
| SMQ.20 | Does the depth of loft insulation match the RdSAP calculations? | 3.5% |
| SMQ.22 | Is there any evidence of any pre-existing loft insulation? (if there is evidence of pre-existing insulation mark as fail) | 3.1% |

| Internal Wall Insulation | | |
|--------------------------|--|-----------|
| Question No. | Question | Fail rate |
| SMQ.14 | Does the dwelling type match the SAP/RdSAP calculations? | 3.2% |
| SMQ.25 | If less than 100% installed is the reason as claimed by supplier, does the reason match the reason provided to the supplier? | 3.2% |

Best Practice Monitoring

In addition to Technical Monitoring and Score Monitoring, suppliers may also conduct Best Practice Monitoring of the quality of installation of measures installed on their behalf.

Best Practice Monitoring is not a requirement, and suppliers will not lose savings for measures that 'fail' a Best Practice Monitoring question. Rather, Best Practice Monitoring is intended to encourage the adoption of best practices across the industry and in doing so drive further improvements in the quality of installation.

The tables below show the results for Best Practice Monitoring conducted in the second quarter of ECO2 (July 2015 – September 2015). Note that because suppliers are not required to conduct Best Practice Monitoring, these results are based only on the submissions of suppliers that voluntarily choose to conduct and report Best Practice Monitoring to us.

Commonly failed questions

All failed questions are listed below along with their associated failure rate.

| New Boiler | | |
|-------------------|---|-----------|
| Question No. | Question | Fail rate |
| NBBP.3 | Is the operation of the boiler and system controls understood by the occupier? | 2.2% |
| NBBP.4 | If original heating controls remain, do they function correctly with the boiler? | 1.2% |
| NBBP.2 | Is the boiler instruction manual with the householder? | 1.0% |
| NBBP.7 | Are all parts of the hot water cylinder covered by the insulating jacket, without gaps? | 0.6% |
| NBBP.5 | If the domestic premises is located in a hard water area (as stipulated in the Domestic Building Compliance Guidance): has a water scale reducer been fitted? | 0.2% |
| NBBP.6 | Where a new hot water cylinder has also been installed, is it of appropriate size for the system? | 0.2% |

| Cavity Wall Insulation | | |
|-------------------------------|---|-----------|
| Question No. | Question | Fail rate |
| CWIBP.1 | Have all injection holes been finished to an acceptable aesthetic standard? | 1.8% |
| CWIBP.2 | Have cavity brushes been fitted, where required? | 0.4% |

| Loft Insulation (top up) | | |
|---------------------------------|---|-----------|
| Question No. | Question | Fail rate |
| LITUBP.2 | Have any and all working pipes and tanks been properly insulated? | 0.4% |
| LITUBP.1 | Is the loft space adequately insulated? | 0.1% |

| External Wall Insulation | | |
|---------------------------------|---|-----------|
| Question No. | Question | Fail rate |
| EWIBP.1 | Is there evidence of damage to the EWI fabric as a result of water ingress? | 0.2% |

| Heating Controls | | |
|-------------------------|--|-----------|
| Question No. | Question | Fail rate |
| HCBP.1 | Is the heating controls instruction manual with the householder? | 0.1% |

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 Stuart Forsyth, Ofgem E-Serve's media manager (stuart.forsyth@ofgem.gov.uk)