

IRMA providers, heat metering organisations and professionals, RHI applicants and other interested parties

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*Promoting choice and value for all gas and electricity customers*

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Dear Stakeholder,

**Consultation on amendments to the Independent Report on Metering Arrangements criteria for the Renewable Heat Incentive (RHI).**

This consultation describes some of the current challenges relating to the Independent Report on Metering Arrangements (IRMA) required in the RHI scheme and goes on to make specific proposals for changes to the IRMA criteria. Most notably, we are proposing amendments to the RHI Report Template, which IRMA authors are required to complete when conducting an IRMA. Details regarding these amendments and further proposed changes are highlighted afterwards, alongside information on current challenges.

We would welcome views on any of the issues set out in this letter. If stakeholders are able to identify further implications of the changes, these would be valuable in our consideration of the issues presented.

Unless clearly marked as confidential, responses will be published on our website. Please email responses to [Atika.Ashraf@ofgem.gov.uk](mailto:Atika.Ashraf@ofgem.gov.uk).

The consultation will be for 8 weeks and we would welcome responses to this letter by 4<sup>th</sup> March 2013.

**Background**

The Renewable Heat Incentive (RHI) was launched on 28 November 2011. The RHI is a financial incentive scheme for renewable heat generation that will help the UK reduce carbon emissions and hit its EU renewable energy targets. Phase 1 of the RHI supports generators in non-domestic sectors (industrial, commercial, public sector and not-for-profit) and producers of biomethane. For further information on the RHI, please refer to our website.<sup>1</sup>

Ofgem is responsible for administering the RHI on behalf of the Department of Energy and Climate Change (DECC). One aspect of this role is providing guidance to scheme applicants on the legal and technical requirements of the scheme as well as our administrative procedures for ensuring these are met.

As a new scheme, there have inevitably been some areas which require revision in light of early experiences. The subject of IRMAs was previously consulted on in August 2011, as part of a wider consultation. However, in light of operational experience over the past 10

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<sup>1</sup> <http://www.ofgem.gov.uk/e-serve/RHI/Pages/RHI.aspx>

months and analysis of IRMAs received to date, we have concluded that it is appropriate to consult on the subject of IRMAs in more detail.

### **What is an Independent Report on Metering Arrangements and when is it needed?**

The IRMA is intended to verify to Ofgem that an installation seeking RHI accreditation has eligible metering arrangements in place, such as appropriately located and installed meters (as set out in the RHI Scheme Regulations 2011<sup>2</sup> and interpreted in Volume One of our Guidance document<sup>3</sup>). It was intended that an IRMA would assist applicants by providing independent verification that their system installers have provided an RHI compliant system, therefore helping to reduce the number of applications with issues relating to metering eligibility.

Not all applicants are required to submit an IRMA report. Currently, in accordance with Schedule 1 of the Regulations, an IRMA is requested by Ofgem where an installation meets **one or more** of the following criteria:

- 1) Has a capacity of 1MW or above;
- 2) Is classed as complex for RHI metering purposes, and capacity exceeds 45kW;
- 3) Where additional RHI capacity takes an accredited installation's capacity over 1MW;
- 4) Where additional RHI capacity takes an accredited installation's capacity over 45kW and the installation is considered complex for RHI metering purposes

Where a change is made to the installation/heating system that results in an RHI-accredited installation moving from a simple to complex classification for RHI metering purposes, evidence will be required to confirm that metering still meets RHI requirements. We recommend that this is best provided by an IRMA.

We will generally not require installations that have an installation capacity of 45kW or below to submit an IRMA. However, we may require an IRMA for these installations if we are not satisfied by the other evidence provided at accreditation, to ensure that the metering arrangements for the system meet the scheme requirements.

In order to simplify the application process, we have recently published a guide to the RHI application form which includes guidance on when an IRMA is necessary. Please see Applicant Guidance Note 3.<sup>4</sup>

### **Who is eligible to produce an IRMA?**

Volume One of the RHI Guidance document offers specific criteria on **who** is eligible to produce an IRMA. To be competent to produce an IRMA an individual must meet **all** of the following criteria:

- 1) Is an experienced and suitably qualified engineer (at least HND or equivalent in an engineering discipline from a recognised academic institution).
- 2) Has demonstrable experience and expertise in flow measurement and heat/steam measurement systems demonstrated by training and development records.
- 3) Has a relevant experience (involved in energy, utilities, building services, heating system design, heating system operation & maintenance).
- 4) Is covered by Professional Indemnity Insurance of at least £1m (through employer or directly).

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<sup>2</sup> RHI Scheme Regulations 2011: [http://www.legislation.gov.uk/ukxi/2011/2860/pdfs/ukxi\\_20112860\\_en.pdf](http://www.legislation.gov.uk/ukxi/2011/2860/pdfs/ukxi_20112860_en.pdf)

<sup>3</sup> RHI Guidance documents: [http://www.ofgem.gov.uk/e-serve/RHI/howtoapply/Documents1/RHI\\_Guidance\\_Document\\_Vol\\_One.pdf](http://www.ofgem.gov.uk/e-serve/RHI/howtoapply/Documents1/RHI_Guidance_Document_Vol_One.pdf)  
[http://www.ofgem.gov.uk/e-serve/RHI/obligations/Documents1/RHI\\_Guidance\\_document\\_Vol\\_Two.pdf](http://www.ofgem.gov.uk/e-serve/RHI/obligations/Documents1/RHI_Guidance_document_Vol_Two.pdf)

<sup>4</sup> Applicant Guidance Note 3: <http://www.ofgem.gov.uk/e-serve/RHI/howtoapply/Documents1/The%20Renewable%20Heat%20Incentive%20Application%20Process%20-%20An%20Overview%20and%20Key%20Guidance%20Applicant%20Guidance%20Note%203.pdf>

In addition to the above competence criteria, the IRMA author must be unbiased and impartial.

However, experience in administering the scheme has suggested that the required criteria for IRMA authors should be adjusted.

## **Current Challenges**

Early site audits of RHI applications revealed a high level of errors in metering arrangements, particularly in the location or installation of meters. Many of these errors would impact on the accuracy of heat generation data but had not been identified in the IRMAs submitted. IRMAs received to date are often inconsistent with other documentation or show poor understanding of the RHI eligibility requirements. As a result, Ofgem has been unable to rely on IRMAs to verify the eligibility of metering solutions, thus considerably reducing their value to applicants and Ofgem.

The errors found in IRMAs to date are felt to be indicative of two main issues: inadequate levels of independence and inadequate levels of scheme and technical knowledge.

### 1) Independence

In light of the responses received from the previous consultation prior to scheme launch, the Guidance does not currently exclude employees of a system's installer or designer from producing IRMAs. This is because many responses from the previous consultation stated that the requirements for who could write IRMAs were overly burdensome. The responses also stated that there were not sufficient providers with all of the relevant competency criteria, as well as meeting the 'independence' criterion. However given Ofgem's experience in the administration of the scheme and upon assessment of the IRMAs received to date, it has become clear that the independence criterion needs to be re-asserted.

Therefore an explicit requirement that those providing IRMAs should be independent from the applicant, the scheme designer and the scheme installer is now being proposed. Your views on the practicality and desirability of the option set out below are sought.

### 2) Lack of scheme and technical knowledge

There is a requirement for IRMA authors to be familiar with Ofgem's Guidance documents and RHI Scheme Regulations 2011. However, as there is no mechanism to confirm that this requirement is satisfied, Ofgem have worked on an assumption that IRMA authors have consulted and understood the relevant RHI and technical documentation. The current volume of deficient IRMAs submitted suggests that, in many cases, a lack of RHI and technical knowledge is a key issue to address to reduce the number of incorrect reports and improve the accreditation process.

*Common metering issues:*

- a. Meters not installed according to manufacturer's instructions - flow meters have been installed in the wrong orientation, with the possibility that readings will not be sufficiently accurate to enable payments to be calculated. Additionally, flow meters have been located in the wrong section of pipe. This can result in significant meter reading errors, thus impacting eligible heat outputs and payments.
- b. Some installed heat meters have not complied with the Measuring Instruments Directive<sup>5</sup> (MID) Accuracy Class 2 requirement. This is a key

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<sup>5</sup> <http://www.bis.gov.uk/assets/nmo/docs/legislation/mid/measuring-instruments-directive-text-from-oj.pdf>

eligibility requirement (a meter that does not comply with the relevant MID requirements cannot be classed as a "Class 2 meter" at all), but it is not always a simple task for applicants to recognise this as not all meter manufacturers provide clear documentation to confirm this. This is an important area on which applicants will rely on the author of an IRMA, but these omissions have often been overlooked in the IRMAs submitted to Ofgem.

- c. Most commonly, problems were found at sites where there are several buildings resulting in ineligible heat losses from the connecting pipe work. Significant numbers of such sites have had applications that class the site as "simple" for metering purposes, when they should be defined as "complex". This has been attributed to poor understanding of the technical guidelines.
- d. Schematics provided for systems to date often lack clarity or fail to adequately reflect the situation on site. As an IRMA is designed to disclose whether or not the schematic diagram is an accurate representation of the installation and heating systems, failure to do so can make it difficult for Ofgem to decide whether the heat metering strategy is appropriate for the installation as well as being RHI compliant.

### RHI IRMA Report Template<sup>6</sup>

The report template does not currently offer any provision for the IRMA author to assert their competence and verify to the applicant and Ofgem that they have the necessary standard of technical and scheme knowledge required to successfully complete an IRMA.

Furthermore, we have identified areas where the questions in this report template could be more explicit to increase confidence in IRMA findings. Currently, there are no questions in the report template relating to external pipe work although these often contribute to inaccuracies within IRMAs. Ofgem have also identified a requirement for more building specific questions as the concept of 'wholly enclosed' buildings is a cause of uncertainty. We have also experienced challenges regarding the evidence requirement for conforming to the MID 2004 Class 2 accuracy.

### **Proposed Changes**

To address these challenges, we now wish to consult on the following changes:

#### Independence

**Proposal 1: We propose to stipulate that 'the IRMA author must have no contractual or other relationship (beyond any contractual arrangement to produce an IRMA) with the metering installer, the applicant or the system designer'.**

#### RHI IRMA Report Template

**Proposal 2: We propose that RHI applicants verify the eligibility and competence of their IRMA author by asking the author to confirm the following in writing within the RHI IRMA report template:**

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<sup>6</sup> As per Volume One of the current Guidance, IRMA authors are required to follow the RHI IRMA Report Template as closely as possible when completing IRMAs, to ensure consistency across all providers. To access the current RHI IRMA Report Template, consult the following link:  
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=26&refer=e-serve/RHI/howtoapply>

- a. The author has read and is familiar with the RHI Guidance documents and RHI Scheme Regulations 2011, in particular the metering requirements;
- b. The author is able to detect meters which have been fitted and/or located incorrectly alongside any other defects or system configurations which could adversely affect the meter's ability to accurately measure heat production;
- c. The author is familiar with the metering requirements of the MID Annex 1 and is able to determine whether or not a meter is compliant with MID Class 2 metering requirements;
- d. The author understands the difference between 'simple' and 'complex' metering arrangements as specified in the RHI Guidance documents and is able to determine which of these arrangements applies to the applicant's circumstances; and
- e. The author is able to determine whether or not a schematic diagram accurately reflects (in sufficient detail) the applicant's physical installation and heating systems.

The RHI IRMA report template will include a declaration which the IRMA author must sign to verify that they meet the above criteria. The declaration will adopt the following format:

"I, [insert name] have confirmed to the applicant that I meet the requirements listed above".

Additionally, if the IRMA author has received training and/or undergone an assessment relating specifically to the completion of the RHI IRMA, the report template will allow the author to provide details by stating:

"If you [the IRMA author] have received training and / or undergone an assessment relating specifically to the completion of the RHI IRMA, you may provide details below of the provider, the date that you underwent the training/ assessment and the title and nature of that training or assessment."

**Proposal 3: For further clarity, we propose that the following additional changes be made to the RHI IRMA report template:**

- a. questions in the report template will be made more explicit;
- b. questions relating to external pipe work and additional buildings will be included;
- c. a higher level of evidence for compliance will be set including the provision of photographs;
- d. additional questions will be included on the evidence of MID Class 2 accuracy of meters;
- e. to support the questions on evidence of meter accuracy and meter conformity, specific evidence (in the form of document copies and/or photographs) must be appended to the template. For example, this can include photocopies and photographs to confirm MID Class 2 accuracy. This will be in line with the evidence requirements set out in our published 'RHI Frequently Asked Questions – Metering'<sup>7</sup>; and
- f. inclusion of the following additional declaration which the IRMA author must sign to confirm that the installation has met the RHI eligibility criteria:

"I [insert name] can confirm that the installation has met the RHI eligibility requirements as set out in the RHI Guidance documents and the RHI Scheme Regulations 2011. This includes confirmation that:

- meters and sensors are correctly positioned and any other defects or system configurations which could adversely affect the meter's ability to accurately measure heat production have been identified;
- meters and sensors are installed in accordance with the manufacturer's instructions;

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<sup>7</sup> RHI FAQs – Metering: <http://www.ofgem.gov.uk/e-serve/RHI/Documents1/Renewable%20Heat%20Incentive%20FAQs%20-%20metering.pdf>

- meters are compliant with the MID Class 2 accuracy requirements;
- meters and sensors meet the scheme technical requirements as set out in the Guidance and Regulations;
- the author has checked the classification of the site under Volume 1 of the RHI Guidance document and confirmed that it is classed as simple or complex; and
- the schematic diagram is an accurate representation of the installation, showing details of the heating system of which the eligible installation forms part, including all plants generating and supplying heat to that heating system, all purposes for which heat supplied by that heating system is used, the location of meters and associated components and such other details as may be specified by Ofgem”.

A version of the report template illustrating how these changes could be implemented has been published alongside this letter.

### Assessment

To deal with the issues of insufficient knowledge of technical requirements for metering and RHI scheme eligibility requirements, Ofgem are considering the following:

#### **Proposal 4: To recommend that all IRMA authors undergo assessment to increase their technical and scheme knowledge via a recognised assessment programme.**

Such assessment programmes are in development and will potentially be offered by The Building and Engineering Services Association (B&ES)<sup>8</sup>, Building Services Research and Information Association (BSRIA)<sup>9</sup>, Chartered Institute of Building Services Engineers (CIBSE)<sup>10</sup> and Energy Services and Technology Association (ESTA)<sup>11</sup>.

In the longer term it is anticipated that a National Occupational Standard associated on the metering of renewable heat installations will become available. Ofgem is encouraged by the steps that these industry organisations are already taking in relation to the development and provision of RHI specific training and assessment for those who wish to provide IRMAs.

While there is no intention that Ofgem will introduce a formal requirement to have undergone specific training or assessment, we would expect that IRMA authors, in order to produce an accurate representation of the applicant metering arrangements, will want to ensure they have undertaken appropriate training to fully understand the scheme requirements and ensure their technical knowledge is up to date. Ofgem is willing to assist training and assessment providers in their understanding of the RHI Guidance and technical requirements for scheme eligibility.

### Metering requirements

Given the number of metering issues encountered to date, Ofgem has reviewed the legal requirements related to metering and is also considering additional recommendations to assist applicants.

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For further information on these organisations, please refer to their specific websites as follows:

<sup>8</sup> B&ES: <http://www.b-es.org/>

<sup>9</sup> BSRIA: <http://www.bsria.co.uk/>

<sup>10</sup> CIBSE: <http://www.cibse.org/>

<sup>11</sup> ESTA: <http://www.esta.org.uk/>

**Proposal 5: As a result of this review, we are proposing to recommend that all meters be robust against tampering.**

We are aware that the suitable installation of many heat and steam meters will involve the securing of the meter against tampering. In practice this may include the meter (or some of its components) being mechanically secured; and/or electronic safeguards being activated.

The RHI Regulations state that meters installed or used must be (or have been) properly installed in accordance with manufacturer's instructions. In addition, we recommend that meters should always be installed and secured such that they are robust against tampering, even where manufacturer's instructions are not explicit on this point.

As part of our amendments to the IRMA template, we are proposing to ask authors to comment specifically on robustness to tampering when compiling an IRMA. This would most likely include additional questions relating to the extent to which meters have been appropriately sealed or tamper-proofed.

Accountability

**Proposal 6: We are exploring the possibility of sharing information on the quality of IRMAs with the IRMA authors themselves and with their assessment, trade or professional body, in order that those bodies are able to address any issues and provide the appropriate protection to the public.**

If this is pursued it will be done so in such a way as to take full account of data protection requirements.

**Impact of the proposed changes**

We are aware that the proposed changes as set out above will have implications for future and existing applicants to the RHI. We have also considered impacts on those individuals who are currently providing IRMAs, as set out below.

We expect that these changes will result in increased accuracy within IRMAs. This is due to greater clarity regarding the guidelines on independence and a clearer and more transparent RHI Report Template. Additionally, should authors choose to undertake any assessments which may be created by the industry, we anticipate that the topics covered will result in a marked improvement on the level of scheme and technical knowledge required to successfully complete an IRMA and faster approval of these RHI applications.

Although a proportion of responses to the previous consultation indicated that there was a lack of sufficient IRMA authors who met all the criteria as listed in the Guidance as well as meeting the 'independence' criterion, we anticipate that the recommended training and assessment regimes should increase the availability and visibility of suitable IRMA authors. It is anticipated that adopting Proposal 5 would help to ensure accuracy of meter readings by minimising the threat of tampering.

Combined, these measures are expected to provide greater certainty to applicants and their IRMA authors. By reducing the accreditation time currently spent resolving such issues, applicants and authors should benefit from a speedier accreditation process.

The intended timescale for implementation of these changes will depend on the outcome of the received responses. We will provide updates on any progress regarding feedback, lead times and any transitional arrangements.

## **What happens next**

Once the consultation has closed we will consider the responses and look to publish our response and decision as soon as possible. We will notify applicants and other stakeholders when this occurs.

Unless clearly marked as confidential, responses will be published on our website. For information on any of the issues in this letter please contact:

Atika Ashraf, RHI Assistant Manager at [Atika.Ashraf@ofgem.gov.uk](mailto:Atika.Ashraf@ofgem.gov.uk)

Yours faithfully

Matthew Harnack

Associate Director, Commercial