

Review of the RHI audit sampling methodology and audit sample size – July 2013

Monetary Unit Sampling Approach

Deloitte recommended the use of the Monetary Unit Sampling approach for RHI audits in mid-2011. Deloitte estimated total annual RHI payments and applied materiality and confidence percentages to calculate an audit sample size per annum in February 2012.

We have used the sample size recommended by Deloitte. We have also developed specific risk criteria and factored this into sample selection. These include risks related to physical aspects of installations such as when they were commissioned.

We have correlated with Deloitte's recommended sample size as much as possible. However, there have been significantly more medium and significantly fewer large installations accredited on the scheme than forecast in February 2012.

Deloitte provided independent assurance of RHI systems and processes in February 2013. Deloitte praised our risk-based approach to audit selection, with feedback through effective management information further improving focus on higher risk cases.

Future Approach

We believe that it is not appropriate to select RHI installations for audit solely on the basis of payment values. This creates limitations as risks associated with physical aspects of installations are not reflected in the sample selection methodology.

We propose an alternative approach that acknowledges the risks associated with payments, while also taking into account those risks identified from our administration of the RHI to date, in particular through the delivery of the site audit programme.

We have developed an '*RHI Audit Sample Selection Calculator*' (Annex A) as a means of providing a clear and transparent approach to determining the sample size. This provides a user-friendly format for identifying key risks and assessing the potential impacts, in particular on payments.

In order to effectively manage the audit sample selection process and ensure efforts are focused on the highest risks, we propose that a maximum of six key risks are agreed and assessed for any specific period. As an example, we have populated the calculator with four key risks that have previously been used to inform sample selection. Their reasons are as follows:

- Complexity of metering relates specifically to installations where heat is being generated and used in separate buildings. These installations often include external pipework, multiple metering or heat loss calculations. Over 50% of complex installations audited in 2012-13 identified non compliances.
- Our audit findings have identified that 55% of audited installations commissioned before RHI go-live are non-compliant. Meter installation issues have also been more prevalent for installations commissioned before RHI go-live. This is likely to have been due in part to Guidance documents only having been published at RHI go-live.
- Recommendations from the RHI team are incorporated into our audit selection methodology. Recommendations are made at pre or post-accreditation stage due to specific issues that have arisen and cannot be addressed through desk-based checks.

Review of the RHI audit sampling methodology and audit sample size – July 2013

In 2012-13, 20% of non compliant installations were recommended for audit by the RHI team.

- We initially believed that there was a high risk that participants would apply for installations capacities that were marginally below the biomass 200kWth and 1MWth tariff reduction thresholds even though their installations had been commissioned above those thresholds. In 2012-13, there were no non compliances on this basis. As a result risk scores have been downgraded.

We have classified risks on the basis of the severity of the issue should the risk occur. This relates specifically to the impact on the scheme in terms of potential financial losses. Risks are quantified through a scoring system with the average score by installation size used to determine a total risk score.

The sample size is calculated by applying an agreed percentage to the projected accreditation volumes. This takes into account factors such as the prioritisation of other risks and the available budget. By adopting this approach ensures that risks are benchmarked against one another using a fair and transparent method.

We propose to use the calculator as a means of working collaboratively across the RHI team to identify, assess and agree upon key risks and their prioritisation for audit. We also intend to use the calculator to collectively agree on the sample size taking into account the available budget.

We believe that use of the calculator will be adaptable to changing circumstances. Should there be an emerging risk, such as degression that requires urgent attention, this can be incorporated within the calculator and prioritisation agreed accordingly.

As the calculator can be updated internally on an ongoing basis, it can more accurately reflect up-to-date accreditation projections in the sample size. Thereby avoiding the significant variances that are occurring through use of the original approach based on outdated forecast application volumes.

Methodology for estimating error and fraud on a scheme-wide basis

We presented our analysis and action plan on the RHI audit programme to the DECC Project Board in June 2013 (see attached). We have an action from the meeting to develop a methodology for estimating error and fraud on a scheme-wide basis. This is due for submission to the DECC Project Board in August 2013.

We have developed a methodology that is based on the 11 categories of non compliance identified at audits in 2012-13 (Annex B). We have calculated the non compliance rate using the installations identifying non compliances divided by the total audits completed. We have applied the non compliance rate for each category of non compliance to the total number of accredited installations as at 30th July 2013. This has enabled us to estimate the total non compliant installations on a scheme-wide basis.

We have included deductions where there are forecast to be multiple categories of non compliance at the same installation. This is based on our experiences from the site audit programme in 2012-13 where 65 installations identified a total of 96 non compliances.

Review of the RHI audit sampling methodology and audit sample size – July 2013

Scope of Work

Deloitte shall be required to undertake the following tasks:

- Provide reassurance that our risk-based approach to audit selection developed provides an effective means of identifying installations for audit that is appropriate for the RHI and demonstrates good practice.
- Review our 'RHI Audit Sample Selection Calculator' and recommend any changes that enable us to calculate an audit sample size based on application and accreditation volumes.
- Review our methodology for estimating error and fraud on a scheme-wide basis and recommend any changes to our approach that can be applied as more data becomes available.

Timing

<u>Action</u>	<u>Responsible</u>	<u>Deadline</u>
Draft response to Ofgem	Deloitte	Friday, 16 th August 2013
Comments to Deloitte	Ofgem	Friday, 6 th September 2013
Final response to Ofgem	Deloitte	Friday, 20 th September 2013
Approval	Ofgem	Friday, 27 th September 2013

Review of the RHI audit sampling methodology and audit sample size – July 2013

Annex A – Example of RHI Audit Sample Selection Calculator

Audit Sample Selection Calculator - Example										
Installation Size	Projection	Audit Risk Analysis				Average Risk Score	Sample	Adjust	Agreed Sample	Comments
		Complex Metering	Commission Date	RHI Team Suggests	Installed Capacity					
Large	136	80	90	40	30	60	82		82	Sample = 60% of projection
Medium	99	50	70	30	20	43	50		50	Sample = 50% of projection
Small	1661	20	30	20	10	20	166		166	Sample = 10% of projection
Totals	1896						297		297	

Notes to Risk Elements

Complex Metering: Installations with external pipework, multiple metering, multiple buildings and heat loss calculations

Commissioning date: Installations commissioned before RHI go-live in November 2011

RHI team suggestions: Issues raised during or after accreditation that can only be addressed through a site audit

Installed capacity: Installations with peak installed capacities that are close to tariff reduction thresholds

Risk Classes	Lower	Upper
	Major	80
Moderate	40	79
Minor	0	39