Department for the Economy

**Guidance v3**

# Non-Domestic Northern Ireland Renewable Heat Incentive – Guidance

**Volume 2: Ongoing Obligations & Periodic Support Payments**

August 2019

# Contents

# Overview

The Non-Domestic Northern Ireland Renewable Heat Incentive Scheme (NIRHI) came into operation on 1 November 2012 and was suspended to new applicants with effect from 29 February 2016.

The Department of Enterprise, Trade and Investment (DETI)[1] established the NIRHI under Section 113 of the Energy Act 2011 and the Renewable Heat Incentive Scheme Regulations (Northern Ireland) 2012 ("the 2012 Regulations").

The 2012 Regulations were subsequently amended by:

- the Renewable Heat Incentive Schemes (Amendment) Regulations (Northern Ireland) 2015 ("the 2015 Regulations");
- The Renewable Heat Incentive Schemes (amendment) Regulations (Northern Ireland) 2016;
- the Renewable Heat Incentive Schemes (Amendment) Regulations (Northern Ireland) 2017 ("the 2017 Regulations");
- the Northern Ireland (Regional Rates and Energy) Act 2018 ("the 2018 legislation"); and
- the Northern Ireland (Regional Rates and Energy) Act 2019 ("the 2019 legislation").

This guidance collectively refers to the 2012 Regulations as amended as 'the Regulations' but, where necessary, amending legislation has been specifically referenced.

Under Section 115 of the Energy Act 2011, the Gas and Electricity Markets Authority (GEMA) carries out the day to day administration through its office (Ofgem). DfE is responsible for the overarching policy and detailed legislative framework for the NIRHI.

## Guidance Document Structure

This volume of the guidance (Volume 2) sets out the procedures for the administration of the NIRHI under the Regulations. It describes the ongoing requirements for NIRHI

[1] On 8 May 2016, DETI merged with the Department of Employment and Learning to form the Department for the Economy (DfE). References in this guidance to DETI and DfE should be read relevant to the 6 May 2016 transfer.

participants, information on how periodic support payments are calculated and paid, and Ofgem's / DfE's compliance and enforcement powers.

The guidance is not a definitive legal guide to the NIRHI, although its publication is made in accordance with the Regulations. Prospective participants should familiarise themselves with it and read it in conjunction with the Regulations. In the event of any conflict between the Regulations and the guidance, the Regulations take precedence.

Volume 1 of the guidance describes the eligibility requirements of the NIRHI and how prospective installations can become accredited or registered as applicable.

## Associated Documents

The Renewable Heat Incentive Scheme Regulations (Northern Ireland) 2012 have been amended by:

- Energy Act 2011
- The Renewable Heat Incentive Scheme Regulations (Northern Ireland) 2012
- Regulation 61 of the Domestic Renewable Heat Incentive Scheme Regulations (Northern Ireland) 2014
- The Renewable Heat Incentive Schemes (Amendment) Regulations (Northern Ireland) 2015
- The Renewable Heat Incentive Schemes (Amendment) Regulations (Northern Ireland) 2016
- The Renewable Heat Incentive Scheme (Amendment) Regulations (Northern Ireland) 2017
- The Northern Ireland (Regional Rates and Energy) Act 2018
- The Northern Ireland (Regional Rates and Energy) Act 2019

The Energy Act 2011 supports this publication.

# Executive Summary

1 The Northern Ireland Renewable Heat Incentive (NIRHI) is a financial incentive scheme designed to increase the uptake of renewable heat technologies and reduce Northern Ireland carbon emissions. The scheme provides a subsidy per $kWh_{th}$ of eligible renewable heat generated from accredited installations and pays a subsidy to producers of biomethane for injection into the gas grid.

2 When the scheme was introduced, DETI appointed Ofgem to administer the NIRHI on their behalf. The Department for the Economy (DfE), previously DETI, is responsible for underpinning NIRHI policy including setting tariffs and establishing the legislative framework.

## Scheme Eligibility

3 The scheme supports non-domestic renewable heat installations and the production of biomethane for injection. Please note that the Scheme is now suspended to new applications. This guidance is for participants on the non-domestic scheme only. For information on the domestic scheme which was introduced in December 2014, please see the domestic guidance available at Renewable Heat Incentive for domestic customers | nidirect.

4 The following renewable heat technologies are supported on the non-domestic scheme:

- solid biomass and solid biomass contained in municipal waste
- ground and water source heat pumps
- geothermal
- solar thermal (at capacities of less than 200 kWth)
- biogas combustion (except from landfill gas)
- biomethane injection

## Ongoing Obligations

5 When accredited, scheme participants must comply with a number of ongoing obligations set out in this guidance including regular submission of heat data, meter readings and fuel data for certain bioenergy installations.

6 Participants must maintain their heating equipment and meters, and report any significant changes to their installation or heat uses to Ofgem. Participants are required to make annual declarations to Ofgem confirming their compliance, and may be selected for audits and/or a site inspection. Failure to comply with ongoing obligations (including notification of a change of ownership of an accredited installation) may lead to compliance action being taken against a participant.

# Introduction

## Policy Context

1.1. The European Union's (EU's) 2009 Renewable Energy Directive[2] set a binding target that 20 percent of the EU's energy consumption should come from renewable sources by 2020. The UK share of this target commit the UK to increase its use of renewable energy to 15 percent by 2020. Northern Ireland is expected to contribute to the UK's share of the EU target both in terms of renewable electricity and renewable heating.

1.2. In September 2010, the NI Executive agreed the Strategic Energy Framework (SEF). The SEF outlined key energy policy areas for Northern Ireland and included four key energy goals:

- Building competitive markets
- Ensuring security of supply
- Enhancing sustainability, and
- Developing our energy infrastructure.

1.3. In order to support the delivery of these four energy goals the NI Executive set a target of 10 percent renewable heat by 2020. The NIRHI is a key policy measure in the delivery of this target.

## NIRHI Overview

1.4. The NIRHI is a financial incentive scheme designed to increase the uptake of renewable heat and reduce the UK's carbon emissions.

[2] 2009/28/EC

The scheme provides a subsidy per kWhth of eligible renewable heat generated (subject, where applicable, to tier payments and caps) from accredited installations and by registered producers of biomethane. It aims to encourage the uptake of renewable heat technologies by compensating for barriers to their adoption, including the current higher upfront costs and operational expenditure for these technologies as compared to those using traditional fossil fuels.

1.5. A range of renewable heat technologies are supported under the NIRHI including solar thermal, ground and water source heat pumps, biomass and biogas boilers, geothermal, energy from solid biomass in municipal waste and biomethane injection into the gas grid. Payments are made on a quarterly basis over a 20-year period to the owner of the NIRHI installation or producer of biomethane.

1.6. DETI introduced the NIRHI in two phases:

- In the first phase introduced in 2012 , addressed in this guidance document, the NIRHI was opened to parties with eligible installations in non-domestic sectors, and to producers of biomethane
- The second phase of the scheme extended the scheme to the domestic market from 9 December 2014. This phase is not covered in this Guidance document.

1.7. From 18 November 2015, the NIRHI included the introduction of biomass tiering and capping, amendments to the medium and large tariff bands for biomass and relocation in addition to other small changes. The scheme was suspended to new applicants on 29 February 2016. From 1 April 2017 to 31 March 2019 the November 2015 tariff tiering and capping was applied to all small- and medium-sized biomass installations. Details are addressed in this guidance document. From 1 April 2019 a new set of long-term tariffs was applied for all small- and medium-sized installations, as set out in the Northern Ireland (Regional Rates and Energy) Act 2019.

## Respective Roles

1.8. DfE is responsible for developing NIRHI policy including setting tariffs, establishing the legislative framework, and changes to the scheme. Any queries should now be addressed to DfE.

1.9. Except in the case of certain inspection and enforcement functions, Ofgem administers the NIRHI scheme on behalf of DfE.

1.10. DfE, Ofgem and participants are all involved in making the NIRHI work and each plays a distinct but important role in the scheme. Table 1.1 provides a brief overview of their respective responsibilities.

**Table 1.1: Summary of Responsibilities under NIRHI**

| | |
|---|---|
| **DfE** | • Develop overarching policy framework and supporting legislation<br>• Set tariffs for different technologies<br>• Specify detailed eligibility criteria and scheme rules in NIRHI Regulations<br>• Site inspections and compliance |
| **Ofgem** | • Formally administer the scheme on behalf of DfE and in line with the Regulations and the administrative arrangements<br>• Accredit installations and register biomethane producers as eligible, checking identity, bank details and ownership as part of this process<br>• Make payments to scheme participants |
| **Applicants/Participants** | • Must comply with ongoing obligations |

## Ofgem & DfE Key Functions

1.11. The Regulations detail DfE's key functions with respect of the NIRHI. Ofgem and DfE's roles and responsibilities are also set out in the Administrative Arrangements, which are published on DfE's website.

1.12. Key functions include:

- Ofgem - Accreditation of installations and registration of producers of biomethane which meet the eligibility criteria, including verifying identity, bank details and ownership of an installation
- Ofgem - Making payments on a quarterly basis to participants for the eligible heat output or biomethane injected
- DfE/Ofgem - Monitoring and enforcing compliance with the initial eligibility and ongoing requirements of the NIRHI as outlined in the Regulations
- DfE/Ofgem - Undertaking desk and/or on-site inspections to ensure participants' compliance with ongoing obligations under the NIRHI scheme

- Ofgem - On request by DfE providing information on the progress of the scheme, and
- DfE- Providing a review procedure that allows prospective, current and former participants to challenge DfE's / Ofgem's decisions in relation to the administration of the NIRHI if participants believe decisions are incorrect.

1.13. DfE and Ofgem will carry out these functions as efficiently and effectively as possible within the scope of the powers as laid down in the Regulations and Section 114 of the Energy Act 2011.

## Publication of tariffs

1.14. DfE will publish an adjusted tariff table on an annual basis to reflect changes in the relevant inflation measure (Retail Prices Index (RPI) or Consumer Price Index (CPI)). This will be published on or before 1 April each year for the period commencing 1 April of that year and ending 31 March the following year.

1.15. Please see the NI Direct website for the most up-to-date tariff table.

## Reporting

1.16. DfE will publish information in respect of the following matters:

- aggregated details of accredited installations and fuel type
- aggregated details of the technology replaced
- total amount of periodic support payments made in that reporting period
- total amount of heat generated for which payments have been made under the NIRHI
- sustainability information for certain installations using biomethane
- volume of biomethane injected by registered biomethane producers

1.17. DfE may also publish the following aggregated information on an ongoing basis:

- the number of accredited NIRHI installations and registered biomethane producers
- the technology and installed capacity of the installations
- the total amount of heat generated and biomethane produced together with the total amount of periodic support payments made under each tariff

## Queries

1.18. Any queries relating to the scheme operation or applicant eligibility should be emailed to rhi.enquiry@ofgem.gov.uk with the nature of the query clearly marked. If you are an existing participant, please note in the query that you are a participant and provide your installation number. For telephone enquiries, the team can be contacted on 0300 003 2289. The phone line is open Monday to Friday except public holidays. Please check the Ofgem NIRHI website for the opening hours of the phone line[3].

## Scope of this Guidance

1.19. This guidance cannot anticipate every situation which may arise. Where an issue arises which is not addressed in this guidance, DfE/Ofgem will adopt an approach which they consider to be consistent with the Regulations. Any additional guidance will be published on DfE's and/or Ofgem's website.

1.20. This guidance is not intended to provide comprehensive legal advice on how the Regulations should be interpreted or itself to have legal effect. At all times, the onus is on the owner of an installation or producer of biomethane to ensure that they are aware of the requirements of the Regulations.

1.21. This guidance describes Ofgem's and DfE's approach to matters concerning its general administration of the scheme in accordance with the current Regulations. If the Regulations change, Ofgem and DfE will review and revise the guidance as necessary.

1.22. 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 comply with any relevant ongoing obligations under the NIRHI scheme. The obligations entered into on becoming accredited or registered remain those of the participant rather than being transferred to the third party concerned.

## Territorial Applicability

[3] https://www.nidirect.gov.uk/contacts/contacts-az/renewable-heat-incentive-enquiry-line

1.23. In accordance with the Act, we can only make payments to eligible renewable heat installations that are generating heat in Northern Ireland or to biomethane producers injecting into the grid in this region.

## Treatment of Personal Data

1.24. All personal data collected from participants by Ofgem will be processed in accordance with Data Protection law. Ofgem is a public Authority and must protect the public funds they handle, so they may use the information you have given them 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 and contractors undertaking inspections. They 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 by Ofgem with DfE for the purpose of monitoring the scheme. It may also be necessary for DfE to share personal information with other government organisations to assist with the monitoring of the Scheme.

# Overview of Ongoing Obligations

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This chapter provides an overview of the ongoing obligations with which a participant is required to comply. This includes the information required on a periodic and ad hoc basis to demonstrate ongoing eligibility.

## Periodic Information

### Ongoing Reporting Requirements

2.1. When participants have received NIRHI accreditation for an installation or have successfully registered as a biomethane producer under the scheme, there are obligations (known as 'ongoing obligations') that they must meet for as long as they are a participant in the scheme.

2.2. These ongoing obligations include reporting responsibilities for participants with accredited NIRHI installations or who are registered producers of biomethane. Major ongoing reporting requirements include:

- Annual declarations – refer to the 'Annual Declarations' section in this chapter
- Meter readings and heat output data – refer to Chapter Three
- Ongoing fuelling eligibility requirements – refer to Chapter Four
- Biomass sustainability reporting – refer to Chapter Six
- Treatment of additional capacity – refer to Chapter Seven
- Change in ownership of an NIRHI accredited installation – refer to Chapter Eight

2.3. Submission of reporting information and completion of the Annual Declaration must be undertaken by the Authorised Signatory.

2.4. Not all ongoing obligations which apply to heat generating plants apply to biomethane producers. Where it is stated in this guidance that the obligation relates to an 'installation' or a 'plant', generally this would not apply to a biomethane producer. For example, Chapter Seven of this guidance refers to obligations relating to heat generating plants which are not relevant to biomethane producers.

2.5. However, as outlined in Volume One, biomethane producers are 'participants' under the scheme so where it is stated that the obligation applies to 'participants', this would generally include biomethane producers.

2.6. Chapter Nine explains those additional obligations which relate only to biomethane producers.

## Other Ongoing Eligibility Requirements

### Maintenance of Equipment

2.7. 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 standards that would be appropriate for a biomass boiler may not be for a solar thermal system. As a general principle, Ofgem requires the equipment to be maintained in line with manufacturer instructions where these are available. Participants must keep all evidence of maintenance work carried out (servicing receipts) and to provide Ofgem with this evidence upon request.

### Maintenance of Meters

2.8. The Regulations require that, where relevant, all NIRHI-relevant heat and steam meters and associated metering equipment are kept:

- continuously operating in the normal course of business
- properly maintained and periodically checked for errors
- re-calibrated at least every ten years, or within the time as specified within manufacturer's instructions, whichever is the sooner[4]

[4] Regulations, Part 4, Chapter 3, Regulation 34(1c)

2.9. The requirements apply to all metering equipment and include, where relevant, flow meters, temperature sensors and pressure sensors. For example, Ofgem expect temperature sensors or (for steam meters) differential pressure sensors to be checked on a regular basis.

2.10. Participants are required to declare that periodic meter readings submitted to Ofgem are correct to the best of their knowledge and belief. Ofgem may ask for an explanation of the internal processes the participant has in place to ensure that meter readings are accurate.

2.11. 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 retained as they must be available for review upon request.

2.12. The 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.

2.13. In addition, where calibration and testing is carried out by the manufacturer, it is expected that calibration and testing equipment used to calibrate NIRHI metering equipment should comply with appropriate International, European or British standards.

2.14. Annex I of the 2004 Measuring Instruments Directive (MID) (2004/22/EC) places certain requirements on heat meters with regard to protection and security of the calculator/digital integrator component. Participants are required to keep all meters continuously operating and properly maintained in accordance with the manufacturers' instructions.

2.15. Participants must also ensure that the meters are periodically checked for errors and retain service and maintenance invoices, receipts or certificates for the duration of their participation in the scheme. Failure to do so would be a breach of their ongoing obligations and could result in enforcement action being taken against them as set out in Chapter Ten.

**Notifying Ofgem of Change**

2.16. Participants must notify Ofgem when there has been any change in circumstances which may affect their eligibility to receive RHI payments, if they have ceased to comply or have become aware that they will not be able to comply with their ongoing obligations. They must notify Ofgem within 28 days of the change taking place, or of when they became aware of the potential for change.

2.17. This obligation to notify Ofgem includes a change to any financial arrangement agreed for the purchase and installation of the NIRHI installation, where that arrangement may be considered to be a grant. Please see Volume One, Chapter Four for further information on grants.

2.18. Ofgem must also be notified of any changes to an accredited NIRHI installation or the heating system of which it forms part, addition or removal of any other plants on the heating system, changes in ownership of all or part of the accredited installation or if the accredited installation is moved to a new location. Please see the 'How to Submit Information' Section in this chapter for information on how to inform Ofgem of a change.

2.19. If a participant's system exports heat off-site, the same principles for advising Ofgem will apply to any change of circumstance which may affect eligibility to receive periodic support payments. This includes a change of heat use, or a major change in relation to any equipment used in the transportation or metering of eligible renewable heat.

2.20. Failure to advise Ofgem of relevant matters within 28 days is a breach of an ongoing obligation as a participant. In these instances, Ofgem have the power under the Regulations to take enforcement action.

2.21. In deciding whether action is appropriate, Ofgem will consider all the circumstances of the case, including 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 notifications etc. For further information, please refer to Chapter Ten.

2.22. Participants must notify Ofgem in writing within 28 days if any of the information provided in support of their application for accreditation or registration was incorrect. Ofgem will then assess on a case-by-case basis any impact on your tariff rate or eligibility.

2.23. Participants must keep their contact details, bank details, and Authorised Signatory information up to date.

2.24. Participants must allow Ofgem reasonable access to an accredited installation and its associated infrastructure in accordance with Part Nine of the Regulations. Please see Chapter Eleven of this volume for more information on the reasons for which they may seek access.

## Submission of Periodic Information

2.25. Periodic information must be submitted to Ofgem as part of a participant's ongoing obligations. Under the Regulations, formal 'notices' as described in previous section 'Notifying Ofgem of a Change' must be submitted in writing to Ofgem and must be made within 28 days of the event. In practice, both types of data can be submitted by email, in writing or by post.

2.26. However, the most efficient and, therefore, preferred option is to submit data through the Ofgem NIRHI Register. Participants will be informed where an alternative submission route for particular pieces of information is applicable. The data to be submitted is dependent upon the technology type of the installation concerned and any separate conditions agreed with Ofgem.

2.27. Please refer to the appropriate chapter of this volume to establish when, how and in what format the information relevant for the installation in question needs to be provided to Ofgem. Provisions for late, estimated and incorrect data will also be explained in these chapters.

2.28. Please see the 'Queries' section in Chapter One, Volume One for information on how to raise a query relating to applicant eligibility or the operation of the scheme. Please contact Ofgem if there are any problems in submitting data or notices in writing so they can make alternative arrangements. It is the participant's responsibility to ensure Ofgem receives the information in a timely fashion.

## Annual Declarations

2.29. All participants are required to sign[5] 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 NIRHI installation still meets 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 Ofgem is concerned that equipment is not being maintained, it can seek further evidence and where concerned that 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 NIRHI

2.30. The Annual Declaration must be submitted by the anniversary of your accreditation date for the respective installation and can be submitted up to 30 days before that. For example, if the installation became accredited on 10 November 2014, the window to submit the required annual declaration would be 10 October - 9 November 2015. Ofgem will notify each participant of their annual declaration obligation by sending a reminder.

2.31. Failure to sign the Annual Declaration will be treated as a failure to comply with an ongoing obligation and Ofgem may take compliance action, which may include suspending or withholding payments. Ofgem will normally recommence payments if the declaration is subsequently submitted within a reasonable period. However, long-term failure to submit a declaration may result in further compliance action. For further details, please see Chapter Ten.

2.32. 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.

[5] For participants completing online annual declarations, a confirmation completed by the Authorised Signatory from their secure NIRHI user account replaces a physical signature

2.33. Participants can submit their annual declaration online through their NIRHI account, or for those participants who do not have access to the internet, in hard copy by post.

# Provision of Periodic Data including Meter Readings

3

This Chapter provides guidance on the submission of meter readings by participants. Ofgem's approach to late, incorrect and estimated data is also explained.

## Definition of Periodic Data

3.1. When an installation is accredited, or a producer of biomethane registered, participants must submit information on a regular basis both as an ongoing obligation, and in order for Ofgem to calculate the appropriate payment. This data includes:

- meter readings
- Annual Declarations – Chapter Two
- fuel data (for certain bioenergy installations – Chapter Four)
- biomass sustainability information for biomethane producers – Chapter Six
- supporting data or calculations as set out in conditions of accreditation or other evidence which may be required for Ofgem to calculate the appropriate payment

This information is referred to as 'periodic data'.

3.2. Periodic data must be provided for all accredited NIRHI installations and biomethane producers. Participants with more than one accredited installation will need to provide periodic data separately for each installation.

3.3. For further information on the periodic data required from producers of biomethane see Chapter Nine. For biomethane producers, it is energy and volume measurement rather than meter readings which are required.

### Frequency of Submission of Periodic Data

3.4. The frequency with which meter readings 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 monthly meter readings

3.5. Fuel data and biomass sustainability information (where applicable) must be submitted quarterly in all cases.

## Meter Readings

3.6. Participants are 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 received.

3.7. All participants are required to submit meter readings whether their installation is classed as 'simple' or 'complex' for metering purposes, or if they are a registered producer of biomethane. Please see Volume 1, Chapter 7 for further details on the classification of simple and complex installations.

## Supporting Meter Readings

3.8. Participants must provide a meter reading[6] for all NIRHI- relevant meters. It is an ongoing obligation that meter readings are provided as cumulative figures in kWhth.

### Timing of Meter Readings

3.9. Ofgem requires applicants to take an initial meter reading for all NIRHI-relevant meters and provide this as part of their application for accreditation.

3.10. This is important as the date on which the application is submitted will often coincide with the date of accreditation (see Volume One, Chapter Two for more information on date of accreditation).

[6] In this instance, 'meter' refers to both heat meters and steam measuring equipment (or steam 'meters'). Further information on meters and metering requirements can be found in Chapter Seven of Volume One.

The same time periods apply to the relevant energy measurement readings for biomethane producers. The initial reading must be taken no more than 3 days prior to the date of submission of their application.

3.11. Participants must take subsequent meter readings quarterly or monthly as required. The month or quarter will run from the installation's date of accreditation.

3.12. For example, the first quarterly reading for a 100kWth installation that has a date of accreditation of 30 November 2014 will need to be taken within +/- 3 days of 30 February 2015. A 2MWth installation accredited on the same day will need to be taken within +/- 3 days of 30 December 2014.

3.13. All meter readings must be taken within +/- 3 days of the required date.

3.14. Participants have up to one month after the end of the relevant monthly/quarterly period to submit their meter reading(s) to Ofgem. Ofgem will only begin to process payment once they have received the necessary data.

3.15. Table 3.1 provides an example timetable for providing meter readings for one quarter:

**Table 3.1: Example Timetable for Providing Meter Readings**

| Date | Activity | Meter readings required |
|---|---|---|
| 03/04/2015 | Application<br>Participant applies for accreditation on a 500kWth ground source heat pump. | Initial meter readings provided as part of the application for accreditation |
| 30/04/2015 | Accreditation<br>Installation is accredited, with a date of accreditation of 03/04/2015. | A new reading at this stage is not required. |
| 29/06/2015 | 3 days prior to end of quarter<br>Window for taking meter readings opens at start of the day (as it is 3 days before the end of the quarter on 02/07/2015). Submission window for entering meter readings on to the NIRHI IT system opens at start of day. | Meter readings must be taken for all NIRHI-relevant meters in the next 6 days. |
| 02/07/2015 | First quarter ends. | |
| 05/07/2015 | 3 days after the end of the quarter<br>Window for taking meter readings closes at end of the day (as it is 3 days after the end of the quarter on 02/07/2015). | Meter readings must have been taken for all NIRHI-relevant meters. |
| 01/08/2015 | One month after the end of the first quarter.<br>Submission window for entering meter readings closes at end of day. | Meter readings for all NIRHI-relevant meters must have been entered on to the Ofgem NIRHI Register. |

3.16. The timing and process for taking meter readings and providing them to Ofgem is set out in the information sent to participants when their application for accreditation has been approved.

**Submission of Meter Readings While Awaiting Accreditation**

3.17. Participants must take meter readings at the appropriate frequency after their application for accreditation or registration has been submitted and is being reviewed by Ofgem. This is to enable accurate payments to be made if the application is approved. This is most relevant to large installations where monthly meter readings are required, and where a complex accreditation could take over a month to gain approval.

3.18. Where the eligible installation has not yet been accredited (or in the case of a biomethane producer who 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 an application is deemed submitted for these purposes, please see Volume One, Chapter Two, section 'Date of Accreditation'.

## How to Submit Information to Ofgem

3.19. Meter readings and other periodic data should be submitted via the participant's account on the Ofgem NIRHI Register.

3.20. The Ofgem NIRHI 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 Ofgem. Further information will be given at the time of application.

3.21. Ofgem will agree 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 Ofgem, at their discretion, to accept periodic data that is late. Each late data request will be considered on a case- by- case basis. Where Ofgem suspect that participants may be failing to comply with ongoing obligations, they may take further steps, as detailed in Chapter 10 of this volume to determine the facts and decide what action, if any, may be appropriate to deal with the matter.

3.23. However, it is the following circumstances that are most likely to be regarded sympathetically:

i. The participant has documentary evidence to demonstrate that they attempted to send the data to Ofgem

- It is expected that the majority of these cases will relate to technical problems. However the onus is on the participant to resolve their own technical problems. Participants are encouraged to keep all associated evidence of their attempts to rectify the situation.

- In addition, participants are expected to take all reasonable action to ensure delivery of the data. This includes responding to any error messages they may receive, and querying whether data has been submitted. Participants should contact Ofgem to arrange for an alternative way to submit the data (such as email) if problems accessing the Ofgem NIRHI Register are ongoing.

ii. There has been a material incident at an accredited NIRHI installation, for example there has been a serious fire or a major flood

- It is expected that participants will normally inform Ofgem of this before the deadline

iii. There has been an unplanned absence of a key staff member and it has not been possible to arrange cover

- It is expected that in the vast majority of cases participants will be able to arrange cover. It is likely Ofgem will be less sympathetic to larger organisations that should have adequate resources to cover absences

iv. New procedures have been introduced or existing procedures have been changed and the transition to the new procedures has made it difficult for the participant to submit their data on time

- In all cases, the nature of the new or changed procedure and the lead time provided before implementation, together with how the change was communicated, will be taken into account.
- The following factors will also be taken into account:
    - whether the participant has notified Ofgem 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 in which Ofgem may be more likely to exercise discretion in accepting late data.

**Errors in Data**

3.25. Ofgem may accept revised meter readings or other periodic data if:

- the participant subsequently realises that the information originally submitted is erroneous, or
- Ofgem become aware through other routes, such as audit, that this is the case

3.26. Ofgem will consider each request relating to revised periodic data submission on a case- by-case basis. As deliberately or carelessly submitting inaccurate data would generally constitute a failure to comply with ongoing obligations, they may take further steps as detailed in Chapter 10 of this volume to determine the facts and decide what action, if any, may be appropriate to deal with the matter. In doing so, Ofgem will take a number of factors into consideration, including how the error was notified to them.

3.27. '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**

3.28. In exceptional circumstances (for example a temporary failure in metering equipment), Ofgem may accept estimated meter readings on which to base calculations of payments. This is solely at Ofgem's discretion and it will be for a participant to satisfy Ofgem that it would not be possible to provide accurate meter readings for a quarterly period.

3.29. This discretion may also apply to accepting estimates of other associated data. Ofgem will apply similar principles to the approach for estimated meter readings.

3.30. The method for estimating meter readings must be agreed in advance with Ofgem.

Therefore, the onus is on the participant to contact Ofgem as soon as the need for estimation arises and to provide evidence of why accurate meter readings will

not be available. At the latest, participants must seek agreement to use an estimate in advance of the deadline for provision of data for the relevant period.

3.31. Ofgem will only accept estimated meter readings that are not agreed in advance of the deadline in exceptional circumstances. Agreement to the provision of estimated meter readings for one quarterly 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.

**Additional Information for Heat Pump Installations**

3.32. In addition to the submission of periodic data, all participants with an NIRHI accredited Heat Pump installation may be asked to provide additional data related to the electrical input to the heat pump unit.

3.33. This information is used to assess the performance of commercial and industrial heat pump installations receiving NIRHI periodic payments. This data is not mandatory or individually attributable so participants are not required to submit data in order to comply with the requirements of the scheme.

3.34. The additional data requests are designed to capture the following information for all heat pumps installations at all scales:

- Total electricity consumed[7] by the heat pump unit (in kWh)
- Electricity consumed by the source pumps[8] and/or fans
- Electricity consumed by the emitter fans and/or pumps[9], and
- Electricity consumed by back-up heaters[10] integral to the heat pump system

[7] Electricity consumed by the heat pump(s) compressor (s) and control system(s).
[8] Source pump(s), these are the pumps that circulate thermal transfer fluid in the ground loop to collect heat from the "source" (i .e. ground). For open loop systems, these are the pumps that move fluid from the source through the heat pump unit.
[9] Emitter fan(s), these are the fans used to circulate warm air in a ducted heat distribution system. Emitter pump(s), these are the pumps used to circulate fluid in a wet heat distribution system
[10] These are heat sources that are outside the compression cycle.

# Ongoing Fuel Eligibility Requirements

4

This chapter explains the ongoing fuel eligibility requirements for bioenergy plants. Guidance is provided on how these requirements can be met, including information on how to account for contaminated fuels and ancillary fuels. Requirements for plants using solid biomass contained in municipal waste are also explained.

4.1. This chapter applies to certain installations or biomethane producers using fuels derived from biomass[11]. It relates to plants that produce biogas for conversion into biomethane and those generating heat using:

- solid biomass
- solid biomass contained in municipal waste
- biogas

4.2. These plants have specific ongoing fuelling requirements and allowances that they must follow in addition to the initial requirements for accreditation and other ongoing obligations.

4.3. Please contact Ofgem for any queries on eligible fuels to be used and fuel measurement and sampling (FMS) arrangements.

4.4. The sole fuelling requirement for plants generating heat from solid biomass, solid biomass contained in municipal waste or biogas using 100% biomass fuels is to keep records of fuel/feedstock purchase and use including invoices. The

[11] See Volume One for the eligibility criteria for plants using biomass-based fuels.

exception is for biomethane producers where sustainability reporting also applies – see Chapter Six.

4.5. This ongoing record keeping requirement applies to all plants using these sources of energy. Where fuels are not purchased from a third party but are harvested by the NIRHI participant themselves (e.g. when a woodland owner harvests wood from their own land), a boiler log should be kept of all deliveries made to the boiler house, along with records of where harvesting has taken place.

**Definition of 'Energy Content'**

4.6. This chapter and related appendices refer to 'energy content' which 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, Ofgem may need to know the number of Megajoules (MJ) of energy contained in a given quantity (e.g. a tonne) of fuel, or the percentage of the energy content of a fuel (or combination of fuels) from a fossil or biomass source.

## General Fuel Eligibility Criteria

**Peat Ineligibility**

4.7. Peat does not count as biomass so cannot be included in any NIRHI claim either as a feedstock for the production of biogas or as a fuel itself.

**Anaerobic Digestion**

4.8. Biogas produced by anaerobic digestion used to generate heat or to produce biomethane 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.

4.9. The eligible feedstocks are:

- solid biomass
- solid waste
- liquid waste[12]

4.10. Please note that installations that generate heat from landfill gas or participants producing biomethane which is derived from the conversion of landfill gas are not eligible under the NIRHI.

**Gasification and Pyrolysis**

4.11. 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 municipal waste.

## Prohibition on Fossil Fuel – Exceptions for Ancillary and Contaminated Fuel

4.12. Accredited installations with an installation capacity of between 45kW and 1MW which use solid biomass, and accredited installations which use solid biomass contained in municipal waste or biogas are not permitted to use fossil fuel within the installation, other than the following two exceptions:

- 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 / municipal waste contains fossil fuel contaminant within the limits specified in the Regulations)

4.13. Otherwise, the use of fossil fuel in these types of accredited installation is a breach of a participant's ongoing obligations under the Regulations.

4.14. Ofgem may take enforcement action against participants in breach of their ongoing obligations. They may suspend or permanently withhold payments for

[12] The definition "waste" has the same meaning as in Article 2(2) of the Waste and Contaminated Land (Northern Ireland) Order 1997. (S.I.1997/2778 (N.I. 19), Article 2(2) was amended by SR 2011 No.127)

any quarterly period in which ineligible fuels are used or for which ancillary or contaminant fossil fuel limits are exceeded.

4.15. Ofgem, in exercising their discretion, will take into account all relevant circumstances, including factors such as the degree of ineligible fuel use, the period for which this continued, the reasons why ineligible fuel came to be used and the manner in which any breach came to light.

4.16. Where infringements of fuel requirements are material or repeated, they may also take other compliance or enforcement action including revocation of your accreditation or registration.

4.17. Installations generating heat using the following forms of biomass can use fossil fuel for 'permitted ancillary purposes' related to the ongoing operation and maintenance of the boiler or other heat generating equipment:

- solid biomass (plants with installation capacity between 45kWth and 1MWth)
- solid biomass contained in municipal waste
- biogas (from anaerobic digestion, pyrolysis or gasification)

4.18. These purposes are:

- cleansing other fuels from the accredited NIRHI installation's combustion system prior to using fossil fuel to heat the combustion system to its normal temperature
- the heating of the accredited NIRHI 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

4.19. This refers 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.

4.20. As outlined in Volume One, Chapter Four, '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 NIRHI.

4.21. Up to 10% of the energy content[13] of all the fuels (biomass and fossil) used at the plant during the quarter in question can be from fossil fuel for ancillary purposes.

4.22. Energy content above this level is a breach of ongoing obligations. This may result in the suspension or withholding of payments for the period for which the ancillary fuel limit is breached. Material or repeated breaches of these requirements may result in other compliance and enforcement action being taken.

4.23. For details on how plants should demonstrate that they meet this requirement, see the 'How to meet ongoing requirements where ancillary or contaminated fuels are used' section.

## Contaminated Fuels and Feedstocks

4.24. Certain plants may use wood or other biomass tainted with varnishes, glues or paints (which are often derived from fossil fuels). The Regulations refer to these as 'contaminated' fuels or feedstocks.

4.25. The Regulations[14] do not permit the deliberate addition of fossil fuel to solid biomass to be used in an installation. For example, deliberately adding waste fossil fuel oil to virgin wood would mean that wood could not be used in the NIRHI.

4.26. The plants where biomass contaminated with fossil fuel may be used are the same as those permitted to use ancillary fossil fuel except that:

[13] 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 (although, as stated, this does not formally need to be measured)
[14] Regulations, Part 4, Regulation 29(3) and 30(2)

- fossil fuel contamination is not considered relevant to plants using biogas derived from anaerobic digestion as, the contaminants remain as residues from the digestive processes and would not affect biogas output, and
- whilst ancillary fuel use is not relevant to facilities producing biogas for conversion into biomethane, these plants may use biogas contaminated with fossil fuel within the specified limits

4.27. Contaminated fuel limits only apply to the following participants:

- biogas heat generation plants and biomethane producers (where the biogas or biomethane is produced using gasification or pyrolysis), and
- installations using the following forms of biomass to generate heat:
    - solid biomass with an installation capacity of between 45kW and 1 MWth
    - solid biomass contained in municipal waste
    - biogas (from gasification and pyrolysis only)

4.28. As part of the accreditation process, applicants must declare whether contaminated fuels are to be used at the plant. The contamination criteria for the various technologies is outlined in this chapter.

**Contamination Limits for Solid Biomass Plants between 45kWth and 1mWth**

4.29. For solid biomass plants between 45kWth and 1mWth, the energy content of contaminated fuels must not exceed 10% of all the biomass fuels (contaminated or otherwise) used in that quarter.

4.30. As the 10% maximum applies to a quarterly period, individual deliveries of fuels can be above 10% contamination by energy content.

4.31. For details on how plants should demonstrate that they meet this criterion, see the ‘How to meet ongoing requirements where ancillary or contaminated fuels are used’ section.

**Contamination Limits for Municipal Waste Plants**

4.32. Contamination within municipal waste may be up to and including 50% in each quarterly period. For information on how this can be evidenced, see section ‘Specific municipal waste fuel measurement criteria’.

### Contamination Limits for Gasification and Pyrolysis Plants

4.33. The energy content of solid biomass feedstock for gasification and pyrolysis plants may contain up to 10%

### Contamination Limits for Anaerobic Digestion Plants

4.34. The Regulations do not require participants to take account of any fossil fuel contained in feedstocks used for anaerobic digestion.

4.35. Where the energy content exceeds the levels outlined in this section, participants would be in breach of their ongoing obligations. This may result in the suspension or withholding of payments for the period for which the ancillary fuel limit is breached, or for material or repeated breaches of the requirements, in other compliance and enforcement action being taken.

## Ongoing Requirements Where Ancillary or Contaminated Fuels are Used

### Ancillary Fossil Fuels Requirements Biogas

4.36. Whilst installations using biogas must ensure that the energy content derived from fossil fuels used for ancillary purposes does not exceed 10%, there are no requirements to submit documentary evidence on a quarterly basis. In addition, as the payment calculation takes no account of ancillary fossil fuel use for these installations, the exact percentage of energy content derived from fossil fuels is not required.

4.37. However, for audit purposes, participants who use ancillary fossil fuel must keep documentary evidence to support their claim that the energy content of fossil fuels used for ancillary purposes does not exceed 10%. This documentation includes:

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

Ofgem will regularly review this documentation on a sample basis.

**Solid Biomass Contained in Municipal Waste**

4.38. Where fossil fuel is used for ancillary purposes, the plant must follow FMS procedures outlined in this chapter as well as keeping records of fuel purchase. 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).

**Solid Biomass with Installation Capacity of between 45kwth and 1mwth**

4.39. Applicants must inform Ofgem during the accreditation process that they intend to use a contaminated fuel.

4.40. No deduction will be made from the payment calculation for fuel contamination not exceeding 10% of the energy content of the biomass fuels used. There is no requirement to provide documentary evidence on a quarterly basis. However, records of fuel purchases must be kept for Ofgem review.

4.41. Where an applicant proposes to use a contaminated fuel for this capacity range of boiler, they must keep evidence to support their claim that the fossil fuel contaminants do not exceed 10% of the biomass fuels in any given quarter.

4.42. This documentation includes:

- a boiler warranty or boiler fuel specification clearly showing that fuels above 10% contamination by energy content are not to be used in the boiler
- a fuel supply contract or purchase specification clearly showing that the energy content of the contamination does not exceed 10% of the biomass fuel, and
- initial sampling demonstrating that the energy content of the contamination is not likely to be above 10% of the biomass fuel (for further details on sampling, see the FMS section)

4.43. Ofgem will regularly review this documentation on a sample basis.

4.44. The limit of 10% contamination and ancillary fuel allowances are exclusive of one another (up to 10 per cent of each are allowed).

**Anaerobic Digestion**

4.45. 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. There is no requirement for the contamination of the feedstock to be measured and no deduction is made from the payment.

**Gasification & Pyrolysis**

4.46. Where participants have declared that the installation will use feedstock contaminated with fossil fuel, they must follow the FMS procedures outlined in this chapter. This will ensure compliance with the contamination criteria and will allow the tariff payment to be 'prorated' to deduct the fossil fuel contamination in the feedstock.

4.47. Where municipal waste is used as a feedstock, the criteria in relation to assessing whether contamination is likely to exceed 50% also applies – see the 'Specific municipal waste fuel measurement criteria' section for details.

4.48. No account is to be taken of the energy content of the char, or any other by-products of the process. This is because regulations regarding fossil fuel- derived

content relate to the input feedstocks used at the biogas production plant, rather than to the biogas itself.

## Fuel Measurement and Sampling

4.49. The term ‘fuel measurement and sampling’ (FMS) refers to the way in which certain participants in the NIRHI are required to determine the renewable biomass proportion of their input fuels. This is done on a quarterly basis and is based on the energy content of the fuels. In this context, ‘measurement’ means determining the quantity of a fuel (in tonnes or cubic metres), for example, by weighing the fuel. ‘Sampling’ involves taking small amounts of fuel and testing them to determine specific properties such as their GCV.

### Requirement for FMS

4.50. FMS is only required when a participant generates heat from fossil fuel at their installation when the Regulations state that the tariff should be apportioned ‘pro rata’ to adjust for any fossil fuel use. Where only 100% biomass fuels are used, no measurement or sampling of the fuel is required.

4.51. Participants required to calculate the energy content of the biomass, fossil fuel and contamination contents of their fuels should review the specific regulations relating to this found in the Regulations[15]

4.52. Where ‘pro rating’ is stipulated in the NIRHI regulations, Ofgem need to know the total energy content of all the fuels (including contaminated fuels) used within each quarter. They also need to know the energy content of the biomass fuels in relation to the total fuels used.

[15] Regulations, Part 4, Chapters 1 and 2

4.53. Where fossil fuel is used which does not generate heat (i.e. the generation of metered hot liquid/steam), it does not need to be measured. For example, if fossil fuel is used for start-up or testing, and does not contribute to heat being generated, this would not contribute to the fossil fuel proportion in the quarterly period.

4.54. As part of the Fuel Measurement and Sampling Questionnaire, participants must agree with Ofgem on how to ensure that where fossil fuel is not measured for this purpose, it would not contribute to the generation of heat (i.e. adding to the metered heat generation).

## Purpose of the FMS Questionnaire

4.55. Ofgem use the FMS questionnaire to review the proposed procedures that a participant will follow to determine the renewable portion of their fuel use each quarter[16]. Ofgem will approve these procedures where the procedures set out the basis for accurate ongoing reporting.

4.56. Ofgem will review and approve these procedures at the accreditation stage to ensure that participants follow appropriate procedures post accreditation. This is intended to reduce the likelihood that Ofgem will need to withhold payment due to inaccurate or incorrect periodic data being subsequently provided.

4.57. More detail on how to measure and sample accurately can be found in Appendices 2- 5.

### When to Submit FMS Procedures

4.58. Participants should submit proposed FMS procedures in a form provided by Ofgem, the Fuel Measurement and Sampling Questionnaire (FMS Questionnaire), available on the Ofgem NIRHI website.

4.59. Participants should submit their initial FMS Questionnaire at the same time they submit their application for accreditation or registration. Ofgem will not review an

[16] Regulations, Part 4, Chapter 3, Regulation 36 (4)

application until they have received a FMS Questionnaire, and applications cannot be approved without an approved FMS Questionnaire.

4.60. Without an approved FMS questionnaire, Ofgem cannot be confident that the installation complies with ongoing obligations relating to the use of solid biomass, biogas or biomethane.

4.61. If agreed procedures subsequently change (for example when a new type of fuel is used at the plant or when new measurement equipment is installed), the FMS Questionnaire must be amended and re-submitted for approval online.

**Format of FMS Procedure**

4.62. The FMS questionnaire must be completed on the Microsoft Excel template available for download on Ofgem's website. The template must be converted to PDF format before it can be uploaded to the NIRHI Register.

**Approval of FMS: Case-By–Case Approach**

4.63. Ofgem recognise that no two biomass heat installations are identical and that installations will use different combinations and quantities of fuels from different sources. Ofgem will therefore agree FMS procedures on a case-by- case basis, depending on the specific setup and conditions at each plant. However, before approving FMS procedures, they must be satisfied that the approach participants propose adequately demonstrates ongoing compliance with the fuel requirements as set out in the Regulations.

**Alternative Proposals for Measurement Methodologies**

4.64. As an alternative or supplemental approach to the measurement and sampling of input fuels, participants may propose that the fossil fuel component of fuel used can be measured by analysing any gases or other substances created as part of the combustion process. Typically, this will involve analysis of the flue gases resulting from combustion.

## Quarterly FMS Measurement: Carry-Over of Fuel-Stocks

4.65. In order for Ofgem to calculate NIRHI payments, participants are required to measure the weight of biomass used in a quarterly period.

Participants should note that the weight of any stocks carried over from the previous quarter must be measured in the quarter of use.

4.66. Ofgem will accept measurements taken +/- 3 days after the end of the quarterly period in line with meter readings.

4.67. While Ofgem may allow some flexibility when they are satisfied that practical obstacles exist, it is good practice for measurements to be taken at the same time each quarterly period so that the qualifying percentage can be accurately measured.

4.68. Ofgem will take a pragmatic approach to assessing measurement and sampling information for carry over stock. For example, they may accept estimates of stock levels in circumstances where they are satisfied that the proposed estimation techniques offer an acceptable level of accuracy and reliability.

## Fuel Management

4.69. In addition to submitting the FMS Questionnaire, participants must submit the name and type of fuel(s) they are planning to use for their NIRHI installation. This information can be provided through the Ofgem NIRHI Register.

4.70. Ofgem will then compare these fuels against the participants' FMS Questionnaire and, if appropriate, approve the fuels for use in the installation.

4.71. Where a new fuel is to be used by the plant (e.g. a fuel sourced from a different country to existing fuels), Ofgem should first be informed through the provision of a revised FMS Questionnaire. This may require the questionnaire to be updated solely with the new fuel being used, or new procedures may be required if the new fuel differs significantly from existing fuels. The new fuel should also be uploaded to the Ofgem NIRHI Register for them to check against the FMS Questionnaire.

4.72. Periodic support payments can only be made after Ofgem has approved the fuel(s) submitted for approval. Participants should seek approval before using new fuel in case Ofgem have concerns over the suitability of the FMS for that fuel.

### Submitting Quarterly Fuel Data

4.73. Each quarterly period, participants are required to submit fuel data together with their quarterly meter readings. A one-month submission deadline applies for this data. Fuel data required includes the quantity (in tonnes), contamination percentage and GCV of each fuel combusted. Where relevant, sustainability information should also be provided (see Chapter Six for further details).

## Specific Municipal Waste Fuel Measurement Criteria

### Fossil-Fuel Proportion of Municipal Waste

4.74. In certain circumstances, the Regulations permit Ofgem to make an assumption about the biomass portion of a municipal waste stream based on receipt of satisfactory information published by the Department of the Environment or a district council.

4.75. This information should demonstrate that the fossil fuel derived portion of the waste is unlikely to exceed 50%.

4.76. In practice, this allows installations to base their FMS approach on the submission of published data[17], rather than regular sampling. Participants must gather the evidence they wish to draw upon to demonstrate the fossil fuel. An example of this approach is shown in Table 4.1.

4.77. Where participants wish to claim credit for the renewable content of their municipal waste being greater than the 50% assumed under this approach, they must propose suitable FMS procedures. An example methodology that participants may wish to use is outlined at Table 4.2.

[17] Participants may find it helpful to access the data available via the Waste Data Flow resource at http://www.wastedataflow.org/home.aspx when considering the use of data-based evidence.

**Table 4.1: Example methodology for plants seeking to demonstrate that the fossil fuel content of a municipal waste stream is not likely to exceed 50 percent**

| Stage | Description |
|---|---|
| 1 | Extract a representative sample of the waste and identify the percentage contribution by weight of each of the primary categories within the stream, using a reliable data source to compile a list of primary categories. |
| 2 | Draw upon a reliable data source to apply an estimated GCV value to each primary category. |
| 3 | Multiply the weight and GCV values obtained for each primary category together. |
| 4 | Divide the value obtained at Stage 3 by the sum of the values obtained at Stage 3 and then multiply the resulting value by 100 for each fuel. |
| 5 | Draw upon a reliable data source to apply a biodegradable content to each of the primary categories within the fuel. |
| 6 | Multiply the values obtained at Stage 4 by the value obtained at Stage 5 for each primary category and sum the resulting value for each primary category to generate the overall qualifying percentage of the stream. |

**Table 4.2: Municipal waste stream methodology example**

| Stage 1 | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Stage 5 | Stage 6 |
|---|---|---|---|---|---|---|
| Primary category | % Contribution by weight | Gross CV | Weight X GCV | % by GCV | Biodegradable content | Qualifying % |
| Paper & card | 30 | 12.5 | 375 | 25.2 | 1 | 25.2 |
| Textiles | 70 | 15.9 | 1113 | 74.8 | 0.5 | 37.4 |
| TOTALS | 100 | - | 1488 | 100 | - | 62.6 |

**Processed Municipal Waste**

4.78. Where a participant opts to separate and remove certain parts of a municipal waste stream (i.e. to process the waste) before using the remaining fuel for heat generation, the composition and energy content of final fuel will change. This will affect the reliability of published data used as part of an FMS regime, where that data has been compiled based on waste received at the installation before processing takes place. These processes may increase the fossil fuel derived proportion of the waste.

4.79. For example, a participant may remove materials that have high biomass content causing the proportion of fossil-derived content of the remaining waste stream to increase.

4.80. Participants should provide an explanation of such a process and demonstrate that, in spite of the process taking place, the fossil fuel proportion of the waste is still unlikely to exceed 50%.

4.81. For example, if part of the waste stream has been removed for recycling purposes, participants should calculate the energy content attributable to the biomass portion of the removed fraction as a percentage of the total energy content pre-processing. The participant should deduct this percentage from the total percentage attributable to biomass pre-processing. This calculation will provide the revised total percentage energy content attributable to biomass within the waste stream post-processing.

4.82. Participants should keep relevant supporting evidence of their waste processing regime such as Waste Transfer notes or other documentation relating to waste streams which are separated and removed for recycling.

**Further Evidence**

4.83. In order to verify the proportion of solid biomass contained in municipal waste, Ofgem may ask participants either to provide a sample of municipal waste used in an accredited installation or to implement a sampling regime. The Regulations also give Ofgem the discretion to take account of sampling conducted on any gas or other substance produced as a result of the fuel being used[18]. Ofgem may also request a sampling regime as part of their auditing procedures. For further information on auditing please refer to Chapter 11.

4.84. Ofgem have powers to require sampling at any time but they will generally ask participants to implement sampling regimes in the following circumstances:

- where a participant has not been able to provide sufficient data-based evidence to demonstrate that the fossil fuel content of a municipal waste

[18] Regulations, Part 4, Chapter 1, Regulation28 (8)

stream (before or after it has undergone any process) is not likely to exceed 50%, or

- where a participant believes that the fossil fuel content of the stream is less than 50% and wishes to agree an FMS procedure for a municipal waste stream

4.85. While participants may explore a range of options when designing FMS procedures, they should bear in mind the key relevant requirement of the Regulations[19], namely that the fossil fuel proportion in a waste stream must be determined according to the energy content of the fuel.

[19] Regulations, Part 4, Chapter 1, 28 (3)

# Periodic Support Payments

5

This chapter provides guidance on how the quarterly periodic support payment will be calculated and made. This chapter also outlines the actions by participants or Ofgem which may affect payment schedule.

## Periodic Support Payments

5.1 NIRHI support will be delivered to participants in the form of quarterly periodic support payments (hereafter, 'payments') over the lifetime of the scheme. Payments will accrue from the accreditation date of an installation, or registration date for biomethane producers, and will be payable for 20 years providing the participant remains eligible for the Scheme.

5.2 The tariff levels for the different eligible technologies and the formulae to determine the payments have been set by DfE in the NIRHI Regulations. Ofgem is responsible for making payments to NIRHI participants based on the payment calculations set out in the Regulations.

## Calculation of Payments

5.3 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.

5.4 For the majority of participants the EHO and payment amount is calculated by the RHI Register. As part of the application approval process, Ofgem will allocate the appropriate formula on the installation's system type and metering arrangements.

5.5 This allows the system to calculate the heat output data including the EHO and payment amount based on each periodic data submission. Ofgem will advise applicants for whom this does not apply as part of the application review process.

5.6 The metering classification of each installation will determine the way in which the EHO generated by the installation (or the amount of biomethane produced) is calculated. Each installation is classed as 'simple' or 'complex', for metering purposes. Please see Volume 1, Chapter 7 for further details on the classification of simple and complex.

5.7 Classification determines which 'quantities' participants are required to measure in order for Ofgem to calculate an installation's EHO:

The EHO for a **'**simple' system can be determined by measuring:

- Heat generated by the RHI installation (HGBI)

The EHO for a 'complex' system can be determined by measuring three quantities:

- Heat generated by the 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)

5.8 The metering arrangements of each installation determines whether HGBI or HUEP are used as the EHO. When participants provide relevant meter readings, the RHI Register multiplies the EHO by the applicable tariff to calculate RHI periodic support payments.

**Calculation for Simple Systems**

5.9 For installations classed as simple systems, the payment calculation is straightforward[20].

[20] Regulations, Part 5, Regulation 37

Payment = Tariff Level x Heat Generated by NIRHI Installation

Worked Example: Simple System

System type: ground source heat pump, capacity 10kWth

Tariff rate determined by regulations: £0.084 (8.4 pence)

Data submitted to Ofgem: amount of heat generated in that quarter 6,570 kWhth

Payment = Tariff level x Heat Generated by NIRHI Installation

= 0.084 x 6,570 = £551.88

**Calculating payments for biogas installations**

5.10 The payment calculation for biogas systems takes account of the 'heat supplied to the biogas plant' (HSBG) which produced the biogas combusted in the quarterly period. While this is considered an eligible use of heat, it must be deducted from the EHO. The EHO is determined in the same way a simple system. Once HSBG has been deducted from EHO the resulting figure is multiplied by the applicable tariff to calculate the RHI periodic support payment.

## Calculation for Complex Systems

5.11 The payment calculation for installations classed as complex systems is more involved[21] as it must take account of any ineligible plants connected to the heating system of which the accredited NIRHI installation forms part and of any ineligible heat uses served by the system. This ensures that only eligible heat attributable to the eligible installation is supported:

$$\text{Payment} = \text{Tariff Level} \times \text{Eligible Heat Used on System} \times \frac{\text{Heat Generated by NIRHI Installation.}}{\text{Total Heat Generated on System}}$$

[21] Regulations, Part 5, Regulation 38

Worked Example: Complex System

System type: ground source heat pump, capacity 200 kWth

Tariff rate determined by regulations: £0.013 (1.3 pence)

Data submitted to Ofgem:

Amount of heat generated by NIRHI installation in that quarterly period: 160,000 kWhth

Total amount of heat generated by all installations on system: 340,000 kWhth (note: this implies a further 180,000 kWhth was generated by other ineligible plants in addition to the NIRHI installation)

All heat used on the system for eligible purposes: 290,000 kWhth

Calculation = Tariff Level x Eligible Heat Used on System x Heat Generated by NIRHI Installation Total Heat Generated on System

= 0.013 x 290,000 x 160,000 340,000 = £1,774

**Complex System involving biogas**

5.12 For complex systems involving biogas, the formula accounts for the heat delivered to the biogas plant which produced the biogas combusted in the quarterly period:

Payment = Tariff Level x (Eligible Heat Used on System – Heat to Biogas plant) x Heat Generated by NIRHI Installation

Total Heat Generated on System

5.13 There are additional elements to the payment calculation for some eligible technologies in particular circumstances.

5.14 Where the participant has declared that feedstock contaminated with fossil fuel will be used in the accredited installation, the tariff payment is ‘pro-rated’ to deduct the fossil fuel contamination in the feedstock.

5.15 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%, the payment would be multiplied by 95% to determine the final payment.

5.16 No account is taken of any fossil fuel used for permitted ancillary purposes at the heat generating plant.

## Calculating Tiered Payments

5.17 For these ‘small’ and ‘medium’ biomass installations, a two tiered tariff structure applies, as well as an annual cap on heat that is eligible for payments. The tiering and annual cap are not applicable to ‘large’ biomass installations.

5.18 A two-tiered tariff structure and annual cap on eligible heat which applies to all small and medium biomass boilers, operates on a 12 month basis, starting with an installation’s date of accreditation or its anniversary. The Regulations specify that, during that 12 month period, an initial amount of heat equal to the amount of heat generated by the installation running at its installation capacity for 1,314 hours (15% of a year) will be payable at the higher Tier 1 tariff. Any further heat used during that 12 month period will be payable at the lower Tier 2 tariff, up to a maximum of 400,000kWhth. At the start of the next 12 month period, the initial amount of heat will again be payable at the higher Tier 1 tariff.

5.19 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, and the 400,000kWhth is applied to the eligible heat output.

5.20 Payments for eligible heat output beyond 400,000kWhth in each payment year will automatically be stopped. Participants are responsible for understanding their eligible heat output and the impact on payments. However, they can normally expect to be notified if and when they cross the threshold when they enter their periodic data. Payments will resume the following payment year for eligible heat output. Meter readings must be entered each quarter, even if the installation has crossed the 400,000kWhth limit.

## Payments for Biomethane Producers

5.21 Registered producers of biomethane have a separate payment calculation formula because heat is not generated in the biomethane injection process.

Please see the tariff table at Appendix One to view the tariff rate applicable to biomethane producers.

5.22 Five sets of data are required to calculate quarterly payments for biomethane producers:

i. The volume (in cubic meters) and Gross Calorific Value (GCV) (in kilowatt hours per cubic meter) of biomethane injected into the gas network in kWth. Participants should ensure that, where relevant, appropriate adjustments are made for temperature and pressure

ii. The GCV and volume of propane contained in the biomethane in kWth (appropriately adjusted for temperature and pressure

iii. Any heat supplied to the biomethane production process in kWhth

iv. Any heat supplied to the biogas production plant from an external source (i.e. any source other than from the combustion of the biogas) in kWhth.

v. 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% to give the solid biomass proportion contained in the feedstock (e.g. a 5% contamination will give a solid biomass proportion of 95%).

5.23 After registration, biomethane producers must submit this information regularly within the deadline for periodic data submissions. Payments to biomethane producers will be calculated by subtracting Items ii - iv in the from Item i. This figure is then multiplied by the proportion of biomass contained in the feedstock.

5.24 Please see Chapter Nine for further information on the requirements for submission of periodic data for registered biomethane producers.

## Start Date of Payments

5.25 Payments are payable based on quarterly periods calculated from the date of the accreditation of the eligible installation or from the date of registration for biomethane producers.

5.26 For example, if an installation was accredited or a biomethane producer registered on 25 January 2015, then the first quarterly period would be

considered to run from 25 January 2015 - 24 April 2015. Ofgem will notify participants of their payment schedule after their installation is accredited, or when they become a registered biomethane producer.

5.27 Payments will cease after a fixed period of 20 years from the date of accreditation for each installation or from the date of registration for biomethane producers.

## Index-linking of Tariffs

5.28 NIRHI tariffs will be updated on an annual basis, with the updated rates commencing on 1 April and ending on 31 March of the following year. Tariffs will be adjusted by the percentage increase or decrease in the relevant inflation measure as per the regulations (UK RPI or CPI) for the previous calendar year (the resulting figure being rounded up to 10th of a penny, with any twentieth of a penny being rounded upwards).

5.29 Where a quarterly period falls over two applicable tariff years (with part of the period falling before the inflation adjustment and part after the adjustment), the quarterly payment in question will normally be calculated on a pro rata basis.

**Effect of Additional Plant or Changes to the Installation on Tariff Rate**

5.30 Where participants install additional equipment or alter an existing accredited installation, any change to the applicable tariff will only apply after Ofgem has accredited and approved the additional equipment or alteration to the installation. For further details see Chapter Seven.

5.31 If the additional equipment is installed within 12 months of the original equipment accreditation date, the tariff for the original installation would apply to the total capacity of the updated installation (except where the combined capacity exceeds the tariff threshold). The total payment period would also remain the same as the original equipment accreditation date. If the installation of additional equipment takes the combined capacity over a tariff threshold then the new tariff for the larger capacity will apply.

5.32 If the additional equipment is installed more than 12 months after the original equipment accreditation date, the additional equipment will be metered separately and have its own accreditation date. The applicable tariff for the additional equipment will be based on the total capacity of the system (the capacity of the original installation and the additional equipment combined). Payments for the additional equipment will be made over a period of 20 years from the accreditation date of that equipment.

## Actions Which May Affect a Payment Schedule

5.33 Ofgem will not make payments until:

- they are satisfied that the information given by the Authorised Signatory is accurate and the installation meets the necessary requirements of the NIRHI scheme;
- the installation has approved meters in place and these are fully functional;
- they have accredited the installation and the participant has received confirmation of accreditation.

5.34 Ofgem will calculate quarterly payments only when participants have submitted all the required periodic data (for further details see Chapter Three) and they have determined the amount of eligible heat generated by the installation (or, for biomethane producers, the eligible volume of biomethane produced).

5.35 Ofgem will review periodic data submissions and determine the amount of eligible heat generated for that quarterly period. They will calculate the amount payable for each quarter as determined by the appropriate tariff. In doing so, Ofgem will take into account any additional debits, credits or deductions (for example, due to previous overpayments or sanctions which may have been imposed). Ofgem is not liable for any delays to payments however they may have been caused and will not pay interest on any payments which may have been so delayed.

5.36 If periodic data is submitted more than one month after the conclusion of the relevant quarterly period end, payment for that quarterly period may be delayed.

Participants should provide supporting evidence if there are exceptional circumstances for submitting late data, For further details, please see the 'Late data' section in Chapter Three.

5.37 Ofgem may raise queries on periodic data submissions and/or carry out audits of participants' systems. Consequently, they may adjust payments as a result of any review or adjust the previous quarter's payment calculations. If participants disagree with any Ofgem decision, they may lodge a complaint with Ofgem or request a review of the decision. For further details see Chapter Twelve.

## Adjustments to Periodic Support Payments

5.38 Ofgem will amend quarterly payments if there has been:

- an over-payment /s in (a) previous quarter/s
- an underpayment in (a) previous quarter/s
- if an error has been made
- if payment is subject to a sanction (For further details see Chapter Ten)

5.39 If Ofgem is concerned that a participant is not complying with the conditions of the scheme, they may apply a formal sanction such as

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

For further details on compliance, please see Chapter Ten.

**Nominated Bank Account**

5.40 Ofgem will pay the amount due to a nominated bank account by BACS transfer. Please note that it is a requirement of the NIRHI that the nominated bank account accepts pound sterling deposits in the United Kingdom. Failure to nominate a suitable account may result in payments being delayed until details of a bank account which meets the requirements of the NIRHI are provided.

## Tariff Lifetime Following a Change in Ownership

5.41 Where an accredited installation is sold or transferred to a new owner, the new owner can only receive payments for the remaining period of the original tariff lifetime. For example, if an installation is sold five years and four months after being accredited to the NIRHI, then the new owner will be eligible to receive payments for the remaining fourteen years and eight months of the tariff lifetime.

5.42 For full details on requirements in the circumstance of a change in ownership of an accredited installation, please see Chapter Eight.

## BIOMETHANE SUSTAINABILITY REPORTING

# 6

This chapter explains the requirements for sustainability reporting for participants who are biomethane producers.

## Definition of Sustainability Reporting

6.1 Schedule 2 of the Regulations requires biomethane producers to provide Ofgem with quarterly reports on the sustainability of fuel and feedstock. The information required is outlined in Table 6.1. This is required for each fuel consignment used.

### Table 6.1: Information required for sustainability reporting

| Element | Detail | Example |
|---|---|---|
| Biomass Type | The material from which the biomass was composed e.g. wood | Food Waste |
| Biomass Form | Whether the biomass can take different forms e.g. wood chips or wood pellets, the form of the biomass | Shredded domestic and commercial food |
| Mass | Where the biomass is solid in its mass | 1,000 tonnes |
| By-product | Whether the biomass was a by-product of a 'process' (as defined in the Regulations). | No |
| Biomass derived from waste | Whether the biomass was derived from waste | Yes |
| Country of origin | Where the biomass was plant matter or derived from plant matter, the country where the plant matter was grown | Northern Ireland |
| 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. | N/A |
| '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:<br>• the proportion of the consignment which was (or was derived from) an energy crop<br>• the type of energy crop contained in the consignment | No |
| 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. | No |
| | 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 and How to Submit Sustainability Information

6.2 Participants are required to report on sustainability information on a quarterly basis, as part of their periodic data. The information provided should be accurate to the best of their knowledge and belief.

6.3 Sustainability information should be provided via the Ofgem NIRHI Register.

**Unavailable Information**

6.4 Participants are required to provide Ofgem with all the information listed in Schedule 2 of the Regulations. However, in particular circumstances, there may be information required by Schedule 2 which is not available to the participant. In these circumstances, participants should contact Ofgem to discuss the way forward.

**Audits**

6.5 Participants should be aware that Ofgem may audit the sustainability information provided. Participants should therefore ensure that any information relevant to the sustainability reporting criteria is available on request to an audit team. For further information on Ofgem's audit procedures, please refer to Chapter 11.

**The Northern Ireland RHI scheme has been suspended for new applicants since 29 February 2016. Currently no applications for additional capacity can be accepted. Existing accredited installations remain eligible for RHI payments, providing participants remain compliant with their ongoing obligations.**

**Ofgem continue to administer the Non-Domestic RHI scheme on DfE's behalf. This suspension only applies to the Northern Ireland RHI scheme. The Great Britain RHI scheme is unaffected.**

**As such, this Chapter is included in the guidance for reference purposes only.**

## TREATMENT OF ADDITIONAL CAPACITY

# 7

### Chapter summary

This chapter provides guidance on how the addition of capacity or a plant to an existing NIRHI installat ion or to a heating system of which an NIRHI installat ion forms part will be treated.

### Additional Capacity

7.1 If any renewable or fossil fuelled plant is added to an accredited NIRHI installation or to a heating system of which the accredited NIRHI installation forms part, Ofgem must be notified, irrespective of whether a participant wishes to apply for accreditation of that plant (see Chapter Two). The treatment of a plant which has been so added will depend on whether the plant constitut es 'additional NIRHI capacity'.

7.2 The Regulations state that 'additional NIRHI capacity' means a plant which is first commissioned after the date on which the original NIRHI installation was first commissioned, uses the same source of energy and technology and supplies heat to the same heating system[22].

7.3 In practice, this means that for example that if a participant with an NIRHI - accredited ground source heat pump installed another ground source heat pump

[22] Regulations, Part6, Regulation 42(2)

supplying heat to the same heating system, the second heat pump would be considered additional NIRHI capacity. This is regardless of whether the participant wished to apply for NIRHI support on the second heat pump, although the additional NIRHI capacity will only be accredited if the owner applies for accreditation.

7.4 A participant may install a heat generating plant which uses a different technology or source of energy to an existing NIRHI accredited installation and connect it to the same heating system as the NIRHI accredited installation. For example, if a participant installs a solar collector which feeds into the same heating system as their NIRHI -accredited biomass boiler, the solar collector would be considered as a new plant (and as a separate installation for NIRHI purposes). Ofgem only treats a plant which is the same technology and source of energy connected to the same heating system as 'additional NIRHI capacity'. A participant could apply for support for the new plant via an application for accreditation for a new installation if they wish to. However, whether or not the participant wishes to seek such accreditation, he must still notify Ofgem of the addition of the new plant.

7.5 Increasing the capacity of a biomethane plant is not considered to be the installation of 'additional capacity'. If a participant increases the flow rate of their biomethane production plant, they must amend their registration details to reflect the updated flow rate, but do not need to apply for additional capacity. Amending the flow rate and notifying Ofgem of the increase in production is sufficient.

**When to inform Ofgem of installing additional capacity or plant**

7.6 As specified in the Regulations, participants must inform Ofgem of the addition of capacity to an accredited NIRHI installation, or the addition of a new plant to an accredited NIRHI installation, within 28 days of the addition 27 . Participants must also inform them of the first commissioning of the additional capacity or additional plant within 28 days. This is regardless of whether or not the participant intends to apply for NIRHI support on the additional NIRHI capacity or additional plant. Please see the 'Information that will need to be provided' Section below for further information.

7.7 If a participant fails to notify Ofgem of a new plant or additional capacity within 28 days, appropriate enforcement action may be taken. For further information, please see Chapter Ten.

**What may change if you install additional capacity or plant**

7.8 Participants must make sure that the original accredited NIRHI installation continues to comply with all appropriate NIRHI eligibility requirements when additional NIRHI capacity has been added (whether or not accreditation has been applied for in respect of the additional NIRHI capacity). For example, the additional NIRHI capacity could affect the metering arrangements required for the original accredited NIRHI installation. Please refer to Volume One, Chapter Seven, 'Metering

eligibility requirements' to see if the additional capacity affects the metering arrangement s of the original installation.

7.9 Where a participant applies for accreditation for additional NIRHI capacity which is first commissioned within 12 months of the date of first commissioning of the original NIRHI installation, Ofgem will treat the additional and original NIRHI capacity as one installation. Therefore, the participant will also need to comply with eligibility criteria which will apply in respect of this combined installation (see section 'Additional capacity that takes the eligible installation above the biogas or solar thermal upper limit' below. For example, if the additional RHI capacity (which is added within 12 months) takes the combined installation capacity above 1MWth, participant s will need to provide an 'Independent Report on Metering Arrangements' as part of the accreditation application process. Please refer to the 'Independent Report on Metering Arrangements' Section in Chapter Seven of Volume One for further details on this report.

7.10 Participants must similarly ensure that the original NIRHI accredited installation still complies with all the appropriate eligibility requirements when a new plant (which is not 'additional NIRHI capacity') has been added to the same heating system. The most common eligibility requirements that will be affected by a new plant will be the metering arrangements. Further information about these can be found in Volume One, Chapter Seven, 'Metering eligibility requirements.'

**How to inform us**

7.11 Participants can let Ofgem know they have installed additional capacity or new plant online through their Ofgem NIRHI Register user account if they are applying for accreditation of this additional capacity or new plant, by email, or by post if they are simply notifying them of the amendment s to the heating system.

**Information that will need to be provided**

*If applying for NIRHI support on the additional capacity or plant*

7.12 NIRHI participants wishing to receive support for additional NIRHI capacity or a new plant must apply to Ofgem for accreditation. Ofgem will assess the eligibility of the additional capacity or new plant before deciding if they can accredit it. They will also make additional checks to verify how it interacts with the original accredited NIRHI installation.

7.13 The criteria which Ofgem will apply in considering whether to accredit additional NIRHI capacity will depend on the date of first commissioning of the relevant additional capacity. Additional NIRHI capacity which is first commissioned within 12 months of the date of commissioning of the original plant will be treated by Ofgem as one installation i.e. as being combined with the original NIRHI accredited plant and must meet the eligibility criteria which are relevant to the combined installation (see this requirement also in relation to the original NIRHI installation in section 'What

may change if you install additional capacity or plant' above). This does not apply to additional capacity first commissioned more than 12 months after the original plant was first commissioned which is treated as a separate installation for the purposes of determining eligibility criteria for accreditation, except in respect to:

- the tariff rate which will apply to this additional capacity (which will be based on the combined capacity of the new and original installations) and
- the capacity limits for biomass, solar and biogas installations across both the original and additional NIRHI installations.

7.14 These exceptions are explained in more detail later in this chapter.

7.15 A new plant on the same heating system which uses a different eligible energy source from the original accredited NIRHI installation is treated as a new installation for the purposes of determining the relevant eligibility criteria.

7.16 Ofgem will require the information outlined in Schedule 1 of the Regulations to be submitted as part of the application for accreditation of additional capacity (irrespective of when this was commissioned) of a new plant. They will also require an updated schematic diagram illustrating the metering arrangements and location of the original accredited NIRHI installation and the additional capacity or new plant.

7.17 The additional NIRHI capacity must be metered separately from the original accredited NIRHI installation. A new plant which is an eligible installation for which accreditation is sought must also be individually metered. For further information about metering requirements, see Volume One, Chapter Seven, 'Metering eligibility requirements'.

*If not applying for NIRHI support on the additional capacity or plant*

7.18 If the participant does not want to apply for NIRHI support on the additional capacity or new plant on the same heating system, they still must provide Ofgem with information explaining how the additional capacity or new plant interacts with the original accredited NIRHI installation and the relevant heating system so they can determine whether the original accredited NIRHI installat ion still meets the eligibility criteria.

7.19 Ofgem will require information on the technology type, capacity, and commissioning date of the additional capacity or new plant. In addition to this, participants will need to provide an updated schematic diagram showing any changes to metering arrangements, if applicable. Please see the 'Schematic diagram' section in Volume One, Chapter Seven.

7.20 In accordance with the Regulations, additional capacity for which accreditation is not sought still needs to be individually metered. An ineligible plant or a plant for which accreditation is not sought may need to be individually metered, depending on its position in the heating system of which the original NIRHI installation forms part.

For further information on metering requirement s see Volume One, Chapter Seven, ‘Metering eligibility requirements’.

*What happens next?*

7.21 Ofgem will review the original accredited NIRHI installation’s accreditation (as well as the additional capacity or new plant if applied for) in order to determine if the additional capacity or new plant has affected the original NIRHI installation’s eligibility.

7.22 If Ofgem find that the additional capacity or new plant (for which the participant has applied for support) is not eligible for NIRHI support, the original accredited NIRHI installation will remain accredited as long as its eligibility is not affected by the additional capacity or new plant.

7.23 If Ofgem has reasonable grounds to suspect the original accredited NIRHI installation is no longer eligible following the installation of additional capacity or new plant on the same heating system, they may, temporarily withhold payments in order to investigate the issue further (more information on temporary withholding of payments is available in Chapter Ten of this volume). For example, if a participant with an NIRHI accredited heat pump later installed a biomass boiler, and used a single hot water meter to measure the heat generated by both installations, the original accredited NIRHI installation (the heat pump in this case) would be ineligible. This is because the metering arrangements would no longer comply with NIRHI requirements (separate metering is required for installations using a different energy source). For further information about metering requirements, see Volume One, Chapter Seven, ‘Metering eligibility requirements’.

**Additional capacity that takes the eligible installation above the biogas, biomass or solar thermal upper capacity limit**

7.24 Biogas and solar thermal installations of 200kWth and above and biomass installations of 1MWth and above, are not eligible for NIRHI support. Where additional NIRHI capacity which is first commissioned within 12 months of the date of first commissioning of the original NIRHI installation is added to an existing NIRHI accredited biogas, biomass or solar thermal installation, as long as the combined installation capacity remains below 200kWth, or in the case of a biomass installation, 1MWth, the additional capacity will be eligible to be accredited and the combined installation will continue to receive NIRHI support provided the installation meets all other eligibility requirements (see below).

7.25 For example, if a participant installs a 75kWth solar thermal collector on the same system as an NIRHI accredited 100kWth solar thermal installation, the second solar thermal installation (additional NIRHI capacity) would be eligible for NIRHI support, provided it met all other eligibility requirements. This is because the

combined installation capacity for solar thermal on that system remains below 200kWth.

7.26 However, if a 150kWth biogas plant is accredited, and another 150kWth biogas plant is later connected to the same heating system, the additional NIRHI capacity would not be eligible for accreditation. This is because if it was accredited it would bring the combined installation capacity for the installation over the upper limit and accordingly, the entire installation capacity of the additional NIRHI capacity would be ineligible for NIRHI support. The first boiler will remain eligible for NIRHI support provided it continues to meet all requirements. The same scenario would apply if a 600kWth biomass boiler was accredited and another 600kWth biomass boiler was later connected to the same heating installation.

7.27 Where additional NIRHI capacity which is first commissioned more than 12 months after the date of first commissioning of the original NIRHI installation is added and the plant generates heat from biogas using a solar collector, this additional NIRHI capacity may only be accredited as a separate NIRHI installation where the installation capacity of the original NIRHI installation, combined with that of all other plants which use the same source of energy and technology and form part of the same heating system, is below the upper installation capacity limit[23]. Where an application for accreditation for additional NIRHI capacity would cause this limit to be breached, Ofgem will decline to accredit the additional NIRHI capacity (resulting in the entire installation capacity of the additional NIRHI capacity being ineligible for NIRHI support) . This is because accrediting this additional NIRHI capacity would cause the original NIRHI installation to fall within the definition of 'excluded plants' and its accreditation would be subject to immediate revocation. On refusal to accredit the additional NIRHI capacity, the original NIRHI installation may continue to be accredited provided it continues to meet all requirements.

*Determining the tariff for additional capacity first commissioned within 12 months of the previous installation*

7.28 Where additional NIRHI capacity is first commissioned within 12 months of the first commissioning date of the original accredited NIRHI installation, the tariff for the new installation (i.e. original accredited NIRHI installation + additional NIRHI capacity) will be based on the combined installation capacity of the original accredited NIRHI installation and the additional NIRHI capacity.

7.29 The tariff for that installation capacity as at the date of accreditation of the original accredited NIRHI installation will apply to the whole installation, and the tariff will terminate on the tariff end date of the original accredited NIRHI installation.

[23] Regulations, Part2, Chapter 2, Regulation 15(1)(c)

*Determining the tariff for additional capacity first commissioned 12 months or more after the previous installation*

7.30 Where additional NIRHI capacity is first commissioned more than 12 months after the first commissioning date of the original accredited NIRHI installation, the original accredited NIRHI installation will continue to receive the same tariff and have the same lifetime as when it was accredited.

7.31 The tariff that is applicable for the additional NIRHI capacity will be determined on the basis of the combined capacity of the original accredited NIRHI installation and the additional capacity[24]. It will be based on the tariff that is applicable on the date of accreditation of the additional capacity. The tariff lifetime will apply from the date of accreditation of the additional capacity.

7.32 The table below illustrates the example above where additional capacity is first commissioned more than 12 months after the original accredited NIRHI installation was first commissioned.

Table 7: Illustrative example of support for additional capacity

| | Year first commissioned | Capacity | Tariff | Lifetime |
|---|---|---|---|---|
| Biomass boiler 1 | 2012 | 400kWth | 400kWth tariff in 2012 | 20 years from 2012 |
| Biomass boiler 2 | 2014 | 400kWth | 800kWth tariff in 2014 | 20 years from 2014 |

Additional plant: Tariff, lifetime and specific metering requirements

*Determining the tariff for a new eligible plant on the same heating system*

7.33 Where a new plant which uses a different technology or source of energy is added to an original accredited NIRHI installation, (e.g. a biomass boiler is installed on the same heating system as an NIRHI accredited heat pump) and is accredited to the NIRHI, this plant is treated as a separate installation. The tariff and tariff lifetime are based on the new plant's capacity and first commissioning date only (i.e. the original accredited NIRHI installation capacity does not count towards capacity of the new plant).

7.34 The new plant must be separately metered from the original accredited NIRHI installation in order to determine the contribution of the respective renewable technologies to total heat generation on the system as they will each be treated as separate installations.

[24] Regulations, Part5, Regulation 36(6)

# Change of Ownership or Relocation of an RHI Accredited Installation

8

This chapter explains how Ofgem manage a change of ownership or the relocation of all or part of an accredited NIRHI installation.

## Change of Ownership of an Accredited RHI Installation

8.1 The Regulations allow for the ownership of an installation, or part of an installation, to be transferred. Where an existing owner of an accredited NIRHI installation sells or transfers all or part of the installation, the new owner will be able to assume entitlement to payments under the NIRHI for the remainder of the installation's tariff lifetime provided the conditions set out in this chapter are satisfied.

8.2 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 then apply to receive NIRHI support for the remaining eligibility period of the installation. This is provided that all eligibility criteria are met and Ofgem is satisfied that the new owner will comply with the ongoing obligations required under the scheme.

8.3 The outgoing owner must notify Ofgem of the change in ownership within 28 days of the date of the change. Failure to do so is a breach of the ongoing obligations and Ofgem may take enforcement action.

8.4 However, as any such delay or failure by an outgoing owner may affect the time taken for entitlement to payments to be transferred, the prospective new owner may wish to consider including an obligation on the outgoing owner to complete the required notification in any transfer documentation.

8.5 Payments for the outgoing owner will cease from the date of transfer of ownership. Payments for the new owner will only accrue from the date that Ofgem is satisfied that the new owner has demonstrated their entitlement and will not be back-dated to the date of transfer.

8.6 After transfer of ownership has been completed, the new owner must take the following steps in order to receive payments for an installation accredited under previous ownership:

- The prospective participant (the new owner) must contact Ofgem and notify them about the change in ownership.
- When the potential participant has: proved evidence that they are the new owner; that they will comply with the ongoing obligations of the scheme; that they have supplied Ofgem with any information they require; and that the installation continues to meet the eligibility criteria, Ofgem will update their register to reflect that the new owner is now the scheme participant for that installation.

8.7 For example, if the installation is sold in January 2015 but the new owner does not notify Ofgem and complete the formalities to receive payments until June 2015, payments for the new participant will only begin to accrue from June for the remainder of the installation's tariff lifetime.

8.8 New owners must notify Ofgem within 12 months of the change in ownership and may be asked to supply evidence of ownership in addition to any other information required under the Regulations.

8.9 If Ofgem are not notified within 12 months of the change of ownership, the installation will no longer be accredited and the incoming owner will not be entitled to any payments[25]. An application for the same installation to re-join the scheme at a later date will not be accepted.

[25] Regulations, Part 3, Regulation 24(8) 32 Regulations, Part 3, Regulation 24(6)

## Transfer of Part of an Installation

8.10 Where part of an installation has been transferred to a second owner, the new part owner must notify Ofgem of the transfer. Ofgem may require the new part owner to provide evidence of part ownership. The original participant must advise Ofgem within 28 days of the transfer. This can be done online through their RHI account.

8.11 Where only part of an installation's ownership has transferred, Ofgem requires the original accredited owner to act as the 'representative owner' for all owners of that installation and continue to be regarded as the participant for that installation. For further information regarding representative owners, please refer to Volume One Chapter Four.

8.12 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, Ofgem may require the representative owner to provide evidence that they have authority from all other owners to be the participant for the purposes of the scheme.

8.13 Ofgem may extend the period within which they need to be notified of a change of ownership by a new owner of all or part of an accredited installation if they consider there are exceptional relevant circumstances.

8.14 Any attempt 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 Ten for further information on our approach to fraud.

## Relocation of an Accredited Installation

8.15 Participants who wish to relocate an accredited RHI installation must notify Ofgem within 28 days of the installation being disconnected. Participants are required to submit a photograph of the closing meter reading(s) for all RHI relevant meters. After the installation has been relocated, participants must apply for accreditation via the RHI register. Ofgem will then assess whether the installation's eligibility criteria are being met at the new location.

8.16 Ofgem will cease RHI payments from the date the RHI installation is relocated. Payments will only recommence when notification has been received and Ofgem has determined that the RHI installation should continue to be accredited.

Following notification, Ofgem may require further information which will be reviewed to determine whether the RHI installation continues to meet the eligibility criteria at the new location and can continue to be accredited.

**Tariff lifetime following a change in ownership or relocation of an accredited installation**

8.17 When an accredited installation is sold or transferred to a new owner, the new owner can only receive payments for the remaining period of the original tariff lifetime. For example, if an installation is sold 5 years and 4 months after being accredited to the RHI, then the new owner will be eligible to receive payments for the remaining 14 years and 8 months of the tariff lifetime.

8.18 If an installation is relocated during its tariff lifetime, the owner must notify Ofgem of the change in location and provide any other information required to assess ongoing eligibility. If Ofgem decide that the installation continues to meet the eligibility criteria, RHI payments will continue for the remaining period of the original tariff lifetime.

# Ongoing Scheme Obligations for Biomethane Producers

9

This chapter outlines the ongoing obligations for registered biomethane producers.

## Ongoing Biomethane Obligations

9.1 Participants who are biomethane producers are subject to most of the same ongoing obligations as owners of biomass and biogas plants and should pay careful attention to other sections of this volume. This chapter is designed to cover additional ongoing obligations relating only to biomethane producers.

**Propane**

9.2 Biomethane may require the addition of propane to bring it to the required quality (calorific value) to inject into the gas network. The energy content of the propane used within each quarterly period (based on the GCV and volume) must be measured and submitted periodic data. Ofgem will take this into account in the payment calculation.

9.3 Depending on the specifics of each application for registration, Ofgem may require more frequent collection of propane and other data (e.g. monthly). More frequent verification is required to assist Ofgem to ensure the accurate provision of data. As discussed in chapter four, 'ongoing fuel eligibility requirements', Ofgem also require the submission of an FMS Questionnaire which should include proposals on how the participant intends to measure the propane which has been added to the biomethane.

9.4 Ofgem may 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 participant having to measure the GCV each quarter. Ofgem 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**

9.5 Ofgem also deduct the energy content of any contamination in the biomass feedstocks used to produce the gas (where the gas is produced from gasification or pyrolysis). Ofgem and participants should agree how the energy content of any contaminated feedstocks is measured as part of the FMS procedures outlined in Chapter Four.

**Heat Use for Biogas Production**

9.6 As with accredited biogas installations, any heat from another renewable source or fossil fuel used to produce biogas which is subsequently converted to biomethane must be measured and submitted to Ofgem each quarter, so that they can take account of it in the periodic support calculation. Heat from the combustion of biogas or waste heat from a biogas engine is not included because this gas has not been transferred onto the grid and does not received NIRHI payment. Heat meters must meet the requirements outlined in Volume One, Chapter Seven.

# 10

This chapter outlines DfE's / Ofgem's approach to ensuring compliance with conditions of the NIRHI scheme, including enforcement powers and dealing with non-compliance.

## Compliance with the Scheme and Enforcement

10.1 The Regulations set out the eligibility criteria and ongoing obligations that participants must comply with in order to receive NIRHI payments.

10.2 DfE and Ofgem have provided resources to assist participants in complying with their obligations under the scheme. These include the publication of this Guidance, and Ofgem's NIRHI helpdesk facility, which deals with queries relating to eligibility requirements, payments and Ofgem's administration of the scheme.

10.3 Ofgem has an application process in place which, together with a system of internal checks and review procedures, aims 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.

10.4 Ofgem and DfE have a responsibility to ensure compliance with the rules of the Northern Ireland Renewable Heat Incentive Scheme, and have a zero tolerance approach to fraud. Ofgem has 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 NIRHI, Ofgem and DfE 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 the PSNI, along with the suspension of payments and/or removal from the Scheme.

10.5 DfE / Ofgem may come across non-compliance with the scheme in a number of circumstances including (but not limited to): during the normal course of running the scheme, following an inspection, due to information submitted by the participant or a third party.

10.6 Where DfE / Ofgem suspect that a participant may be failing to comply with ongoing obligations, they will take steps to determine the facts. In the first instance, DfE / Ofgem will generally contact a participant for further information, clarification or evidence.

10.7 In the majority of cases, Ofgem will take decisions in relation to compliance or non-compliance. However, in some situations, DfE may decide to retain decision-making powers in relation to compliance with certain obligations under the Scheme, rather than delegate the case to Ofgem. For these cases, DfE will contact the participant directly and will carry out any subsequent investigation that may be necessary.

10.8 In the majority of cases, this should be sufficient to establish whether a participant is in compliance. However, if DfE / Ofgem are not satisfied with the outcome of their initial enquiries, they may require a site inspection to be carried out (see chapter eleven) or, if they have reasonable grounds to suspect that a participant has failed or is failing to comply with ongoing obligations, instigate a formal investigation.

10.9 When DfE / Ofgem are satisfied that they have all relevant facts, they will decide on any further action which may be appropriate. The 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 any necessary action to rectify the situation, or exercising one or more of the range of enforcement actions that are available under the Regulations. In situations where DfE has decided to retain certain matters for investigation and final compliance decision, Ofgem will continue to perform an administrative role, carrying out whatever enforcement action is considered appropriate, as requested by DfE.

10.10 DfE may act to recover any overpayment as a civil debt in circumstances where:

- it is established that a participant has received a payment which exceeds their entitlement;
- the participant is failing to comply with ongoing obligations;
- Ofgem does not offset the overpayment against the participant's future payments; or
- the participant fails to repay an overpayment.

10.11 In deciding whether to take enforcement action, DfE / Ofgem will consider all the circumstances including:

- seriousness of the non-compliance and the duration;
- whether the participant voluntarily reported the non-compliance;
- reasons why the non-compliance occurred 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; and
- the conduct of the participant after the non-compliance has been discovered.

10.12 The range of enforcement actions that DfE / Ofgem may exercise under the Regulations and examples of how these might be applied, are described in the rest of this chapter.

## Temporary Withholding of Periodic Support Payments to Investigate Alleged Non-compliance[26]

10.13 Where DfE / Ofgem have reasonable grounds to suspect that a participant has failed or is failing to comply with their ongoing obligations, a formal investigation may be conducted. This will normally be conducted by Ofgem, unless it relates to a matter which has been retained for decision by DfE. For all cases Ofgem has the power to temporarily withhold all or part of a participant's periodic

[26] Regulations, Part 7, Regulation 43

support payments until the investigation is concluded (up to a maximum of six months from the date that the payments were withheld).

10.14 Where Ofgem has applied this sanction, payments will continue to accrue but will not be paid while the investigation is ongoing.

10.15 If periodic support payments are temporarily withheld, DfE / Ofgem will notify participants within 21 days of making that decision and state:

- the reason they suspect the participant is failing or has failed to comply with their ongoing obligations;
- the reason why they are temporarily withholding payments;
- the date from which payments will be withheld;
- the next steps in the investigation process; and
- details of the participant's right to request a review of DfE's / Ofgem's decision, including any relevant time limits.

10.16 DfE / Ofgem will review its decision at 30-day intervals and provide the participant with an update on the progress of the investigation including whether payments will continue to be withheld.

10.17 DfE / Ofgem will aim to conduct 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 from the date of request to provide information during the investigation the delay will not count towards the six-month time limit.

10.18 On conclusion of an investigation, or after six months, whichever is earlier, DfE / Ofgem will notify the participant of the outcome of the investigation or, if the investigation is not concluded, inform the participant accordingly.

10.19 Where an investigation concludes within six months and DfE / Ofgem are satisfied that the participant was in (or has resumed) compliance with their ongoing obligations, any periodic support payments which had been temporarily withheld will resume within 28 days of notification. This will be less any portion of the payments which Ofgem withholds (or is requested by DfE to

withhold) permanently or reduces due to the participant's material or repeated failure to comply with ongoing obligations[27].

10.20 Where an investigation has not concluded within six months, DfE / Ofgem will notify the participant that the investigation is continuing. Within 28 days of sending such notification, any periodic support payments which have been temporarily withheld will resume, less any portion of the payments which DfE / Ofgem withholds permanently due to the participant's material or repeated failure to comply with an ongoing obligation.

10.21 Following this the participant will continue to receive periodic support payments until the investigation is concluded less any portion of the payments which Ofgem withholds or reduces permanently due to the participant's material or repeated failure to comply with an ongoing obligation. If, on the conclusion of the investigation, DfE / Ofgem consider that the participant was in (or has resumed) compliance with its ongoing obligations under the scheme, the case will be closed.

10.22 Payments previously made to a participant which relate to periods during which the participant was not in compliance with their ongoing obligations may be recovered. Recovery may be actioned by offsetting the amount in question against any future periodic support payments or by requiring repayment from the participant (see section 'Recouping overpaid periodic support payments').

10.23 Where an investigation has concluded and DfE / Ofgem is 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, Ofgem may then take further enforcement action as set out in the following sections.

## Suspension of Periodic Support Payments

10.24 Where DfE / Ofgem is satisfied that a participant is failing to comply with an ongoing obligation under the scheme, Ofgem may suspend (or DfE may request that they suspend) periodic payments.

10.25 This sanction will generally be imposed where the participant, whilst currently failing to comply with an ongoing obligation, is capable of rectifying the non-

[27] Regulations, Part 7, Regulation 44

compliance. Examples 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.

10.26 Ofgem may suspend payments if a participant advises they are currently unable to comply with the scheme rules for a particular period (e.g. due to a temporary inability to source eligible fuel etc.), but still wishes to remain on the scheme.

10.27 When DfE / Ofgem decide to suspend payments they will notify the participant within 21 days of the decision specifying:

- how the participant is failing to comply with the rules of the scheme;
- the reason why the payments are being suspended;
- the date from which the suspension is effective;
- the steps the participant must take to satisfy DfE / Ofgem that they are now complying with the rules of the scheme;
- what might happen if the participant fails to satisfy DfE / Ofgem that they are now complying with the scheme (which may include imposing one or more of the sanctions referred to in this chapter); and
- details of the participant's right to request a review of DfE's / Ofgem's decision including any relevant time limits.

10.28 Where DfE / Ofgem determine that a participant is now complying with their ongoing obligations under the scheme, DfE / Ofgem will, within 21 days of making this determination, remove the suspension and take the necessary steps to enable the payment of any periodic support payments which fall after the date of DfE's / Ofgem's determination.

10.29 A participant is not entitled to recover payments which have been suspended during a period of non-compliance. However, where a participant has rectified any non-compliance within six months of suspension, DfE / Ofgem may exercise discretion in agreeing to pay all or part of the payments withheld. In exercising this discretion, DfE / Ofgem will consider all the circumstances of the case including any impact of the non-compliance on the generation of eligible heat.

10.30 For example, non-compliance relating to 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.

10.31 These discretionary payments will be made within 28 days of DfE / Ofgem being satisfied that the participant has resumed compliance with ongoing obligations.

10.32 Participants should note that if non-compliance continues for a period of six months or more from the date of suspension, DfE / Ofgem no longer have discretion to repay any part of the payments which have been suspended.

10.33 Ofgem may suspend payments for up to one year. Failure to comply with ongoing obligations by the end of this period may constitute a material or repeated failure.

10.34 DfE / Ofgem may take further enforcement action on this basis which could include permanently withholding or reducing periodic support payments or revoking accreditation or registration as set out below.

## Permanently Withholding or Reducing Periodic Support Payments[28]

10.35 Where DfE / Ofgem is satisfied that there has been a material or repeated failure to comply with an ongoing obligation during any quarterly period and the support payment for that period has not been paid, they may:

- permanently withhold the portion of the periodic support payment which corresponds with the portion of the quarterly period during which the non-compliance occurred; or
- reduce by up to 10% either the periodic support payment for the quarterly period during which the breach occurred or the periodic support payment for the following quarterly period.

10.36 As a result, the participant may receive either no periodic support payment or a reduced periodic support payment for the quarterly period during which it failed to comply, or the participant could have their next quarterly periodic support payment reduced.

[28] Regulations, Part 7, Regulation 45

10.37 The level of reduction will be based on the factors listed at paragraph 10.11 and any other relevant factors, up to a maximum of 10% of the total payment in question.

10.38 DfE / Ofgem will notify the participant within 21 days of the decision to permanently withhold or reduce periodic support payments. The notice will specify:

- how the participant has failed to comply with the rules of the scheme;
- the reason why the periodic support payment is being withheld or reduced;
- the period to which the reduction or withholding of payments relates;
- the level of any reduction; and
- details of the participant's right of review of DfE's / Ofgem's decision including any relevant time limits.

## Revocation of Accreditation or Registration[29]

10.39 Where there has been a material or repeated failure to comply with an ongoing obligation, DfE / Ofgem (depending on whether the failure to comply relates to matters that are retained for compliance decision by DfE) have the power to revoke the accreditation of an installation in respect of which the participant's failure has occurred or to revoke the participant's registration as a producer of biomethane. DfE / Ofgem also have the power to revoke accreditation for any other accredited NIRHI installations owned by the participant.

10.40 On revocation of accreditation, an installation ceases to be eligible for any further payments under the scheme.

10.41 Examples of cases that might warrant revocation may include (but are not limited to) providing intentionally 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. Any decision made on whether

[29] Regulations, Part 7, Regulation 46

to revoke accreditation or registration will consider all information set out at paragraph 10.11

10.42 DfE / Ofgem will notify a participant within 21 days of making a decision to revoke accreditation or registration. The notice will inform the participant of:

- the reason for the withdrawal of accreditation or registration including the aspect in respect of which the non-compliance occurred;
- an explanation of the effect of the withdrawal; and
- details of the participant's right to request a review of DfE's / Ofgem's decision including any relevant time limits

10.43 In addition, where DfE / Ofgem has revoked accreditation or registration from a participant, they may also refuse to accredit any installations owned by that participant in the future or to register the participant as a producer of biomethane. Furthermore, where there are grounds to suspect that a participant has deliberately falsified information in order to defraud the scheme, Ofgem will refer those cases to the relevant authorities for further action.

## Recouping Overpaid Periodic Support Payments[30]

10.44 Where a participant has received a payment which exceeds their entitlement, or has received a payment whilst failing to comply with an ongoing obligation, Ofgem can normally seek to recoup (or DfE may request that they seek to recoup) the overpaid amount by offsetting it against future periodic support payments.

10.45 However, there may be cases where Ofgem require a participant to repay the overpaid amount directly. For example, where a participant is no longer in the scheme and the amount to be repaid exceeds any future entitlement or where the overpayment is significant.

10.46 As participants have an ongoing obligation to return any overpayment of which they are notified, Ofgem may take enforcement action where a participant who remains in the scheme fails to comply with a notice to repay. Where appropriate, DfE may also take action to recover the overpayment from a participant or a former participant as a civil debt.

[30] Regulations, Part 7, Regulation 47

10.47 DfE / Ofgem will notify a participant within 21 days of the decision either to request repayment or to offset an overpayment against future payments. The notice will specify:

- the periodic support payments that have been overpaid and the amount to be recovered;
- the method of recovery (either repayment or offsetting);
- the period within which the overpaid amount must be repaid (where applicable);
- the consequences of failing to make any repayments requested (including potential enforcement action or civil action for debt recovery); and
- details of the participant's right to request a review of the decision including any relevant time limits

10.48 DfE / Ofgem can seek to recover an overpayment by offsetting the amount against the full amount of the participant's next periodic payment and all subsequent payments until such time as the amount has been repaid or by requesting payment in full within 28 days of the issue of a notice to repay.

10.49 Should an Ofgem error result in an overpayment being made to a participant, Ofgem will seek to agree an appropriate repayment schedule with the participant which may include the ability to repay the amount by instalment or through offsetting against future payments over a more extended period. Where a participant considers that repayment of a previous overpayment is likely to result in significant hardship, they should contact Ofgem to discuss their concerns as soon as possible after receiving a notice to repay.

## Revocation of Sanctions[31]

10.50 DfE / Ofgem may revoke a sanction previously imposed on a participant where there was an error involved when the sanction was originally imposed or where it is otherwise just and equitable to do so.

10.51 DfE / Ofgem may also revoke a sanction as a result of a current or former participant's successful request for review.

[31] Regulations, Part 8, Regulation 48

10.52 DfE / Ofgem will notify a participant within 21 days of the decision to revoke a sanction. The notice will specify:

- the sanction which has been revoked;
- the reason for the revocation of the sanction;
- how Ofgem will deal with any loss of periodic support payments incurred by the participant due to the sanction (e.g. where they had suspended, withheld or reduced payments) including timescales for doing so; and
- details of whom the participant may speak to if not satisfied with how Ofgem propose to deal with any loss of payment.

## Evidence of Criminal Activity

10.53 Irrespective of any action taken in relation to non-compliance by a participant, there may be instances where DfE / Ofgem uncover evidence of possible criminal conduct (for example, fraud). In such cases, DfE / Ofgem may refer the case to the relevant authorities for investigation.

# Inspection and Audit Powers


This chapter outlines Ofgem's approach to audit and inspection of installations for which accreditation has been sought, or granted under the NIRHI scheme. It also includes guidance on how the Ofgem audit approach will be applied to facilities operated by producers of biomethane who are applying for or who have been granted NIRHI registration.

## Audits and Inspections

11.1 Ofgem (or agents acting on their behalf), carry out a programme of audits of accredited NIRHI installations and biomethane facilities on an ongoing basis. The primary purpose of these audits is to ensure compliance with the Regulations and confirm that that participants are meeting their ongoing obligations. The information provided by the participant to enable accreditation to the Scheme will also be verified and validated. Audits also help to safeguard the scheme against fraud.

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

**Audit of Accredited NIRHI Installations**

11.3 Ofgem's audit programme will cover installations selected on the basis of:

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

11.4 During a site inspection, the inspector will gather information that will enable Ofgem to check that information provided by a participant during accreditation was accurate and that the installation has been correctly accredited. This will include evidence that the participant is compliant with their ongoing obligations. The inspector will also verify that periodic data provided to Ofgem is accurate to allow Ofgem to verify that the right amounts of payments have been and are being made to the participant. As part of the inspection, the inspector may take samples for analysis and may also take photographs, measurements, video or audio recordings.

11.5 For desk-based reviews, Ofgem may ask participants to provide documentation for verification. Participants will be required to respond within the timescales specified in the request.

11.6 Participants must keep appropriate records to enable an inspector to verify the periodic data provided to Ofgem. Participants should also keep all documentation supporting their application for accreditation and compliance with ongoing obligations, including evidence of any statutory compliances that are required for the biomass installation such as planning consents and evidence of fuel records and service and maintenance records as these may be verified during an inspection visit or desk-based review.

**Audits for Biomethane Producers**

11.7 Biomethane producers must keep all documentation related to the production and injection of biomethane for scrutiny as part of Ofgem's desk- based reviews.

11.8 In addition, in order to encourage compliance with the scheme, Ofgem may require biomethane producers to provide an independent verification of their

biomethane production to confirm that the information provided to Ofgem is correct and that the biomethane has come from renewable sources.

**Provision of Access for Site Inspections**

11.9 Before an installation is accredited, Ofgem has the right to conduct a site inspection in order to satisfy itself that an installation should be accredited[32]. Upon an installation being accredited, participants owning accredited NIRHI installations have an ongoing obligation to provide reasonable access to Ofgem or Ofgem's authorised agent for the purposes of inspection[33].

11.10 Where the eligible heat use occurs on premises not owned or controlled by the participant, the participant must, as a condition of accreditation, ensure access (by contractual or other means) for Ofgem or their authorised agents to inspect the heating installation and any non-domestic premises that form part of the heat distribution system served by the installation. Ofgem may also require participants to confirm that domestic premises receiving heat from the heat distribution system are solely domestic and do not use the heat for any ineligible purpose.

11.11 When possible, Ofgem will conduct inspection visits between 9am– 5pm Monday – Friday. In order to simplify access and ensure availability of key personnel and data, Ofgem will normally give prior notice of site inspections. However, there may be occasions when it may be appropriate to conduct unannounced site inspections and Ofgem reserve the right to do so.

11.12 Where a participant unreasonably refuses an inspector access to an installation, this may constitute a breach of their ongoing obligations. As a result, Ofgem will either launch a formal investigation which could involve temporary withholding of a participant's payments or take other enforcement action (See Chapter Ten, 'Compliance and enforcement powers'). It should be noted that cooperation during inspections and any related investigations is one of the factors that Ofgem may take into account when considering enforcement action.

[32] Regulations, Part 3, Regulation 22(4)
[33] Regulations, Part 4, Chapter 3, Regulation 33(i).

11.13 Ofgem will issue a notice to any participant who unreasonably refuses access to Ofgem's inspector within 21 days.

The notice will set out the reason why Ofgem considers the refusal to be unreasonable and the consequences of refusal including potential sanctions. Ofgem will also inform the participant of their right to request a review of the decision.

**Outcome of the Audit Process**

11.14 Following an audit, Ofgem will write to the participant concerned to outline any issues identified and to detail the actions required of the participant to rectify the situation. The participant must address these issues and report on progress to Ofgem. Depending on the nature of the issues identified and the response of the participant, Ofgem may either launch a formal investigation which may involve a temporary withholding of a participant's payments or take other enforcement action (See Chapter Ten, 'Compliance and enforcement powers').

# Dispute Resolution

12

This chapter provides guidance on how to request a review of decisions made by DfE / Ofgem in their exercise of the functions under the Regulations and the Ofgem complaints process.

## General RHI Queries and Complaints

12.1 General queries relating to Ofgem's performance of its functions under the Regulations should be referred to the Ofgem NIRHI operations team in writing or by telephone following the process detailed in section 'Queries' in Chapter One of Volume One of the Guidance.

12.2 Participants who are unhappy with how Ofgem has dealt with them, how Ofgem has performed, how they operate, or are unhappy with the way in which Ofgem has reached a decision, may lodge a complaint with Ofgem using its general complaints handling process. If, following consideration of the complaint by Ofgem, participants remain dissatisfied, they should refer the matter to DfE.

12.3 Complaints about MCS installation companies should be made to the installation company, relevant MCS certification body or DfE Consumer Affairs Branch as appropriate. MCS related complaints may also be referred to the REAL Assurance complaints procedure.

## Statutory Review of Decisions

12.4 Regulation 50 entitles prospective, current or former participants the right to request a review of a decision made in exercise of DfE's / Ofgem's functions under the Regulations[34] (referred to as 'participants' throughout this section). However, to be entitled to this review, participants must ensure that Ofgem receive the request for review within 28 days of notification of the original decision or formal review decision. The decision of DfE's Statutory Review Officer (SRO) is final and will not be subject to internal review.

12.5 Participants may request a statutory review by writing to Ofgem Complaints, at:

NDRHI STATUTORY REVIEW

Ofgem Complaints

Commonwealth House

32 Albion Street

Glasgow

G1 1LH.

Or:

rhi.dispute@ofgem.gov.uk

This should be clearly marked NIRHI STATUTORY REVIEW.

12.6 Participants should clearly identify themselves, the decision they wish to be reviewed and the grounds upon which they are requesting a review. They should also include their unique NIRHI reference number and the request must be signed by or on behalf of the participant. The 28 day deadline to request a statutory review will be strictly applied.

12.7 Ofgem will issue a letter of acknowledgement to the participant within 2 working days of receipt of the request for statutory review.

12.8 The statutory review will be based on all the evidence, information and representations submitted by the participant to the original decision maker.

[34] Regulations, Part 10, Regulation 50.

12.9 In addition, the Statutory Review Panel may ask Ofgem to request any information and declarations held by the participant which the SRO requires to make a determination on the review.

12.10 The DfE SRO will aim to reach a decision within 30 working days. If this is not possible, DfE will contact the participant to provide ongoing updates on the progress of the case at least every 20 working days. Within 21 days of reaching their decision, the DfE SRO will write to the participant and to any other person affected to inform them of the outcome of the statutory review with reasons for their decision.

12.11 In line with the regulations the DfE SRO can make the following four decisions in relation to statutory reviews:

- 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

12.12 If the participant is dissatisfied with the SRO's response, they may take their complaint to the Northern Ireland Ombudsman who carries out independent investigations into complaints about public bodies. Details of how to make a complaint to the Northern Ireland Ombudsman can be found on at http://www.ni-ombudsman.org.uk/

## Costs

12.13 Participants are responsible for meeting their own costs in respect of requesting a statutory review or taking a case to the Northern Ireland Ombudsman.

**Appendix1**

# NIRHI Tariffs

Please see the NI Direct website for the most up to date tariff table.

**Appendix 2**

# FMS: Measuring Solid Biomass

## Weight Measurement

1. The information contained in this appendix is designed to provide participants with an indication, rather than a prescriptive guide, to the ways in which they may opt to compile a robust fuel measurement and sampling regime. This relates to the use of solid fuels and covers: methods and standards for weight, volume and energy content measurement, contamination identification and prevention, and appropriate fuel storage conditions.

   **Table A3**: Weight measurement using a weighbridge

| Question | Answer |
|---|---|
| When is the weight measurement taken? | At installation on delivery |
| How is the weight measurement taken? | By totalising the weighbridge deliveries |
| How often is the weight measurement taken? | Each delivery |
| How is any fuel carried over from one quarter to the next accounted for? | Stocks run down at quarter end |
| Are any industry standards met? | The British Standard BS EN 30012-1 for weighbridge calibration. This presents in detail methods of calibration for static weighing devices and for determining periodic confirmation intervals. This reviewed with further details in the following code of practice for the Calibration of Industrial Process Weighing Systems, Institute of Measurement and Control, October 2003. |
| How is accuracy ensured? | Weighbridges will normally achieve an accuracy of +/- 0.5% of the load. Participants of public weighing equipment have responsibilities to ensure that they can perform their duties competently and honestly. No one may operate public weighing equipment unless they hold a certificate from a Chief Trading Standards Officer. Although the weighbridge at a heat installation is unlikely to be a public weighing facility, good practice would be that the weighbridge is operated as if it were, and that the appropriate certificate is obtained. Regular calibration is an integral part of the quality. |

**Table A4**: Weight measurement using a weighbridge and stock calculation

| Question | Answer |
|---|---|
| When is the weight measurement? | At installation on delivery and stock calculation at quarter end. |
| How is the weight measurement taken? | By totalising weighbridge deliveries and performing a stock calculation at the end of each quarter. |
| How often is the weight measurement taken? | Every delivery and at a stock calculation at the end of each |
| How is any fuel carried over from one quarter to the next accounted for? | By a stock calculation at quarter end. This can be done typically by transit over a weighbridge, survey of the stockpile, or level measurement of a bin. |
| Are any industry standards met? | The British Standard BS EN 30012- 1 for weighbridge calibration. This presents in detail methods of calibration for static weighing devices and for determining periodic confirmation intervals. This is reviewed with further details in the following code of practice:<br>Code of Practice for the Calibration of Industrial Process Weighing |
| How is accuracy ensured? | Accuracy can be maximised by operating the stocking area so as to reduce the remaining quantity to a very low level at the period end. This could be achieved by separating each period's stock.<br>Weighbridges will normally achieve an accuracy of +/- 0.5% of the load. Participants of public weighing equipment have responsibilities to ensure that they can perform their duties competently and honestly. No one may operate public weighing equipment unless they hold a certificate from a Chief Trading Standards Officer. |

**Table A5:** Weight measurement using a belt weigher

| Question | Answer |
|---|---|
| When is the weight measurement taken? | Immediately prior to combustion |
| How is the weight measurement taken? | Directly from a belt weigher |
| How often is the weight measurement taken? | Throughout the burn |
| How is any fuel carried over from one quarter to the next accounted for? | n/a |

| | |
|---|---|
| Is any method of verification used? | Totalised weighbridge delivery figures a stock level calculation at the end of each quarter (if applicable). |

## Accuracy

2. Belt weighing devices vary substantially in accuracy according to their principle of operation, construction and installation. The Organisation Internationale de Métrologie Légale (OIML) has classified those intended for commercial use into three classes (see Table A6). Class 0.5 is considered to be good practice.

   **Table A6:** Accuracy of belt weighers

| **Class** | **Percentage of the mass of the totalized load for:** | |
|---|---|---|
| | **Initial verification** | **In-service** |
| 0.5 | 0.25 | 0.5 |
| 1 | 0.5 | 1.0 |
| 2 | 1.0 | 2.0 |

3. An OIML international recommendation[35] specifies the metrological and technical requirements for belt conveyor equipment. This provides standardised requirements and test procedures for evaluating this equipment in a uniform and traceable way. Further information can be found at www.oiml.org

4. Regular calibration is an integral part of the quality assurance of all weighing devices. Where possible, inaccuracies from excessive tension or stiffness in the belt, irregular loading, or an installation being placed too close to non-weighing rollers should be avoided. Guidance for the calibration of stand-alone electronic weighing devices can be found on the OIML website.

[35] Continuous totalizing automatic weighing instruments (belt weighers). Part1: Metrological and technical requirements - Tests. OIML R 50- 1 Edition 1997 (E)'

**Appendix 3**

# FMS: Industry Standards

Below is a list of industry standards that can followed to support fuel measurement and sampling plans and procedures. As part of the Fuel Measurement and Sampling Questionnaire, Ofgem will check whether any of these are to be followed:

- **BS EN 303 - 5:1999 (Part 5)**: Heating boilers for solid fuels hand and automatically fired, nominal heat output of up to 300 kW - Terminology, requirements, testing and marking.
- **BS EN 12809:2001** + **A1:2004**: Residential independent boilers fired by solid fuel - Nominal heat output up 50kW – Requirements and test methods
- **BS 7420:1991**: Guide for determination of calorific value of solid, liquid and gaseous fuels (including definitions)
- **BS EN ISO 10012:2003**: Measurement management systems. Requirements for measurement processes and measuring equipment
- **BS EN ISO 6974**: Determines the composition of natural gas with defined uncertainly by gas chromatography
- **BS EN 15440:2011**: Solid Recovery fuels Method for the determination of biomass content
- **BS EN 15358:2011**: Solid recovered fuels – quality management systems – particular requirements for their application to the production of solid recovered fuels
- **CEN 343**: European draft standards which covers many aspects of the measurement, sampling and management of solid recovered fuels
- **Directive 2004/22/EC**: measuring instruments applied to measurements of flue gas volume
- **EN 15440: 2011**: Solid recovered fuels – Methods for the determination of biomass content
- **EN 15442: 201:** Solid recovered fuels- Methods for Sampling

**Appendix 4**

# FMS: Sampling Fuels for Energy Content

## Sampling Fuels for Energy Content

1. Sampling is required to identify the energy content of a fuel and must both be of a sufficient quantity for analysis to be undertaken and representative of the fuel used in that quarter.
2. The approach that should generally be used when developing a robust sampling regime is to:
    - Take a series of incremental samples
    - Combine these to form a composite sample
    - Extract a representative sub-sample of the composite sample for analysis
    - Some factors that can affect the precision and accuracy of sampling are:
        - The size of the sample relative to the whole
        - The number of increments taken during the sampling period to produce a composite sample
        - The method used to extract the sample
        - The location of sample extraction. If the fuel is not sampled immediately before combustion, it is generally expected that the fuel sampled should be as representative as possible of what is combusted
        - The method used to extract a sub-sample from the composite sample for subsequent analysis

## Sampling Frequency

3. The energy content reported in any quarterly data submissions must relate to the fuel used (burned) in that quarter. This may include both sampling from the fuel delivered that quarter as well as re-sampling stock carried over from deliveries in previous quarters.
4. Usually samples should be taken either from each delivery or from the fuel stream immediately prior to combustion.

5. Participants may propose other sampling intervals, e.g. once per day, providing they can demonstrate that the proposed interval provides accurate and reliable results.
6. When considering how often to take samples, installations should consider the consistency of their biomass fuel GCV, the number of their fuel sources and the amount of biomass used.

## Weighted Averaging

7. When calculating the average GCV of a number of composite samples, it is good practice to use a weighted average.

## Verification

8. When conducting sampling, participants should consider how they might verify the results and may wish to consider using a second method of sampling analysis when agreeing FMS procedures with Ofgem.

## Energy Content Measurement for Solid Fuels

**Table A7**: sampling immediately prior to combustion

| Question | Answer |
|---|---|
| How is the energy content measurement taken? | Increments are taken from the nearest possible point immediately prior to combustion. |
| How often are sample increments taken? | Depends on the material being burned and the number of deliveries: at a minimum this will be once a quarter. |
| How is any fuel carried over from one quarter to the next accounted for? | N/A |
| How is the sample prepared? | The overall size of the composite sample may be over 200kg, but the actual amount of material that is required for chemical analysis is usually less than five grams. Therefore it is necessary to obtain a representative sample of the composite sample that is suitable for chemical analysis. This can be achieved by using a combination of sample size reduction (using a suitable shredder) and sample splitting procedures to produce a finely powdered sample. |
| What steps are in place to ensure that the sample is representative of the whole? | Installations should explain how sampling will be undertaken, which demonstrates that the sample taken is representative of the whole.<br><br>The objective of any sample extraction procedure is to ensure that all particles have an equal chance of reporting to the sample. This is particularly important when the material being sampled contains a wide range of particle sizes (such as chipped wood), as the finer sized particles will tend to settle towards the bottom of the material in a delivery vessel or in a stockpile, and towards the bottom of the flow of material on a conveyor.<br><br>For a given accuracy, the required sample weight is directly proportional to the size of the largest particle in the mixture being sampled. This means that the weight of sample needed reduces as the particle size reduces, and thus the total size of a sample of sawdust will be smaller than that of a sample of woodchips. |
| Is any method of verification used? | Previous quarter's results are used as a comparison. |

**Table A8:** Energy content measurement from delivery vessels

| Question | Answer |
|---|---|
| How is the energy content measurement taken? | Increments are taken manually from delivery vessels. |
| How often are sample increments taken? | Every delivery. |
| How is any fuel carried over from one quarter to the next accounted for? | Stocks run down at quarter end. |
| How is the sample prepared? | The overall size of the composite sample may be over 200kg, but the actual amount of material that is required for chemical analysis is usually less than five grams. Therefore it is necessary to obtain a representative sample of the composite sample that is suitable for chemical analysis. This can be achieved by using a combination of sample size reduction (using a suitable shredder) and sample splitting procedures to produce a finely powdered sample. |
| What steps are in place to ensure that the sample is representative of the whole? | Installations should explain how sampling will be undertaken, which demonstrates that the sample taken is representative of the whole.<br><br>The objective of any sample extraction procedure is to ensure that all particles have an equal chance of reporting to the sample. This is particularly important when the material being sampled contains a wide range of particle sizes (such as chipped wood), as the finer sized particles will tend to settle towards the bottom of the material in a delivery vessel or in a stockpile, and towards the bottom of the flow of material on a conveyor.<br><br>For a given accuracy, the required sample weight is directly proportional to the size of the largest particle in the mixture being sampled. This means that the weight of sample needed reduces as the particle size reduces, and thus the total size of a sample of sawdust will be smaller than that of a sample of woodchips. |
| Is any method of verification used? | Previous quarter's results are used as a comparison. |

**Table A9:** Energy content measurement from stockpile

| Question | Answer |
|---|---|
| How is the energy content measurement taken? | Increments are taken manually from delivery vessels and from a stockpile. |
| How often are sample increments taken? | Every delivery and from stockpile at the beginning of each quarter. |
| How is any fuel carried over from one quarter to the next accounted for? | Stockpile sampled at the beginning of the quarter. |
| How is the sample prepared? | The overall size of the composite sample may be over 200kg, but the actual amount of material that is required for chemical analysis is usually less than five grams. Therefore it is necessary to obtain a representative sample of the composite sample that is suitable for chemical analysis. This can be achieved by using a combination of sample size reduction (using a suitable shredder) and sample splitting procedures to produce a finely powdered sample. |
| What steps are in place to ensure that the sample is representative of the whole? | Installations should explain how sampling will be undertaken, which demonstrates that the sample taken is representative of the whole.<br><br>The objective of any sample extraction procedure is to ensure that all particles have an equal chance of reporting to the sample. This is particularly important when the material being sampled contains a wide range of particle sizes (such as chipped wood), as the finer sized particles will tend to settle towards the bottom of the material in a delivery vessel or in a stockpile, and towards the bottom of the flow of material on a conveyor.<br><br>For a given accuracy, the required sample weight is directly proportional to the size of the largest particle in the mixture being sampled. This means that the weight of sample needed reduces as the particle size reduces, and thus the total size of a sample of saw dust will be smaller than that of a sample of woodchips. |
| Is any method of verification used? | Previous quarter's results are used as a comparison. |

**Appendix 5**

# FMS: Further Information on Alternative Methods for Determining a Contamination Percentage for Waste Fuels

1. Plants using municipal waste or solid biomass contaminated with fossil fuel may wish to consider using the CEN 343 group of industry standards to support the development of their FMS procedures. CEN 343 is a set of standards covering many aspects of the production, handling and measurement of solid recovered fuels. The following are the standards with which participants should comply:

    - **CEN/TS 15440: 2006** Solid recovered fuels - Method for the determination of biomass content, is a standard that provides methodologies for determining the biomass fraction of a representative waste sample

    - **CEN/TS 15440: 2006** includes two methods for determining the biomass percentage by energy: selective dissolution and manual sorting. The standard explains the process that a laboratory should follow and the conditions under which the methods can be used

2. Participants must use fuels that meet the conditions set out in the Standards in order for a sampling regime based on these Standards to be viewed as reliable. For example, fuels must not contain substances, such as coal or charcoal, for which the methods prescribed in the Standards do not work.

## The Selective Dissolution Method

3. The selective dissolution method relies on the fact that, under the conditions specified in the Standards, biomass materials will dissolve and whatever is left undissolved will therefore be fossil derived. Since the selective dissolution method that can be used to directly determine the GCV of the biomass in the sample, it is preferential to the manual sorting method.

## The Manual Sorting Method

4. In this method, a representative sample of the solid recovered fuel is sorted by hand into various sub-fractions e.g. plastics, paper/cardboard, wood and inert matter. These constituents are dried to a constant weight and separated into biomass, non-biomass and inert categories.

5. The calorific value of the biomass content of the sample can be determined by establishing the average net calorific value for each category on a dry basis. Manual sorting can also only be applied to waste materials over a certain particle size.

## Potential for Error

6. Participants seeking to use the selective dissolution and manual sampling methods outlined in CEN/TS 15440 should bear in mind that these methodologies have limitations which are outlined in Annex G of the standard.

7. For example, participants who choose to use the selective dissolution operators must consider that the biodegradability of certain non-biomass materials e.g. coal or polyurethane plastics, may lead them to dissolve and so be considered biomass. In addition, since the manual sorting method is to some extent reliant on estimation it is prone to human error.

## Use of the Selective Dissolution Method for Waste Wood Fuels

8. The methods outlined in CEN/TS 15440 were primarily designed for use with waste fuels e.g. SRF. However, the selective dissolution method can be used to determine the fossil fuel derived contamination percentage of waste wood fuels which, for example, are contaminated by small quantities of paint, varnish and adhesives. These fuels naturally have a higher biomass content than SRF or similar waste fuels.

9. Annex G of the Standard states that the reliability of the selective dissolution method may be compromised when used with fuels with very high biomass contents e.g. >95%.

10. Therefore where waste wood fuels are used alongside the selective dissolution method, Ofgem may impose a minimum contamination level which will be assumed for the NIRHI payment. This will be considered on a case by case basis.

## Re-release of the Standard

11. Ofgem will monitor the CEN Standards and review any future updates to CEN/TS 15440. Ofgem/DfE may alter their approach based on any development of the Standard regarding new methodologies or the re-evaluation of existing methodologies.

## Carbon-14

12. Ofgem is aware that the Carbon-14 method could be used to determine the biomass content of feedstocks. Ofgem are happy to discuss their current position[36] with regard to the use of this approach at the time of an accreditation application.

[36] See 'Determination of biomass energy content of waste feedstock by post combustion analysis of flue gases: Carbon-14 technique proposal' at http://www.ofgem.gov.uk/Sustainability/Environment/RenewablObl/FuelledStations/Documents1/14C%20publicity.pdf published by Ofgem 07/07/11

**Appendix 6**

# Glossary of RHI Terms

## A

**ACCREDITATION**

In order to receive support under the NIRHI, an eligible installation will have to be accredited by Ofgem. Accreditation (which is defined in the Regulations) is the term used to denote admission of an applicant to the NIRHI once it has been determined that the installation meets the eligibility criteria of the scheme and that the application for accreditation is properly made.

**ADDITIONAL NIRHI CAPACITY**

Additional NIRHI capacity, which is defined in the Regulations, means a plant which is first commissioned after the date on which an NIRHI installation was first commissioned, uses the same source of energy and technology as the original plant and supplies heat to the same heating system.

**ADDITIONAL PLANT**

Additional plant means a heat generating plant which uses a different technology or source of energy to an existing accredited NIRHI installation but is connected to the same heating system as the accredited NIRHI installation.

**ANCILLARY FOSSIL FUEL**

Ancillary fossil fuel refers to the small amounts of fossil fuel necessary for the effective operation of the installation.

**ANNUAL DECLARATION**

The annual declaration is a confirmation that must be signed by the Authorised Signatory to confirm that the accredited NIRHI installation/registered biomethane producer has met the eligibility criteria and ongoing obligations of the scheme for the previous 12 months.

**AUTHORISED SIGNATORY**

An Authorised Signatory is a person who is authorised to open and use an account with the Ofgem NIRHI website or provide information by post, submit periodic data and complete the NIRHI annual declaration.

## B

**BIOENERGY**

This term is used as shorthand for any of the following technologies: solid biomass, solid biomass from municipal waste, biogas, biomethane.

## C

**COMMISSIONED**

This means, in relation to an eligible installation, that all tests required by industry standards for the installation to be able to deliver heat for the purpose for which it was installed have been completed. For a legal definition, please see the Regulations.

**COMMON HEADER**

This is the main pipe to which plants supply heat, and from which heat uses are supplied. A heating system may have multiple common headers.

**COMPLEX INSTALLATION**

A complex installation is any installation that is not considered simple.

## F

**FLOW PIPE**

The pipe carrying the hot water flow leaving an installation or heat use is commonly referred to as the flow pipe.

**FUEL MEASUREMENT AND SAMPLING (FMS)**

The term 'fuel measurement and sampling' (FMS) refers to the way in which the renewable biomass proportions of input fuels are determined. By 'measurement', Ofgem means determining the amount or quantity of a fuel (for example in tonnes or cubic meters). By 'sampling', Ofgem means taking small sample amounts of fuel and testing them to determine specific properties such as their GCV.

## I

**INSTALLATION CAPACITY**

The installation capacity is defined in the Regulations as the 'total installed peak heat output capacity of a plant' (which includes the 'total installed peak heat output capacity' of a single plant (installation) made up of two or more component plants).

## K

**KILOWATTS (kW)**

A kilowatt is a measure of power i.e. the rate at which energy is transferred or converted. A kilowatt is equal to 1 kilojoule of energy transferred/converted each second.

**KILOWATT HOURS (kWh)**

A kilowatt- hour is the measure of energy transferred or converted over a period of time. A kilowatt-hour is equal to the amount of energy generated by an installation with a power capacity of 1kW in an hour or an installation with a power capacity of 2kW in a half-hour etc.

## N

**NOMINATED INDIVIDUAL**

An individual within an organisation nominated to act on the organisation's behalf in relation to the NIRHI.

## O

**ONGOING OBLIGATIONS**

Ongoing obligations refer to the obligations that need to be met to remain accredited or registered to the scheme. The term is defined in the Regulations.

## P

**PARTICIPANT**

A participant is defined in the Regulations as the owner of an accredited NIRHI installation, a representative owner, or a producer of biomethane who has registered with Ofgem to receive the NIRHI. In practice this means that once the owner or representative owner of an eligible installation or a biomethane producer receives accreditation or registration respectively to the NIRHI scheme, he/she will be referred to as a participant in the NIRHI scheme.

**PERIODIC SUPPORT PAYMENTS**

NIRHI support will be delivered to participants in the form of quarterly 'periodic support payments', the term being defined in the Regulations.

**PERIODIC DATA**

Periodic data is the information participants need to submit on a regular basis as an ongoing obligation, and in order for Ofgem to calculate the appropriate payment.

## R

**RENEWABLE HEAT INCENTIVE**

The Renewable Heat Incentive is a DfE programme designed to provide long-term financial support to renewable heat installations to encourage the uptake of renewable heat.

**REPRESENTATIVE OWNER**

Where there is more than one owner of an accredited NIRHI installation, the owner with the authority to act on behalf of all owners is referred to as the representative owner.

**RETURN PIPE**

The pipe carrying the cool liquid flow returning from an installation or heat use is commonly referred to as the return pipe.

## S

**SCHEMATIC DIAGRAM**

The schematic diagram is an illustration of the installation and heating system for which NIRHI accreditation is being applied for.

**SIMPLE INSTALLATION**

A simple installation is an installation which does not deliver heat by steam, does not supply heat to an ineligible purpose, and uses the heat generated in one building.

## T

**THERMOCOUPLE**

Electronic sensor for measuring the temperature of pipework at a given position.