

# Non-Domestic Renewable Heat Incentive

[www.ofgem.gov.uk/ndrhi](http://www.ofgem.gov.uk/ndrhi)

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## Guidance Volume 2: Ongoing obligations and payments

### Overview

This guidance sets out our procedures for administering the Non-Domestic RHI under the regulations. The guidance is provided in two volumes. This document is volume 2 and includes the ongoing requirements for RHI participants, information on how periodic support payments are calculated and paid, and our compliance and enforcement powers. Volume 1 explains eligibility for the RHI and how those hoping to join the scheme can become accredited or registered as applicable.

This is revised guidance for the Non-Domestic RHI and supersedes the version published on 1 October 2018. It reflects the outcome of the consultation on the formal review process, where this process has been removed, leaving just the statutory review process.

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# 1. Introduction

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This chapter provides the background to this guidance, as well as outlining both the government's and Ofgem's involvement.

## Scope of this guidance

- 1.1. There are two main purposes of our guidance. The first is to clarify how the RHI works, the criteria for joining and what your ongoing obligations will be once you are a participant. The second is to set out how we propose to apply the regulations in cases where we have discretion. This means, for example, that where the regulations allow us to ask you for evidence, we provide more detail in the guidance on what we may require from you.
- 1.2. We are responsible for publishing guidance on the governance and administration of the RHI, including our approach to ensuring compliance with the RHI, dealing with breaches of RHI requirements, and conduct of inspections and handling reviews of decisions.
- 1.3. This guidance does not claim to anticipate every scenario that may arise. Where a scenario arises which is not addressed in this guidance, we will adopt an approach which we consider to be consistent with the relevant legislation. Any additional guidance we publish will be put on our website.
- 1.4. This guidance is not a definitive legal guide to the RHI scheme. Prospective participants are advised to familiarise themselves with it and read it in conjunction with the regulations (as amended). In the event of any conflict between the regulations and this guidance, the regulations take precedence. We will provide guidance on the eligibility of technologies where we can. However, if a technology is new, developers might find it helpful to seek their own legal and technical advice before approaching us.
- 1.5. This guidance represents Ofgem's approach to matters concerning its general administration of the scheme in accordance with the current regulations. Where there are future changes to the regulations we will reconsider and revise, where appropriate, our administrative arrangements accordingly.
- 1.6. Where a participant contracts with third parties in relation to the generation of renewable heat or the production of biomethane, it is the participant's responsibility to ensure, via contractual or other arrangements, that these parties also comply with any relevant ongoing obligations under the RHI. The obligations entered into by the participant on becoming accredited or registered remain those of the participant rather than being transferred to the third party concerned.

## Devolved Administrations

- 1.7. In accordance with the regulations, we can only make payments to eligible renewable heat installations that are generating heat in England, Wales or Scotland, or to biomethane producers injecting into the grid in these regions. Amendments to the

relevant legislation are a matter for the Secretary of State and Scottish Ministers. Northern Ireland introduced its own RHI in its legislation and guidance, which came into effect on 1 November 2012<sup>1</sup>. We administer the NI RHI on behalf of the Northern Ireland government. The Isle of Man and the Channel Islands are excluded from the scheme. Separate guidance for the Northern Ireland scheme is published by the Department for the Economy (formerly the Northern Ireland Department for Enterprise, Trade and Investment). This scheme was suspended to new applications from 29 February 2016.

### Treatment of personal data

- 1.8. All personal data collected from participants by Ofgem will be processed in accordance with the General Data Protection Regulations 2018. Ofgem is a public authority and must protect the public funds we handle, so we may use the information you have given us to prevent and detect fraud. As part of this process, your information may be supplied to a third party that conducts ID verification and bank account validity checks. We may also share this information, for the same reasons, with other government organisations involved in the prevention and detection of crime. Please note that some personal data will be shared with the Department of Business, Energy and Industrial Strategy (BEIS) for the purpose of monitoring the scheme, and that where appropriate, BEIS may share that data with the Devolved Administrations.

### Additional information

- 1.9. For information on the policy context, an overview of the RHI, the role of Ofgem and government, and Ofgem's key functions, please see volume 1 of the guidance.

### How to use this guidance

- 1.10. Once part of the scheme, participants must comply with various ongoing obligations. These include:
  - regular submission of heat data, meter readings and sustainability data for bioenergy installations, as well as additional fuel data in some cases
  - maintenance of heating equipment and meters
  - reporting any significant changes to their installation or heat uses to us including a change of ownership or location
  - making annual declarations to us confirming compliance with the scheme.
- 1.11. Failure to comply with these obligations may lead to us taking compliance action against a participant. We will carry out audits of accredited RHI installations and biomethane facilities to encourage compliance with the regulations by identifying where participants are failing to meet their obligations.

### Ongoing obligations

- 1.12. Once you have received RHI accreditation for your installation or have successfully registered as a biomethane producer under the scheme, there are obligations that you

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<sup>1</sup> [The Renewable Heat Incentive Scheme Regulations \(Northern Ireland\) 2012](#), as amended

must meet. Where applicable, these obligations, known as 'ongoing obligations', include reporting responsibilities for participants with accredited RHI installations or who are registered producers of biomethane, and must be adhered to for as long as you are a participant in the scheme.

- 1.13. Submission of reporting information and completion of the annual declaration must be undertaken by the Authorised Signatory for a participant. Not all ongoing obligations which apply to heat generating plants apply to biomethane producers. Where we state in this guidance that the obligation relates to an 'installation' or a 'plant', then this would generally not apply to a biomethane producer. As outlined in volume 1 of this guidance, biomethane producers are 'participants' under the scheme (as are accredited RHI installation owners) so where we state that the obligation applies to 'participants', this would include biomethane producers. Volume 1, chapter 12 explains biomethane producers' additional obligations.

### Associated documents

- 1.16. The following documents support this publication:
  - Energy Act 2008<sup>2</sup>
  - DECC Renewable Heat Incentive Policy Document<sup>3</sup>
  - Renewable Heat Incentive: Impact Assessment<sup>4</sup>
  - The Renewable Heat Incentive Scheme Regulations 2018<sup>5</sup>

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<sup>2</sup><http://www.legislation.gov.uk/ukpga/2008/32/contents>

<sup>3</sup><http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/policy/renewableheat/1387-renewable-heat-incentive.pdf>

<sup>4</sup><http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/policy/renewableheat/1381-renewable-heat-incentive-ia.pdf>

<sup>5</sup> <http://www.legislation.gov.uk/all?title=renewable%20heat%20incentive>

## 2. Annual declarations and notifying us of a change in circumstances

This chapter provides information on what the annual declaration is, how to submit one, and the methods available to notify us of a change in circumstances.

- 2.1. All participants are required to sign<sup>6</sup> an annual declaration on or before the anniversary of the date on which the installation became accredited. The annual declaration will confirm that:
- the accredited RHI installation is meeting the eligibility criteria and ongoing obligations of the scheme, including that:
    - they are not generating heat for the predominant purpose of increasing their periodic support payments
    - the equipment is maintained. (If we are concerned that equipment is not being maintained, we can seek further evidence and where we find it is not being maintained, take appropriate enforcement action.)
  - the information provided for the previous 12 months has been accurate and complete to the best of the participant's knowledge and belief
  - there has been no change in circumstances, which may affect the participant's eligibility to receive the RHI.
- 2.2. There is a 30 day window in which you can submit the declaration. At the latest the declaration must be submitted by the anniversary of your accreditation date for the respective installation. You can submit the declaration up to 30 days before that. For example, if your installation became accredited on 10 November 2017, your window to submit the required annual declaration would be 10 October - 9 November 2018. We will notify each participant of their annual declaration obligation by sending a reminder.
- 2.3. If an RHI participant fails to sign their annual declaration this will be treated as a failure to comply with an ongoing obligation of the scheme and we may take compliance action which may include suspending or withholding payments. We will normally recommence payments if the declaration is subsequently submitted within a reasonable period, but long term failure to submit a declaration may result in further compliance action. For further details, please see chapter 14.
- 2.4. The Authorised Signatory for the installation is responsible for signing the annual declaration, thereby agreeing to its terms. Responsibility cannot be delegated to other parties.

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<sup>6</sup>For participants completing online annual declarations, a confirmation completed by the Authorised Signatory from their secure RHI user account replaces a physical signature



- 2.5. Participants will be able to submit their annual declaration online through their RHI account, or for those participants who do not have access to the internet, in hard copy by post.

### Notifying us of a change

- 2.6. There are a number of issues and circumstances that we must be notified about as specified in the regulations and participants should be familiar with these in order to ensure compliance. For full details please refer to the regulations.
- 2.7. If your change relates to your system, please send a brief summary of the changes to your installation to [rhi.notification@ofgem.gov.uk](mailto:rhi.notification@ofgem.gov.uk). If we deem your changes to be material we will contact you with instructions to amend your application. To ensure this process is efficient, please ensure all information about the change is provided. Please note that RHI payments will be suspended whilst the amendment is in progress.
- 2.8. If your change is about your account, for example changes to your bank information, changes to ownership, a change of email or other similar change, please email [RHI.AccountChanges@ofgem.gov.uk](mailto:RHI.AccountChanges@ofgem.gov.uk).
- 2.9. A participant must notify us where they have not complied with an ongoing obligation (or have become aware that they will not be able to do so) or where there has been any change in circumstances that may affect their eligibility to receive periodic support payments within 28 days of such non-compliance or change in circumstances<sup>7</sup>. This includes a change to any financial arrangement that was agreed for the purchase and installation of the RHI installation, whereby that arrangement may now be considered a grant. Please see volume 1, chapter 4, paragraphs 4.15 – 4.24 for further information on grants. Participants must also tell us within 28 days of addition or removal of any plant supplying heat to the heating system of which their accredited RHI installation forms part<sup>8</sup>.
- 2.10. It is also a condition of accreditation that a participant must notify us within 28 days of any major change to their accredited RHI installation or the heating system of which it forms part.
- 2.11. In practice, this means that you should advise us of any major change to your installation or to any of the plants supplying heat to a heating system of which the installation forms part. In this context, 'major change' means any change which affects, or may reasonably be expected to affect, an installation's metering requirements or tariff rate, and the relocation of an accredited installation. We would not consider changes such as repainting or minor repairs to be major changes requiring notification.
- 2.12. If your system will be exporting heat off site, the same principles for advising us will also apply to any change of circumstance that may affect your eligibility to receive periodic support payments, including a change of heat use, or a major change in relation to any equipment used in the transportation or metering of eligible renewable heat.

<sup>7</sup> Regulations, Part 4, chapter 3, Regulation 43(l)

<sup>8</sup> Regulations, Part 4, chapter 3, Regulation 43(m)

- 2.13. If you fail to advise us of relevant matters of which we should be notified within 28 days as set out in the regulations, this will be a breach of your ongoing obligations as a participant. In these instances, we have the power under the regulations to take enforcement action against you. In deciding whether such action is appropriate, we will consider all the circumstances of the case, including for example, any reasons given for the delay in notification, the impact of the unreported change on eligibility or expected levels of tariff payments, any previous delays in your required notifications etc. For further information, please see chapter 14.
- 2.14. You must also notify us in writing if any of the information you provided in support of your application for accreditation or registration was incorrect. We consider 28 days from the date on which you discovered the information to be incorrect to be a reasonable timeframe to inform us. We will then assess any impact on your tariff rate or eligibility on a case-by-case basis.
- 2.15. You must also notify us within 28 days if you are the owner of an eligible installation which is a new solid biomass combined heat and power (CHP) systems, where CHPQA certification (the Combined Heat and Power Quality Assurance Standard Issue 6, as outlined in the RHI Regulations) ceases to apply.
- 2.16. Participants must keep their contact details, bank details, and Authorised Signatory information up to date, and notify us of any changes.

### 3. Provision of periodic data – meter readings, feedstock and sustainability information

This chapter provides guidance on the submission of meter readings and sustainability information by participants. Our approaches to late, incorrect and estimated data are also explained.

#### What is periodic data?

- 3.1. Once an installation is accredited, or a producer of biomethane registered, participants have to submit information on a regular basis in order to comply with their ongoing obligations and for us to calculate the appropriate payment.
- 3.2. The information required on a quarterly basis may include:
  - meter readings
  - fuel data regarding ancillary and/or contaminated fuels (for certain bioenergy installations – see chapter 4). This is different to the sustainability requirements that apply to all new and existing participants using biofuels from 5 October 2015.
  - electricity meter readings (for heat pumps accredited on or after 28 May 2015 – see chapter 5)
  - sustainability declarations and information (see chapter 4 in this guidance document. There is also an Easy Guide to Sustainability<sup>9</sup> available as a good starting point).
  - additional fuel data reporting (for certain solid biomass installations or biomethane producers – see chapter 9)
  - supporting data or calculations as set out in conditions of accreditation, or other evidence that may be required from us to calculate the appropriate payment.
- 3.3. The information required on an annual basis may include:
  - annual declarations – see chapter 2
  - Annual submission of feedstock requirement information (for certain biogas and biomethane installation - see chapter 4)
  - Annual submission of sustainability audit report (please refer to the [RHI Self-Reporting Guidance](#) and [RHI Sustainability Audit Guidance for Participants and Auditors](#))
- 3.4. We refer to the quarterly information listed above as 'periodic data' (however this is not a defined term in the regulations). Participants with more than one accredited installation will need to provide periodic data separately for each installation. For further

<sup>9</sup> <https://www.ofgem.gov.uk/publications-and-updates/easy-guide-sustainability>

information on periodic data requirements that apply to biomethane producers only, see chapter 12.

### Frequency of submission of periodic data

- 3.5. The frequency with which meter readings for installations must be provided is determined by the installation capacity:
- installations with a capacity of under 1MWth will be required to take and submit quarterly meter readings
  - installations with a capacity of 1MWth and above will be required to take and submit monthly meter readings. These monthly readings will be processed on a quarterly basis.
- 3.6. Installations which are required to submit sustainability information will be required to report on their compliance with the sustainability criteria quarterly in all cases, as will producers of biomethane.
- 3.7. Fuel data regarding ancillary and/or contaminated fuels and additional fuel data reporting information (where applicable) are required to be submitted quarterly in all cases.

### Meter readings

- 3.8. Participants will be required to submit meter readings in kilowatt hours of heat (kWhth). These meter readings are used to calculate the Eligible Heat Output (EHO) for the accredited installation. The EHO determines the periodic support payments you will receive.
- 3.9. All participants will be required to submit meter readings regardless of whether their installation is classed as 'simple', 'complex', 'standard' or 'multiple' for metering purposes, or if they are a registered producer of biomethane. (Please see volume 1, chapter 13 for further details on the classification of simple, complex, standard and multiple).

### Supporting meter readings

- 3.10. Participants need to provide a meter reading<sup>10</sup> for all RHI-relevant meters. Also, if in some instances 'proxy measurements' (see volume 1, chapter 13 'Proxy Measurements' section) are being used instead of heat meters to record any additional back up heat generation plant used on the system, then the associated meter readings from the relevant gas or electricity meter(s) should be provided. The assumption is made that 100% of the fuel is converted to heat, so that these readings represent the heat generated by the plant in kWhth. These readings are required because the proxy measurements are also used to calculate the EHO for the installation. It is an ongoing obligation that meter readings are provided as cumulative figures in kWhth.

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<sup>10</sup> Here, 'meter' refers to both heat meters and steam measuring equipment (or steam 'meters') and where relevant gas and electricity meters for where 'proxy measurements' are used if additional gas and electricity back up heat generation plant is on the heating system. Further information on meters and metering requirements can be found in volume 1, chapter 13.

### When do I need to take meter readings?

- 3.11. We require applicants to take an initial meter reading for all RHI-relevant meters and provide this as part of their application for accreditation, as the date on which the application is submitted will often coincide with the date of accreditation (see volume 1, chapter 2 for more information on date of accreditation). The same time periods apply to the relevant energy measurement readings for biomethane producers. The initial reading must be taken within the three days prior to the date of submission of their application.
- 3.12. Participants will then need to take subsequent meter readings quarterly or monthly as set out above. The month or quarter will run from the installation's date of accreditation. All meter readings must be taken within +/- three days of this date.

For example, a 100kWth installation that has a date of accreditation of 1 November 2017 will need to take their first quarterly meter reading within +/- three days of 1 February 2018. A 2MWth installation accredited on the same day will need to take their first monthly meter readings within +/- three days of 1 December 2017. Participants will then have up to one month after the end of the relevant monthly/ quarterly period to submit their meter readings to us. It is in your interest to submit your required data to us early on in your submission window as we will only begin to process your payment once we have received your data. The sooner you submit your data the less time you may need to wait to receive your payment (subject to any queries we may have about any of the periodic data submitted).

Table 1: Example of key dates for taking and submitting meter readings

Your meter reading date:	When to take meter readings (meter reading window)	When to submit Periodic Data
15 July 2017	Between 12 and 18 July	Between 12 July and 14 August

- 3.13. An example timetable for providing meter readings for one quarter is shown below for a ground source heat pump. Note that no sustainability information is required for this technology. Table 2: Example timetable for providing meter readings for one quarter

Date	Activity	Meter readings required
03/04/17	<u>Application</u> Participant applies for accreditation on a 500kWth ground source heat pump	Initial meter readings provided as part of the application for accreditation
30/04/17	<u>Accreditation</u> Installation is accredited, with an date of accreditation 03/04/2017	A new reading at this stage is not required

29/06/14	<u>3 days prior to end of quarter</u> Window for taking meter readings opens at start of the day (as it is 3 days before the end of the quarter on 02/07/2017)  Submission window for entering meter readings on to the RHI Register opens at start of day	Meter readings must be taken for all RHI relevant meters in the next 6 days
02/07/17	First quarter ends	
05/07/17	<u>3 days after the end of the quarter</u> Window for taking meter readings closes at end of the day (as it is 3 days after the end of the quarter on 02/07/2017)	Meter readings must have been taken for all RHI-relevant meters
01/08/17	<u>One month after the end of the first quarter</u> Submission window for entering meter readings closes at end of day	Meter readings for all RHI-relevant meters must have been entered on to the Register

3.14. For each quarterly submission the sustainability information provided should be for the fuel(s) used for the duration of that quarter. An example timetable for providing meter readings for one quarter is shown below for a biogas plant. Please note that sustainability information is required for this technology.

Table 3: Example timetable for providing meter readings for one quarter for a biogas plant

Date	Activity	Meter readings required
03/04/16	<u>Application</u> Participant applies for accreditation on a 500kWth biogas plant	Initial meter readings provided as part of the application for accreditation
30/04/16	<u>Accreditation</u> Installation is accredited, with an accreditation date of 03/04/2017	A new reading at this stage is not required
29/06/16	<u>Three days prior to end of quarter</u> Window for taking meter readings opens at start of the day (as it is three days before the end of the quarter on 02/07/2017) Submission window for entering heat output data and meter readings on to the RHI IT system opens at start of day	Meter readings must be taken for all RHI relevant meters in the next six days
02/07/16	First quarter ends	
05/07/16	<u>Three days after the end of the quarter</u> Window for taking meter readings closes at end of the day (as it is three days after the end of the quarter on 02/07/2017)	Meter readings must have been taken for all RHI-relevant meters
01/08/16	<u>One month after the end of the first</u>	Meter readings for all RHI-relevant

	<p><u>quarter</u> Submission window for entering heat output data and meter readings closes at end of day</p>	<p>meters must have been entered on to the Register, and sustainability information for consignments used between 03/04/17 and 02/07/17.</p>
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- 3.15. The timing and process for taking meter readings and providing them to us will be sent to participants when their application for accreditation has been approved.

### **Submission of meter readings and sustainability information (where applicable) while awaiting accreditation**

- 3.16. Participants will need to take meter readings at the appropriate frequency once their application for accreditation or registration has been submitted and is being reviewed. This will allow accurate payments to be made if the application is approved. This is most likely to be relevant to large installations as monthly meter readings are required and where a complex accreditation could take over a month to gain approval.
- 3.17. Where the eligible installation has not yet been accredited (or in the case of a biomethane producer that producer has not been registered), the month or quarter will run from the date of submission of the application. For more information about determining the date on which your application was deemed submitted for these purposes, please see volume 1, chapter 2, section 'Date of accreditation'.

### **How to submit information**

- 3.18. Meter readings and other periodic data including sustainability information should be submitted via the participant's account on the RHI Register. Where an alternative submission route for particular pieces of information is applicable, you will be informed of this.
- 3.19. The RHI Register will be able to accept periodic data in time for first quarterly data submissions. In the event that participants with installations over 1MWth need to submit monthly data before then they should email the data to us. Further information will be given at the time of application.
- 3.20. The data you will need to submit depends on whether you participate as the owner of an accredited RHI installation or registered producer of biomethane, the technology type of your installation (as applicable) and any separate conditions agreed with us. Please see the 'Queries' section in volume 1, chapter 1 for information on how to raise a query about applicant eligibility or the operation of the scheme. Please contact us if submission of data or notices in writing presents a problem for you so we can make alternative arrangements. It is your responsibility to ensure we have received the information on time.
- 3.21. We will discuss the requirements for submission of periodic data with registered biomethane producers as part of their registration onto the scheme.

### Late data

- 3.22. The regulations allow us to accept late periodic data at our discretion. For these purposes, we regard late periodic data as data which is taken or submitted outside of the timescales stipulated in 3.13. We will consider each late data request on a case-by-case basis. Where we suspect that participants may be failing to comply with ongoing obligations, we will take further steps to determine the facts, as detailed in chapter 10, and decide what action may be appropriate.
- 3.23. Examples of the types of scenarios where a late data request is more likely to be considered reasonable are:
- 1) The participant has documentary evidence to demonstrate that they attempted to send the data to us
    - We expect the majority of these cases to relate to technical problems. However, the onus is on the participant to resolve their own technical problems. Participants are encouraged to keep evidence of this
    - In addition, we expect participants to take all reasonable action to ensure delivery of the data. This includes responding to any error messages they may receive, and where appropriate querying whether data has been submitted. A participant should contact us to arrange for an alternative way to submit the data (such as email) if there are ongoing problems accessing the Ofgem RHI Register.
  - 2) There has been a material incident at an accredited RHI installation, for example there has been a serious fire or a major flood
    - We normally expect participants to inform us of this before the deadline
  - 3) There has been an unplanned absence of a key staff member and it has not been possible to arrange cover
    - In the majority of cases, we expect participants to be able to arrange cover and we will be less sympathetic to larger organisations that should have adequate resources to cover absences
  - 4) We have introduced new procedures or changed existing procedures and the transition to the new procedures has made it difficult for the participant to submit their data on time
    - In all cases, we will take the nature of the new or changed procedure, the lead time which we provided before it was implemented and how it was communicated into account. When arriving at a decision, we will also consider the following factors:
      - whether the participant has notified us of potential problems before the deadline
      - whether the participant has previously made any late data requests and on what basis
      - whether the participant has taken appropriate action to try to prevent the delay in data submission, and



- the length of the delay in data submission.
- 3.24. This is not an exhaustive list but indicates the types of circumstances where we would be more likely to exercise our discretion to accept late data.
- 3.25. Before the participant makes a late data request, they should check if their meters are capable of storing historical readings; if this is the case, they may be able to submit accurate data retrospectively for quarterly periodic submission windows. If historical data would need to be submitted, we may still determine that there has been a failure to comply with ongoing obligations.

### Errors in data

- 3.26. Where we consider it appropriate we may accept revised meter readings or other periodic data if:
- the participant subsequently realises that the information originally submitted is erroneous, or
  - we become aware through other routes, such as audit, that this is the case.
- 3.27. We will consider each request about revised periodic data submission on a case-by-case basis. Given that deliberately or carelessly submitting inaccurate data would generally constitute a failure to comply with ongoing obligations, we may take further steps as detailed in chapter 14 to determine the facts and decide what action, if any, may be appropriate to deal with the matter. In doing so, we will take a number of factors into consideration, including how the error was notified to us.
- 3.28. In addition to any action which we may take about a particular error in data submitted as described above, where errors in your periodic data are material or repeated, we may decide to take further enforcement action against you. 'Materiality' for these purposes will be determined on the basis of all relevant circumstances (this may include the period over which the error occurred, the amount by which the payments were affected, the means by which the error was discovered (e.g. by audit or inspection or by notification from the participant), the extent to which the participant should have been aware of the error and the degree of cooperation demonstrated by the participant in rectifying the error).

### Use of estimates

- 3.29. The regulations allow us at our discretion to accept estimated meter readings on which to base calculations of payments in exceptional circumstances, which may be relevant where a participant satisfies us that it would not be possible for them to provide accurate meter readings for a quarterly period. An example of why a participant may want to use an estimate would be if there were a temporary failure of metering equipment that meant that an accurate reading was not possible. This discretion may also apply to accepting estimates of other associated data as may be required, and we would expect to apply similar principles to the approach set out below for estimated meter readings.

3.30. Payments for periodic data submissions may be calculated using approved estimated meter readings or data in a maximum of 8 quarterly submission periods. Any periods of time estimated for payment within a quarterly submission period would count as 1 instance of estimation. For example:

- if you require estimated data for 3 days or 90 days in a single quarterly submission period, this would still count as 1 instance of estimation.
- if you require estimated data for 3 or 90 days which span two quarterly submission periods, this would count as 2 instances of estimation.

We will not make payments on further estimates after this limit of 8 quarterly submission periods has been reached, or where it would mean revising previously made payments.

3.31. The method for estimating meter readings will need to be agreed in advance with us. This means that the onus is on the participant to contact us as soon as the need for estimation arises and provide evidence as to the reasons why accurate meter readings will not be available. On the date that it is discovered an estimate would be required, a participant must notify us in advance of the next deadline for provision of their periodic data.

3.32. We will only accept estimated meter readings that are not within the agreed timeframe detailed above in exceptional circumstances. Agreement to the provision of estimated meter readings for one quarterly submission period does not necessarily mean that an estimate will be acceptable for a subsequent period, nor does it in any way imply a waiver of your metering, maintenance or other ongoing obligations under the regulations.

3.33. Replacements, relocations or changes in ownership do not affect the number of payments for which estimated meter readings or data have been submitted in relation to an installation. If payments for quarterly periods have previously been based on estimated meter readings, and the installation has subsequently been replaced, relocated or changed owners, these estimates will still count towards the limit described in 3.30.

### Sustainability information

3.34. See chapter 4 for details of the sustainability information you will be expected to submit on a quarterly basis.

## 4. Ongoing fuel requirements – how to remain compliant

This chapter covers the ongoing fuel eligibility requirements for bioenergy plants and provides guidance on how these requirements can be met. This includes information on how to stay compliant with the sustainability requirements, emissions and feedstock requirements (where applicable). This chapter also includes information on keeping fuel records and how to account for contaminated and ancillary fuel use. The requirements for plants using solid biomass contained in waste are also explained.

- 4.1. This chapter applies to installations using fuels and/or feedstocks<sup>11</sup> derived from biomass to generate heat (or heat and power) or producing biomethane for injection.<sup>12</sup> Relevant plants are those producing biogas for conversion into biomethane and those generating heat using:
  - solid biomass
  - solid biomass contained in waste
  - biogas
  - CHP installations using any of the above fuels.
- 4.2. These plants have specific ongoing fuelling requirements and allowances that must be followed in addition to the initial requirements for accreditation and other ongoing obligations. These are outlined in this chapter.
- 4.3. Please contact us for queries on eligible fuels to be used and fuel measurement and sampling (FMS) arrangements, if these are not answered by information in this chapter and the recommended guidance detailed throughout.

### Summary of your responsibilities relating to biomass fuels

- 4.4. You have up to five main ongoing obligations for the fuels you use in your biomass, biogas and CHP installations or which are used to produce biomethane for injection. These are:
  - Keep fuel records (and provide these on request). For further information on fuel records please refer to the [Non-Domestic RHI Guide to keeping fuel records for participants using 100% biomass fuels](#)<sup>13</sup>.

<sup>11</sup> 'Feedstock' is usually the term applied to materials used in a biogas production plant, whereas 'fuel' generally refers to what is actually combusted for heat generation such as solid biomass or biogas.

<sup>12</sup> See volume 1 of the guidance for the eligibility criteria for plants using biomass-based fuels.

<sup>13</sup> <https://www.ofgem.gov.uk/publications-and-updates/renewable-heat-incentive-guide-keeping-fuel-records-biomass-1>

- All fuels used must be compliant with your emissions certificate(s) and be suitable for use in your boiler (for biomass installations with a date of accreditation on or after 24 September 2013).
  - All fuels used must be compliant with the sustainability requirements.
  - Keep records and evidence of fuels used which are contaminated with fossil fuels (or derivatives thereof) and/or the use of ancillary fuels (and provide these on request).
  - Compliance with feedstock requirements. All installations producing biogas from anaerobic digestion (AD) with a date of accreditation on or after 22X May 2018, and all biomethane producers injecting biomethane derived from biogas that was produced by AD with a date of registration on or after 22 May 2018 will be subject to feedstock requirements.
- 4.5. You must be complying with these requirements from the time you apply to the RHI scheme. This is because when your application is approved, your date of accreditation is usually considered to be the date you applied to the scheme. We may change this date if your application was not considered to be properly made on the date you submitted the application to Ofgem or was not eligible on that date – please see volume 1, chapter 2.
- 4.6. You will find more information below on your responsibilities regarding each of these requirements.

### Keeping fuel records

- 4.7. RHI installations which generate heat (or heat and power) from solid biomass, solid biomass contained in waste or biogas, or producers of biomethane for injection, must keep records of all the fuels and/or feedstocks used. Guidance on what we expect to see from your fuel records can be found in the guide to keeping fuel records<sup>14</sup>.
- 4.8. Any installations which are also required to report additional fuel data (over and above the mandatory reporting against sustainability requirements) must also keep records of this additional fuel data.
- 4.9. Where fuels are not purchased from a third party but are instead harvested by the RHI participant themselves (e.g. when a woodland owner harvests wood from their own land), a fuel log should be kept of all deliveries made to the boiler house, along with records of where harvesting has taken place.

### Air quality requirements

- 4.10. This ongoing obligation applies only to solid biomass participants who have a date of accreditation on or after 24 September. The 2013 Amendment No.2 Regulations (introduced from 24 September 2013) added an ongoing obligation for biomass participants that you must operate your plant in accordance with the manufacturer's

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<sup>14</sup> <https://www.ofgem.gov.uk/publications-and-updates/renewable-heat-incentive-guide-keeping-fuel-records-biomass-1>

instructions relating to the control of particulate matter and oxides of nitrogen emissions.

- 4.11. If your biomass boiler has a RHI emissions certificate<sup>15</sup> it is your responsibility to understand the scope of your emissions certificate (e.g. what the EN fuel standard referenced on your certificate means and permits you to use) and you must only use these fuel types specified on your certificate in your installation. If you wish to use other fuel types you must first obtain and submit an emissions certificate for that fuel type.
- 4.12. It is also your responsibility to ensure that the fuels you use in your plant are suitable for use in that plant. Using fuels which are not recommended for use by the manufacturer could lead to damage and invalidation of any warranty.
- 4.13. Additionally, you must not use fuel with a moisture content greater than the maximum moisture content specified on your certificate.
- 4.14. Please note that if an environmental permit subsists for your plant then the requirement for an RHI emissions certificate does not apply to you but you must operate your plant in accordance with the environmental permit. Regardless of RHI requirements, participants are still legally required to comply with their wider local or national environmental permitting or rules.

### Sustainability requirements

- 4.15. The sustainability requirements are in force from 5 October 2015 and require that fuels and feedstocks used in solid biomass, solid biomass contained in waste, CHP and biogas installations as well as to produce biomethane for injection are sustainable.
- 4.16. You must use fuels that meet the sustainability requirements to meet your ongoing obligations and receive RHI payments. This applies to all existing and new participants – even if you have already been receiving RHI payments, you will need to comply with these requirements. The sustainability of the fuel is determined by:
  - Lifecycle greenhouse gas (GHG) emissions limit of 34.8gCO<sub>2</sub> per MJ of biomass heat generated or biomethane injected. This is designed to achieve a 60% greenhouse gas emissions saving relative to the EU fossil fuel heat average
  - Compliance with the land criteria.
- 4.17. Participants who use fuel during any quarter which they are not able to demonstrate meets the sustainability requirements are likely to have their RHI payments affected for that quarter, as it is mandatory to use sustainable fuel from 5 October 2015.

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<sup>15</sup> <https://www.ofgem.gov.uk/publications-and-updates/getting-emissions-certificates-right-renewable-heat-incentive>

- 4.18. Participants burning fuels or using feedstocks which meet the definition of waste<sup>16</sup> as set out in the regulations should be aware that this is considered to be sustainable so do not need to report against the GHG and land criteria. Further information on this, as well as how different 'residues' are considered under the criteria, can be found in the sustainability self-reporting guidance<sup>17</sup>.
- 4.19. There are four routes of demonstrating compliance:
- Source fuel from the Biomass Suppliers List (BSL) (woody biomass only), or the Sustainable Fuel Register (SFR) (non-woody biomass including energy crops and agricultural residues)
  - Register as a self-supplier on the BSL (installations under 1MWth for woody biomass only)
  - Self-report on the criteria
  - Biomass or biogas CHP plant of 1MWe or above which is accredited on the Renewables Obligation (RO) scheme and satisfying the sustainability criteria on that scheme. Please see paragraphs 4.49-4.54.
- 4.20. We strongly encourage biomass installations using woody or non-woody fuels, to demonstrate compliance with the sustainability requirements using the BSL or SFR, as it is the least burdensome route. All biogas installations and producers of biomethane for injection must self-report against the sustainability criteria.
- 4.21. It is permitted to use some fuel that is authorised on the BSL or SFR, and some fuel that you need to self-report against in any one quarter. In this case you should refer to the guidance for both compliance routes.
- 4.22. Those using the BSL or SFR to demonstrate compliance will find all the information you need in this guidance document, in volume 1 and in the Easy Guide to Sustainability<sup>18</sup>.
- 4.23. Self-reporters should refer to the sustainability self-reporting guidance and the easy guide to sustainability for further information.

### Biomass Suppliers List (BSL) and Sustainable Fuel Register (SFR)

- 4.24. The easiest way to prove you meet the sustainability requirements is by using the BSL or SFR, either by purchasing fuels from suppliers listed on either or by registering as a self-supplier on the BSL (or as a Producer-Trader if you self-supply but also buy in raw materials) or a combination of these, depending on whether your fuel is woody or non-woody. The BSL is a list of suppliers who supply fuel(s) which are compliant with the RHI sustainability requirements, as assessed by the list manager. It is for woody biomass only (wood or wholly derived from wood, including waste-wood). The list does

<sup>16</sup> "waste" has the meaning given in Article 3(1) of Directive 2008/98/EC of the European Parliament and of the Council on waste and includes excreta produced by animals

<sup>17</sup> <http://www.ofgem.gov.uk/ndrhi-guidance>

<sup>18</sup> <https://www.ofgem.gov.uk/publications-and-updates/easy-guide-sustainability>

not include non-woody biomass including energy crops or agricultural residues. It was developed with the support of DECC and has been publicly accessible since 25 September 2014. It is not administered by Ofgem.

- 4.25. The SFR is a list of suppliers supplying fuel(s) compliant with the sustainability criteria in the same way as the BSL, but for non-woody fuels, and was approved by BEIS on 4 November 2016. Users can categorise themselves as producers (those growing, harvesting crops or producing fuels for use in RHI accredited systems); traders (those purchasing fuels and then reselling that fuel to end users); or end users (those who purchase fuels for use in their own accredited RHI system). Please see the SFR website for more information on what category you fall into.
- 4.26. Participants can demonstrate that they meet the sustainability requirements by using an “approved sustainable fuel<sup>19</sup>”, which is a fuel that has been authorised by the administrator of either list. Please note neither list is administered by Ofgem.

### Purchasing fuels authorised on the BSL or SFR

- 4.27. You can demonstrate that you meet the sustainability requirements by purchasing your fuel from a supplier listed on either list. The lists are publicly available and you can search for suppliers on either website<sup>20</sup>. If you are using this route of compliance, the fuel(s) must be authorised on the relevant list when you **received** the fuel.
- 4.28. Suppliers registered on either list may also sell fuels that do not meet the sustainability requirements. Participants should confirm when purchasing from a supplier that the fuel has an authorisation number, and is therefore an “approved sustainable fuel”.
- 4.29. All “approved sustainable fuel” will have an authorisation number, which is allocated by the list administrator. This will be unique to the specific fuel type from the specific supplier. This authorisation number will be added to invoices/receipts by the fuel supplier. You must keep these records as we will ask you to report this number to us for each fuel used each quarter. The format of a BSL number is **BSLXXXXXXX-XXXX**, where each ‘X’ is a number. The format of a SFR number is **SFRXXXXXXX-XXXX**, where each ‘X’ is a number. This is what you will need to look for on your receipt/invoice. You should also keep any evidence such as delivery notes that prove when you received the fuel delivery if this isn’t on your receipt/invoice.
- 4.30. You should only report this number to us for fuel used in a specific quarter if you have the invoice or receipt that relates to that delivery.
- 4.31. Participants should talk to their manufacturer/installer to ensure the correct type of fuel is being used in the boiler. They should also check which fuels are listed on their emission certificate<sup>21</sup>. Once the correct type is identified, if it is wood or wholly derived

<sup>19</sup> RHI Regulations, Regulation 2

<sup>20</sup> <http://biomass-suppliers-list.service.gov.uk/find-a-fuel> <http://sfregister.org/find-fuel>

<sup>21</sup> This is only relevant for participants with a date of accreditation on or after 24 September 2013. Please see chapter 9 of the Volume One Guidance for further details on emissions certificates.



from wood, suppliers selling that fuel can be found on the BSL Find a Fuel website<sup>22</sup>. If it is non-woody, suppliers can be found on the SFR website.

- 4.32. You should check the BSL or SFR or contact your supplier regularly to ensure that the fuel you are using is still listed. If the fuel(s) are no longer registered and you receive further deliveries, you may not meet the sustainability requirements. In this case you may have to provide your own evidence to demonstrate that the fuel meets GHG and land criteria (see the sustainability self-reporting guidance<sup>23</sup>).

### Reporting to Ofgem when purchasing fuel from the BSL or SFR

- 4.33. You must declare every quarter whether you are sourcing fuel from the BSL and/or SFR, and provide the authorisation number(s) of the fuel(s) used in each quarter. You will need to do this in your quarterly periodic data submissions, along with your meter readings. You will see that there is a section on the RHI Register for 'Sustainability Information' in your quarterly submissions.
- 4.34. The authorisation number(s) can be found on your fuel invoices or receipts. The format of authorisation numbers on the BSL is: **BSLXXXXXX-XXXX** where each 'X' is a number. For the SFR it is the same format but begins with SFR.
- 4.35. Receipts/invoices and delivery notes that show the authorisation number and the date that the fuel was delivered (or delivery notes where provided) must be retained throughout participation on the scheme, and these must be provided if requested by Ofgem.

### If you source your own woody fuel (self-supply)

- 4.36. RHI participants can register as a self-supplier on the BSL if:

- their installation is less than 1MWth capacity; and either:
  - they source woody biomass from a permitted location, where a permitted location means a place:
    - a) in respect of which the participant has a right to harvest the solid biomass, whether by virtue of ownership, tenancy or otherwise; and
    - b) which is no more than 50 miles from the plant in which the solid biomass is used<sup>24</sup>; or
  - they obtain waste wood - or have it obtained on their behalf - directly from the place where it first becomes waste<sup>25</sup>. This second option is only available to self-suppliers registering on the BSL.

<sup>22</sup> <http://biomass-suppliers-list.service.gov.uk/find-a-fuel>

<sup>23</sup> <http://www.ofgem.gov.uk/ndrhi-guidance>

<sup>24</sup> Regulations, Part 5

<sup>25</sup> Regulation, Part 5



- 4.37. If this applies to you, you must register as appropriate on the BSL, or SFR, as a self-supplier in order for Ofgem to be able to deem you to meet the sustainability requirements.
- 4.38. Alternatively, if you purchase raw materials and process it yourself for use in your installation then you can also register yourself on the BSL to demonstrate compliance, but it would be as a producer-trader. You could also be using a combination of self-supplied fuel and purchasing raw material, in which case you can register on the BSL as a producer-trader to demonstrate the compliance of all of your fuels against the sustainability criteria.

Table 3: Self-supplier and Producer-trader classifications on the BSL

Self-supplier	Producer-trader
<i>Raw Materials Criteria</i>	
Sources all wood from own woodland	Purchases in a raw material (i.e. timber and processes it)
Sources wood within 50 miles of the boiler in which it is burnt	Can use wood from own woodland but is purchasing some in too
<i>Fuel Criteria</i>	
Does not sell any of the woodfuel to third party	Sells woodfuel on to third party (optional and not a requirement)
Has option to purchase fuel from BSL authorised supplier	Has option to purchase fuel from BSL authorised supplier

- 4.39. If you self-supply non-woody fuel for your installation you may register on the SFR. Please see their website for information on whether to categorise yourself as a producer, trader or end user.
- 4.40. Ofgem do not administer the BSL or SFR. For further information on classification of suppliers on the BSL and for further details of how to apply, please see the BSL Guidance<sup>26</sup> There is also a specific factsheet for self-suppliers and producer-traders on their website. For the SFR further details can be found on their website and a good place to start is their FAQs<sup>27</sup>. You will find contact details on both websites if you need any assistance.
- 4.41. If you source your own fuel but do not register yourself on the BSL or SFR, you will need to use the self-reporting route of compliance (see the sustainability self-reporting guidance) which would be significantly more onerous.
- 4.42. From the date you become registered on the BSL or SFR as a self-supplier, Ofgem will consider you to be using sustainable fuel. This means that any fuel that was harvested or stored before registration began will also be considered sustainable. To note, this specifically applies to self-suppliers registered on the BSL or SFR, not to those purchasing fuels from suppliers listed on the BSL or SFR. This is because the regulations stipulate that fuel must be an authorised fuel when it is received by the participant, but this provision does not apply to self-supplied fuel.

<sup>26</sup> <http://biomass-suppliers-list.service.gov.uk/>

<sup>27</sup> <http://sfregister.org/faq>

- 4.43. Self-suppliers will receive an authorisation number for each boiler location at which they are authorised. In practice this means that almost all self-suppliers have a single authorisation number, but there may be circumstances where a self-supplier has two boilers, one using waste wood and one non-waste – and would have a BSL authorisation number for each installation, for example.
- 4.44. Occasionally a self-supplier may be forced by factors they could not have anticipated, to produce their own fuel from raw material not from their permitted location. In such circumstances, the self-supplier should contact their respective list administrator as soon as they are aware of the potential issue, to request guidance.

### Reporting to Ofgem if you are a self-supplier/producer-trader

- 4.45. You must declare every quarter whether you are using BSL and/or SFR authorisation to demonstrate compliance, and provide your authorisation number(s) each quarter providing you are still using the fuel(s) for which you registered. You will need to do this in your quarterly periodic data submissions, along with your meter readings. You will see that there is a section on the RHI Register for “Sustainability Information” in your quarterly submissions.
- 4.46. The authorisation number(s) can be found on your registration approval letter from the BSL. The format of authorisation numbers on the BSL is: **BSLXXXXXXX-XXXX** where each ‘X’ is a number. For SFR it is the same format but begins with SFR.
- 4.47. You must keep a log book recording all fuel used as part of your ongoing obligations. This includes records of any raw material purchased if you are a producer-trader. This must be provided during an audit or if requested by Ofgem. Please see our guide to keeping fuel records<sup>28</sup> for further advice.

### Audits

- 4.48. The list administrators are responsible for carrying out audits of those registered on the lists. For more information on the BSL audit methodology, please see the BSL Applications and Audit Guidance<sup>29</sup>. For the SFR audit methodology please see the SFR Authorisation and Ongoing Obligations guidance<sup>30</sup>

### Biomass and biogas CHP of 1MWe and above, accredited on the Renewables Obligation (RO)

- 4.49. If you have a CHP installation using solid biomass or biogas with a capacity of 1MWe (this is the electrical capacity, not the thermal capacity) or above, for which you are receiving Renewable Obligation Certificates (ROCs) on the electricity output and which is compliant with the RO sustainability requirements, you do not have to provide separate sustainability information under the RHI. Instead, participants must submit a declaration with each quarterly period submission which states the RO sustainability requirements are being met.

<sup>28</sup> <https://www.ofgem.gov.uk/publications-and-updates/renewable-heat-incentive-guide-keeping-fuel-records-biomass-1>

<sup>29</sup> <http://biomass-suppliers-list.service.gov.uk/>

<sup>30</sup> <http://sfregister.org/downloadable-guides>

- 4.50. Those able to use this route of compliance are **not** required to provide an annual sustainability audit report to the RHI as this is already a requirement under the RO.
- 4.51. Each quarter you will be asked to declare whether you have been meeting the RO sustainability criteria. You will see this question in the 'Sustainability Information' section of the RHI Register, along with the section for your meter readings. If during any quarter, any consignment of fuel no longer meets the RO sustainability criteria, the participant will be required to self-report to Ofgem against the RHI sustainability requirements. Please refer to the sustainability self-reporting guidance<sup>31</sup> for further details.
- 4.52. If the annual sustainability audit report submitted to the RO finds that during the previous year, any consignment of fuel used did not meet the sustainability requirements, this may result in RHI payments being affected. Evidence may need to be provided that the fuel(s) in question met the RHI sustainability criteria.

## Overview of ancillary fossil fuel and contamination requirements

- 4.53. Accredited installations which use solid biomass, solid biomass contained in waste, biogas or produce biomethane for injection are not permitted to use fossil fuel in the installation. There are three exceptions to this, as detailed in the regulations:
- ancillary fuel (small amounts of fossil fuel necessary for the effective operation of the installation) up to a limit specified in the regulations
  - contaminated fuel (where the biomass fuel / waste contains fossil fuel contaminant within the limits specified in the regulations)
  - fossil fuel used where the installation is a CHP system and the eligible heat produced is by eligible combustion units. Other plants on the system may burn fossil fuels but payments will only be made on the proportion of heat from the eligible combustion unit(s).
- 4.54. Please see Table 4 for further details of how these requirements are applied. Other than this, use of fossil fuel in these types of accredited installations would be a breach of a participant's ongoing obligations under the regulations.

Table 4: Requirements in relation to ancillary fossil fuel and contaminated fuel use

Technology	Size	Is fossil fuel permitted for ancillary purposes?	Is contamination allowed?	Is ancillary fossil fuel and contamination deducted from payment?	FMSQ required if ancillary fossil fuel used and/or contaminated fuel used?
Solid biomass (except for CHP scenario below)	≤45kWth	x	x	N/A	N/A
	>45kWth and <1MWth	✓	✓	x	x
	≥1MWth	✓	✓	✓	✓

<sup>31</sup> <http://www.ofgem.gov.uk/ndrhi-guidance>

Biogas - gasification or pyrolysis (except for CHP scenario below)	All sizes	✓	✓	Only contamination deducted	✓
Biogas - anaerobic digestion (except for CHP scenario below)	All sizes	✓	✓	✗	✗
Solid biomass contained in waste	All	✓	✓	✓	✓
Biomethane - gasification or pyrolysis	All	N/A	✓	Only contamination deducted	✓
Biomethane - anaerobic digestion	All	N/A	✓	✗	✗
CHP – biomass, biogas or solid biomass contained in waste where only certain combustion units are eligible	All	✓	✓	✓	✓

4.55. All instances of using contaminated fuels or ancillary fuels must be indicated upfront to Ofgem as part of the accreditation process or via submitting a notification<sup>32</sup> if this decision is taken post-accreditation onto the scheme. It is your responsibility to ensure your plant is permitted to burn these fuel types in accordance with the manufacturer's instructions as well as within the scope of the Regulations. Where shown in Table 4 some installations will be required to complete a [Fuel Measurement and Sampling \(FMS\) Questionnaire](#) as part of the accreditation process. This FMS will need to be maintained and updated where necessary throughout participation on the RHI. There is further information in this chapter for all installation sizes for how and when to report the use of contaminated and/or ancillary fuel use to Ofgem.

## Ancillary fossil fuel

4.56. Ancillary fossil fuels can be used by the installation for the following purposes:

- cleansing other fuels from the accredited RHI installation's combustion system prior to using fossil fuel to heat the combustion system to its normal temperature
- the heating of the accredited RHI installation's combustion system to its normal operating temperature or the maintenance of that temperature
- ignition of fuels of low or variable calorific value
- emission control
- for accredited RHI installations which are CHP, standby generation or the testing of standby generation capacity.<sup>33</sup>

<sup>32</sup> This notification should be made as an amendment via your RHI account on the RHI Register. In the first instance, you should send the notification to our RHI amendments email address ([rhi.notification@ofgem.gov.uk](mailto:rhi.notification@ofgem.gov.uk)) with the RHI number in the subject box.

<sup>33</sup> "Standby generation" means the generation of electricity by equipment which is not used frequently or regularly to generate electricity and where all the electricity generated by that equipment is used by the accredited RHI installation.

- 4.57. The details above refer to fossil fuel used in the same plant as the biomass (e.g. in the same boiler chamber), rather than the use of fossil fuel in a different boiler. As outlined in volume 1, chapter 10, section 'Fossil fuelled and dual fuelled biomass plants', a fossil fuel boiler is permitted alongside an eligible installation provided it is metered separately and excluded from heat supported by the RHI.
- 4.58. Where the use of fossil fuel for the specified ancillary purposes is required at the plant, up to 10 per cent of the energy content of all the fuels<sup>34</sup> (biomass and fossil) used at the installation during the quarter can be from fossil fuel for ancillary purposes.
- 4.59. The exception to this is where only the heat generated by certain combustion units is eligible for support. In this case the 10 per cent limit of ancillary fossil fuel is in relation to the energy content of all the fuels used in the eligible combustion unit(s), rather than across the whole installation. Where the energy content is above this level, the participant would be in breach of their ongoing obligations.
- 4.60. For details on how plants should demonstrate that they meet this requirement, see the following sections.

### How to meet ancillary fossil fuels requirements

Ancillary fuel: solid biomass plants of 45kWth and under

- 4.61. As outlined in volume 1, chapter 1, the regulations do not provide for solid biomass plants of this capacity to use fossil fuels for any purpose, including ancillary fuel, or to use solid biomass contaminated with fossil fuel.

Ancillary fuel: solid biomass with installation capacity of between 45kWth – 1MWth and biogas

- 4.62. Subject to the exception in the following paragraph, while installations using either biogas or solid biomass in this capacity range must ensure that the energy content derived from fossil fuels used for ancillary purposes does not exceed 10 per cent<sup>35</sup>, there is no requirement to submit documentary evidence of this on a quarterly basis, though this must be declared to Ofgem in your application and evidence must be retained as it may be requested by Ofgem (see following paragraphs). In addition, as the RHI payment calculation takes no account of this ancillary fossil fuel use for these installations, the exact percentage of energy content derived from fossil fuels is not required.
- 4.63. The exception to this approach is for CHP installations where only the heat produced by certain combustion units is eligible. The energy content of the ancillary fossil fuel will be deducted pro-rata from the payment calculation (as a total of the energy content of all fuels) as required by the regulations.
- 4.64. Where participants do use ancillary fossil fuel, they must keep certain documentation for audit purposes to support their claim that the energy content derived from fossil fuels used for ancillary purposes does not exceed 10 per cent. This documentation includes:

<sup>34</sup> For biogas plants for this particular requirement, it is the energy content of the biogas which is to be compared to the fossil fuel use, rather than of the feedstock

<sup>35</sup> Regulations, Regulation 37

- all fossil fuel and biomass invoices and receipts
- where invoices and receipts do not relate to energy content, a description of the type of fossil fuel purchased
- a stated efficiency of the boiler, engine or other heat generating equipment (which can then be compared against the fuel purchase documentation).

4.65. We will regularly review this documentation on a sample basis.

Ancillary fuel: solid biomass with installation capacity of 1MWth and above and solid biomass contained in waste

- 4.66. Where fossil fuel is used for ancillary purposes, the amount of ancillary fuel used which contributes to metered heat generation will be deducted pro-rata (as a total of the energy content of all fuels) from your RHI payments as required by the regulations. You should have filled out a Fuel Measurement and Sampling Questionnaire (FMSQ)<sup>36</sup> during your accreditation.
- 4.67. Please see the FMS guidance<sup>37</sup> and the worked example in Table 2 which gives guidance on how you may wish to calculate your 'qualifying percentage'.

### Contaminated fuels and feedstocks

- 4.68. Certain plants can use biomass contaminated with fossil fuel (subject to the provisions set out in the regulations, see Table 4 for a summary). For example, wood contaminated with varnishes, glues or paints (which are often derived from fossil fuels) are permitted. This is what the regulations refer to as 'contaminated' fuels or feedstocks. 'Uncontaminated' or '100 per cent biomass' fuels or feedstocks would not contain any fossil fuel or contaminants of this kind.
- 4.69. The regulations<sup>38</sup> do not permit the deliberate addition of fossil fuel to solid biomass with a view to the contaminated fuel being used in an installation. For example, deliberately adding waste fossil fuel oil to virgin wood would mean that wood could not be used in an RHI installation.

Contaminated fuel: solid biomass plants with installation capacity >45kWth and <1MWth

- 4.70. For solid biomass, the energy content of the contamination must be 10 per cent or under of all the biomass fuels (contaminated or otherwise) used in that quarter to receive payments. This must be recorded as part of your fuel records.
- 4.71. For CHP installations accredited on or after 28 May 2014 where only the heat generated by certain combustion units is eligible for support, the 10 per cent limit applies to contamination of the fuels used in the eligible combustion unit(s).
- 4.72. As the 10 per cent or under requirement applies to the quarterly period, individual deliveries of fuels can be above 10 per cent contamination by energy content. So a

<sup>36</sup> <https://www.ofgem.gov.uk/publications-and-updates/fuel-measurement-and-sampling-questionnaire>

<sup>37</sup> <http://www.ofgem.gov.uk/ndrhi-guidance>

<sup>38</sup> Regulation 71(1)

contaminated wood fuel above 10 per cent contamination could be used, as long as the total contamination for all of the fuel used in the quarter was under 10 percent.

Contaminated fuel: solid biomass plants with installation capacity of 1MWth and above

- 4.73. These plants must comply with the requirements as outlined for solid biomass plants with installation capacity above 45kWth and below 1MWth using contaminated fuel.
- 4.74. The amount of fossil fuel contamination in the solid biomass fuel used which contributes to metered heat generation will be deducted pro-rata (as a total of the energy content of all fuels) from your RHI payments as required by the regulations. You should have filled out a Fuel Measurement and Sampling Questionnaire (FMSQ)<sup>39</sup> during your accreditation process.
- 4.75. Please see the FMS guidance<sup>40</sup> and the worked example in Table 2 which gives guidance on how you may wish to calculate your 'qualifying percentage'.
- 4.76. Where an applicant plans to use a contaminated fuel at this capacity range of boiler, they should keep evidence to support their claim that the energy content of the fossil fuel contaminants will not be above 10 per cent of the total energy content of the fuels used in a given quarter. This documentation includes:
  - a boiler warranty or boiler fuel specification clearly showing that fuels above 10 per cent contamination by energy content are not to be used in the boiler (although we note that this documentation would not generally be sufficient, and we would expect participants to support this with further evidence)
  - a fuel supply contract or purchase specification clearly showing that the energy content of the contamination will not be above 10 per cent of the fuel
  - initial sampling demonstrating that the energy content of the contamination is not likely to be above 10 per cent of the fuel. For further information on sampling, please see the FMS Guidance. We will regularly review this documentation on a sample basis.

Contaminated fuel: solid biomass contained in waste plants

- 4.77. For plants burning waste, the proportion of solid biomass in the waste must be a minimum of 10 per cent (i.e. contamination contained within that waste must be less than 90 per cent) in each quarterly period.
- 4.78. For CHP installations, accredited on or after 28 May 2014 where only the heat generated by certain combustion units is eligible for support, this limit applies to the waste being burnt in the eligible combustion unit(s).
- 4.79. Where municipal waste is used the regulations set out specific provisions for demonstrating biomass content<sup>41</sup>. Under the regulations we may accept as sufficient evidence the production by you of data from, for example, a waste disposal or collection

<sup>39</sup> <https://www.ofgem.gov.uk/publications-and-updates/fuel-measurement-and-sampling-questionnaire>

<sup>40</sup> <http://www.ofgem.gov.uk/ndrhi-guidance>

<sup>41</sup> Regulations, Part 4, Regulation 37(7)



authority which demonstrates the proportion of waste that is fossil fuel is unlikely to exceed 50 per cent. Evidence that the waste has not been subject to processes to increase that proportion would also be needed. However, we may also request that samples are analysed and the results of that analysis provided to us. See Chapter 2 of the FMS Guidance for further details.

### Contamination in anaerobic digestion (AD)

- 4.80. The relevant tariff calculation in the regulations assumes that for any feedstock contaminated with fossil fuel (e.g. food waste which contains plastic food packaging), the fossil fuel element does not digest and therefore contribute to the calorific value of the biogas. We therefore do not require the contamination of the feedstock to be measured and no deduction is made from the payment.

### Contamination limits for gasification and pyrolysis plants

- 4.81. The solid biomass feedstock would need to meet the 10 per cent or under contamination by energy content criteria explained above paragraphs 4.70 – 4.72.
- 4.82. The waste feedstock would need to meet the minimum of 10 per cent biomass criteria as explained in paragraph 4.77.
- 4.83. Participants will have to fill out the appropriate sections of the Fuel Measurement and Sampling (FMS) Questionnaire. This is to ensure compliance with the contamination criteria and because the tariff payment is 'pro-rated' to deduct the fossil fuel contamination in the feedstock.
- 4.84. Where municipal waste is used as a feedstock, the criteria for assessing whether contamination is likely to exceed 50 per cent also applies – see paragraph 4.79.

### CHP systems

- 4.85. For CHP systems where only the heat produced by certain combustion units is eligible for support, other combustion units on the system may burn any type of fuel and there is no limit on this amount. The proportion of heat used for eligible purposes that will receive RHI payments will be based on the proportion of the energy content of the fuel used in the eligible combustion units relative to the energy content used in all eligible and ineligible combustion units. Records must be kept of the fuel used in every combustion unit which forms part of the CHP system and provide this to Ofgem if requested.
- 4.86. The fuel contamination and ancillary fossil fuel rules outlined in the previous sections apply to the combustion units which are eligible for support. Where the proportion of contamination of ancillary fossil fuel is above 10 per cent of the energy content of the fuels used within the eligible combustion unit(s), the participant would be in breach of their ongoing obligations.
- 4.87. Each combustion unit that is eligible for support must only use one source of energy – either solid biomass, solid biomass contained in waste or biogas. A combination of energy sources cannot be used within one combustion unit.



## Calculating the 'qualifying percentage' for solid biomass installations with installation capacity of 1MWth and above

- 4.88. For this scale of plant, when contaminated biomass is used, the energy content of that contamination must be measured (as a percentage of the energy content of the fuels used) to generate heat. The biomass used in a quarterly period cannot contain more than 10 per cent contamination by energy content. As with ancillary fossil fuel use, the regulations require that we use the percentage of fossil fuel contamination to work out the appropriate deduction from the RHI payment. Please refer to the calculation example provided in Table 5 below.
- 4.89. For details on how the energy content of the contamination can be measured, please see volume 1, chapter 12.
- 4.90. The following is a worked example of how the 'renewable' or 'qualifying' percentage is calculated where ancillary and contaminated fuels are used

Table 5: Calculation of qualifying percentage

Fuel	Amount (Tonnes)	GCV (Mega joules (MJ) per tonne)	Energy content (MJ)	Contamination percentage	Energy content of contamination (MJ)
Biomass fuel	20	20	400	5%	20
Fossil fuel (ancillary)	1	30	30	N/A	N/A
Total	21		430		

The energy content of the biomass fuel is 400 MJ, of which 20 MJ is fossil fuel contamination (i.e. 380 MJ are 'renewable'). A further 30 MJ of ancillary fossil fuel is used by the plant in the period.

Of the total of 430 MJ of fuels used in the period, 380 MJ were from biomass fuels, and 50 MJ from fossil (in the form of contamination or ancillary purposes).

The qualifying percentage in this case would therefore be 88 per cent (380/430).

- 4.91. As can be seen from the example given, the limit of 10 per cent contamination and ancillary fuel allowances are exclusive of each other – up to 10 per cent of each are allowed.

### Definition of 'energy content'

- 4.92. 'Energy content', means the amount of energy contained within a fuel or feedstock, specifically, the regulations refer to the substance's "gross calorific value (GCV) within the meaning of British Standard BS 7420:1991". For example, we may need to know the number of megajoules (MJ) of energy in a given quantity (e.g. a tonne) of fuel, or the percentage of the energy content of a fuel (or combination of fuels) that is from a fossil or biomass source. NB. For those self-reporting against the sustainability requirements, there is a different definition of 'energy content' for the purpose of greenhouse gas calculations. The sustainability self-reporting guidance provides further information.

### Peat ineligibility

- 4.93. Peat does not count as biomass so cannot be used either as a feedstock for the production of biogas or as a fuel itself.

### Eligible feedstocks in anaerobic digestion

- 4.94. When biogas produced by AD is used to generate heat or to produce biomethane, that biogas is only eligible when certain 'feedstocks' have been used in its production. Feedstocks are the material (e.g. slurry, sewage or food waste) that is converted into the biogas. The eligible feedstocks are:

- solid biomass
- solid waste
- liquid waste.<sup>42</sup>

- 4.95. Please note installations which generate heat from landfill gas or participants producing biomethane which is derived from the conversion of landfill gas are not eligible under the RHI.

### Gasification and pyrolysis

- 4.96. When biogas produced by gasification or pyrolysis is used to generate heat or to produce biomethane, that biogas is only eligible when the feedstocks used to create the gas are solid biomass or waste.

### Feedstock requirements

- 4.97. All installations producing biogas from anaerobic digestion (AD) with a date of accreditation on or after 22 May 2018, and all biomethane producers injecting biomethane derived from biogas that was produced by AD with a date of registration on or after 22 May 2018, will be subject to feedstock requirements. Any participants producing biogas from AD and those injecting biomethane derived from biogas that was produced by AD who add capacity to their accredited biogas installation or registered biomethane plant on or after 22 May 2018, will also be subject to feedstock requirements.
- 4.98. Feedstock requirements place an annual limit on the RHI payments issued for eligible heat generated, or biomethane produced, from biogas produced by AD where more than 50 per cent of the total biogas yield (by energy content) is derived from consignments of fuel which are not classified as wastes or residues. The limitation of RHI payments for an installation's or plant's payment year will be calculated by reference to the biogas yield (by energy content) that is derived from consignments of fuel which are not classified as wastes or residues.
- 4.99. An example of the way in which feedstock requirements will work in practice is given below:

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<sup>42</sup> "waste" has the meaning given in Article 3(1) of Directive 2008/98/EC of the European Parliament and of the Council on waste(5) and includes excreta produced by animals

- Ofgem is required to calculate the value to which periodic support payments for a payment year must be reduced in instances where, for any payment year, less than 50% of the total biogas yield is derived from waste or residue. The following calculation will be used by Ofgem:

$$\text{Reconciliation of periodic support payment} = \mathbf{A} \times (1.5 - \mathbf{B})$$

- Where:

**A** is the total periodic support payment for biogas or biomethane for that payment year<sup>43</sup> (prior to any deduction being calculated)

**B** is the proportion of the total biogas yield for that payment year which is not derived from waste or residue, expressed as a decimal and rounded to four decimal places

**1.5** is the constant used to calculate the value >50%, that is then applied to determine the overpayment value.

Worked example:

- In a given RHI payment year, an accredited biogas installation generates a certain volume of biogas via anaerobic digestion. All of this biogas was combusted to generate heat that was used for eligible purposes. The installation received £10,000 of periodic support payment for that reporting year.
- 70% of this biogas (by energy content) was derived from consignments of fuel which are **not** classified as wastes or residues. The remaining 30% was derived from consignments of fuel which are classified as wastes and/or residues.
- Therefore, with reference to the formula outlined above, the value of '**A**' is 10,000 and '**B**' is 0.7000
- Using these values, the amount to which periodic support payments for a payment year must be reduced to are as follows:

$$= 10000 \times (1.5 - 0.7)$$

$$= 10000 \times 0.8$$

$$= £8,000$$

- In this example, £2,000 of periodic support payments would need to be recovered by Ofgem. More detail on how this amount would be recovered can be found later in this chapter.
- If the installation had generated all or more than 50% of its biogas (by energy content) from consignments of fuel which are classified as wastes or residues, it would have been entitled to 100% of that year's RHI payments, subject to compliance with all other ongoing

<sup>43</sup> Calculated in accordance with regulation 66(2)(b), 67 or 73

obligations of the scheme. In that scenario, no reconciliation calculations of periodic support payments would have been required, and hence the formula  $A * (1.5 - B)$  would not have been used.

- 4.100. Participants subject to feedstock requirements will be required to report on the proportion of biogas (by energy content) derived from consignments of fuel that are not classified as wastes or residues on an annual basis (see below).
- 4.101. The classification of consignments will be agreed as part of the review of participants' Fuel Measurement and Sampling (FMS) procedures. For further information on FMS procedures please refer to the [Non-Domestic RHI Guidance on FMS](#).
- 4.102. Participants subject to feedstock requirements will be required to report their proportions on an annual basis, no later than three months after the anniversary of their date of accreditation (or registration for biomethane producers). These annual submissions must cover the period between the date of accreditation (or registration) and the anniversary of the date of accreditation (or registration).
- 4.103. Although it is the responsibility of the participant to be aware of the information they must submit and the deadlines associated with these submissions, Ofgem will endeavour to make contact with affected participants to remind of the information they are required to submit and the deadlines for doing so.
- 4.104. An example of the deadline for feedstock requirements and the period a submission must cover is given below:
- **Technology type:** Biogas installation (producing biogas from anaerobic digestion)
  - Date accreditation: 03 December 2018
  - Anniversary of date of accreditation: 03 December 2019
  - Submission of feedstock requirement information due by deadline of: 03 March 2020
  - Period feedstock requirement information must cover: 03 December 2018 – 2 December 2019
- 4.105. For the avoidance of doubt, in the example given above, 'feedstock requirement information' means the proportion of biogas (by energy content) derived from consignments of fuels that are not classified as wastes or residues.

### Recovering payments

- 4.106. If the use of consignments of fuel which are not classified as wastes or residues exceeds 50% of the total biogas yield (by energy content) in a payment year, RHI payments due to Ofgem for that payment year will be offset against future RHI payments from the first quarter of the following payment year, until such point that payments have been fully recovered. Where the payment year in which RHI payments due to Ofgem is the

participant's final payment year, the participant will be required to repay the amount by which the RHI payments for that payment year have been reduced.

4.107. An example of the typical way in which RHI payments will be recovered is provided below:

- Date of accreditation:
  - 09 May 2017
- Anniversary of date of accreditation:
  - 09 May 2018
- Submission of feedstock requirement information due:
  - 09 August 2018
- Period feedstock requirement information must cover (i.e. first payment year):
  - 09 May 2017 – 08 May 2018
- Value of RHI payments received in first payment year:
  - £10,000.00
- Proportion of biogas (by energy content) derived from consignment of fuel which are not classified as wastes or residues:
  - 85%
- Percentage of RHI payments that will to be offset in the following payment year:
  - 35% (i.e. £3,500.00)
- Value of RHI payments due in the first quarter of the following payment year (prior to any payments being offset):
  - £3,000.00
- Actual RHI payments that will be issued for the first quarter of the following payment year (after payments have been offset):
  - £0
- Value of RHI payments due in the second quarter of the following payment year (prior to any payments being offset):
  - £2,000.00

- Actual RHI payments that will be issued for the second quarter of the following payment year (after payments have been offset):

- £1,500.00

### Classification of fuel for all types of biomass and biogas

- 4.108. The processes and criteria used to classify consignments of fuel will be the same as those used to classify consignments of fuel under the RHI sustainability requirements. For further information on the RHI sustainability requirements please refer to the [Non-Domestic RHI Sustainability Self-Reporting Guidance](#).
- 4.109. All feedstocks that may be classified as waste should be considered carefully by operators to ensure that the waste hierarchy<sup>44</sup> has been applied and alternative markets have been considered before using them to generate energy.
- 4.110. The manipulation or modification of the state or condition of a substance or object in an attempt to make it fit the definition of a waste will not be considered a waste for the purposes of the RHI.
- 4.111. Co-products will not be considered residues in cases where they have been deliberately diverted from viable alternative uses (such as use as animal feed or other products). For example, anaerobic digestion should not process food which could have otherwise been used as animal feed or redistributed for human consumption.

### The Biogas Apportioning Tool

- 4.112. It is up to the participant to determine which tool they will use to calculate their feedstock requirement information (i.e. proportions), the RHI regulations do not provide instruction to support participants in calculating the proportion of biogas (by energy content) derived from consignments of fuel which are not classified as wastes or residues.
- 4.113. Ofgem's Biogas Apportioning Tool is available to download from the Ofgem website<sup>45</sup>. This tool is designed to facilitate the calculation of the proportion of biogas (by energy content) derived from consignments of fuel which are not classified as wastes or residues.
- 4.114. The Biogas Apportioning Tool calculates the theoretical contribution of methane from each consignment of fuel by per cent and uses this percentage contribution to determine the energy contribution from each consignment of fuel.
- 4.115. Other IT-based tools are available which a participant can seek to use to calculate their proportions of biogas (by energy content) derived from consignments of feedstock that are not classified as wastes or residues. Alternatively, participants can create their own

<sup>44</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/69403/pb13530-waste-hierarchy-guidance.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf)

<sup>45</sup> <https://www.ofgem.gov.uk/publications-and-updates/non-domestic-rhi-and-fit-biogas-and-biomethane-apportioning-tool>

tool. If a participant wishes to create their own tool or use a tool other than Ofgem's Biogas Apportioning Tool, the onus is on them to ensure – and be able to demonstrate to Ofgem – that the tool they have used meets the requirements set out in the RHI regulations.

### **Submitting feedstock requirement information**

- 4.116. Participants subject to feedstock requirements must submit their annual proportion of biogas (by energy content), derived from consignments of feedstocks that are not classified as wastes or residues, that is used to generate eligible heat or produce biomethane for injection, via the RHI register. Guidance on how to make this submission will be provided by Ofgem in due course. In advance of further details on how to make your submission, we recommend that you:
- 4.117. Clearly understand the date on which you are required to submit your feedstock requirements information.
- 4.118. Calculate the proportion of biogas (by energy content) derived from consignments of feedstock that are not classified as wastes or residues.
- 4.119. Collect evidence that supports the way in which you have calculated your feedstock requirements information.

### **Additional requirements**

- 4.120. Installations producing biogas from AD with a capacity equal to or greater than 1MWth, and all biomethane producers injecting biomethane derived from biogas that was produced by anaerobic digestion, will be required to extend the scope of their annual sustainability audit reports to include information (including calculations and supporting evidence) relating to the feedstock requirements.
- 4.121. The requirement to extend the scope of the sustainability audit report will not affect the date by which this report is due or the periods this reports must cover. For more information about sustainability audit reports please refer to the [Non-Domestic RHI Sustainability Audit Guidance for Participants and Auditors](#).
- 4.122. Auditing requirements for AD installations with a capacity below 1MWth have not been introduced. However, if Ofgem or BEIS become aware of non-compliance in relation to the misreporting of waste, residues or crops, measures will be introduced as necessary to address such non-compliances, including potential audits.

### **Compliance**

- 4.123. Participants subject to feedstock requirements will be required to submit their proportions on an annual basis, no later than three months after the anniversary of their date of accreditation (or registration for biomethane producers).
- 4.124. Where feedstock requirement information is not provided within the relevant deadline or is provided but is incomplete, inaccurate or unsatisfactory, Ofgem may withhold RHI payments until adequate information has been provided by the participant. Where

necessary, Ofgem may need to take compliance action which may result in permanently withholding RHI payments.

4.125. For the avoidance of doubt, 'feedstock requirement information' means the annual submission of the proportion of biogas (by energy content) derived from consignments of feedstock that are not classified as wastes or residues. Where necessary, it also means an annual sustainability audit report (applicable to installations with a capacity > 1MW) that includes information (including calculations and supporting evidence) relating to the annual submission of biogas proportions.



## 5. Ongoing obligations for heat pumps

This chapter covers additional ongoing obligations for heat pump owners, including information on Seasonal Performance Factor.

- 5.1. For participants who submitted their heat pump application from 28 May 2014 and have a capacity of over 45kWth, the installation design and supporting calculations for the design Seasonal Performance Factor (SPF) must be retained and provided to Ofgem when requested.
- 5.2. For participants who submitted their heat pump application from 28 May 2014, and whose heat pump is capable of cooling, the details of the calculation of the design heat load must be retained and provided to Ofgem when requested.
- 5.3. In addition to the output data, all heat pump installations (ground source, water source and air to water<sup>46</sup>) with an application submitted on or after 28 May 2014 will need to provide quarterly electricity meter readings so that the seasonal performance factor (SPF) can be calculated. Readings must be provided in kWhth. These readings will not affect payments and are for monitoring purposes only.
- 5.4. All ground source and water source heat pumps with an application submitted on or after 28 May 2014 and are capable of simultaneous heating and cooling (where heat extracted during the cooling process is used directly for heating elsewhere on the system, by-passing the ground loop) will need to provide quarterly meter readings of the heat drawn from the ground. Readings must be provided in kWhth. These readings will not affect payments and are for monitoring purposes only.
- 5.5. Note as set out in volume 1, chapter 8, that air to water heat pumps must not be designed to provide cooling.

Heat pumps on a shared ground loop

- 5.6. Participants with shared ground loops (accredited on or after 22 May 2018)

Metered/ deemed	Heat pumps all <b>deemed</b> (domestic purposes, i.e. a single heat pump heating a single domestic premise)	Some metered, some deemed heat pumps (mixed use)	Heat pumps all <b>metered</b> (non-domestic purposes)
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<sup>46</sup> The Regulations refer to this technology as “air source heat pump”. However, since liquid or steam must be the medium for delivering heat, it is only air to water heat pumps which are eligible, not air to air

## Non-Domestic Renewable Heat Incentive

How payments made	Deemed payments go automatically into chosen bank account every quarter (assuming other obligations met).	Meter readings must be submitted for the non-domestic heat pumps.  Once this has been completed and passed through the review process, metered and deemed payments will then be made for the quarter (assuming other obligations met).	Meter readings must be submitted for all heat pumps.  Payments will be made for the quarter once the metered submission has passed through review processes
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## 6. Tariffs and periodic support payments

This chapter provides information on how your tariff and periodic support payments will be calculated, and how periodic support payments will be made.

### Periodic support payments

- 6.1. RHI support is provided to participants in the form of quarterly periodic support payments (referred to as payments throughout this document). These will be made over a number of years rather than as a single upfront payment. Payments will accrue from the date of accreditation of an installation, or registration date for biomethane producers, and will be paid for 20 years.
- 6.2. The tariff levels for the different eligible technologies and the formulae to determine the payments have been set by the Government in the RHI regulations. We are responsible for making payments to RHI participants based on the payment calculations set out in those regulations. Further information and details regarding how the tariffs can be reduced can be found in the Degression chapter of this guidance document.
- 6.3. The requirements for applicants accredited on or after 24 September 2013 are included in this chapter. If you are accredited before this date you should refer to RHI guidance document 'Metering Eligibility Requirements for Participants Accredited before 24 September 2013' for the relevant tariff and periodic support payments.

### Tariff Indexation

- 6.4. Once you are accredited under the RHI, a tariff level will be assigned to your installation based on the technology and size of the installation. This tariff will be adjusted in line with the relevant inflation rate for every period starting on 1 April and ending on 31 March.
- 6.5. The tariff for your installation will be adjusted by the percentage increase or decrease in the relevant indexation for the previous calendar year (the resulting figure being rounded to the nearest tenth of a penny, with any twentieth of a penny being rounded upwards). A table of RHI tariffs is updated and published [on the RHI website](#) annually, with the adjusted rates beginning on 1 April and ending on 31 March of the following year.

### Index-linking of tariffs

- 6.6. The tariff for your installation will be adjusted by the percentage increase or decrease in the UK Retail Price Index (RPI) (or Consumer Price Index (CPI) for tariffs from 1 April 2016) for the previous calendar year (the resulting figure being rounded to the nearest tenth of a penny, with any twentieth of a penny being rounded upwards). A table of RHI tariffs is updated and published annually, with the adjusted rates beginning on 1 April and ending on 31 March of the following year.

- 6.7. Where your quarterly period falls over two applicable tariff years (with part of the period falling before the price index adjustment and part after the adjustment) then your quarterly payment will be calculated on a pro rata basis. Your payment will be calculated based on the number of days before and after the price index adjustment on 1 April, and the appropriate tariffs which apply before and after that adjustment.

### Tariff indexation from 1 April 2016

- 6.8. For installations with tariff start dates prior to 1 April 2016, the tariff will be adjusted according to the RPI. Those installations with tariff start dates on or after 1 April 2016 will be adjusted with the percentage increase or decrease in the CPI.

### Additional capacity

- 6.9. The tariffs you receive could also be affected if you add additional RHI capacity to an installation or biomethane production plant. This will be dependent on the date of accreditation of your original installation, when it was first commissioned and when the additional RHI capacity is first commissioned. Please see chapter 10 for further information on the impact that additional RHI capacity could have on your tariff.

### Degression

- 6.10. The 2013 Amendment Regulations introduce a long-term budget control mechanism, which will be referred to in the remainder of this chapter as the 'degrossion mechanism'. This degrossion mechanism was updated with the 2018 RHI regulations on 22 May 2018. Triggering of either of these degrossion mechanisms before your date of accreditation or registration could also affect the tariff you receive. For example if your installation is accredited or you are registered on or after 1 July 2013, you will receive the tariff payments according to the tariff period available at the date of your accreditation or registration. Tariffs may be different in each of these tariff periods. Please see the Degression chapter for more information.

## How payments are calculated

- 6.11. Payments for installations are calculated by multiplying the applicable tariff(s) by the Eligible Heat Output (EHO) generated in the relevant quarterly period. Payments for biomethane producers are based on the eligible volume of biomethane produced for injection in the period.
- 6.12. For the majority of participants the EHO and payment amount is calculated by the RHI Register. As part of the application approval process we set up the appropriate formula in the system based on the installation's system type and metering arrangements. This allows the system to calculate the heat output data including the EHO and payment amount from your periodic data submission. We will advise applicants for whom this does not apply as part of the application review process.
- 6.13. The metering classification of your installation will determine the way in which the EHO generated by your installation (or the amount of biomethane you have produced) is calculated. Each installation is classed as 'simple', 'complex', 'standard' or 'multiple' for metering purposes:

- installations accredited before 24 September 2013 are classed as 'simple' or complex'<sup>47</sup>
- installations accredited on or after 24 September 2013 are classed as 'standard' or 'multiple'

6.14. Please see volume 1, chapter 14 for further details on the classification of simple, complex, standard and multiple.

6.15. Your classification determines what 'quantities' you have to measure in order for us to be able to calculate your EHO.

### Participants accredited before 24 September 2013

6.16. If you have a 'simple' system you can determine your EHO by obtaining a measure of:

- **Heat Generated By your RHI Installation (HGBI)**

6.17. If you have a 'complex' system you will need to obtain a measure of 3 different quantities to determine your EHO:

- **Heat Generated By your RHI Installation (HGBI)**
- **Heat Used by Eligible Purposes on the system (HUEP)**
- **Total Heat Generated by all the plants supplying heat to the heating system (THG)**

### Participants accredited on or after 24 September 2013

6.18. If you have a 'standard' system that has no ineligible **heat uses** you can determine your EHO by obtaining a measure of:

**Heat Generated By your RHI Installation (HGBI)**

6.19. If you have a 'standard' system that has no ineligible heat generating plants, you can determine your EHO by obtaining a measure of:

**Heat Used by Eligible Purposes on the system (HUEP)**

6.20. If you have a standard system that has no ineligible heat uses or ineligible heat generation you can determine your EHO by obtaining a measure of either HGBI or HUEP.

6.21. The metering arrangements of your installation will determine whether you use HGBI or HUEP as your EHO. The EHO can then be multiplied by the applicable tariff to calculate

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<sup>47</sup> The 2013 amendment regulations removed the previous classification of 'simple and complex' metering systems for any plant in respect of applications for accreditation made on or after the 24 September 2013.

your RHI periodic support payment. The RHI Register will perform these calculations once supplied with the relevant meter readings.

6.22. If you have a 'multiple' system with ineligible heat uses or ineligible heat generating plants you will need to obtain three different quantities in order to calculate your EHO. Two of the three quantities will always be:

- **H**eat **G**enerated **B**y your RHI **I**nstallation (**HGBI**) and
- **H**eat **U**sed by **E**ligible **P**urposes on the system (**HUEP**)

6.23. This means both your RHI accredited heat generating plant and your eligible heat uses will need to be metered. The third quantity you need to determine your EHO will either be:

- **T**otal **H**eat **G**enerated by all the plants supplying heat to the heating system (**THG**), or
- **T**otal **H**eat **U**sed on the system for eligible and ineligible purposes (**THU**).

6.24. The quantity you use will be determined by the nature and metering arrangements of your system.

6.25. If your installation has a mixture of eligible and ineligible heat uses, and/or a mixture of eligible and ineligible heat generating plants, there are the following options:

- If you meter all eligible and ineligible heat generating plants, you will be able to quantify the THG. The EHO of your installation can be calculated by dividing HGBI by THG and multiplying the answer by HUEP. The EHO can then be multiplied by the applicable tariff to calculate your RHI periodic support payment.
- If you meter all eligible and ineligible heat uses you will be able to quantify THU. The EHO of your installation can be calculated by dividing HUEP by THU and multiplying the answer by HGBI. The EHO can then be multiplied by the applicable tariff to calculate your RHI periodic support payment.

6.26. Please see the appendix for worked payment calculations for the different system types:

- Calculation for installations with 'standard' metering arrangements
- Calculation for installations using 'multiple' metering for RHI payment purposes
- Multiple metering where a heat loss calculation has been used
- Biogas system with multiple metering arrangements
- Calculating tiered payments
- Payment calculation for new solid biomass CHP systems
- Payment calculation for shared ground loops system comprised of deemed and metered heat pumps

- 6.27. There are additional elements to the payment calculation for some eligible technologies and system types in certain circumstances. These are explained below.

### **Calculating payments for biogas installations**

- 6.28. The payment calculation for biogas systems needs to take account of the Heat Supplied to the Biogas production plant (HSBG) which produced the biogas combusted in the quarterly period. This is considered an eligible use of heat, but it must also be deducted from the EHO. The EHO is determined in the same way as set out in the section above. Once HSBG has been deducted from EHO the resulting figure is multiplied by the applicable tariff to calculate your RHI periodic support payment.

### **Calculating tiered payments**

- 6.29. A two tier tariff has also been introduced for:

- Ground and water source heat pumps accredited on or after 21 January 2013. They started receiving the new tiered tariff from 28 May 2014.
- Large biomass installations (>1MWth) accredited on or after 14 December 2016. They started receiving the new tiered tariff from 20 September 2017.

- 6.30. A tiered tariff structure operates on a 12 month basis, starting with an installation's date of accreditation or its anniversary. The regulations specify that during this 12 month period, an initial amount of heat equal to the amount of heat generated by the installation running at its installation capacity for a set period of time is eligible for a Tier 1 tariff.

- 6.31. For small and medium biomass installations with a date of accreditation before 20 September 2017 and ground or water source heat pumps the first 1,314 hours (15% of a year) will be payable at the higher Tier 1 tariff.

- 6.32. For small, medium and large biomass installations with a date of accreditation from 20 September 2017 the first 3,066 hours (35% of a year) will be payable at the higher Tier 1 tariff. Any further heat used during this 12 month period will be payable at the lower Tier 2 tariff. At the start of the next 12 month period, the initial amount of heat will again be payable at the higher Tier 1 tariff. We consider the 'initial heat' threshold will only be crossed when eligible heat output (e.g. the quantity of heat on which payments will be made) has exceeded the tier threshold. Biomethane has a three tier system which is explained in points 6.45 to 6.48 below.

### **Calculating payments for installations using multiple metering where they have calculated a quarterly heat loss figure (QHLF)**

- 6.33. For installations where the applicant completed a Heat Loss Assessment (HLA) and made a case for using a heat loss calculation (HLC) during the application process instead of installing additional metering, they would have been asked to submit their calculated 'quarterly heat loss figure' (QHLF). (N.B. this only applies to participants who

applied on or after 24 September 2013). This QHLF will be accounted for automatically as part of the EHO calculation performed by the RHI Register. The QHLF value is fixed and can only be amended if the parameters in your HLA have changed in such a way that the QHLF also changes.

- 6.34. If a change has been made to the external piping or any other changes to the heating system which might affect the basis of the original heat loss calculation the participant must notify us within 28 days of the changes being made. This notification should be made as an amendment via your RHI account on the RHI Register. In the first instance, you should send the notification to our RHI amendments email ([rhi.notification@ofgem.gov.uk](mailto:rhi.notification@ofgem.gov.uk)) with the RHI number in the subject box. The email should include:
- Details of the changes made. For example, how the pipework or pipe insulation has been altered, which could include the addition or removal of a section. The information should be clear as to where on the heating system the change has been made, in what way and how the changes will affect the original pipework and heating system arrangement.
  - If relevant, any additional evidence (e.g. photos, manufacturer's information).
  - A revised 'Heat Loss Assessment' should be attached to the email. This should also contain an amended heat loss calculation if necessary.
- 6.35. We will review this information on a case-by-case basis. If we decide that the QHLF should be changed we will approve the amendment and the revised figure will be accounted for automatically as part of the EHO calculation performed by the RHI Register.

### Calculating payments where a qualifying percentage is required

- 6.36. This applies to:
- Solid biomass installation sized 1MWth and above where contaminated biomass and/or ancillary fossil fuel is used
  - CHP installations where only certain combustion unit(s) produce eligible heat
  - Solid biomass contained in waste
  - Biogas combustion installations using gasification or pyrolysis where contaminated biomass or waste is used as feedstock
- 6.37. For these categories of technologies a 'qualifying percentage' or 'renewable percentage' of the fuel input needs to be calculated. This is referred to as a reduction 'pro rata' in the regulations.
- 6.38. For details on how the energy content of the contamination, ancillary fossil fuel or other fossil fuels can be measured, please see the FMS guidance.



- 6.39. The non-biomass portion of the fuels used is deducted from the payment. If the qualifying percentage is 95 per cent, this will be the proportion of energy from solid biomass. The payment is multiplied by this percentage / fraction to give a payment figure that has been adjusted for fossil fuel input.
- 6.40. Where the participant has declared upfront that feedstock contaminated with fossil fuel will be used in the accredited installation, the tariff payment is adjusted to deduct the fossil fuel contamination in the feedstock.
- 6.41. Therefore the 'renewable' percentage of the feedstock going into a gasification plant is multiplied by the payment each quarter to determine the final payment. For example, where the contamination percentage is 5 per cent, the payment would be multiplied by 95 per cent to determine the final payment.
- 6.42. No account of any fossil fuel used for permitted ancillary purposes at the heat generating plant is taken.

### Calculating payments if fuel consignments do not meet sustainability requirements

- 6.43. This applies to all installations which must comply with the sustainability criteria, including those producing biomethane for injection.
- 6.44. Where one or more fuel consignments used in any quarter as a fuel or feedstock to generate heat or produce biomethane for injection do not meet the sustainability criteria, such that some of the fuel is sustainable and some is not, then it is likely we will ask for a calculation to be done to calculate how much heat can be apportioned to the unsustainable fuel consignment(s).
- 6.45. In this case it will be the responsibility of the participant to apportion heat and present evidence to Ofgem for what payments they are entitled to, based on the consignments of fuel which met the sustainability criteria.
- 6.46. This evidence may take the form of the quantity and the gross calorific value (GCV) of all fuel consignments used in the relevant quarter, both the sustainable and unsustainable. The participant can use this to calculate the proportion of energy content from the unsustainable consignment(s) and use this to apportion the eligible heat output.

### Payments for biomethane producers

- 6.47. Registered producers of biomethane have a separate payment calculation formula because heat is not generated in the biomethane injection process.
- 6.48. Biomethane participants with a date of registration on or after 12 February 2015 will have a three tier tariff applied to their payments. This tariff structure operates on a 12 month basis, starting with the date of registration, or its anniversary. The regulations specify that during that 12 month period, the first 40,000MWh of biomethane injected that is eligible for payments will be paid the tier 1 biomethane tariff. The next 40,000MWh of biomethane injected eligible for payments after the tier 1 threshold has been met will receive the tier 2 biomethane tariff. Any subsequent biomethane injected

that is eligible for payments will receive the tier 3 biomethane tariff (see worked example G).

6.49. To calculate how much biomethane producers should be paid each quarterly period, five types of data are needed. These are:

- 1) The volume (in cubic metres) and Gross Calorific Value (in kilowatt hours per cubic metre) of biomethane injected into the gas network (giving a figure in kWh). Participants should ensure that, where relevant, appropriate adjustments are made for temperature and pressure.
- 2) The GCV and volume of propane that was contained in the biomethane, appropriately adjusted for temperature and pressure (giving a figure in kWh).
- 3) Any heat supplied to the biomethane production process (in kWhth).
- 4) Any heat supplied to the biogas production plant from an 'external' source (i.e. any source other than from heat generated from the combustion of the biogas) (in kWhth). Where a methodology to 'apportion' this heat was agreed at registration, the calculations used to determine the relevant portion should be provided (refer to chapter 12 of volume one of our guidance for further information).
- 5) The contamination percentage (where the biomethane has been produced from contaminated feedstock that has gone through a gasification or pyrolysis conversion process). This figure will be deducted from 100 per cent to give the solid biomass proportion contained in the feedstock'. For example, a 5 per cent contamination percentage will give a solid biomass proportion of 95 per cent.
- 6) Once registered, biomethane producers will be required to submit the above information regularly as periodic data. The payment due to a biomethane producer is based on the eligible biomethane and is calculated by subtracting Items 2-4 in the above list from Item 1. This is then multiplied by the proportion of biomass contained in the feedstock. Please see chapter 12 for further information.

### Worked example: tiered biomethane payments for those with a date of registration from 12 February 2015

Maximum capacity: 90,000,000 kWh

Tariff rate as of 12 February 2015:

- Tier 1 up to 40,000,000 kWh = 7.5p/kWh
- Tier 2 for the next 40,000,000 kWh = 4.4 p/kWh
- Tier 3 for further eligible biomethane up to maximum capacity = 3.4 p/kWh

*Quarter 1 (Q1)*

Biomethane injected which is eligible for payment: 28,000,000 kWh

Payment for Q1 =  $28,000,000 \times 7.5 = £2,100,000$

### *Quarter 2 (Q2)*

Biomethane injected which is eligible for payment: 13,000,000 kWh

- Amount payable on tier 1 tariff =  $(40,000,000 - 28,000,000) = 12,000,000$  kWh
- Amount payable on tier 2 tariff =  $(13,000,000 - 12,000,000) = 1,000,000$  kWh

Payment for Q2 =  $(12,000,000 \times 7.5) + (1,000,000 \times 4.4) = £944,000$

### *Quarter 3 (Q3)*

Biomethane injected which is eligible for payment: 19,000,000 kWh

- Amount payable on tier 2 tariff =  $(40,000,000 - 1,000,000) = 39,000,000$  kWh

Payment for Q3 =  $19,000,000 \times 4.4 = £836,000$

### *Quarter 4 (Q4)*

Biomethane injected which is eligible for payment: 21,000,000 kWh

- Amount payable on tier 2 tariff =  $(40,000,000 - 19,000,000 - 1,000,000) = 20,000,000$  kWh
- Amount payable on tier 3 tariff =  $(21,000,000 - 20,000,000) = 1,000,000$  kWh

Payment for Q4 =  $(20,000,000 \times 4.4) + (1,000,000 \times 3.4) = £914,000$

6.50. We will discuss the requirements for submission of periodic data with registered biomethane producers as part of their registration onto the scheme.

### Calculating payments for heat pumps

6.51. Payments for heat pump installations are not affected by the electricity meter readings submitted for seasonal performance factor calculations or by the meter readings submitted for measuring the heat drawn from the ground loop for simultaneous heating and cooling heat pumps. However these readings should still be submitted along with other periodic data. This also applies to metered heat pumps in shared ground loop systems. However, deemed heat pumps in shared ground loop systems do not need to submit electrical meter readings.

### Calculating payments for new solid biomass CHP installations

- 6.52. Support payments for new solid biomass CHP installations may alter depending on whether or not installations have renewed CHPQA certification. If a new solid biomass CHP system has a date of accreditation on or after 1 August 2016 support payments may be affected by the power efficiency of the installation. Please see Chapter 13 for more details.

### **When do payment periods begin?**

- 6.53. Payments are payable based on quarterly periods as calculated from the date of the accreditation of the eligible installation, or from the date of registration for biomethane producers. For example, if an installation was accredited or a biomethane producer registered on 25 January 2017, then the first quarterly period would be considered to run from 25 January 2017 - 24 April 2017. You will be advised of your payment schedule in a notice from us once your installation becomes accredited, or once you become a registered biomethane producer.

- 6.54. Payments will cease after a fixed period of 20 years from the date of accreditation for your installation, or from the date of registration for biomethane producers.

### **What actions may impact your payment schedule**

- 6.55. Please note that we will not make payments to you until:
- we are satisfied that the information given by the Authorised Signatory is accurate and the installation meets the necessary requirements of the RHI scheme
  - the installation has approved meters in place and these are fully functional
  - we are satisfied that you can assess the fuel or feedstock you are using in fuelled installations against the sustainability criteria.
  - we have accredited the installation and you have received confirmation of accreditation from us.
- 6.56. We will calculate the amount owed to you for a quarterly period once you have submitted all the required periodic data (for further details see chapter 3), and we have determined the EHO for your installation (or, for biomethane producers, the eligible volume of biomethane produced).
- 6.57. We will review your periodic data submission and determine the EHO for that quarterly period. We will then calculate the amount payable to you for the quarter as determined by your tariff, taking into account any additional debits, credits or deductions applicable to the payment (for example, due to previous overpayments or as a result of any sanctions which may have been imposed).
- 6.58. If your periodic data is submitted to us more than one month after the conclusion of the relevant quarterly period end, then your payment for that quarterly period may be delayed. If there are exceptional circumstances as to why you have submitted your required periodic data after the due date, you will need to provide supporting evidence for your claim. For further details, please see the 'Late data' section in chapter 3.

6.59. We may raise a query on your periodic data submission and/or carry out an audit of your system. As a result of this review we may need to adjust the payment you are due or adjust the previous quarter's payment calculations. If you disagree with our decision then you may request a review of our decision or lodge a complaint with us. For further details see chapter 16.

### **Changes to periodic support payments**

6.60. We will amend the quarterly payment due to you for the quarterly period if there has been:

- an overpayment in (a) previous quarter(s)
- an underpayment in (a) previous quarter(s)
- if an error has been made
- if your payment is subject to a sanction (for further details see chapter 13 of this volume)
- if you are in receipt of a grant and where we have agreed that a grant funding deduction will be made from your quarterly periodic support payments (volume 1, chapter 4 explains the circumstances where we decide that a grant can be repaid through RHI periodic support payments)

6.61. Where applicable your payments may also be impacted by sustainability and feedstock requirements. See chapters 3 and 4 respectively for further information on these requirements.

6.62. If we are concerned that the conditions of the scheme are not being complied with we may apply a formal sanction, which could include:

- the suspension or withholding of a payment
- the revocation of accreditation or registration under the RHI scheme.

For further details on compliance, please see chapter 13.

Repayment of a grant by deductions

6.63. Where we decide that a grant can be repaid through periodic support payments, we will:

- determine the total value of any grant which has been paid for some or all of the purchase or installation costs of the eligible installation or equipment used to produce biomethane.
- apply a price index adjustment each year on 1 April to the total value of the grant. The total value will incrementally rise over the 20 year tariff lifetime.
- divide the total value by 80 following accreditation or registration and after each adjustment to determine the deduction for each quarterly period (80 being the number of quarterly periodic support payments within the 20 year tariff lifetime of the accredited installation or registered plant).

- 6.64. The grant deduction will be deducted from each quarterly periodic support payment. Where the periodic support payment is less than the amount of the grant deduction, we will deduct only that part of the grant deduction that can be paid. Any shortfall in that grant deduction will be carried forward and deducted from the next quarterly periodic support payment in addition to the grant deduction determined for that quarterly periodic support payment.
- 6.65. Table 6 provides an example of how the grant deduction is calculated and adjusted by for each year of the 20 year tariff lifetime. In this example the grant to be repaid is £10,000, the date of accreditation is 1 April, the annual price index adjustment is 2.5 per cent and it is assumed that for each quarterly periodic support payment the grant deduction can be repaid without any shortfall.

Table 6: Grant deduction example

Year	Grant repayment	Price index adjusted repayment	Grant repayment deductions taken from quarterly periodic support payments				Annual deduction
			Q1	Q2	Q3	Q4	
<b>Year 1</b>		10000	125	125	125	125	500
<b>Year 2</b>	10000	10250	128.1	128.1	128.1	128.1	512.1
<b>Year 3</b>	10250	10506.3	131.3	131.3	131.3	131.3	525.2
<b>Year 4</b>	10506.25	10768.9	134.6	134.6	134.6	134.6	538.4
<b>Year 5</b>	10768.9	11038.1	138	138	138	138	552
<b>Year 6</b>	11038.1	11314.1	141.4	141.4	141.4	141.4	565.6
<b>Year 7</b>	11314.1	11597	145	145	145	145	580
<b>Year 8</b>	11597	11886.9	148.6	148.6	148.6	148.6	594.4
<b>Year 9</b>	11886.9	12184.1	152.3	152.3	152.3	152.3	609.2
<b>Year 10</b>	12184.1	12488.7	156.1	156.1	156.1	156.1	624.4
<b>Year 11</b>	12488.7	12800.9	160	160	160	160	640
<b>Year 12</b>	12800.9	13120.9	164	164	164	164	656
<b>Year 13</b>	13120.9	13448.9	168.1	168.1	168.1	168.1	672.4
<b>Year 14</b>	13448.9	13785.1	172.3	172.3	172.3	172.3	689.2
<b>Year 15</b>	13785.1	14129.7	176.6	176.6	176.6	176.6	706.4
<b>Year 16</b>	14129.7	14482.9	181	181	181	181	724
<b>Year 17</b>	14482.9	14845	185.6	185.6	185.6	185.6	742.4
<b>Year 18</b>	14845	15216.1	190.2	190.2	190.2	190.2	760.8
<b>Year 19</b>	15216.1	15596.5	195	195	195	195	780
<b>Year 20</b>	15596.5	15986.4	200	200	200	200	800
<b>Total grant repayment</b>							<b>12772.8</b>

## Cap for shared ground loop systems

- 6.1. Where a shared ground loop system has single heat pumps providing heat to a single domestic premise on a one-to-one basis, a heat demand limit of 30,000kWth will apply to these heat pumps. This is the maximum heat generation that will be paid on annually, regardless of the total actual heat generation. (Heat pumps with non-domestic purposes have no heat demand limit). For example if a heat pump with a

domestic purpose has an annual total heat generation of 42,000kWth, it will only be paid on the basis of 30,000kWth<sup>48</sup>.

### **Nominated bank account**

- 6.2. We will pay the amount you are due to your nominated bank account by BACS transfer. Please note that in accordance with the provisions of schedule 1 to the regulations we would require the bank account you nominate to receive your payments is an account which accepts pound sterling deposits in the United Kingdom. Failure to nominate a suitable account may result in your payment being delayed until a bank account which meets the requirements of the RHI is provided to us.
- 6.3. It will be a condition of accreditation that only one bank account will be allowed for each RHI participant. Where a participant has more than one accredited installation under the scheme, then payments for all of the installations will be made to the nominated bank account.

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<sup>48</sup> 2018 Regulations, Regulation 70

## 7. Maintenance

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This chapter covers the types of maintenance required to keep your installation in working order. Maintenance of your meter and equipment is an ongoing obligation.

### Equipment maintenance

- 7.1. As an ongoing obligation, participants who own heat generating installations are required to maintain their equipment to ensure it is working effectively. Given the wide range of eligible technologies it is not practical to specify a particular level of maintenance or frequency of servicing. As a general principle we require the equipment to be maintained in line with manufacturer instructions where available. Participants will need to keep any evidence of maintenance work carried out such as servicing receipts and will need provide us with this evidence on request.

### Meter maintenance

- 7.2. Participants must keep all meters and steam measuring equipment in accordance with the regulations:
- continuously operating
  - properly maintained and periodically checked for errors
  - re-calibrated at least every 10 years, or in line with manufacturer's instructions where available, whichever is the sooner
  - located in accordance with any conditions associated to their accreditation.
- 7.3. Participants must keep evidence of the above including service and maintenance invoices, receipts or certificates for the duration of participation in the RHI (see below for further details). Failure to comply is a breach of your ongoing obligations and could result in enforcement action being taken against them as set out in chapter 14.
- 7.4. The requirements apply to all metering equipment and include where relevant; flow meters, temperature sensors and pressure sensors. For example we would expect temperature sensors or (for steam meters) differential pressure sensors to be checked on a regular basis.
- 7.5. Participants will be required to declare that periodic meter readings submitted to us are correct to the best of their knowledge and belief. We may ask for an explanation of the internal processes that are in place to ensure that meter readings are accurate.
- 7.6. Evidence of the calibration of meters' components in compliance with the manufacturer's requirements, such as service and maintenance invoices, receipts or certificates, should be kept as they are expected to be available for review if requested.
- 7.7. Calibration of meters and associated components should be carried out by the manufacturer or by organisations with relevant accreditation (applicable to Class 2 heat



metering, steam metering and relevant temperature/pressure calibrations) from the United Kingdom Accreditation Service (UKAS). Further information on UKAS accreditation or the scope of accreditation held by an organisation can be obtained by contacting UKAS directly.

- 7.8. In addition, where calibration and testing is carried out by the manufacturer, we would expect that calibration and testing equipment used to calibrate RHI metering equipment should comply with appropriate International, European or British standards.
- 7.9. The Measuring Instruments Directive (MID) Annex I places certain requirements on heat meters with regard to protection and security of the calculator / digital integrator component.

## 8. Degression

This chapter explains what degression is, how payments are calculated, and who will be affected.

- 8.1. Under the degression mechanism, reductions can be made to an individual tariff, or tariffs offered, if certain circumstances set out in the Regulations are met. This is to ensure that the RHI Non-Domestic RHI scheme does not exceed its fixed annual budgets. The degression mechanism aims to do this by lowering tariffs to bring deployment down and in line with anticipated – and affordable – levels. In comparison to the previous degression mechanism in place the changes as of 22 May 2018 aim to stop tariffs from continuing to reduce once deployment slows down. The changes are designed to simplify the rules and improve transparency. BEIS is responsible for operating the degression mechanism and monthly data updates on budget management<sup>49</sup>.
- 8.2. The 2017 Regulations<sup>50</sup> include tables with quarterly expenditure limits for the scheme as a whole, and for each technology. These tables were updated as part of the 2017 Amendment Regulations. If these limits are exceeded in any quarter then one or more tariffs will be reduced.

### Who will/ will not be affected by degression

- 8.3. Installations with a date of accreditation or registration before 1 July 2013 will not be affected by the degression mechanism. However, if you install additional RHI capacity as an existing participant, the tariff you receive for any additional RHI capacity may be affected under the degression mechanism. This will depend on the date of accreditation of your original installation and when the additional RHI capacity is added. For more details on the installation of additional capacity and the impact on tariffs please see chapter 10.
- 8.4. For those who have been granted preliminary accreditation, when you apply for full accreditation you will receive the tariff applicable on your date of accreditation. For example if there has been a degression in the period between you being granted preliminary accreditation and making a full application following which your installation is accredited, the tariff you will receive will be the reduced tariff. It is important to note that being granted preliminary accreditation does not guarantee you a particular tariff.
- 8.5. If a degression is announced, the installation will need to have a date of accreditation, or in the case of biomethane producers a date of registration, before the start of the next tariff period in order not to be affected by a tariff reduction. When we review an application, if we consider that the installation has not met the eligibility criteria, or that the application has not been properly made before the date the reduced tariff(s)

<sup>49</sup> <https://www.gov.uk/government/publications/rhi-mechanism-for-budget-management-estimated-commitments>

<sup>50</sup> <http://www.legislation.gov.uk/ukxi/2017/857/contents/made>

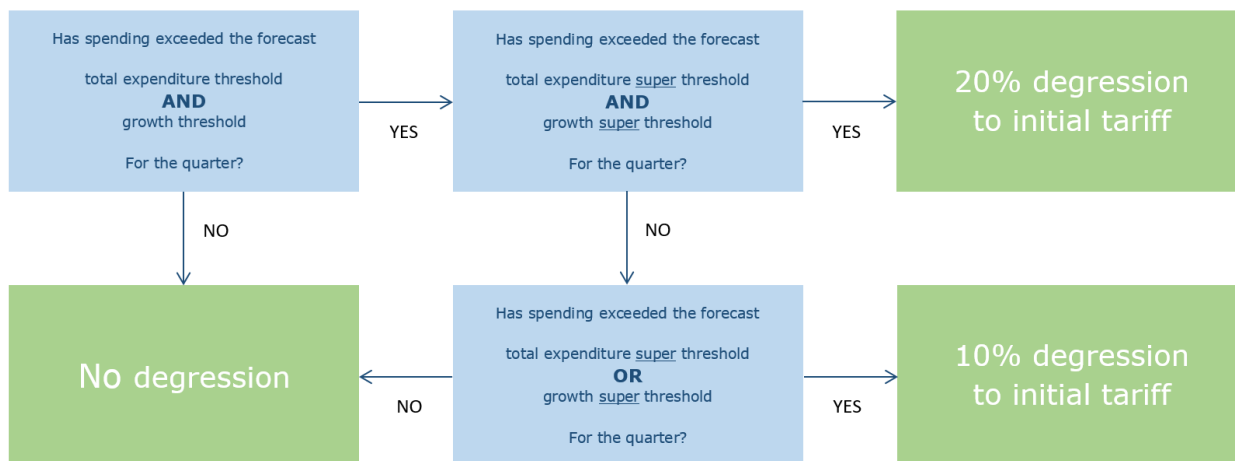
applies, then the installation or producer will not be eligible for the higher tariff. If we notify you that this is the case you will need to re-submit your application with the required information before the next tariff period to receive the higher tariff. Otherwise the initial tariff applied will be the one in place on the date of your accreditation or registration. See volume 1, chapters 2 to 5 if you are applying during this period, which covers the necessary paperwork and requirements.

- 8.6. For tariff guarantee applications the date of receipt by Ofgem of a properly made stage 1 application is used to determine the tariff. When a full application (stage 3) is made the already secured tariff rate will be used (where the application continues to meet the required eligibility criteria) even if there have been degressions in the intervening time. Tariff guarantees can expire if not used within certain timeframes. For full details please see our [guide to tariff guarantees](#).

## How and when will degression be determined

Figure 5: Degression Process

8.7.



- 8.8. We will provide regular data to BEIS on uptake levels on the scheme. Every quarter this data is used to monitor expenditure against the expenditure thresholds published in the 2018 Regulations to assess whether a degression is needed. Figure 5 shows the sequence of events and responsibilities for the assessment of a degression.
- 8.9. In practical terms there will be a 1 month notice period between the publication of the expenditure forecast statement and tariff change notice before the new tariff(s) come into effect. Table 7 shows the timetable for the assessment, publication and tariff periods.

Table 7: Degression timetable

Uptake	Expenditure	Tariff change notice		
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<b>data provided by Ofgem to BEIS</b>	<b>forecast statement published by BEIS</b>	<b>published by BEIS</b> <i>(published only where a depression is triggered)</i>	<b>Tariffs for next period published by Ofgem by:</b>	<b>Tariff period impacted by depression</b>
31 January	1 March	1 March	15 March	1 April – 30 June
30 April	1 June	1 June	15 June	1 July – 30 September
31 July	1 September	1 September	15 September	1 October – 31 December
31 October	1 December	1 December	15 December	1 January – 31 March

8.10. The expenditure forecast statement published by BEIS will set out:

- estimated spend for the scheme as a whole for the subsequent year
- estimated spend for each technology, installations generating heat from biogas and participants producing biomethane for injection for the subsequent year, and;
- for each of the above forecasts, the difference between the expenditure estimate made on the current assessment date and the expenditure estimate made on the previous assessment date.

8.11. Estimated spend will be for accredited installations, all installations for which an application for accreditation, tariff guarantee accreditation, or preliminary accreditation has been made and each participant who produces biomethane for injection.

## Our role when a depression occurs

8.12. Whether or not a depression occurs we will publish quarterly a table of the tariffs that will be applicable for all technologies. These tariff tables will identify the tariffs for participants who join the scheme in the next tariff period and reflect any changes to individual tariffs announced by BEIS in its quarterly forecast statements. These tariff tables will be published by 15 March, 15 June, 15 September and 15 December of each year. For example, if BEIS announces on 1 September that there will be 10 per cent depression to the biomass tariff, we will publish by 15 September an updated tariff table showing the applicable tariffs for the tariff period starting on 1 October. For any applicants with a biomass installation whose date of accreditation (or Stage 1 submission date for a Tariff Guarantee) falls on or after 1 October, the initial tariff they will receive will be the previous biomass tariff reduced by 10 per cent.

## 9. Additional fuel data reporting (only for biomass installations $\geq 1\text{MWth}$ and biomethane producers)

This chapter provides information on additional fuel data reporting and the reporting requirements for participants with solid biomass installations of  $1\text{MWth}$  and above, or who are biomethane producers.

### What is additional fuel data reporting?

- 9.1. Additional fuel data reporting is a responsibility to report sustainability data over and above the requirement for all fuelled installations and those producing biomethane for injection. It only applies to solid biomass installations with a capacity of  $\geq 1\text{MWth}$  and biomethane producers.
- 9.2. From 5 October 2015 all biomass and biogas installations and producers of biomethane are required to meet sustainability requirements and report to Ofgem on a quarterly basis to continue to receive RHI payments. Details are outlined in chapter 4.
- 9.3. Additional fuel data regarding sustainability information is required for all solid biomass plants with an installation capacity of  $1\text{MWth}$  and above – including those which are not using ancillary fuel or contamination in their installation (i.e. the installation uses only virgin biomass materials) and all biomethane producers, in accordance with Schedule 5 to the regulations. This information should be provided via the Ofgem RHI Register.
- 9.4. The information currently required is outlined in Table 8 below and is required for each fuel consignment used. The government has provided guidance on the characteristics that define a single consignment for the RO scheme<sup>51</sup>, and we will look to follow this approach where appropriate. The characteristics are:
  - Feedstock type<sup>52</sup>;
  - Biomass form (solid biomass only);
  - Mass
  - Country of origin<sup>53</sup>;
  - Classification of the fuel: whether it was a by-product of a process; derived from waste; an energy crop

<sup>51</sup>

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/231102/RO\\_Biomass\\_Sustainability\\_consultation\\_-\\_Government\\_Response\\_22\\_August\\_2013.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/231102/RO_Biomass_Sustainability_consultation_-_Government_Response_22_August_2013.pdf)

<sup>52</sup> This is to ensure that different biomass fuels are not grouped together, i.e. wood cannot be considered the same as sunflower pellets

<sup>53</sup> UK can be considered as a single country of origin

- Whether the fuel was certified under an environmental quality assurance scheme, and if so, which; Compliance with land criteria;
- Compliance with GHG criteria.
- Compliance with land criteria

Table 8: Information required for additional fuel data relating to sustainability reporting under Schedule 2 to the regulations

Element	Detail	Example
Biomass Type	The material from which the biomass was composed	Wood
Biomass Form	Where the biomass can take different forms (e.g. wood chips or wood pellets), the form of the biomass	Wood pellets
Mass	Where the biomass is solid in its mass	Numeric figure
By-product	Whether the biomass was a by-product of a 'process' (as defined in the regulations).	By-product of the paper production process
Biomass derived from waste	Whether the biomass was derived from waste	n/a
Biomass plant matter	Whether the solid biomass was plant matter or derived from such, and the country where it was grown, OR the country from which the operator obtained the solid biomass	Straw, Spain
Country of origin	Where the biomass was plant matter or derived from plant matter, the country where the plant matter was grown	Spain
Country of purchase	Where the information specified in the row above is unknown or the biomass was not plant matter or derived from plant matter, the country from which the participant obtained the biomass.	Germany
'Energy crop' (including types and proportions)	Whether any of the consignment was an 'energy crop' (a term defined in the regulations) or derived from an energy crop and, if so: <ul style="list-style-type: none"> <li>• the proportion of the consignment which was or was derived from an energy crop.</li> <li>• the type of energy crop contained in the consignment.</li> </ul>	n/a
Environmental quality assurance schemes	Whether the biomass or any matter from which it was derived was certified under an 'environmental quality assurance scheme' as defined in the regulations and, if so, the name of the scheme.	UK Forestry Standard/UK Woodland Assurance Standard (UKWAS)
Land use	Where the biomass was plant matter or derived from plant matter, the use of the land on which the plant matter was grown since 30 November 2005.	Used for forestry purposes

## When to submit the additional fuel data relating to sustainability information

- 9.5. You will be required to report quarterly on sustainability information as part of your periodic data. The information provided should be accurate to the best of your knowledge and belief.
- 9.6. Participants are required to provide us with all the information listed in Schedule 2 to the regulations, however, in certain circumstances, there may be information required by Schedule 2 which is not available to the participant. In such circumstances, please contact us to explain why the relevant data is not available. We shall then consider whether we are able to agree that the submission of the relevant piece of information is not required.

### **Publication of additional fuel data relating to sustainability information**

- 9.7. As part of our reporting obligations under the regulations we will publish sustainability information in aggregate form, on a quarterly and annual basis, on the Ofgem RHI website. We will share all submitted information with BEIS.

### **Audits**

- 9.8. Participants should be aware that we may wish to carry out an audit of the sustainability reporting information. Participants should therefore make sure that any information relevant to the sustainability reporting criteria is available on request to an audit team. For further information on our audit procedures, please refer to chapter 14.
- 9.9. In addition to the RHI audits, if you are self-reporting against the sustainability requirements (which came into force on 5 October 2015) and your installation capacity is 1MWth or above or you produce biomethane for injection then you will also be required to provide Ofgem with an independent annual sustainability audit report. Please refer to the [Sustainability Audit Guidance for Participants and Auditors](#) for more information about annual sustainability audit reports.

## 10. Additional capacity

This chapter covers the definition of additional capacity; when to contact Ofgem; the impact of installing additional capacity; information on tariffs; and specific requirements for: air quality, solar thermal, biogas, biomethane and Modified Capacity.

### Additional RHI capacity (excluding biomethane)

10.1. Non-Domestic RHI participants may make an application for the accreditation of additional RHI capacity (note applications for additional capacity for Shared Ground Loops Systems and tariff guarantees for additional capacity are not available<sup>54</sup>). 'Additional RHI capacity' means a plant which is:

- first commissioned after the date on which the original accredited RHI installation was first commissioned; and
- uses the same source of energy and technology as the original installation; and
- supplies heat to the same heating system of which the original installation forms part.<sup>55</sup>

10.2. For example, if a RHI-accredited biomass boiler forms part of a heating system, and another biomass boiler is installed supplying heat to the same heating system, the second boiler would be considered additional RHI capacity. The additional RHI capacity will only be accredited if the owner (or the authorised signatory) applies for accreditation and all relevant eligibility criteria are satisfied.

### Informing us of installing additional capacity

10.3. If you install any additional plant supplying heat to a heating system as part of an accredited RHI installation, you must inform us within 28 days of the addition<sup>56</sup>, regardless of whether or not you intend to apply for RHI support for the plant.

10.4. If you fail to notify us of this new plant (including any new plant which is "additional capacity") within 28 days, appropriate enforcement action may be taken. For further information on our compliance and enforcement powers please see chapter 14.

10.5. You can let us know if you have installed a new plant or have made other amendments to the heating system by emailing us at [RHI.notification@ofgem.gov.uk](mailto:RHI.notification@ofgem.gov.uk). You can also contact us by post or through your RHI Register user account.

### Impacts of installing additional capacity

<sup>54</sup> Regulations, Part 3, Regulation 35

<sup>55</sup> Regulations, Part 8, Regulation 76(3)

<sup>56</sup> Regulations, Part 3, Regulation 43(m)



- 10.6. By installing additional capacity (with or without RHI accreditation), the eligibility of your original installation may be affected. **Additional RHI capacity must be metered** so we can accurately determine the heat generated by both the original plant and any additional plant or capacity on the system which is used for eligible purposes.
- 10.7. If all heat were metered at point of use on the original application, we would typically expect both the original installation and the additional RHI capacity to be separately metered at point of generation. This would help to ensure continued compliance with metering requirements. One example of ensuring accurate metering in this scenario would be to meter both the original installation and additional RHI capacity individually at their respective points of generation.
- 10.8. You should note that the tariff of your original installation could be affected if additional RHI capacity is added to an accredited RHI installation. For further information, see section 10.15.
- 10.9. If we have reasonable grounds to suspect that the original accredited RHI installation is no longer eligible following the installation of additional capacity or new plant on the same heating system, we may temporarily withhold payments in order to investigate the issue further. Information on temporary withholding of payments is available in chapter 14.
- 10.10. If we find that the additional capacity is not eligible for RHI support, the original accredited RHI installation will remain accredited provided its eligibility is not affected by the installed additional capacity.
- 10.11. A new heat generating plant which uses a different technology or source of energy and forms part of the same heating system as an existing RHI accredited installation would be considered a separate installation for RHI purposes. You could apply for RHI accreditation for this new plant if it is an eligible technology, but you must notify us of the addition of the new plant whether you want accreditation or not.

### Overview: determining tariffs for accredited additional RHI capacity

- 10.12. The tariff you will receive can depend on:
- whether the additional capacity is first commissioned within or after 12 months of the date of first commissioning of the original installation, *and*
  - the date of accreditation of the additional capacity and whether there have been tariff changes prior to this date (for degeneration – please see the tables below).

### Additional RHI capacity first commissioned less than 12 months after the date of first commissioning of the original installation<sup>57</sup>

- 10.13. This section is for those who apply for accreditation for additional RHI capacity which is first commissioned within 12 months of the date of the first commissioning of the original RHI installation. In this case:

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<sup>57</sup> Regulations, Part 8, Regulation 76(1) and (4) to (7)

- The revised applicable tariff for the **original installation** is the one that was in place at the date of accreditation of the original installation and was applicable to the **combined** capacity of the original installation and the additional RHI capacity.
  - This mainly affects those installations where the additional capacity puts the combined installation into a different tariff band to the original installation. In the example below in table 9, the original installation has a capacity of 150kWth accredited under the small commercial biomass tariff. Additional capacity of 80kWth is added to the system, placing the combined capacity (230kWth) into the medium commercial biomass tariff band. The tariff of the original installation will therefore change because of the different banding.
  - This tariff will be adjusted by any relevant inflation rate uplift that has occurred since the date of accreditation of the original installation<sup>58</sup>.
  - The revised tariff will be applicable from the date of accreditation of the additional capacity.
- The applicable tariff for the **additional RHI capacity** will be the tariff based on the combined capacity of the original installation and the additional RHI capacity on the additional RHI capacity's date of accreditation.<sup>59</sup>

10.14. Table 9 below provides an example of how tariffs are calculated where a depression (tariff reduction) has occurred and additional RHI capacity has been installed.

Table 9: Degression and additional capacity commissioned within 12 months

<b>Additional capacity added within 12 months of the original installation being commissioned.</b>						
In this example there has been a degression (tariff reduction) of the medium biomass tariffs by 10% on 1 July 2013, reducing the tariff to 4.8p. The medium biomass tariff as at 1 May 2013, when the original installation was accredited, was 5.3p.						
As the combined capacity of the original installation and additional RHI capacity is more than 200kWth the new tariffs calculated for both installations will be based on the medium biomass tariff. <b>No inflation uplift is applicable because the respective dates of accreditation do not span any 31 March date.</b>						
	Date of accreditation	Date first commissioned	Capacity	Initial tariff	New tariff with effect from date of accreditation of additional capacity	Tariff lifetime
<b>Biomass boiler 1 Original installation</b>	1 May 2013	15 April 2013	150kWth	8.6 (Small biomass tariff in place on 1 May 2013)	5.3 (Medium biomass tariff in place on 1 May 2013)	20 years from 1 May 2013
<b>Biomass boiler 2 Additional</b>	1 September 2013	18 July 2013	100kWth		4.8 (Medium biomass tariff in place on 1	20 years from 1

<sup>58</sup> For installations with tariff start dates prior to 1<sup>st</sup> April 2016, this will be adjusted with the RPI. For installations with tariff start dates on or after 1<sup>st</sup> April 2016, this will be adjusted with the CPI.

<sup>59</sup> NB. This is subject to specific provisions in the regulations in relation to biogas and solid biomass in certain circumstances (see Regulations, Part 8, Regulation 76(5) and (6)).

RHI capacity					September 2013)	September 2013
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## Additional capacity first commissioned more than 12 months after the original installation

10.15. If you apply for accreditation for additional RHI capacity which is first commissioned more than 12 months *after* the date the original RHI installation was first commissioned, the **original accredited RHI installation** will continue to receive the same tariff and have the same lifetime as when it was accredited (adjusted by the relevant inflation rate as appropriate).

10.16. The tariff that is applicable for the **additional RHI capacity** will be determined on the basis of the combined capacity of the original accredited RHI installation and the additional capacity. It will be the tariff that is applicable on the date of accreditation of the *additional* (not original) RHI capacity. The tariff lifetime for the additional RHI capacity will apply from its date of accreditation.

10.17. The table below provide examples of how tariffs would be calculated.

Table 10: Degression, and additional capacity commissioned after 12 months

<b>Additional capacity first commissioned more than 12 months after the original installation being first commissioned.</b>						
In this example, as the combined capacity of the original installation and additional RHI capacity is more than 200kWth the tariff for the additional RHI capacity will be based on the medium biomass tariff.						
	Date of accreditation	Date commissioned	Capacity	Initial tariff	New tariff with effect from date of accreditation of additional capacity	Tariff lifetime
<b>Biomass boiler 1 Original installation</b>	1 December 2011	15 November 2011	150kWth	7.9	8.1 (Continuation of small biomass tariff applied when original installation accredited)	20 years from 1 December 2011
<b>Biomass boiler 2 Additional RHI capacity</b>	12 March 2013	1 March 2013	100kWth		5.1 (Medium biomass tariff in place on 12 March 2013)	20 years from 12 March 2013

## Technology-specific requirementsAir quality requirements

10.18. The regulations require that solid biomass boilers have either an RHI emissions certificate or an environmental permit (for specific details see volume 1, chapter 9 on 'Air quality requirements'). If your original application was submitted before 24

September 2013 and you apply for additional capacity on or after 24 September 2013, the additional capacity will require a RHI emissions certificate or environmental permit.

### Additional capacity for solar thermal technologies

10.19. Solar thermal installations of 200kWth and above are not eligible for RHI support. Where additional RHI capacity is added to an existing RHI accredited solar thermal installation, the additional capacity will be eligible and the combined installation will continue to receive RHI support, provided that the combined installation capacity remains below 200kWth and the installation meets all other eligibility requirements (see below). If the combined installation capacity for the installation is over the upper limit, the additional RHI capacity will not be eligible.

### Additional capacity for biogas technologies

10.20. For a biogas installation, where additional capacity is installed which brings the combined capacity to 200kWth or above would be eligible.

10.21. The first commissioning of both the original installation and the additional RHI capacity will determine how tariffs are calculated. The principles set out above in the sections for additional capacity [within 12 months](#) and [more than 12 months](#) will be applicable.

10.22. There is however a specific provision which affects tariffs for biogas technologies where:

- the first commissioning date of the additional RHI capacity is **within 12 months** of the first commissioning date of the original installation, and;
- the date of accreditation of the original installation is **before** 4 December 2013, and;
- the additional RHI capacity is first commissioned **on or after** 4 December 2013, and;
- the combined capacity of the original installation and the additional RHI capacity is **above** 200kWth.

10.23. In these circumstances the tariff applicable from the 28 May 2014 for both the original installation and the additional RHI capacity will be the relevant tariff based on the total capacity of the original installation and the additional RHI capacity on that date.

### Additional capacity for biomethane

10.24. Biomethane producers are also able to apply for additional capacity if their date of registration is on or after 28 May 2014. When producers first apply to the scheme and are registered as biomethane producers we will notify them of the maximum initial capacity applicable to their registration. Additional biomethane capacity refers only to any additional capacity which exceeds the maximum initial capacity, and is being supplied for injection at the same point as the biomethane for which you were first registered. Please see volume 1, chapter 12 for further information.

- 10.25. Applications will need to comply with the requirements as if applying for registration of any biomethane production. Please refer to volume 1, chapter 12 for further details.
- 10.26. The tariff lifetime for any registered additional biomethane capacity will be the same as that of the biomethane for which the producer was originally registered.
- 10.27. The tariff for the original registration will remain the same.
- 10.28. The tariff for the registered additional biomethane capacity will be that applicable on the date of registration of the additional biomethane capacity.
- 10.29. When the additional biomethane capacity is registered, we will specify the maximum additional capacity – the volume (in standard cubic meters per quarter) the participant is entitled to supply for injection set out in the Network Entry Agreement, which is above their maximum initial capacity. In order to establish your maximum initial capacity you will need to understand how much biomethane your NEA entitles you to inject. To do this you may wish to contact your network operator.
- 10.30. To receive support for additional capacity you must submit a new application for registration. We will assess the application against the requirements of the additional capacity before deciding if the additional capacity can be registered.
- 10.31. We will require information for registration as outlined in Schedule 1 of the regulations.
- 10.32. If you are considering making an application for additional biomethane capacity, please contact us via at [RHI.notification@ofgem.gov.uk](mailto:RHI.notification@ofgem.gov.uk).

### Modified capacity

- 10.33. We would not consider instances where the thermal output of an existing accredited installation is changed by the modification or addition of heat-transfer medium or primary combustion equipment as Additional Capacity. These would be classified as 'Modified Capacity'. Such changes would still be regarded as a material change for which Ofgem would need to receive a formal notification within 28 days of that change being made.
- 10.34. Some examples of situations which we would deem to be capacity modifications would be replacing burners in an existing boiler, re-tubing a boiler to increase the thermal output, installing new heat-recovery equipment to a CHP in order to increase peak output capacity. Ofgem will require evidence of the information outlined in schedule 1 to the regulations as with the normal application process, and will evaluate each notification of change on a case-by-case basis.

## 11. Change of ownership or relocation of an accredited RHI installation

This chapter contains information on how a change of ownership or the relocation of all or part of an accredited RHI installation.

### Change of ownership of an accredited RHI installation

- 11.1. The regulations allow for the ownership of an installation, or part of an installation, to be transferred. This means that if you are the existing owner of an accredited RHI installation and wish to sell or transfer all or part of the installation, the new owner will be able to assume entitlement to payments under the RHI for the remainder of the installation's tariff lifetime provided the conditions below are met.
- 11.2. Where an accredited installation is bought by or transferred to a new owner, the current scheme participant (outgoing owner) ceases to be entitled to payments for the installation from the date of transfer of ownership. The new owner may apply to receive RHI support for the remaining eligibility period of the installation. This is provided that all eligibility criteria are still being met and that we are satisfied that the new owner will comply with the ongoing obligations required under the scheme.
- 11.3. In order for a new owner to begin receiving payments for an installation which was accredited under previous ownership and ownership of all of which is now transferred, the following steps need to be completed:
  - the prospective participant (new, incoming owner) will need to contact us and notify us of a change in ownership in order to become eligible to receive periodic payments as a participant. Once we are satisfied they are the new owner, that they will comply with the ongoing obligations of the scheme, that they have supplied us with any information we require them to supply and that the installation continues to meet the eligibility criteria, we will update our register to reflect that the new owner is now the scheme participant for that installation and
  - the current scheme participant (outgoing owner) needs to advise us in writing that ownership is being transferred to a new owner.
- 11.4. We need to be notified by the outgoing owner of the change in ownership of an accredited installation within 28 days of the date of the change. If an outgoing owner fails to notify us of a change of ownership within 28 days, he or she will be in breach of their ongoing obligations and we may take enforcement action against them. A delay or failure by an outgoing owner may impact on the time taken for payments to be transferred to a new owner, a prospective owner may wish to consider including an obligation on the outgoing owner to complete the required notification in any transfer documentation.
- 11.5. Payments for the original owner of an accredited installation will stop from the date of transfer of ownership. This is because eligibility for the RHI payments is based on

ownership of the relevant installation. Payments for the new owner will only start from the date that we are satisfied with the completion by the new owner of the formalities required to demonstrate his/her entitlement and will not be back-dated to the date of transfer. For example, if the installation is sold in January 2014 but the new owner does not notify us and complete the formalities to receive payments until June 2014, then payments for the new participant will only begin to accrue from June for the remainder of the installation's tariff lifetime from its original accreditation date. It is therefore in the interests of the new owner of the installation to notify us of the transfer of ownership, to provide the requested information and agree to the conditions of the scheme as soon as possible.

- 11.6. If you are the incoming owner of an installation then, even if the outgoing owner has notified us of a change of ownership, as the installation's new owner you should contact us as soon as possible to notify us of the change (within 12 months of the change in ownership date – see below). We may ask you to supply evidence of ownership (in addition to any other information which we may require under the regulations in order to enter you into the Ofgem RHI register or to review the eligibility of your installation). This may delay your payments.
- 11.7. A notification of a change of ownership of an installation must be made to us and the new owner entered in the RHI register as a participant within 12 months of the change of ownership. After this period, if either of these things has not happened, the installation will no longer be accredited and the incoming owner will not be entitled to any payments. An application for the same installation to re-join the scheme at a later date would not be accepted.

### **Transfer of part of an installation**

- 11.8. Where only part of an installation has been transferred to a second owner, the new part owner must notify us of the transfer. When notifying us we may require the new part owner to provide information such as evidence of part ownership. The original participant should advise us of this change of ownership within 28 days of the transfer. This can be done online through your RHI account.
- 11.9. Please note that where only part of an installation's ownership has transferred, we will require that the original accredited owner act as the 'representative owner' for all owners of that installation and will therefore continue to be regarded as the participant for that installation for the purposes of the RHI. For further information about representative owners, please refer to volume 1, chapter 4.
- 11.10. The representative owner is required to ensure compliance with all ongoing obligations of the scheme. Where there is a change of ownership of part of an installation, we may require that the representative owner provides us with evidence that they have authority from all other owners to be the participant for the purposes of the scheme.

We may extend the period in which we need to be notified of a change of ownership by a new owner of all or part of an accredited installation if we consider this to be just and



equitable<sup>60</sup>. Any attempts to continue to receive payments for an accredited installation while no longer in ownership of the installation could constitute fraud and will be dealt with accordingly. Please see chapter 14 for further information on our approach to fraud.

### **Relocation of an accredited RHI installation, and effect on tariff lifetime**

- 11.11. If you would like to relocate your accredited RHI installation, you must notify us by email within 28 days of the date that it is moved to the new location. We will stop RHI payments from the date the RHI installation is relocated. Payments will only recommence once notification has been received and we have determined that the RHI installation should continue to be accredited. On receipt of the notification we may require further information. We will review the information and accreditation to determine whether the RHI installation continues to meet the eligibility criteria at the new location and can continue to be accredited.
- 11.12. When relocated, if we determine that the RHI installation should continue to be accredited you will receive payments for the remainder of the 20 year tariff lifetime from the original accreditation date, however your Periodic Data submission date will change to the date when your installation was recredited. For example, if an installation is sold 5 years after being accredited to the RHI, then the new owner will be eligible to receive payments for the remaining 15 years of the tariff lifetime.

### **Installation breakdown**

- 11.13. If an installation breaks down and needs to be replaced, you must notify Ofgem within 28 days of this change to your installation. Under certain circumstances you may be eligible to submit a new application for a replacement plant. Please refer to chapter 12 of this document for further information on the eligibility requirements of replacement plants and the process for submitting an application for a replacement plant.
- 11.14. We will assess on a case-by-case basis whether we consider the change to your installation to be a replacement or a repair. Please see the tables at the beginning of each technology specific chapter in volume 1 for details of the integral equipment for each technology.

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<sup>60</sup> Regulations, Part 6, Regulation 54(6)



## 12. Replacement plant

This chapter outlines what a replacement plant is in the context of the Non-domestic RHI. It contains information about the criteria that needs to be met in order for participants to be able to replace their plant and what the potential consequences of replacement a plant.

### Criteria for replacement plants

- 12.1. From the 1st October 2018, participants who wish to replace their accredited plant will be able to do so, as long as they meet the criteria set out below. Eligible replacement plants will retain the same tariff and scheme lifetime as the original plant which they have replaced.
- 12.2. The RHI Regulations define a replacement plant as “a plant which is installed in place of an original plant and uses the same source of energy and technology as the original plant”. A replacement plant must meet this definition in order to be considered a replacement plant in line with the RHI Regulations.
- 12.3. A replacement plant must meet the eligibility requirements applicable to the original plant which it is replacing. In addition, plants which generate heat from solid biomass must adhere to the current air quality requirements irrespective of the date on which the original installation was accredited.
- 12.4. As a participant of the RHI scheme you are required to inform Ofgem within 28 days of the installation of a replacement. Failure to do so would be in breach of your ongoing obligations and may result in compliance action.
- 12.5. No payments will be due between the date an original plant ceased to provide heat, or was decommissioned and the date Ofgem received all the required information to assess the eligibility of a replacement plant.
- 12.6. You must ensure you submit the information required to enable Ofgem to determine the eligibility of your replacement plant. Further information on the eligibility criteria of the RHI scheme can be found in the Non-domestic RHI Guidance Volume 1: Eligibility and How to Apply. RHI payments will only be continued from the date Ofgem has received the necessary information to determine a replacement plant is eligible under the RHI.
- 12.7. Please note replacement plants are treated differently under the Feed-in Tariff (FIT) scheme. If your installation is accredited under both the RHI and FIT schemes and you replace all or part of your plant, this may affect your FIT accreditation. If you are in doubt over whether a change to your installation would cause you to lose FIT accreditation, please contact your FIT licensee in the first instance.

### Changes in capacity

- 12.8. Replacement plants may have a different capacity to that of the plant which they are replacing. In all cases, the tariff applicable to an eligible replacement plant will be the same as the original plant's tariff, even if the new capacity has resulted in a tariff boundary being crossed. However, RHI payments issued for heat generated by a replacement plant will never exceed the RHI payments that could have been issued for the original installation. In other words, the total amount of RHI payments for eligible heat produced in each reporting year will be capped. This cap will be based on the maximum feasible generation of the original plant.
- 12.9. In the instance where the original plant was in receipt of a tiered tariff, changes in capacity between an eligible replacement plant and the original plant will affect the tiering threshold applicable to the replacement plant.
- 12.10. Where a replacement plant has a greater capacity than the original plant, the tiering threshold applicable to the replacement plant will be based on the capacity of the original installation.
- 12.11. Where the capacity of the replacement plant is smaller than that of the original plant, the tiering threshold applicable to the replacement plant will be based on the capacity of the replacement plant.

## **Example 1** – replacement plant has **equal** capacity to the original plant

A 60kW biomass boiler with a date of accreditation of 1st June 2014 is replaced with a 60kW biomass boiler for which an application is submitted on or after 1st October 2018. The tiering thresholds applicable to the replacement plant will be based on the capacity of the original installation. In this example, the tiering threshold would not change as the capacity of the replacement plant is the same as that of the original installation.

## **Example 2** – replacement plant has **greater** capacity than original plant

A 60kW biomass boiler with date of accreditation of 1st June 2014 was replaced with 199kW biomass boiler for which an application is submitted on or after 1st October 2018. The **original plant** and **replacement plant** will receive the **same** tariff and tiering threshold.

	Original installation	Replacement plant
Capacity	60 kW	199 kW
Tier 1	<b>9.66 p/kW</b>	<b>9.66 p/kW</b>
Tier 1 threshold	= Capacity of original installation x 1314 hours  = 60 x 1314 = <b>78,840 kWh</b>	= Capacity of original installation x 1314 hours  = 60 x 1314 = <b>78,840 kWh</b>
Tier 2	<b>2.53p/kWh</b>	<b>2.53p/kWh</b>
Payment cap	N/A	= maximum annual generation

		of original installation = 60 x 24 hours x 365 days = <b>525,600 kWh</b>
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In this scenario, tier 2 payment will be issued for eligible heat produced above the 78,840kWh threshold and will be capped at 525,600kWh (i.e. the payment cap) each reporting year. Any eligible heat produced in each reporting year which exceeds 525,600kWh will not be eligible for payment.

### Example 3 – replacement plant has **smaller** capacity than original plant

A 199kW biomass boiler with date of accreditation of 1st June 2014 was replaced with a 60kW biomass boiler for which an application is submitted on or after 1st October 2018. The **replacement plant** will receive the **same** tariff as the original plant. In this case, the tariff is made up of 2 tiers. However, the replacement plant's tiering threshold will be calculated based on the capacity of the **replacement plant, not** the original plant

	Original installation	Replacement plant
Capacity	199 kW	60 kW
Tier 1	<b>9.66 p/kW</b>	<b>9.66 p/kW</b>
Tier 1 threshold	= Capacity of original installation x 1314 hours  = 199x 1314 = <b>261,486 kWh</b>	= Capacity of original installation x 1314 hours  = 60 x 1314 = <b>78,840 kWh</b>
Tier 2	<b>2.53p/kWh</b>	<b>2.53p/kWh</b>

In this scenario, RHI payments issued in each reporting year will be based on the capacity of the replacement plant. As such, tier 1 payments will be issued for the first 78,840kWh of eligible heat generated each reporting year. No cap on generation will be applied as the capacity of the replacement plant is smaller than that of the original plant.

## How to apply for a replacement plant

- 12.12. If you have replaced, or intend to replace, your accredited plant, you will need to submit a new RHI application for the accreditation of your replacement plant.
- 12.13. There may be cases where an alteration is made to an accredited installation which will not constitute a replacement of a plant. This could include minor repair work following a service. However, large-scale changes to the heat generating equipment of an accredited installation (e.g. decommissioning and changing one or more of your biomass boilers) is likely to be considered a replacement.

- 12.14. In the case that your original plant was comprised of more than one component plant and you have replaced one or more of those component plants, your replacement plant application should be in respect of all component plants that make up your plant, including the component plant you have replaced. In other words your replacement plant application should not only include the component plant you are replacing.
- 12.15. When completing the a new application form for your replacement plant, you will be asked four questions which specifically relate to the replacement of a your plant.
- *Question reference* **HA099-2** will ask you whether your plant is a replacement plant or an accredited plant which has been relocated.
  - *Question reference* **HA0992-3** will ask you for the RHI number of your original accredited plant.
  - *Question reference* **HA099-4** will ask you for the decommissioning date of your original plant.
  - *Question reference* **HC110** will ask you to enter the commissioning date of your replacement plant.
- 12.16. Once you have completed an application for your replacement plant, Ofgem will assess the eligibility of your replacement plant and will contact you if any further information is required.
- 12.17. If your original plant was accredited prior to 2014, please note the evidence accepted with your original application may not be accepted with your replacement plant application. For example, you may need to submit an updated schematic, as the pre 2014 schematic may not meet our current standards.
- 12.18. In addition, replacement plants which generate heat from solid biomass must comply with the current air quality requirements, for more information on air quality, please refer to the [Non-domestic RHI Guidance Volume 1](#). As part of your replacement plant application you will be asked questions in relation to air quality including being asked to provide an emissions certificate. For further information on emission certificates, please see chapter 9 of the [Non-domestic RHI guidance: Volume 1](#).

## 13. Ongoing scheme obligations for biomethane producers

This chapter covers ongoing obligations that apply only to registered biomethane producers

- 13.1. Participants that are biomethane producers are subject to many of the same ongoing obligations as owners of biomass and biogas plants and should therefore read other sections of this volume (for example, fuelling and sustainability requirements). This chapter covers additional ongoing obligations for only biomethane producers.

### Propane

- 13.2. Biomethane may require the addition of propane to bring it to the required quality (calorific value) to inject on to the gas network. The energy content of the propane used in each quarterly period (based on the GCV and volume) must be measured and submitted as part of periodic data. We will then take this into account in the payment calculation.
- 13.3. Depending on the specifics of your application for registration, we may require more frequent collection of propane and other data (e.g. monthly). This more frequent verification is to help us ensure the accurate provision of data. As discussed in chapter 6, we also require the submission of an FMS Questionnaire, which includes setting out how the participant intends to measure the propane which has been added to the biomethane.
- 13.4. We will consider proposals from biomethane producers to use a reference GCV figure of propane based on existing data (e.g. from the supplier of the propane), rather than the producer having to measure the GCV every quarter. We would expect this GCV to be verified by comparison to initial samples or analysis of the actual propane used at the plant.

### Use of contaminated feedstocks

- 13.5. If solid biomass is used as a feedstock, the provisions on contamination in Regulation 71 apply.
- 13.6. Where the gas is produced from gasification or pyrolysis, the energy content of any contamination in the biomass feedstocks will also be deducted. Please refer to the FMS guidance for more information.

## 14. Ongoing scheme obligations for new solid biomass CHP systems

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This chapter includes the ongoing obligations that apply to new solid biomass CHP systems only.

- 14.1. Participants with new solid biomass CHP systems are subject to many of the same ongoing obligations as owners of biomass and biogas plants and should therefore read all other relevant sections of this guidance (for example, fuelling and sustainability requirements). This chapter covers additional requirements only for new solid biomass CHP systems.

### Continued CHPQA certification

- 14.2. Participants with new solid biomass CHP systems must provide us with evidence of certification under the CHPQA (the Combined Heat and Power Quality Assurance Standard Issue 6). This should be provided to us as soon as it is available, and by no later than the end of June for each year of participation on the scheme. This information should be sent to [RHI.Periodicdata@ofgem.gov.uk](mailto:RHI.Periodicdata@ofgem.gov.uk). Participants should also report any issues they encounter with providing evidence of their renewed CHPQA certification to this e-mail address as soon as those issues are encountered.
- 14.3. During any period for which participants are unable to provide evidence of CHPQA certification the tariff rate will be reduced to the tariff that would have been applicable if the installation had never been CHPQA certified.

### Power Efficiency

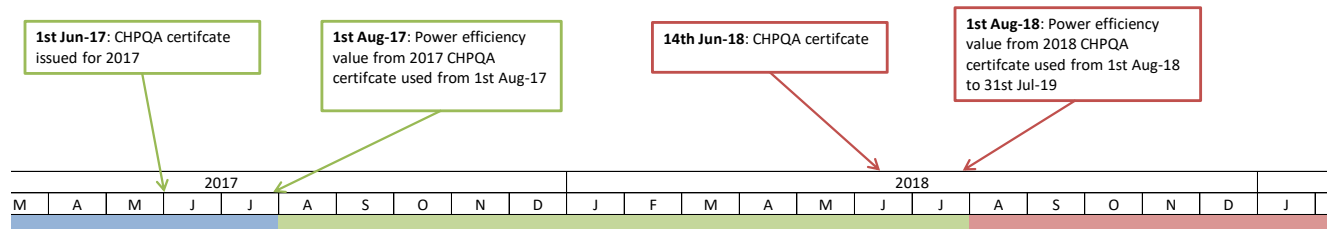
- 14.4. For a new biomass CHP plant with a date of accreditation on or after 1 August 2016, there is a requirement to achieve a minimum power efficiency in order to qualify for the full biomass CHP tariff.

The power efficiency of a CHP system for these purposes is determined as follows:

- Power efficiency is determined and fixed for each 12 month period beginning on the 1 August and ending on 31 July.
- The power efficiency for all of that period is the power efficiency stated on the CHPQA certificate which is issued in the calendar year in which that period begins. The diagram below illustrates how this works in practice.

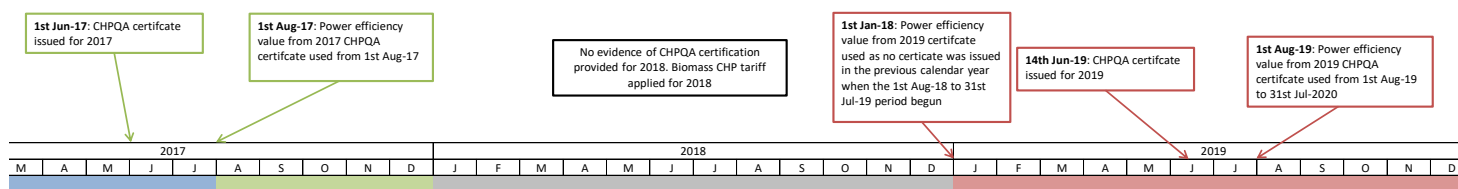
# Non-Domestic Renewable Heat Incentive

Example falling under 68 (4)(a): "on the certificate issued under CHPQA in which that period begins"



- Where no CHPQA certificate is issued in a calendar year for a solid biomass CHP system, the tariff for the heat generated by it in that year will be determined as though the system had never been CHPQA certified.
- Where no CHPQA certificate is issued in the calendar year where a 12 month (1 August – 31 July) period begins then, the power efficiency for any part of that period will be that stated on any CHPQA certificate issued in the following calendar year. The diagram below illustrates how this could look in practice.

Example falling under 68 (4)(b): "on the most recent recent certificate issued under CHPQA where a certificate has not been issued in the calendar year in which that period begins"



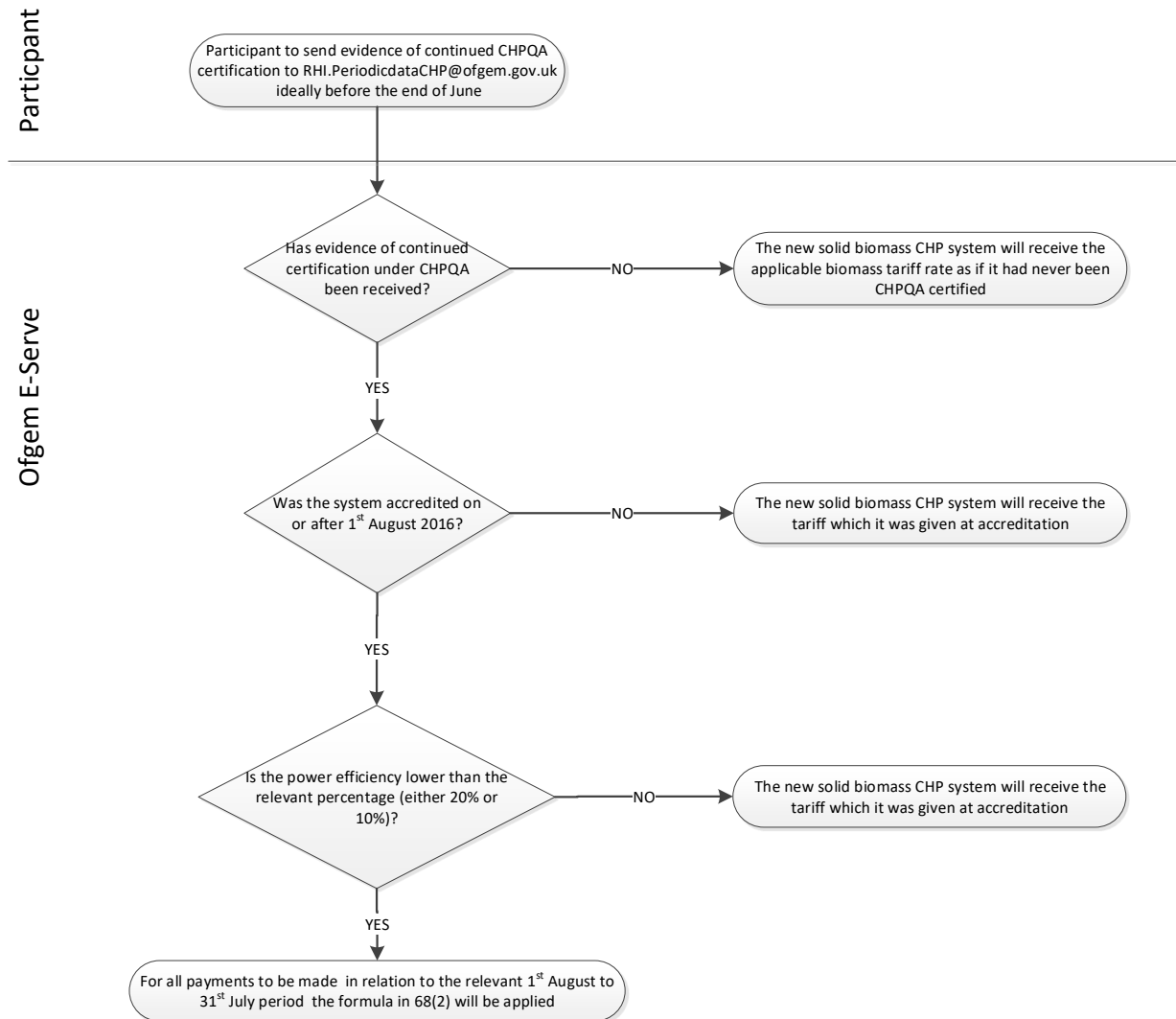
- 14.5. If the power efficiency of a CHP system is less than the applicable power efficiency threshold (see table below) then periodic support payments must be adjusted. This means that a proportion of payments will use the tariff rate on which the system was accredited (i.e. the biomass CHP tariff) and the remainder will use the solid biomass (non-CHP) tariff. Please see Appendix 1 for an example.

## Power efficiency thresholds

- 14.6. The power efficiency threshold that applies to an installation is dependent on the date of accreditation. This is summarised in the table below:

Power efficiency thresholds			
Date of accreditation	Threshold that applies up until 31/12/16	Threshold that applies from 01/01/2017	Threshold that applies from 22/05/2018
Before 01/08/2016	N/A	N/A	N/A
01/08/2016 to 31/12/2016	20%	10% (or 20% if Ofgem have been notified by an installation prior to 1 <sup>st</sup> Feb 2017 that they wish to retain the 20% power efficiency threshold)	10% (or 20% if Ofgem have been notified by an installation prior to 1 <sup>st</sup> Feb 2017 that they wish to retain the 20% power efficiency threshold)
01/01/2017 to 22 May 2018	N/A	10%	10%
22 May 2018 onwards	N/A	N/A	20%

14.7. The diagram below illustrates when evidence of renewed CHPQA certification should be provided and the typical review process Ofgem will carry out.





## 15. Compliance and enforcement powers

This chapter outlines how we ensure compliance with the conditions of the RHI scheme, including our enforcement powers and procedural approach to non-compliance.

- 15.1. The regulations set out the eligibility criteria and ongoing obligations that must be complied with in order to receive RHI payments.
- 15.2. We also provide resources to assist participants in complying with their scheme obligations. These include the publication of this guidance and Easy Guides, stakeholder engagement activities and the RHI customer service team, which deals with questions about the scheme.
- 15.3. As administrator of the RHI scheme, we have put in place an application process together with a system of internal checks and review procedures, which aim to ensure that only installations and producers of biomethane that meet the eligibility criteria are accredited or registered, and that these participants receive the correct levels of support as set out in the regulations. We have a responsibility to ensure compliance with the rules of the Renewable Heat Incentive Scheme, and have a zero tolerance approach to fraud. We have a dedicated Counter Fraud team with a Fraud Prevention Strategy aimed at preventing, detecting and deterring fraudulent activity on the scheme. In the context of the RHI, we deem fraudulent activity to be any dishonesty or misrepresentation in relation to the scheme rules and regulations. Where evidence of fraudulent activity is found, the Counter Fraud team will refer the matter to Action Fraud and the relevant police force, along with the suspension of payments and/or removal from the Non-Domestic RHI.
- 15.4. Where we suspect that participants may be failing to comply with ongoing obligations, we will take steps to determine the facts. In the first instance, we will normally contact a participant to request further information, clarification or relevant evidence. This should be sufficient in the majority of cases to establish whether a participant is compliant. However, if we are not satisfied with the outcomes of our initial enquiries, we may carry out a site inspection (see chapter 14) or, if we have reasonable grounds to suspect that a participant has failed or is failing to comply with their ongoing obligations under the scheme, instigate a formal investigation.
- 15.5. Once we are satisfied that we are in possession of the relevant facts of a case, we will decide what further action, if any, may be appropriate to deal with the matter. Our approach may include confirming that a participant is in compliance, contacting the participant informally to advise them of any non-compliance and advising them of what they should do to rectify the situation, or exercising one or more of the enforcement actions that are available to us under the regulations.
- 15.6. In deciding whether to take enforcement action, we will take into consideration all the circumstances surrounding the non-compliance, which may include, for example;
  - seriousness of the non-compliance and the duration

- whether the participant voluntarily reported the non-compliance
- reasons why the non-compliance happened and any mitigating circumstances
- whether there is a history of non-compliance by the participant
- whether the participant has gained financially through the non-compliance
- the conduct of the participant after the non-compliance has been discovered.

15.7. The range of enforcement actions that we may carry out under the regulations and examples of how these might be applied, are described in the rest of this chapter.

### **Withholding periodic support payments to investigate alleged non-compliance<sup>61</sup>**

15.8. If we have reasonable grounds to suspect that a participant has failed or is failing to comply with their ongoing obligations or that an installation has been given accreditation or a producer of biomethane for injection has been registered as a result of information which is materially incorrect, and we have been unable to resolve the matter through informal enquiries, we may conduct an investigation to find out the full facts of a case. In this case, where we require time to investigate, we have the power to temporarily withhold all or part of a participant's periodic support payments until the investigation finishes (up to a maximum of six months from the date payments were withheld).

15.9. Where we have applied this sanction, payments will continue to accrue but will not be paid to the participant whilst we are still investigating (subject to 14.15 below).

15.10. Examples of when we may decide to withhold payments while an investigation continues may include (but are not limited to): instances where we have reason to consider that information provided in an application for accreditation or registration was incorrect or where the participant may no longer own the relevant installation but has not informed us within 28 days.

15.11. If we do temporarily withhold periodic support payments, we will notify participants within 21 days of making that decision to let them know:

- the reason we suspect they are failing or have failed to comply with ongoing obligations, or details of the information we suspect to be incorrect, on which accreditation or registration was based.
- the reason why we are temporarily withholding payments
- the date from which payments will be withheld
- the next steps in the investigation process; and

15.12. details of their right to request a review of our decision We will provide an update on the progress of the investigation to the participant every 30 days after the date of notification, including whether or not we will continue to temporarily withhold their payments.

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<sup>61</sup> Regulations, Part 9, Regulation 78

- 15.13. We will aim to carry out investigations in a timely manner and will not temporarily withhold a participant's periodic support payments for longer than six months. However, if a participant takes longer than two weeks to provide information that we request during our investigation starting from the date on which we requested it, the period of such delay will not count towards the six-month time limit.
- 15.14. Upon conclusion of an investigation, or after six months, whichever is the earlier, we will notify the participant of the outcome of the investigation or, if the investigation is not finished, inform them.
- 15.15. Where an investigation has been concluded within six months and we are satisfied that the participant was in (or has resumed) compliance with their ongoing obligations, we will pay those periodic support payments which have been temporarily withheld, less any proportion of such payments which we decide to permanently withhold or reduce to the extent that this is attributable to the participant's material or repeated failure to comply with their ongoing obligations, or their supply of information which is materially incorrect.<sup>62</sup>
- 15.16. Where an investigation has not been concluded within six months, we will notify the participant that the investigation is continuing. We will pay a participant those periodic support payments which we have temporarily withheld, less any portion of payments which we have decided to permanently withhold (where we are satisfied of the participant's material or repeated failure to comply with an ongoing obligation or that an installation has been given accreditation or a producer of biomethane for injection registered as a result of information which is materially incorrect). The participant will continue to receive periodic support payments in accordance with the participant's existing payment schedule until the investigation is concluded (less any portion of such payments which we have decided to permanently reduce). When the investigation is finished and we consider that the participant was in (or has resumed) compliance with their ongoing obligations under the scheme, the matter will be closed.
- 15.17. Where we are satisfied that the participant is either failing to comply with an ongoing obligation, there has been a material or repeated failure by them to comply with their ongoing obligations or that an installation has been given accreditation or a producer of biomethane for injection has been registered as a result of information which is materially incorrect, we may take further enforcement action, and may also seek to recover payments previously made to the participant which relate to periods during which the participant was non-compliant. Such recovery may be by offsetting the amounts against any future periodic support payments or by requiring repayment of the sum due from the participant (see section 'Recouping overpaid periodic support payments' below).
- 15.18. Where an investigation has concluded and we are satisfied that the participant is either failing to comply with an ongoing obligation or there has been a material or repeated failure to comply with ongoing obligations or that an installation has been given accreditation or a producer of biomethane for injection has been registered as a result of information which is materially incorrect, we may then take further enforcement action (see below).

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<sup>62</sup> Regulations, Part 9, Regulation 79 and 80

### **Withholding periodic support payments<sup>63</sup>**

15.19. Where we are satisfied that a participant is failing to comply with an ongoing obligation under the scheme or that an installation has been given accreditation or a producer of biomethane for injection has been registered as a result of information which is materially incorrect, we may temporarily or permanently withhold all or part of that participant's payments. This means that we will stop making payments to the participant.

15.20. Generally, we will temporarily withhold payments where the participant, is failing to comply with an ongoing obligation but is capable of rectifying this non-compliance. However, whether payments are resumed or repaid will depend on the nature of the non-compliance. Examples of this could include (but are not limited to), temporary use of heat for ineligible purposes, breaches of fuel eligibility requirements, a failure to submit periodic data within the specified timeframe or failure to provide requested information, including the annual declaration. We may also temporarily withhold payments if a participant notifies us that they will be unable to comply with the scheme rules for a particular period (e.g. due to a temporary inability to source eligible fuel), but still wish to remain as a participant in the scheme.

15.21. When we withhold payments, within 21 days of that decision we will send the participant a notice specifying:

- where there is a failure to comply with an ongoing obligation, the respect in which the participant is failing to comply where the installation was given accreditation or the participant registered as a producer of biomethane for injection as a result of the provision of incorrect information, details of the respect in which the information was incorrect
- the amount of period support payments we intend to withhold in each quarterly period and the date from which these payments will be withheld
- where applicable, the steps that the participant must take to satisfy Ofgem that they are complying with the ongoing obligation, or, notwithstanding the provision of incorrect information, the installation should continue to be accredited, or the participant should continue to be registered
- the consequences of the participant failing to take the steps to satisfy Ofgem
- the date by which the steps referred to above must be completed and details of the participant's right to review

15.22. Where we are satisfied that the participant is compliant, within 21 days of making this decision, we will take the necessary steps needed for the participant to be paid periodic support payments (but only those falling after the date of our decision).

15.23. A participant is not entitled to recover payments which have been withheld during a period of non-compliance.

15.24. However where a participant has rectified any non-compliance within 6 months notice of withholding being issued, we may exercise discretion in making payments that have

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<sup>63</sup> Regulations, Part 9, Regulation 79 and 80

been withheld due to the suspension. When deciding how we exercise this discretion we will take into account the circumstances of the case including the impact of the non-compliance, if any, on the generation of eligible heat. For example, we may consider that non-compliance of delays in submitting information or the annual declaration, whilst constituting non-compliance with ongoing obligations, may not have compromised the generation of heat which would otherwise have been eligible for support.

15.25. Where we do use our discretion to make a payment which we had previously withheld, we will make the payments to the participant within 28 days of being satisfied that the participant has resumed compliance with their ongoing obligations. It should be noted that if non-compliance continues for a period of six months or more from the date of withholding, we no longer have discretion to repay any payments which have been withheld.

15.26. If a participant has been unable to resume compliance within the specified period it is possible this may constitute a material or repeated failure by the participant to comply with an ongoing obligation, or continued provision of information which is materially incorrect. We may therefore take further enforcement action on this basis – which could include reducing periodic support payments or permanently withholding a proportion of them, or revoking accreditation or registration as set out below.

### **Permanently withhold or reduce periodic support payments<sup>64</sup>**

15.27. Where we are satisfied that there has been a material or repeated failure by a participant to comply with an ongoing obligation during any quarterly period, (and the periodic support payment for that quarterly period has not been paid), we may:

- permanently withhold a proportion of the periodic support payment corresponding to the proportion of the quarterly period during which the non-compliance occurred; or
- reduce by up to ten per cent either the periodic support payment for the quarterly period during which the breach occurred, or the periodic support payment for the next quarterly period.

15.28. This would mean that the participant could receive either no periodic support payment or a reduced periodic support payment for the quarterly period they failed to comply, or the participant could have their next quarterly periodic support payment reduced.

15.29. Any level of reduction will be determined (based on the factors mentioned at paragraph 14.6 above and any other relevant information). Within 21 days of the decision to permanently withhold or reduce periodic support payments, we will send a notice to the participant. The notice will specify:

- how they have failed to comply with the rules of the scheme
- the reason why the periodic support payment is being withheld or reduced
- the period that the reduction or withholding of payments is for

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<sup>64</sup> Regulations, Part 9 Regulation 80

- the level of any reduction
- details of their right of review of our decision.

### **Revocation of accreditation or registration<sup>65</sup>**

- 15.30. Where we are satisfied that there has been a material or repeated failure by a participant to comply with an ongoing obligation, that an installation has been given accreditation or a producer of biomethane for injection has been registered as a result of information which is materially incorrect, or there has been a failure to comply with a notice issued by Ofgem<sup>66</sup>, we have the power to revoke the accreditation of an installation if the participant's failure has occurred, or to revoke the participant's registration as a producer of biomethane for injection. We also have the power to revoke accreditation for any other accredited RHI installations owned by the participant.
- 15.31. On revocation of accreditation, an installation ceases to be eligible for any further payments under the scheme.
- 15.32. Examples of cases that might warrant revocation may include (but are not limited to): providing false or materially inaccurate information in order to obtain accreditation or registration, repeated or material errors in periodic data or annual declarations, repeated or material failure to maintain equipment according to manufacturer's instructions or generating heat for the predominant purpose of increasing payments.
- 15.33. In addition, for an RHI installation that generates heat from solid biomass, where we are satisfied that i) an RHI emissions certificate is required for that plant and ii) the plant has been accredited due to materially incorrect information in that certificate, we may revoke the participant's accreditation.
- 15.34. Any decision made on whether to revoke accreditation or registration will take into account information which we consider to be relevant, including the factors mentioned in paragraph 14.6 above.
- 15.35. Before revoking accreditation or registration, we will send a notice to the participant. The notice will inform the participant of:
- the reason for the intended revocation including the details of the participant's non-compliance (or the information which is materially incorrect)
  - an explanation of the effect of the revocation on the participant (i.e. that they will be removed from the scheme and will not be eligible for future payments at any time, either for the one affected installation, all installations owned by the participant or for production of biomethane for injection by the participant as applicable)
  - details of their right to request a review of our decision.
- 15.36. In addition, where we have revoked accreditation or registration from a participant, we may also refuse in the future to accredit any installations owned by that former participant or to register that former participant as a producer of biomethane for

<sup>65</sup> Regulations, Part 7, Regulation 81(1)

<sup>66</sup> Regulations, Part 7, Regulation 81(1)(c)

injection. Where we suspect that a participant has deliberately falsified information provided to us in order to defraud the scheme we will refer such cases to the relevant authorities for further action. Our Counter Fraud team will refer such cases to Action Fraud and the relevant police force. This may lead to a criminal prosecution, as well as to the suspension of payment and/or removal from Non-Domestic RHI.

### **Recovering overpaid periodic support payments<sup>67</sup>**

15.37. Where we are satisfied that a participant or a former participant has received a payment which exceeds their entitlement, or has received a payment whilst failing to comply with an ongoing obligation (or following such a failure), were paid as a result of providing information which was materially incorrect we may either:

- require a participant or former participant to repay some or all of the overpaid amount, or
- recoup some or all of the overpaid amount by offsetting it against future periodic support payments.

15.38. In cases where the participant remains in the scheme, we will usually offset the amount due to us against future payments to which the participant is entitled. But there may be instances (for example, where a participant is no longer in the scheme, where the amount to be repaid exceeds any future entitlement to quarterly payments or where the overpayment is significant) where we may require a participant to repay the overpaid amount directly. As the regulations place an ongoing obligation on participants to repay any overpayment of which they are notified<sup>68</sup>, we may take enforcement action in cases where a participant who remains in the scheme fails to comply with a notice to repay. Where appropriate, we may also take action to recover the overpayment from a participant or a former participant as a civil debt owed to us.

15.39. Before taking action for repayment or to offset an amount owed to us against future payments, we will send a notice to the participant. The notice will specify:

- the sum we are seeking to recover
- the basis on which that sum is calculated
- whether the specified sum must be repaid or offset
- where applicable, the date by which the sum must be repaid
- where applicable, the amount which will be offset in each quarterly period and the time it will take for the sum to be recovered
- details of the participants or former participants right to request a review of our decision

15.40. We will usually seek to recover an overpayment either by offsetting it against the full amount of the participant's next payment and all subsequent payments until the amount has been repaid, or by requesting payment in full within 28 days of the issue of a notice to repay. However if an overpayment to a participant has resulted from an error by us, we will seek to agree with the participant an appropriate schedule for

<sup>67</sup> Regulations, Part 9, Regulation 83

<sup>68</sup> Regulations, Part 3, Regulation 43(o)



repayment of the sum due, which may include the ability to repay the amount by instalment or through offsetting the amount against future payments over a longer period. Where a participant considers that repayment of a previous overpayment is likely to result in significant hardship, they should contact us to discuss as soon as possible after receiving a notice to repay.

### **Revocation of sanctions<sup>69</sup>**

- 15.41. We may revoke a sanction which we have previously imposed on a participant. We may do so where there was an error involved when the sanction was originally imposed, or where it is otherwise just and equitable to do so.
- 15.42. We may also revoke a sanction as a result of a current or former participant's successful request for review.
- 15.43. Within 21 days of the decision to revoke a sanction, we will send a notice to the participant. The notice will specify:
- the sanction which has been revoked,
  - the reason for the revocation
  - what actions we propose to take relating to any loss of periodic support payments incurred by the participant due to the sanction (e.g. where we had suspended, withheld or reduced payments), including timescales for doing so
  - details of whom they may speak to if they are not satisfied with how we propose to deal with any loss of payment.

### **Evidence of criminal activity**

- 15.44. Ofgem takes a zero tolerance approach to fraud. A dedicated Counter Fraud team carries out activities to detect, prevent and deter fraudulent activity on the Non-Domestic RHI. Irrespective of any action we may take in relation to compliance, if we uncover evidence of possible criminal conduct such as fraud, the matter will be dealt with by our Counter Fraud team and we will refer cases to Action Fraud and the relevant policy authority. This may lead to criminal prosecution, as well as the suspension of payment and/or removal from the Non-Domestic RHI.

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<sup>69</sup> Regulations, Part 9, Regulation 48



## 16. Inspection and audit powers

This chapter covers how we audit and inspect installations for which accreditation has been applied for or granted under the RHI scheme, as well as guidance on how we audit facilities operated by producers of biomethane.

16.1. We (or agents authorised on our behalf), will carry out a programme of audits<sup>70</sup> of accredited RHI installations and biomethane facilities (and associated infrastructure) on an ongoing basis. We may also inspect during the application process in order to verify that an installation should be accredited or that a biomethane producer should be registered. The main purpose of these audits is to encourage compliance with the regulations by identifying where participants are failing to meet their ongoing obligations. Audits also help to safeguard the scheme against fraud.

16.2. Audits may be conducted as site inspections or desk based reviews.

### Audit of accredited RHI installations

16.3. Our audit programme will cover installations selected on the basis of:

- specific concerns which may have arisen e.g. as a result of data submitted, concerns raised by our staff or following a report made by a third party
- risk-based factors determined by us which may include, for example, the magnitude of payments claimed, the complexity and technology type of the installation and results of any previous audits; and
- random sampling across all installations.

16.4. We may request entry in order to undertake one or more activities. During a site inspection, the inspector will gather information that will enable us to check that information provided by a participant during accreditation was accurate and that the installation has been correctly accredited. This will include evidence to enable us to assess compliance with a participant's ongoing obligations. The inspector may also verify meter readings and that periodic data provided to Ofgem is accurate so that we are able to ensure that the correct payments have been and are being made to the participant. As part of the inspection, the inspector may take samples for analysis away from the premises and may also (if appropriate) take photographs, measurements, video or audio recordings.

16.5. For desk-based reviews, we may ask participants to send in particular documentation for verification. Participants will be required to respond within the timescales specified in the request.

16.6. Participants must keep appropriate records to enable an inspector to verify all of the periodic data which the participant has provided to us. Participants should also keep all

<sup>70</sup> Regulations, Part 9, Regulation 85

documentation supporting their application for accreditation as this may also be verified during an inspection visit or desk-based review.

### **Audits for biomethane producers**

- 16.7. As outlined above, we may request entry to inspect equipment used to produce biomethane (and associated infrastructure) in order to undertake one or more of the following activities: verifying compliance with ongoing obligations and ensuring general compliance (i.e. no other contravention of the regulations); verifying meter readings; taking samples (and removing them for analysis) and taking photographs, measurements, video or audio recordings.
- 16.8. Biomethane producers must keep all documentation about the production and injection of biomethane as it may be requested to be sent in for scrutiny as part of our desk-based reviews.
- 16.9. In addition, in order to encourage compliance with the scheme, we may periodically require biomethane producers to provide an independent, third party verification of their biomethane production, to confirm that the information provided to us is correct and that the biomethane has come from renewable sources.

### **Provision of access for site inspections**

- 16.10. Before an installation is accredited, we have the right to conduct a site inspection in order to satisfy ourselves that it should be accredited<sup>71</sup>. Before a biomethane producer is registered we have the right to inspect any equipment which is being used to produce the biomethane (including equipment used to produce the biogas from which the biomethane is made)<sup>72</sup>. Once accredited or registered, participants have an ongoing obligation to provide reasonable access to us for the purposes of inspection in accordance with Part 9 of the regulations<sup>73</sup>.
- 16.11. In instances where eligible heat use occurs on third party premises not owned or controlled by the participant, the participant will be required, as a condition of accreditation, to ensure access (by contractual or other means) for us (or our authorised agents) to any relevant premises where the installation is located in order to inspect the heating installation, and also to any non-domestic premises that form part of the heat distribution system served by the installation for the purpose of verifying eligible heat use. We may also require you to provide confirmation that domestic premises receiving heat from the heat distribution system are domestic and do not have ineligible uses.
- 16.12. We will conduct inspection visits at a reasonable hour (this will generally be between 9am – 5pm, Monday – Friday). In order to simplify access and ensure availability of key personnel and data, we will normally give prior notice of site inspections. However, there may be occasions when we feel it is appropriate to conduct unannounced site inspections, for which we reserve the right to do so.

<sup>71</sup> Regulations, Part 3, Regulation 30(4).

<sup>72</sup> Regulations, Part 3, Regulation 32(5)

<sup>73</sup> Regulations, Part 4, chapter 3, Regulation 43(i).

- 16.13. Where a participant unreasonably refuses an inspector access to an installation, this may constitute a breach of the participant's ongoing obligations. As a result, we may take the decision to either launch a formal investigation (which may involve temporary withholding of a participant's payments), or to take other enforcement action (see chapter 14). It should be noted that where we are assessing the appropriateness of any enforcement action, cooperation during inspections and any related investigations is one of the factors which we may take into account.
- 16.14. If a participant unreasonably refuses our inspector access, we will send the participant a notice within 21 days. The notice will inform the participant of the reason why we consider the refusal to be unreasonable and the consequences of this (including potential sanctions). We will also inform them of their right to request a review of our decision<sup>74</sup>.

### **Outcome of the audit process**

- 16.15. Following an audit, we will write to the participant concerned to outline any issues identified by the audit and to detail the actions required of them to rectify the situation. The participant is then expected to address these issues and report to us. Depending on the nature of the issues identified and the response of the participant, we may take the decision to either launch a formal investigation (which may involve a temporary withholding of a participant's payments) or to take other enforcement action (see chapter 14).

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<sup>74</sup> Regulations, Part 10, Regulation 86(2)

## 17. Dispute resolution

This chapter covers;

- how to request a review of decisions made by us in the exercise of our functions under the regulations
- how to raise a complaint because you are unhappy with the way we have treated you or how we operate

### General RHI queries and complaints

- 17.1. General queries about our functions under the regulations should be referred to the RHI operations team in writing or by telephone following the process detailed in volume 1, chapter 1.
- 17.2. If you are unhappy with how you have been dealt with, how we have performed, how we operate or the way in which we have reached a decision, you may lodge a complaint with us using our general complaints handling process (Ofgem complaints process<sup>75</sup>).
- 17.3. Complaints about MCS installation companies should be made to the installation company, relevant MCS certification body or the Trading Standards Institute (Trading Standards Institute - Home page<sup>76</sup>) as appropriate. RECC Assurance's complaints process may also be referred to.<sup>77</sup>

### Statutory review of decisions

- 17.4. The regulations entitle an affected person to request a statutory review of a decision made by us in carrying out our functions under the regulations<sup>78</sup>. However, to be entitled to this statutory review, an affected person must ensure that we receive their request for review within 28 days of receipt of the decision notification (made by us in carrying out our functions under the regulations) they wish to be reviewed (i.e. within 28 days of the original decision).
- 17.5. A statutory review may be requested for the original decision made by a member of the RHI operational team. However, before requesting a statutory review, the affected person should consider the following:
  - it is appropriate that an affected person should instigate a statutory review only where they consider that they have already made available to the original decision maker all potentially relevant evidence, information and representations for their consideration
  - the decision of the statutory review officer (SRO) is final and will not be subject to further internal review.

<sup>75</sup> [http://www.ofgem.gov.uk/About%20us/Documents1/14751\\_complaint.pdf](http://www.ofgem.gov.uk/About%20us/Documents1/14751_complaint.pdf)

<sup>76</sup> <http://www.tradingstandards.gov.uk/>

<sup>77</sup> <http://www.recc.org.uk/monitoring/complaints>

<sup>78</sup> Regulations, Part 10, Regulation 86.

- Requests for a Statutory review of a decision should be made in writing, clearly marked as an RHI STATUTORY REVIEW, and emailed to [rhi.dispute@ofgem.gov.uk](mailto:rhi.dispute@ofgem.gov.uk) or sent by post to:

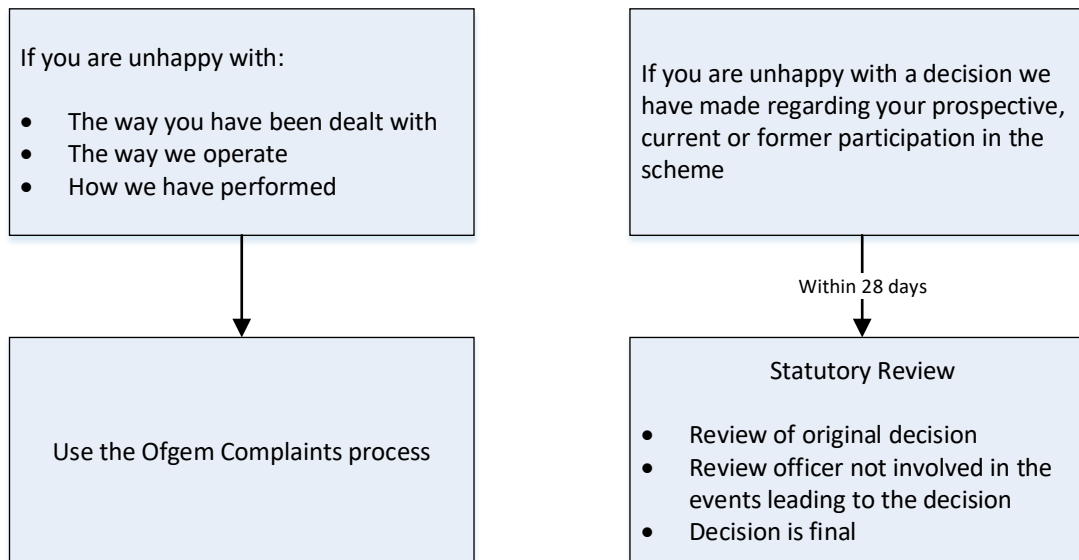
Ofgem Complaints  
Commonwealth House  
32 Albion Street  
Glasgow  
G1 1LH

- 17.6. The affected person should specify who they are, the decision they wish us to review and the grounds on which they are requesting a review. They should also include their unique RHI reference number and any review reference number, where applicable. The request must be signed by or on behalf of the affected person.
- 17.7. A letter of acknowledgement will be sent to the affected person within 2 working days of us receiving the request for statutory review.
- 17.8. The decision will be reviewed by the SRO. The SRO will be of equal or greater seniority to the original decision maker and will not have been involved in the events leading to the decision. The statutory review will be based on all the evidence, information and representations submitted by the affected person to the original decision maker. In addition, we may request such information and declarations about the information in the affected person's possession as we require to determine the review.
- 17.9. The SRO will aim to reach a decision within 20 working days. If it is not possible to do so in that time, the SRO should provide the affected person with an update within this time. The update will give a timescale (normally 20 working days) for when we will next be in contact about the review request. Within 21 days of the SRO reaching their decision, they will write to the affected person (and any other person whom we believe to be affected by the decision), to inform them of the statutory review decision with reasons.
- 17.10. For statutory reviews of decisions which we undertake, the SRO can make the following four decisions:
- revoke or vary the decision
  - confirm the decision
  - vary any sanction or condition that had been imposed, or
  - replace any sanction or condition that had been imposed with one or more alternative sanctions or decisions.
- 17.11. Affected persons should note that the statutory review decision is final and no further Ofgem review process is available. Should the affected person be dissatisfied with the SRO's response, they may take their complaint to the Parliamentary and Health Service Ombudsman who carries out independent investigations into complaints about public bodies. Details of how to make a complaint to the Parliamentary and Health Service Ombudsman can be found on their website at [www.ombudsman.org.uk](http://www.ombudsman.org.uk).

### Costs

17.12. All affected persons should note that they will be responsible for meeting their own costs when requesting a review from us or taking a case to the Parliamentary Ombudsman.

Figure 1: Overview of the RHI complaint and Statutory Review Process



## Appendix – worked payment examples

### Overview

This appendix includes worked payment examples for different installation types that can be accredited under the RHI. Payments for installations are broadly calculated by multiplying the applicable tariff by the Eligible Heat Output (EHO) generated in the relevant quarterly period.

The metering classification of your installation will determine the way in which the EHO generated by your installation (or the amount of biomethane you have produced) is calculated. Each installation is classed as 'simple', 'complex', 'standard' or 'multiple' for metering purposes.

Your classification determines what 'quantities' you have to measure in order for us to be able to calculate your EHO. These quantities are set out in the table below:

<b>EHO:</b>	Eligible Heat Output
<b>HGBI:</b>	Heat Generated by the Eligible Installation
<b>THG:</b>	Total Heat Generated by all plants supplying heat to the heating System
<b>HUEP:</b>	Heat Used for Eligible Purposes
<b>THU:</b>	Total Heat Used on the System for Eligible and Ineligible Purposes
<b>HSBG:</b>	Heat Supplied to the Biogas Production Plant

The acronyms in the table above are used in the worked examples below (note: all values are in kWhth).

### Worked examples

**(Please note the tariff rates in these examples are illustrative only)**

#### Installations with 'standard' metering arrangement

##### *Example 1 and 2: Calculation for installations with 'standard' metering arrangements*

Calculation for installations with 'standard' metering arrangements
<p>The Eligible Heat Output (EHO) can be calculated in two different ways depending on metering arrangements of the installation in question.</p> <p>Calculation (1) is applicable to installations that have <b>no ineligible heat uses</b>. In this example, <b>HGBI</b> refers to the amount of heat generated by eligible installation in that quarter</p> <p>Calculation (2) is applicable to installations that have <b>no additional ineligible heat</b></p>

**generating plants.** In this example, **HUEP** refers to the amount of heat used for eligible purposes in that quarter.

(1) <b>Payment = Tariff Level × HGBI</b>	(2) <b>Payment = Tariff Level × HUEP</b>
System type: Small biomass boiler System capacity: 10 kWth Tariff rate: £0.0285 (2.85 pence) HGBI: 6,570 kWhth  Payment= 0.0285 x 6570 = £187.25	System type: Medium biomass boiler System capacity: 220 kWth Tariff rate: £0.0532 (5.32 pence) HUEP: 175,000 kWhth  Payment= 0.0532 x 175000 = £9310

## Installations with 'multiple' metering arrangements

**Example 3 and 4: Calculation for installations using 'multiple' metering for RHI payment purposes**

<b>Calculation for installations using 'multiple' metering for RHI payment purposes</b>	
<p>The Eligible Heat Output (EHO) can be calculated in two different ways depending on metering arrangements of the installation in question.</p> <p>Calculation (3) is applicable to installations with metering arrangements that allow <b>HGBI</b>, <b>HUEP</b> and <b>THG</b> to be quantified.</p> <p>Calculation (4) is applicable to installations with metering arrangements that allow <b>HGBI</b>, <b>HUEP</b> and <b>THU</b> to be quantified.</p>	
(3) <b>Payment = Tariff Level x HUEP X (HGBI/THG)</b> <b>Payment = Tariff Level × HUEP × <math>\frac{HGBI}{THG}</math></b>	(4) <b>Payment = Tariff level x HGBI X (HUEP/THU)</b>
System type: Ground Source Heat Pump System capacity: 200 kWth Tariff rate: £0.087 (8.7 pence) HGBI: 160,000 kWhth HUEP: 290,000 kWhth THG: 340,000 kWhth EHO: 136470.588 kWhth  ➤ <b>Payment = £0.087 × 290,000 × <math>\left(\frac{160,000}{340,000}\right)</math></b> <b>= £11,872.94</b>	System type: Large biomass boiler (CHP) System capacity: 1500 kWth Tariff rate: £0.041 (4.1 pence) HGBI: 2,500,000 kWhth HUEP: 2,000,000 kWhth THU: 3,500,000 kWhth EHO: 1428571.43 kWhth  ➤ <b>Payment = 0.087 × 250,000 × <math>\left(\frac{200,000}{350,000}\right)</math></b> <b>= £58,571.43</b>



## Multiple metering using heat loss calculation

If a participant provides a Quarterly Heat Loss Figure (QHLF) in place of adding an additional meter is automatically accounted for within the formula periodically.

### Example 5: Multiple metering where a heat loss calculation has been used

Multiple metering where a heat loss calculation has been used	
A quarterly heat loss figure (QHLF) will be accounted for within the formula as appropriate. In this example it is being deducted from the HUEP.	
<b>(5) Payment = Tariff Level × (HUEP – QHLF) × <math>\left(\frac{\text{HGBI}}{\text{THG}}\right)</math></b>	
System type:	Medium biomass boiler
System capacity:	225 kWth
Tariff rate:	£0.051 (5.1 pence)
HGBI:	180,000 kWth
HUEP:	280,000 kWth
THG:	280,000 kWth
QHLF:	40,000 kWth
EHO:	154285.71 kWth
Payment = £0.051 x (280,00 – 40,000) x (180,000 / 280,000) = £7868.57	

## Payment calculation for biogas systems

For biogas systems the formula needs to take account of the heat delivered to the biogas production plant which produced the biogas combusted in the quarterly period.

### Example 6: Biogas system with multiple metering arrangements

Biogas system with multiple metering arrangements	
The heat supplied to the biogas plant (HSBP) is deducted from the amount of heat generated by the installation that is used for eligible purposes.	
<b>(6) Payment = Tariff Level × <math>\left\{ \left[ \text{HUEP} \times \left(\frac{\text{HGBI}}{\text{THG}}\right) \right] - \text{HSBP} \right\}</math></b>	
System type:	Medium biogas combustion plant
System capacity:	225 kWth
Tariff rate:	£0.059 (5.9 pence)
HGBI:	180,000 kWth

HUEP:	280,000 kWhth
THG:	280,000 kWhth
HSBP:	40,000 kWhth
EHO:	140000 kWhth

$$\text{Payment} = \pounds 0.087 \times \left\{ \left[ 280,000 \times \left( \frac{180,000}{280,000} \right) \right] - 40,000 \right\}$$

$$= \pounds 12180$$

## Calculating tiered payments

A two tier tariff has been applied for small (<200kW) and medium (≥200kW but <1MW) scale biomass installations, and ground and water source heat pump installations accredited on or after 21 January 2013. This means that ground and water source heat pumps accredited from 21 January 2013 started receiving the new tiered tariff from 28 May 2014.

This tariff structure operates on a 12 month basis, starting with the date of accreditation or its anniversary. The regulations specify that during that 12 month period, an initial amount of heat generated by the installation up to the equivalent of 1,314 hours (15% of a year) or 3.066 hours (35% of a year) of an installation's installed heating capacity will be payable at the (higher) Tier 1 tariff; dependent on the date of accreditation and technology type. Any further heat generated during that 12 month period will be payable at the (lower) Tier 2 tariff. At the start of the next 12 month period, the initial amount of heat will again be payable at the higher Tier 1 tariff. We consider the 'initial heat' threshold to be crossed when the EHO exceeds the tier threshold.

### Example 7: Calculating tiered payments

Installation with standard metering arrangements	
Quarter One	
System type:	Medium biomass boiler
System capacity:	400 kWth
Tier 1 tariff:	5.1p
Tier 2 tariff:	2.2p
Tier threshold:	1,314 hours x 400kWth = 525,600kWth
HGBI in quarter one:	310,000 kWhth
In this quarter, the EHO value is below the tier threshold of 525,600kWth	
➤ $\text{Payment} = \text{Tariff level} \times \text{EHO}$ $= 0.051 \times 310,000 \text{ kWth}$ $= \pounds 15810.00$	
Quarter Two	

HGBI in quarter two: 290,000 kWh

Now we need to take account of the cumulative EHO in this year:

$$\begin{aligned}\text{Cumulative EHO} &= \text{EHO in quarter one} + \text{EHO in quarter two} \\ &= 310,000 + 290,000 \\ &= 600,000 \text{ kWh}\end{aligned}$$

This EHO has breached the Tier 1 threshold, so we now need to do two calculations to determine the units to be paid at Tier 1 and Tier 2.

**Tier 1 units** (remaining units to be paid at Tier 1)

$$\begin{aligned}&= 525,500 - 310,000 \\ &= 215,600 \text{ kWh}\end{aligned}$$

**Tier 2 units** (units to be paid at Tier 2)

$$\begin{aligned}&= 600,000 - 525,600 \\ &= 74,400 \text{ kWh}\end{aligned}$$

**Tier 1 calculation:**  $\text{Payment} = 0.051 \times 215,600 \text{ kWh}$   
 $= \text{£}10,995.60$

**Tier 2 calculation:**

$$\begin{aligned}\text{Payment} &= 0.022 \times 74,400 \text{ kWh} \\ &= \text{£}1,636.80\end{aligned}$$

**Total payment:**  $\text{£}10,995.60 + \text{£}1,636.80 = \text{£}12,632.40$

## Quarter Three

EHO in quarter three: 300,000 kWh

Now that the threshold has been passed, all heat is payable at Tier 2.

$$\begin{aligned}\text{Payment} &= \text{Tariff level} \times \text{HGBI} \\ &= 0.022 \times 300,000 \text{ kWh} \\ &= \text{£}6600.00\end{aligned}$$

## Quarter Four

Quarter four would proceed on a similar basis to quarter three. But the next quarter would be the start of a new RHI year for that participant, and the cumulative eligible heat total would be reset to zero with initial EHO up to 525,600kWth in that year earning payments at the Tier 1 rate.

### **Example 8: Payment calculation for new solid biomass CHP systems**

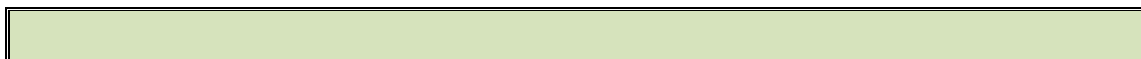
If you have a new solid biomass CHP system please read chapter 13: "*Ongoing scheme obligations for new solid biomass CHP systems*," before examining this example as this chapter will provide the necessary context. In particular it explains how the power efficiency value (variable 'B' below) is determined.

This formula is relevant for new solid biomass CHP systems with a tariff start date on or after 1 August 2016, and where the power efficiency of the system is lower than the relevant percentage (for this example a relevant percentage of 10% has been used). The periodic support payment will be calculated using the following formula:

$$(A \times B) + ((1 - B) \times (C \times D)) + E$$

where—

- (a) A is the periodic support payment calculated in accordance with regulation 67 or 68 in respect of the heat generated using solid biomass in the CHP system which meets the requirements of regulation 13;
- (b) B is the figure, expressed as a decimal, derived from multiplying the power efficiency of the CHP system by 10;
- (c) C is the tariff, calculated in accordance with regulation 59, that would apply if the CHP system ceased to be certified under CHPQA;
- (d) D is the kWhth of heat generated using solid biomass in the CHP system which meets the requirements of regulation 13, calculated in accordance with regulation 67(2)(b) or 68(2)(b);
- (e) E is the sum of the periodic support payments, calculated in accordance with regulation 67 or 68, in respect of any heat generated by the installation using biogas, biomass contained in waste, or other biomass used in a CHP system where regulation 12 applies.



System type: Solid Biomass CHP  
 System capacity: 1,500 kWth  
 Solid Biomass CHP tariff: 4.17p/kWh  
 Large Solid Biomass tariff: 2.03p/kWh

Power efficiency threshold: 10%  
 Power efficiency of CHP: 8%  
 Heat generated by the installation that is used for eligible purposes: 2,792,250kWth

$A = 0.0417 \text{ £/kWh} \times 2,792,250 \text{ kWh} = \text{£}116,436.83$   
 $B = 0.08 \times 10 = 0.8$   
 $C = 0.0203 \text{ £/kWh}$   
 $D = 2,792,250 \text{ kWh}$   
 $E = 0$   
 $\text{Payment} = (116,436.83 \times 0.8) + ((1 - 0.8) \times (0.0203 \times 2,792,250))$   
 $= \text{£}93,149.46 + \text{£}11,336.54$   
 $= \text{£}104,486.00$

\*Please note that the payment formula in regulation 68 was first introduced on 1 August 2016, and was subsequently amended on 1 January 2017 and then the 22 May 2018. The payment formula above is the amended version that existed on the 1 January 2017. For current and historical CHP power efficiency thresholds, please refer to the power efficiency thresholds table on page 77.

**Example 9: Payment calculation for shared ground loops system comprised of deemed and metered heat pumps**

**Worked example**

System type: Ground source heat pumps with a shared ground loop  
 System capacity: 180kWth  
 Consists of: 4 x 45kWth ground source heat pumps. 1 of which is eligible for deemed payments  
 Large GSHP tariff: Tier 1: 9.24p /kWh  
 Tier 2: 2.75p/kWh

Tier threshold = 1,314 hours x 180kWth = 236,520kWth

This example is of a quarter 4 period. The following totals are assumed to have been generated and paid on the Tier 1 tariff in the previous 3 quarters:

200,000kWth for the installation as a whole  
 22,500kWth for the single deemed heat pump

### Quarterly deemed heat pump component

Heat demand figure listed on EPC = 36,000kWth. Heat demand limit for the year for a ground source heat pump in a shared ground loop system is 30,000kWth therefore 7,500kWth will be paid on per quarter including this 4<sup>th</sup> quarter.

### Quarterly metered heat pump component

Heat Generated by 3 remaining heat pumps = 50,000kWth

HGBI in 4<sup>th</sup> quarter = 7,500kWth + 50,000kWth = 57,500kWth

Total HGBI for year = 257,500

As the total heat produced in the previous 3 quarters was 200,000kWth and the tier 1 threshold is 236,520kWth, 36,250kWth will be paid at tier 1 in the 4<sup>th</sup> quarter and the remainder on tier 2.

### Total quarterly payment

Tier 1 units

$36,520 \times £0.0924 = £3,374.45$

Tier 2 units

$20,980 \times £0.0275 = £576.95$

Total 4<sup>th</sup> quarterly payment = £3,951.40