

Non Domestic Renewable Heat  
Incentive (NDRHI) Stakeholders

Gwneud gwahaniaeth gwirioneddol  
i ddefnyddwyr ynni

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**Operational approach: Participants on the Non-Domestic Renewable Heat Incentive (RHI) scheme with heat meters with external ('strap-on') temperature sensors**

This letter clarifies our approach to dealing with participants already accredited to the scheme with heat meter packages which make use of external 'strap-on' temperature sensors.

*Our decision*

We will request that participants with 'strap-on' sensors satisfy us that the class 2 accuracy requirement identified in the Renewable Heat Incentive Scheme Regulations 2011 (the Regulations) is met. The options to achieve this are:

- i) Replace the relevant heat meter package with one which meets the class 2 accuracy requirement identified in the Regulations and provide us with evidence of the new heat meter package's eligibility; or
- ii) Make alterations to a relevant heat meter package so that it meets the requirements of the Regulations, and provide us with evidence of the altered heat meter package's eligibility. This will most likely involve inserting the temperature sensors of an otherwise eligible class 2 heat meter package into the pipework of the heat conveying liquid according to the requirements of the relevant technical standards<sup>1</sup>

We provide further details regarding the requirements of the Regulations below, in the "Reasons" section of this letter.

We will allow participants a **grace period of 6 months** to satisfy us that one of the above options has been met, after which we will consider withholding further payments for heat measured using heat meter(s) that have 'strap-on' sensors. This 6-month period will begin on the date of this letter.

We will also endeavour to identify and contact participants potentially affected by this decision and relevant stakeholders, to inform them of this decision.

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<sup>1</sup> EN 1434 Parts 1 to 5: 2007 Heat Meters: <http://www.en-standard.eu/>  
OIML R75 Parts 1, 2 and 3: [https://www.oiml.org/en/files/pdf\\_r/](https://www.oiml.org/en/files/pdf_r/)

## Reasons

To be accredited and to participate in the Non-Domestic RHI scheme, an installation must make use of a class 2 heat meter that is correctly positioned and installed. A “class 2 heat meter” means a heat meter which:

- (a) *Complies with the relevant requirements set out in Annex 1 to the Measuring Instrument Directive (MID)<sup>2</sup>,*
- (b) *Complies with the specific requirements listed in Annex MI-004 to that Directive, and*
- (c) *Falls within accuracy class 2 as defined in Annex MI-004 to that Directive*

Evidence of compliance with the requirements identified in the MID should include either an EC type examination certificate, or an EC design examination certificate, which in either case is relevant to all of the components of a heat metering package<sup>3</sup>. We have seen no evidence that such certificates have been issued for heat meter packages which make use of ‘strap-on’ sensors. Such meter packages are not therefore “class 2 heat meters” within the meaning of the Regulations. Participants making use of such meters are therefore ineligible for ongoing participation in the scheme.

Further, new evidence of the potential impact of the use of heat meter packages which make use of ‘strap-on’ sensors was published in the ‘*Heat meter accuracy testing*’ report, commissioned by the Department of Energy and Climate Change. The report was written by the Building Research Establishment, and was published in September 2015<sup>4</sup>. The report investigated the levels of accuracy of heat meter packages making use of ‘strap-on’ temperature sensors. The report identifies that the maximum permissible error (MPE) levels that class 2 heat meters can operate at under the requirements of the MID are  $\pm 5-8\%$ . The report observed error levels, in the cases that were investigated in which sensors were mounted within pockets in the pipe, of between  $-1\%$  and  $6\%$ . However, **in the cases that were investigated in which ‘strap-on’ sensors were used, the observed error levels ranged more significantly, from  $-60\%$  to  $35\%$ .**

For the reasons given above, we therefore consider that there is a strong rationale for intervention as outlined in our decision explained above. This will benefit scheme participants and wider stakeholders, and ensure that we administer the scheme lawfully, and in a manner that protects public funds.

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<sup>2</sup> Directive 2004/22/EC

<sup>3</sup> These requirements were identified in our consultation response document, published on our website in October 2014 and referenced above.

<sup>4</sup> DECC/BRE report on Heat meter accuracy testing:

<https://www.gov.uk/government/publications/heat-meter-accuracy-testing>

**What to do if you have currently a heat meter package with 'strap-on' temperature sensors?**

If you have not yet been contacted by us in connection with this issue, and if your RHI installation has a heat meter package with 'strap-on' sensors you will need to contact us immediately by email at [rhi.notification@ofgem.gov.uk](mailto:rhi.notification@ofgem.gov.uk) to discuss next steps.

Please send any questions about this document to [RHI.Enquiry@ofgem.gov.uk](mailto:RHI.Enquiry@ofgem.gov.uk) or by phone on 0300 003 2289.

Yours faithfully

Dr Edmund Ward

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