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Subject: Feasibility study for the implementation of the NI RHI Phase 2 amendments
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Attachments: [Feasibility study for implementation of NI RHI Phase 2 amendments.doc](#)

Hi both,

Please find attached the Feasibility Study for the implementation of the NI RHI Phase 2 amendments. Please bear in mind the following points while evaluating the document:

- The costs are high-level estimates and so subject to change following more detailed requirements being understood and/or significant changes to the expected application numbers.
- For stage 1, we would look to absorb the cost within the current estimated budget for 15/16
- For the stage 2 costs, it is particularly important to note that the estimates could change since many assumptions needed to be made for these costs
 - Based on previous discussions, we understand that these changes would fall into the 16/17 period
 - This means it is very important to ensure there would be budget available for this period. Your expected budget has been discussed before but possibly only in relation to 15/16.
 - We recognise that the costs for stage 2 may be beyond your expected budget. The change to the sustainability proposal applying to all sizes rather than only 1MWth and above has resulted in an increase to the previous version. However, we would look to achieving efficiencies and savings such that we could deliver within your budget.

We look forward to working with you on implementing these amendments.

All the best,

Sarah

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Feasibility Study for the implementation of the Northern Ireland Non-domestic Renewable Heat Incentive Phase 2 Amendments

Feasibility Study

Publication date: 31 July 2015

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Overview:

This Study considers and analyses the options available to Ofgem to administer the Phase 2 amendments to the Northern Ireland (NI) non-domestic Renewable Heat Incentive scheme proposed to come into force at the beginning of October 2015 in a two stage process.

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Executive Summary

Introduction

The Renewable Heat Incentive (RHI) is a government environmental programme that provides financial incentives to increase the uptake of renewable heat. It provides subsidies to eligible, non-domestic renewable heat generators and producers of biomethane based in Great Britain and Northern Ireland, payable for the life of the installation or up to a maximum of 20 years. The Northern Ireland RHI (NIRHI) policy and tariff rates are set by the Department of Enterprise, Trade and Investment (DETI). Ofgem administers this scheme on behalf of DETI, under the Administrative Arrangement that will need to be reviewed in advance of any legislative changes coming into effect.

DETI are proposing changes to the NIRHI scheme to be implemented from October 2015, known as Phase 2 of the NIRHI. These include the introduction of support for air source heat pumps (air to water); deep geothermal; specific district heating system tariff; large biomass over 1MW; biomass and bioliquid combined heat and power, plus the extension of 6.3 pence biomass tariff rate.

These are set out in the following documents as published by DETI:

- Phase 2 of the Northern Ireland Renewable Heat Incentive - Consultation
- Phase 2 of the Northern Ireland Renewable Heat Incentive – June 2013 economic analysis
- Renewable Heat study executive summary

Purpose

Ofgem has conducted this study in order to consider the options for the implementation and administration of the Phase 2 amendments as set out by DETI. This document is intended to provide DETI and Ofgem senior management with a detailed understanding of the delivery and ongoing administrative implications of the amendments to the NIRHI for Ofgem. It includes an analysis of the implementation options, costs, risks and the appropriate mitigating actions.

Proposed delivery solution

There are 11 intended amendments to the NIRHI scheme for Phase 2 that will require changes to our administration of the scheme (as detailed in chapter 2). Following discussion with DETI regarding policy priorities and budget considerations, we propose to implement these changes in the following ways:

Adopt a two stage approach to implementing the amendments with the first stage comprising the introduction of support for biomass and bioliquid CHP, the extension of the 6.3 pence biomass tariff rate, and tiering of the small and medium biomass tariffs. These amendments will be completed for 5 October 2015.

- The remaining amendments will be realised at a later date (possibly early 2016) depending on budget constraints.
- The amendments will be administered with some automated and some manual solutions: tariff changes and degression will be automated, while the new technologies will be administered via manual solutions. The justification for this approach is set out in chapter 3.

Key Working Assumptions

- DETI to establish the legal basis for the changes
- DETI to provide us with the powers to administer the scheme as amended
- For us to amend our administration of the scheme to ensure continued consistency with the Regulatory framework
- Agreement of revised Administrative Arrangements in advance of any regulatory changes coming into force
- In line with the Administrative Arrangements in place between DETI and Ofgem, we will work together to seek value for money scheme development and implementation

Key Risks

- Policy decisions introduce significant further complexity to scheme
- Last minute changes to policy not planned / budgeted for
- Policy decisions unclear, and/or legislative drafting not sufficiently clear to enable robust scheme administration
- Adequate operational resource not available at key points of project
- Slippages to DETI timeline resulting in increased cost for delivery
- IT development over budget
- Pressure to deliver IT system (and agree system requirements) to tight timetable

Key milestones

- DETI to publish the final policy by 7th August
- the Regulations to be laid with Assembly Office by 14 September 2015
- the Regulations to come into force by 5 October 2015

Delivery costs summary

The total costs expected to be incurred as a result of the delivery of the Phase 2 amendments are summarised in the table below. Internal pricing structures, costs associated with administering the current non-domestic RHI and costs of other environmental programmes have been drawn on to establish these cost projections. These costs consist of:

- IT delivery costs – the costs expected to be incurred during the April 2015/16 financial years to deliver the required RHI amendments by 5 October 2015. They include all costs associated with feature development, release, infrastructure and project management.
- Operational staff costs – the incremental operational staff costs required to administer the amendments from 2015 to 2020 are provided as separate lines. Incremental staff costs are those required for the administrative tasks associated with the amendments that are not part of existing operational processes.

The policy development team staff costs for the development of the feasibility study have been absorbed within the 2015/16 budget and are not included in the costs below.

The estimated delivery costs below are for the delivery of the NIRHI scheme amendments as per information that has been provided to date. It does not include any further amendments required as a result of additional policy decisions which will be at an additional cost.

| Delivery Component | Stage 1 Estimated Cost | Stage 2 Estimated Cost | Total |
|-----------------------------------|---------------------------------------|---------------------------------------|-----------------|
| IT delivery cost (0% contingency) | £14,489 | £89,925 | £104,414 |
| Operational staff costs | £12,836 | £3,215 | £16,051 |
| | | | £120,465 |

1. Introduction

The objective of this study

- 1.1. This study has been carried out by Ofgem E-Serve to assess the options available in the administration of the Phase 2 amendments to the Northern Ireland Renewable Heat Incentive scheme (NIRHI).
- 1.2. The amendments DETI will introduce through the Renewable Heat Incentive (Amendment) Regulations (Northern Ireland) 2015 will come into force on 5 October 2015. These amendments are summarised in the table below:

| | Summary of Phase 2 NIRHI Amendments |
|----|---|
| 1 | Introduction of support for biomass and bioliquid combined heat and power |
| 2 | Extension of 6.3 pence biomass tariff rate and tiering |
| 3 | Other issues such as relocation |
| 4 | Introduction of a cost control mechanism |
| 5 | Introduction of support for air source heat pumps (air to water) |
| 6 | Introduction of a specific tariff for deep geothermal |
| 7 | Introduction of a specific tariff for biomass district heating systems of 200kW and above |
| 8 | Introduction of support for large biomass 1MW and above |
| 9 | Introduction of biomass sustainability requirements |
| 10 | Increased tariff for biomethane injection |
| 11 | Introduction of air quality standards |

These will be implemented in a two phase approach with the first three proposals being introduced on 5 October 2015, and the remaining proposals being deferred until a later date (possibly early 2016).

Engagement with DETI

- 1.3. This study will support the production of internal processes, guidance material updates (which are published as DETI branded documents and for which final sign-off on changes would ultimately be the responsibility of DETI) and IT system changes that Ofgem will need to administer these amendments to the NIRHI. It also considers the issues, options and risks involved with Ofgem developing and administering Stage 1 of the amendments by 5 October 2015. The RHI Non-Domestic Development team have engaged with DETI to assist in the successful delivery of these amendments. The subject matter experts (SMEs) in the RHI Operational team have also provided data and subject matter expertise on the current operation of the RHI upon request to help inform this document.
- 1.4. We have shared a final draft of this document with DETI for comment.

Confidentiality

- 1.5. This document is being supplied to DETI solely for information purposes. It is on the understanding that it may not be copied, reproduced, redistributed or passed on, directly or indirectly, to any other person, in whole or in part, for any other purpose without the prior written consent of Ofgem.

Value for money

- 1.6. We have a strong track record in successfully delivering and operating a number of different environmental schemes for the Government. This has provided Ofgem E-Serve with broad experience that will be put to use in the design and implementation of these amendments. We will seek to draw on existing experience and lessons learnt to drive down the overall cost of delivering and administering the amendments, whilst maintaining a high quality of service to participants.
- 1.7. Proposed expenditure represents the maximum that we will spend on the development and administration of these amendments based on the assumptions detailed in chapter 2 (unless subsequently agreed otherwise with DETI). We will only bill DETI for actual expenditure incurred, and we will clarify a joint understanding of how costs will be met before committing to development spend.

2. Policy and working assumptions

Roles and responsibilities

2.1. DETI's role in relation to the non-domestic NIRHI Phase 2 amendments will be to:

- fund the changes to the administration of the scheme
- establish the legal basis for the changes, including the drafting of Regulations
- provide Ofgem with the powers to administer the scheme as amended

2.2. Ofgem's roles and responsibilities in relation to the non-domestic NIRHI Phase 2 amendments will be to:

- provide DETI with a proposal for the implementation and ongoing administration of the non-domestic NIRHI Phase 2 amendments (this document)
- amend our administration of the scheme to ensure continued consistency with the Regulatory framework
- revise and publish external guidance documents for scheme applicants, participants and other interested parties via partnership with DETI to recommend changes to the DETI-branded guidance
- respond to public and DETI enquiries regarding the administration of the NIRHI in accordance with the Regulations
- provide consistent messages for scheme applicants, participants, parties in the supply chain and other third parties with respect to the NIRHI and RO where the legislative framework is aligned

2.3. Shared responsibilities with respect to the non-domestic NIRHI Phase 2 amendments are:

- in line with the Administrative Arrangements between DETI and Ofgem, to work together to seek value for money scheme development and implementation
- to respond to queries from each other in a timely manner, and work flexibly and cooperatively to support the successful delivery of the amendments
- to jointly agree and sign amended Administrative Arrangement in advance of regulations coming into force.

Dependencies

2.4. Dependencies for the successful delivery of the Phase 2 amendments are:

- that all policy decisions for the October amendments are made by 7 August to allow us time to make changes in a robust and cost effective manner beginning in October 2015
- that the legislative timetable is managed appropriately to ensure the amending Regulations are made for 5 October 2015

Timelines

2.5. The current key milestones as confirmed by DETI in the delivery of the Phase 2 amendments are:

- DETI to publish the final policy by 7 August 2015
- Regulations cleared by DSO by 31 August 2015
- the Regulations to be laid with Assembly Office by 14 September 2015
- the Regulations to be made by 5 October 2015

2.6. DETI will advise us at the earliest opportunity of any changes to these dates. Any changes to these dates will risk the delivery of these amendments for 5 October 2015, and will likely increase the cost of delivery.

Costs

2.7. The costs provided in this study are based on the policy assumptions detailed below. If these assumptions change, or the final policy details result in additional requirements and greater complexity for our administration of the schemes, these costs will likely increase.

Policy Assumptions

2.8. The policy assumptions detailed in this section reflect the implementation of the policies as confirmed by DETI. These policies are set out in the following documents:

- Phase 2 of the Northern Ireland Renewable Heat Incentive¹ - Consultation
- Phase 2 of the Northern Ireland Renewable Heat Incentive² – June 2013 economic analysis
- Renewable Heat study executive summary³

2.9. Changes to policy affecting our administration that are not included below will be managed with a clear and open communication channel between DETI and the RHI development team.

2.10. As mentioned in chapter 1, these amendments will be brought into force with a two stage approach, with the first two amendments below making up Stage 1, to be delivered for 5 October 2015, and the remaining eight to be delivered at a later date (possibly early 2016). This is to align with policy priority and budget considerations. The details of the amendments in each stage are set out below:

STAGE 1

¹ http://www.detini.gov.uk/consultation_on_phase_2_of_the_ni_rhi.pdf

² http://www.detini.gov.uk/economic_analysis_of_measures_included_in_phase_2_of_ni_rhi.pdf

³ http://www.detini.gov.uk/executive_summary_-_renewable_heat_study

1. Introduction of support for biomass and bioliquid combined heat and power (CHP)

- Good quality CHP projects (CHPQA accredited) accredited on the RO from 5 October will be eligible for the relevant electricity only ROC level together with the appropriate RHI tariff from October 2015, at a tariff rate of 3.5p/kWh.
- Biomass and bioliquid CHP plants must be certified under the CHPQA process.
- A second tariff will be introduced for existing fossil fuel CHP systems that wish to convert to renewable CHP. For converting CHP sites, the proposed tariff is 1.7p/kWh.

2. Extension of 6.3 pence biomass tariff rate and tiering

- The medium tariff band of 20- 99kW 6.3p/kW tariff for biomass installations will be extended possibly up to installations of 199kW.
- This is to bring the NIRHI broadly into line with the GB scheme.
- There is currently only one accredited RHI installation with a capacity of over 99KW and less than 200KW (Personal information redacted by the RHI Inquiry) which has a capacity of 129KW)
- The large tariff banding will change to 200 – 999kWh.
- The small and medium tariffs will be tiered with a reduced tariff of 1.5p/KWh applied after the first 1314 peak load hours (or Kilowatt Hours equivalent).

3. Other issues

- Relocation will be allowed for renewable heat plants
- The inflationary calculation process will be amended, however this is anticipated to have no administrative impact
- The GB definition of "installation" will be adopted to bring both schemes in line. This also has no IT or material administrative impact
- Heat use outside a building will be allowed to bring NI in line with GB. Again, no IT or material administrative impact
- What qualifies as an eligible heat source of GSHP will be extended. This has no IT or material administrative impact

STAGE 2

4. Introduction of a cost control mechanism

- Cost control measures are being introduced to ensure budgetary levels will not be breached and to remove the need for emergency reviews or reductions in tariffs at short notice.
- A number of trigger points will be introduced to provide forewarning to potential applicants that the committed budget is nearing the set limit.
- Pre-defined tariff reductions for biomass will take place at pre-defined dates up to 2017

5. Introduction of support for air source heat pumps (air to water)

- Air to water (AWHP) heat pumps will be eligible for support at a tariff rate of 2.5p/kWh for systems less than 100kWh in size.
- A SPF of 2.5 will be applied as used in the non-domestic and domestic scheme.

6. Introduction of a specific tariff for deep geothermal

- Installations utilising deep geothermal are currently eligible under the large ground source heat pump tariff. They will become eligible under a specific deep geothermal tariff, at a rate of 3.7p/kWh for all sizes.
- For systems to be classed as deep geothermal the energy must be located and extracted at least 500 metres beneath the surface of solid earth.

7. Introduction of a specific tariff for biomass district heating systems of 200kW and above

- An uplift tariff of 7p/kWh will be introduced for district heating schemes with a biomass installation 200kW and above.
- The uplift will only apply to the first 1314 peak load hours (or Kilowatt Hours equivalent), after which it would drop to tier 2 of the relevant biomass banding.
- A network should have a minimum of two buildings and a minimum of one final customer in addition to the heat supplier.
- Smaller district heating systems, (under 200kW), will be incentivised under the proposed extension of the 6.3 pence tariff.

8. Introduction of support for large biomass 1MW and above

- Large biomass installations over 1MW will be supported from October 2015 at a tariff rate of 0.6p/kWh for 20 years. This is linked to RPI as with other tariffs.
- No other changes assumed.

9. Introduction of biomass sustainability requirements

- All systems will have to report against and comply with new biomass sustainability requirements in line with GB criteria. Due to a last minute change, only the introduction of these requirements for installations 1MW and above have been scoped in this document, however this will be updated in August 2015.
- These will consist of a GHG emissions limit and meeting certain land criteria.
- Participants will be expected to retain records that demonstrate compliance. In addition, they will be expected to provide quarterly reports (in the first year), and annual reports (from then on) which show that the requirements have been met.
- NI BSL would need to be in place. This would involve considerable workloads, given there would need to be a communication piece to applicants and current participants in preparation for this. There is also consideration of external interaction in establishing pre screened work (in GB the BSL is expected to be the chosen route for the majority of biomass participants who currently use woody fuelstock).

10. Increased tariff for biomethane injection

- The existing tariff for biomethane will be increased for a one year period to test the readiness of the market.
- A three tier approach will be introduced:
 - Tier 1 first 40,000MWh 7.5p
 - Tier 2 next 40,000 MWh 4.4p
 - Tier 3 remaining MWh 3.4p

11. Introduction of air quality standards

- Air quality standards will be introduced limiting the pollutants associated with biomass heating and will apply to biomass installations smaller than 20 MWth.
- The maximum permitted emission limits will be 30 grams per gigajoule (g/GJ) net thermal input for particulate matter (PM) and 150 g/GJ for NO_x.
- These standards would apply to all new installations commissioned after the date the regulations come into force, with applicants having to provide a certificate demonstrating that their installation has been tested and met these standards.

2.11. Three further proposed amendments have been deferred at this time due to budget constraints and predicted lack of uptake but may be considered at a later date. These amendments are; the introduction of support for biomass direct air heating; introduction of support for large biogas over 200kWth and landfill gas, and introduction of support for large solar. They will not be considered in this study.

Implementation and take-up

2.12. Since the majority of the policies detailed above reflect amendments to the existing scheme, in implementing the amendments we will seek to mimic, build on or amend the existing processes and in many cases to bring them in line with the GB scheme. The nature of the amendments means that they impact all of our administrative processes including enquiries, accreditation, periodic data submission, payments, audit, and fraud and compliance.

2.13. The resource requirements for the non-domestic RHI operational team to administer/ the amended regulations will be determined using the non-domestic RHI operational resource model.

2.14. Our preferred approach to the development and implementation of these changes as provided in chapter 3 are based on the uptake assumptions provided by DETI below. DETI provided figures up to 2016/17, and beyond this we have assumed a 10% increase in uptake each year, These assumptions have been used to underpin the resource modelling for the administration of the amendments that supports the recommendations in chapter 3.

2.15. The table below sets out the predicted applications for each technology type.

| Technology | Applications to 31/3/15 | 15/16 | 16/17 | 17/18 | 18/19 | 19/20 | total |
|-----------------------------|-------------------------|------------|------------|------------|------------|------------|-------------|
| Biomass | 585 | 624 | 686 | 755 | 830 | 913 | 4393 |
| GSHP | 4 | 16 | 18 | 20 | 22 | 24 | 104 |
| Solar | 1 | 4 | 5 | 6 | 7 | 8 | 31 |
| Biomethane | 0 | 10 | 11 | 11 | 11 | 11 | 54 |
| ASHP (air to air) | 0 | 4 | 5 | 6 | 7 | 8 | 30 |
| CHP (biomass and bioliquid) | 0 | 2 | 3 | 3 | 3 | 3 | 14 |
| Bioliquids | 0 | 1 | 1 | 2 | 2 | 2 | 8 |
| District heating | 0 | 1 | 1 | 2 | 2 | 3 | 9 |
| Deep geothermal | 0 | 0 | 1 | 1 | 1 | 2 | 5 |
| Total | 590 | 698 | 731 | 806 | 930 | 974 | 4648 |

3. Options Analysis

3.1. This chapter covers the impact and options considered in order to implement the Phase 2 NIRHI amendments. These have been developed in close cooperation with the RHI subject matter experts in the Operations team and our colleagues in the Information Management and Technology directorate.

Summary of the high level options analysis

3.2. Our assessment of an implementation option takes into account:

- Whether the option continues to allow for robust administration of the NIRHI as based on our interpretation of, and functions in, the NIRHI Regulations
- The degree of amendment required to the current functionality of the RHI register and CRM, and business processes
- The cost to implement an option with respect to IT development and operational impact
- Whether the option effectively manages any additional risks to the scheme brought about by the implementation of the Phase 2 amendments that are not already addressed in the RHI Fraud Prevention Strategy. Additional risks may include new fraud, gaming and error, volume risk, performance risk, or change risk.

Approach to recommendations

3.3. Recommendations have taken into consideration potential budget of around £80,000. This means that in some cases manual options have been recommended where there is less benefit delivered by the more expensive automated option.

3.4. In general, manual processes have been recommended where there are low predicted volumes. There is generally higher risk associated with having manual processes, including the increased risk of payment errors associated with manual processes. Due to the low predicted volumes, however, the cost of automated options is not recommended for these amendments.

3.5. In general, automation has been recommended for changes to tariffs and the introduction of a cost control mechanism. Automated solutions offer reduced risk and time saving benefits, and also facilitate reporting under the scheme. However, the low predicted numbers for uptake mean it cannot be recommended for every amendment.

3.6. IT delivery costs were estimated based on internal IT development. Other IT delivery costs such as IT project management and costs associated with our third party provider, Cantata who are responsible for the CRM system, have been included based on an additional 10% on top of the estimates. The costs provided therefore take into account the complete delivery of automated options.

- 3.7. The operational costs provided for each option are for 2015 to 2020. Additional operational costs relating to knock-on impacts of preferred options and increased enquiries resulting from the amendments have not been included but are expected to be minimal. Ongoing operational audit and fraud & compliance costs are generally assumed to fall within the general audit, fraud & compliance budget for the scheme.

A note on the cost calculations

- 3.8. The manual **accreditation** costs set out below have been calculated for a five year period from 2015 to 2020 based on the uptake assumptions set out in the table on page 13. The figures are made up of the cost per review (time spend per review multiplied by cost of reviewer), multiplied by the number of applications expected between 2015 and 2020.
- 3.9. The manual **PDS** costs have been calculated based on a participant's 20 year lifetime on the scheme, with four quarterly submissions annually, i.e. 80 manual PDS checks per participant for their lifetime on the scheme. Therefore the figure per PDS is made up of the cost per review (time spend per review multiplied by cost of reviewer), multiplied by number of affected participants, multiplied by 80.
- 3.10. Some installations accredited via a manual option will have to have their PDS calculated manually for their lifetime on the scheme.
- 3.11. IT costs are one-off costs and include both accreditation and PDS, and as stated above, Cantata costs have been included based on an additional 10% on top of the estimates. The costs provided therefore take into account the complete delivery of the automated options.

Stage 1

- 3.12. As mentioned in chapter 1, the Phase 2 amendments will be implemented in two stages. Stage 1 is made up of two amendments which will be introduced in October 2015. The remaining amendments will be introduced at a later date (likely early 2016).

1. Introduction of support for biomass and bioliquid combined heat and power

- 3.13. Good quality CHP projects will be eligible for the relevant electricity only ROC level together with the appropriate RHI tariff from October 2015 at a tariff rate of 3.5p/kWh for the heat generated.
- 3.14. A second tariff will be introduced for existing fossil fuel CHP systems that wish to convert to renewable CHP. For converting CHP sites, the proposed tariff is 1.7p/kWh.

| Accreditation | | | | | |
|---------------|---|---|---------------------------------------|------------------------------|--------------------|
| Option | Detail | Pros | Cons | IT Cost (£) | Total Ops Cost (£) |
| Auto | Additional/amended eligibility criteria and tariff incorporated into system. NI CHP installations would | In line with existing processes, improved data integrity, | IT development cost for low volume of | £15,969 (accred plus PDS) | 0 |

| | have different questions to GB and tariffs are different. | reduces impact on ops teams | expected applications. | – one off cost) | |
|---------------------|--|---|---|-----------------|---|
| Manual | Applicant submits an application to the Register for a similar technology (i.e. biomass). Guidance provided on which questions to fill in/ignore etc. Reviewer asks for additional required eligibility info via email. New eligibility criteria managed manually (post/email) | No IT development cost for low volume of expected applications | Higher impact on ops team, more open to error. Significant reputational risk: may look unprofessional for applicants to have to submit information in a form for a different technology. | 0 | £816 (2 hours per transaction, 20 transactions) |
| PDS/Payments | | | | | |
| Option | Detail | Pros | Cons | IT Cost (£) | Total Ops Cost (£) |
| Auto | PDS for biomass CHP installations incorporated into system | In line with existing processes, reduces impact on ops teams and risk of error. | IT development cost for small number of applications | See above | 0 |
| Manual | Participants submit data via the Register, manual adjustment applied every quarter to ensure correct tariff. Each installation will need to be flagged to finance at point of accreditation so that a payment note/flag can be added when a submission comes through for payment. Possible option to develop an internal exception within the RHI Register so that each submission becomes a mandatory check. | No IT development cost, low volume expected | Higher impact on ops team, significant risk of payment error. Could cause problems for payments team if manual – extra resource on payments. | 0 | £8,859 (20 mins per transaction, 14 x 4 x 20 transactions) |

3.15. Biomass CHP installations will be subject to the same PDS requirements as other technologies.

3.16. Payments will be made in the same way as for existing installations, but with a tariff adjustment.

Recommendation: Manual, as it is less expensive than the automated cost, and there is a high level of uncertainty around application numbers so the automated option could be a high cost for relatively few applications. The risk of incorrect payments being made would be mitigated by having a robust manual process in place. More value for money would be achieved by choosing some of the automated options in Stage 2.

2. Extension of 6.3 pence biomass tariff rate and tiering

- 3.13. Uptake rates are hard to predict for medium biomass when the tariff is extended to 199kWth. Based on current GB figures, 45% of total biomass are between 100 – 199kW size, which equates to 1977 installations on the NI scheme over the five year period. All small and medium biomass installations will be affected by new tiering which is estimated at 90% based on GB experience. This equates to 3954 installations.

| Accreditation | | | | | |
|---------------|--|------------------------|--|---------------------------|---|
| Option | Detail | Pros | Cons | IT Cost (£) | Ops Cost (£) |
| Auto | Capacity band changes will be applicable to all installations. The day these changes would come into play we would have new capacity bandings. Two sets of capacity bandings required. | Less prone to error | Significant cost | £14,489 (accred plus PDS) | £0 |
| Manual | Tariff band will be incorrect for all boilers 100-199kW. No impact at accreditation stage but manual adjustments will be needed over 20 years. | No IT development cost | Less efficient and tariffs adjusted by RPI every year, plus new tariffs stored on spreadsheet leaves large room for manual error | 0 | £0 |
| PDS/Payments | | | | | |
| Auto | Extended tariff incorporated into system | Less prone to error | Significant cost | See above | 0 |
| Manual | Payments team generate payments note for each affected participant. They make manual adjustment for installations of 100-199kW to reflect payment note. For all small and medium installations, a log will need to be kept to keep track of if/when the Tier 1 threshold has been met and then change the tariff accordingly using a manual adjustment | No IT development cost | Less efficient and significantly higher risk of error | 0 | £2,502,091 (15 mins per trans-action, 4 x 20 x 3954 transactions) |

Recommendation: Automation, as manual option is extremely expensive in comparison, and requires significant ops resource over 20 years, plus is open to much greater error and risk.

3. Other issues

Relocation of installations:

Relocation volumes are based on proportional estimate of GB figures. GB receive 2 per year at an equivalent stage of the scheme, therefore a rough estimate of 3 over the five year period has been assumed.

| Accreditation | | | | | |
|---------------|---|---------------------------------|--|-----------|---|
| Option | Detail | Pros | Cons | IT Cost | Ops Cost |
| Auto | Register to be amended to include initial question in accreditation flow mimicking GB scheme for applicant to declare whether the plant installation has been relocated | High accuracy and time savings | IT cost | £8,719 | 0 |
| Manual | Reviewers will need to ask about relocation for every new application – though guidance and reviewers can advise repeat applicants to add this detail in question HH120 so that the question won't be needed. | No IT cost | Time consuming for reviewer. Increased risk of error | 0 | £3,161 (2 mins per transaction, 4648 transactions) |
| PDS/Payments | | | | | |
| Auto | n/a | High accuracy, and time savings | | See above | 0 |
| Manual | Process followed as per GB process. An internal exception within the RHI register may be needed to ensure submission is reviewed and adjustment applied. | No IT development cost | n/a | 0 | n/a |

Recommendation: Manual as involves lower cost.

The remaining changes have been assessed for ongoing administrative impact. All will require changes to guidance, training and may lead to increases in enquiries. However, these costs will be absorbed alongside development of the suite of options laid out above. Therefore, while there will be costs and impacts, we have not assessed a further incremental cost associated with:

- The inflationary calculation process to be amended
- The GB definition of "installation" will be adopted to bring both schemes in line
- The heat use outside a building will be allowed to bring both schemes in line
- What qualifies as an eligible heat source of GSHP to be extended

STAGE 2 amendments

These costs are provided at a high level. Once the go-ahead is confirmed on the second stage more detailed costs will be provided.

4. Introduction of a cost control mechanism

| Option | Detail | Pros | Cons | IT Cost (£) | Ops Cost (£) |
|--------|--|--------------------------------------|------------------|-------------|--|
| Auto | No specific accreditation, PDS, reporting changes required. Changes to the system required to add new data regarding when to go to what tariff on what date. The system already has the capabilities to administer | Increased accuracy, and time savings | Significant cost | £1,329 | £4000 (a change request is needed per depression as with GB currently) |

| | | | | | |
|--------|---|---------------------------|---|---|---|
| | degression. | | | | |
| Manual | Manual adjustment for all affected applications accredited post degression for full 20 years. | No IT amendments required | Costly, time consuming, very high risk of payment error | 0 | £1,422,534 (20 mins per transaction, 2248 x 4 x 20 transactions) |

Note: Number of applications affected based on the small biomass tariff being degressed from 2017 (reasonable assumption based on GB experience)

Recommendation: Automation, as it is much cheaper and also offers other significant benefits such as improved accuracy, time savings and lower risk (please note this includes a manual cost, which is the upfront cost of running a degression CR).

5. Introduction of support for air source heat pumps

| | Accreditation | Pros | Cons | Cost |
|---------------|--|---|--|--|
| IT | AWHPs incorporated into accreditation flow on Register - use current GB questions - remove first stage on Register splitting NI/GB | In line with existing processes, improved data integrity, reduces impact on ops teams | Cost of IT changes | £9,293 (accred plus PDS) |
| Manual | Applicant submits an application to the Register for a similar technology (i.e. biomass). We provide guidance alongside on which questions to fill in/ignore etc. Reviewer asks for additional required eligibility information via email. | No IT development cost for low volume of expected applications | Higher impact on ops team, more open to error. Significant reputational risk: may look unprofessional for applicants to have to submit information in a form for a different technology. | £612 (1 hour per transaction, 30 transactions) |
| | PDS | Pros | Cons | Cost |
| IT | PDS incorporated into the system | Increased accuracy and time savings | Cost of IT changes | See above |
| Manual | Tariff will have to be updated manually. Manual PDS calculation and manual payment | No IT development cost | Significant risk of incorrect payments | £18,984 (15 mins per transaction, 30 x 4 x 20 transactions) |

Recommendation: Automated, as manual option is more expensive in comparison, and requires extra ops resource over 20 years, plus is open to much greater error and risk.

6. Introduction of support for deep geothermal

| | | Accreditation | Pros | Cons | Cost |
|--|---------------|---|----------------------------------|--|--|
| | IT | Deep geothermal incorporated into accreditation flow on Register. Same as GB | Higher accuracy and time savings | Higher cost | £8,394 (accred plus PDS) |
| | Manual | These installations currently follow the heat pump accreditation flow. Reviewer would need to ask for additional information. | No IT development cost | Significant risk of incorrect payments | £51 (30 mins per transaction x 5 transactions) |
| | | PDS/Payments | Pros | Cons | Cost |
| | IT | PDS incorporated into the system | High accuracy and time savings | Greater cost | See above |
| | Manual | Tariff will have to be updated manually. Manual payment adjustment every quarter. | No IT development cost | Significant risk of incorrect payments | £3,164 (20 mins per transaction, 5 x 4 x 20 transactions) |

Recommendation: Manual, as it is cheaper, and there is a high level of uncertainty around application numbers so the automated option could be a high cost for relatively few applications. The risk of incorrect payments being made would be mitigated by having a robust manual process in place.

7. Introduction of support for district heating

| | | Accreditation | Pros | Cons | Cost |
|--|---------------|--|--|--|--|
| | IT | District heating incorporated into accreditation flow on Register - new technology with separate tariff. Potentially a new question. | Higher accuracy and time savings. Applicants will be asked for the necessary information and evidence. | Higher cost | £13,070 (accred plus PDS) |
| | Manual | Applicant submits an application to the Register for a similar technology (i.e. biomass). We provide guidance alongside on which questions to fill in/ignore etc. Reviewer asks for additional required eligibility information via email. | No IT development cost | Higher impact on ops team, more open to error. Significant reputational risk: may look unprofessional for applicants to have to submit information in a form for a different technology. | £92 (30 mins per transaction, 9 transactions) |
| | | PDS/Payments | Pros | Cons | Cost |
| | IT | PDS incorporated into system | High accuracy and time savings | Greater cost | See above |
| | Manual | Tariff will have to be updated manually. Manual PDS calculation and manual payment, and log of tier 1 threshold being met. | No IT development cost | Significant risk of incorrect payments | £6,372 (17 mins per transaction, 9 x 4 x 20 transactions) |

Recommendation: Automation - although this is a higher cost, we expect there to be a wider range of possible application numbers for this technology. Based on GB experience, the number could be significantly higher than the current estimate of 9 (which was extrapolated from DETI the forecast) in the period up to 2020. If this is the case, the automated option would become a more cost-effective solution with around 30 applications and more. Other benefits are lowers risks and reduced reputational impacts.

8. Introduction of support for large biomass 1MW and over

| | | Accreditation | Pros | Cons | Cost |
|--|---------------|--|--|---|---|
| | IT | Large biomass incorporated into accreditation flow on Register - new technology with separate tariff. | Higher accuracy and time savings No IT development cost | Higher cost | £7,370 (accred plus PDS) |
| | Manual | Applicant submits an application to the Register for a similar technology (i.e. biomass under 1MW). We provide guidance alongside on which questions to fill in/ignore etc. Reviewer asks for additional required eligibility information via email. | No IT development cost | Significant reputational risk: may look unprofessional for applicants to have to submit information in a form for a different technology/capacity. Increased risk of error. | £204 (1 hour per transaction, 10 transactions) |
| | | PDS/Payments | Pros | Cons | Cost |
| | IT | PDS incorporated into system | High accuracy and time savings | Greater cost | See above |
| | Manual | Tariff will have to be updated manually. Manual payment adjustment every quarter. | No IT development cost | Significant risk of incorrect payments | £6,328 (15 mins per transaction, 10 x 4 x 20 transactions) |

Recommendation: Automation, although this is a slightly higher cost, the payment values will be large so the level of risk related to incorrect payments is high.

9. Introduction of biomass sustainability requirements

The IT cost has been estimated as a 15% addition to the original proposal of sustainability being applied to 1MWth and above installations only. This is a conservative estimate and will be re-assessed once further details of expected requirements are confirmed at a later date. The automated and manual options are estimated based on the assumption that the implementation and requirements will be largely aligned with the GB scheme.

| | | Accreditation | Pros | Cons | Cost |
|--|-----------|---|--|-----------|------------------------------|
| | IT | Multi-select list incorporated into Register for installations over 1MW must state how they intend to comply with the requirements (which reporting route). | Reduces risk of error. Fast to assess. | High cost | £35,880 (accred plus PDS) |

| | | | | | |
|--|---------------|---|---------------------------------|---|--|
| | Manual | Applicant submits form for biomass. Additional sustainability questions provided separately via email. | No IT development cost | High cost. Greater risk. Time consuming to review. Also high cost | £45,502 (30 mins per transaction, 4461 transactions) |
| | | PDS/Payments | Pros | Cons | Cost |
| | IT | BSL/Self-supply: declaration added to PDS for participant to confirm they're sourcing from BSL/self-supplying and provide URNs Self-reporters: Amend the sustainability information or fuel submission template to include declaration of compliance and fields for information relating to biomass sustainability criteria Waste: declaration that fuel is waste CHP: Declaration added that RO criteria has been met | High accuracy, and time savings | Short timeframe to implement changes | See above |
| | Manual | Reviewer needs to obtain and check information manually every quarter. Payments may also need to be checked by a member of the finance team depending on value. | No IT development cost | Very high cost. Time involved in chasing up every biofuel participant every quarter. Greater risk | £2,426,784 (20 mins per transaction, 4461 x 4 x 20 transactions) |

Recommendation: The automated option is recommended as it is much less expensive, if the requirements were to be implemented in a similar way to GB. The costs can be re-assessed once further details are confirmed at a later date.

10. Increased tariff for biomethane injection

| | | | | | |
|--|---------------|---|---------------------------------|---|---|
| | | Accreditation | Pros | Cons | Cost |
| | IT | Three new tariffs added to the Register - for 0-40,000MWh, 40-80,000MWh, and over 80,000MWh - functionality of GB biomethane | Reduced risk of error | High cost | £10,264 (accred plus PDS) |
| | Manual | Tariff band will be incorrect for installations producing biomethane for injection. No impact at accreditation stage but manual adjustments will be needed over 20 years. | Reduced cost | Greater risk | £0 |
| | | PDS/Payments | Pros | Cons | Cost |
| | IT | Update the calculation engine with new tariff. Heat output calculation and payment tier calculated by system | High accuracy, and time savings | Cost | See above |
| | Manual | Tariff will have to be updated manually. Manual PDS calculation and manual payment, and log of tier thresholds being met. | No IT development cost | Greater cost. Significant risk of incorrect payments. | £44,280 (20 mins per transaction, 54 x 4 x 20 transactions) |

Recommendation: Automation, as it is more cost effective and eliminates risk related to manual payments at high value.

11. Introduction of air quality standards

The assumption has been made that 95% of applicants will have to provide air quality information from the date the amendments come into force. (Biomass applicants make up 95% of the total).

| | | Accreditation | Pros | Cons | Cost |
|--|--------|--|---|---|--|
| | IT | Question incorporated into accred flow - can use GB questions. Cheaper and easier than manual workaround | In line with existing processes, improved data integrity, reduces impact on ops teams | Cost | £8,719 (accred plus PDS) |
| | Manual | Participants apply through the Register and manually send in air quality certificate which is scanned and uploaded by a reviewer, then attached to a case. Would add one minute to a case to check this in upload slot rather than dedicated slot. Quicker win than biomass sustainability and good half way step. | No IT development cost | High cost. Also higher risk of this being missed by applicants as a requirement and reviewers to check. | £36,900 (30 mins per transaction, 3618 transactions) |
| | | PDS/Payments | Pros | Cons | Cost |
| | IT | No impact | n/a | n/a | See above |
| | Manual | No impact | n/a | n/a | £0 |

Recommendation: Automation. This amendment will affect the majority of participants therefore a manual solution involves an extremely high cost.

4. Operational Business Processes

- 4.1. Following the identification of the amendments in chapter 2, we have assessed where existing business processes will need to be updated and new processes created and documented to support the administration of the scheme and its new changes from October 2015 and early 2016 for Stage 2.
- 4.2. As part of this analysis we have considered manual processes by the RHI Operations team to administer the NIRHI alongside the functionality on the RHI Register and CRM (e.g. Accreditation, Periodic Data Submission, etc). This chapter sets out the information relevant to those operational processes and supporting materials that require updating or where new procedures and materials need to be developed. Development which relates to the IT system is captured in chapter 3.

Enquiry handling

- 4.3. Calls, emails and correspondence on the NIRHI from potential and existing participants are managed via the Customer Relationship Management (CRM) system by the enquiries team.
- 4.4. Queries are handled in different ways depending on their level of complexity. Queries to which the answers have been decided will be looked up and responded to using call scripts or guidance documents. Queries that require further research or escalation/consultation with colleagues will receive a response within set timescales. All correspondence is captured within the CRM.
- 4.5. Appropriate training and documentation will need to be delivered for the enquiries team to ensure that they are able to manage queries relating to the amendments appropriately.

Accreditation

- 4.6. The RHI Register captures the details of each application for accreditation or registration to the RHI. This includes information relating to the applicant, as well as that relating to the installation such as its technology type, capacity, date of commissioning, location, and meters installed. The Register conducts some validation checks on the data when it is submitted. This information is then pushed to the CRM for review.
- 4.7. The RHI administration team is required to check all applications to ensure the installations meet the relevant eligibility criteria before accreditation or registration is granted. Reviews are conducted via the CRM. As part of this process, engagement with the applicant via email and phone to resolve any queries is often required. Queries are managed via the CRM system.
- 4.8. Accreditation or registration of an application can only be granted by someone with delegated authority. This is completed on the CRM, which generates an automatic approval letter that is emailed to the applicant.

- 4.9. To administer the Phase 2 amendments, the current accreditation process will need to be updated. The amendments will require the following changes to be made:

Stage 1

- provision for biomass and bioliquids CHP stations to state their technology type and provide evidence

Stage 2

- provision for air source heat pumps to state their technology type and answer specific questions
- provision for deep geothermal to state their technology type
- provision for district heating applicants to state their system is a district heating system and provide evidence
- provision for biomass installations over 1MW to demonstrate how they intend to comply with the biomass sustainability requirements
- three new tariffs added to the Register for biomethane injection
- introduce questions regarding air quality into the Register
- provision for biomass of 1MW and above to state their size

These requirements will impact on the NIRHI teams in different ways, as follows:

Table 1 – Accreditation

| Changes required |
|---|
| <p>Development:</p> <ul style="list-style-type: none"> • New questions to be included in the accreditation flow will need to be developed. • Changes to existing eligibility criteria where appropriate. • Early engagement with industry to highlight changes and how these will impact applicants and participants. • Updates to the RHI Guidance documents where appropriate, particularly Volume One of the Guidance as well as associated documents. • Updates to the NIRHI website. • Updates to the operational processes, topic guides, and review checklists to reflect the changes. • Supporting the operations team during transition including training, embedding new processes, and review based on early operational experience. • Update to the manual application form to reflect the new criteria. |
| <p>Operations:</p> <ul style="list-style-type: none"> • Training of current staff and new starters on the NI amendments and how these will impact on the current operation of the RHI scheme. • |

IT Systems:

- Systems changes are recommended to incorporate the amendments
- Amendments to the RHI user guide to reflect changes to the register due to the amendments also required.
- Amendments to the CRM review process and templates to reflect the amendments.

Periodic data review

- 4.10. The RHI Register captures the periodic data that participants are required to submit each quarter in order for their payments to be accurately calculated and approved. To note, at present some periodic data is captured separately depending on technology type. The Register also captures information required to be submitted on an annual basis. The Periodic Data Submission (PDS) team reviews the submissions before recommending the data submission for payment. Only someone with the relevant delegated authority can approve a payment. The RHI Register assists in this process by conducting validation checks on certain key information, such as the eligible heat output.
- 4.11. To administer the Phase 2 amendments, the PDS process will need to be updated. The amendments require the following changes to be made:
- inclusion of quarterly declaration of compliance with sustainability requirements for biomass participants over 1MW in PDS review process
 - inclusion of annual sustainability audit report regarding compliance with sustainability criteria for biomass participants over 1MW in PDS review process
 - addition of PDS review for CHP, heat pumps, deep geothermal and district heating systems

These requirements will impact on the non-domestic RHI teams in different ways as follows:

Table 2 – Periodic data submissions

| Changes required |
|---|
| <p>Development:</p> <ul style="list-style-type: none"> • Declarations developed for the biomass sustainability requirements to be submitted as part of the quarterly PDS • Updates to the operational processes to incorporate changes affecting periodic and annual data submissions • Updates to the operational processes to add PDS reviews for heat pumps, deep geothermal and bioliquid installations • Checking that payments are being accurately calculated for biomass and biomethane upon amendments to their tariffs • Updates to the RHI Guidance documents where appropriate, particularly Volume Two of the Guidance, Easy Guides, as well as the biomass sustainability guidance • Update the non-domestic RHI website |

Operations:

- Training of current staff and new starters on the RHI amendments and how these will impact on the current operation of the RHI scheme
- Detailed training on the new process PDS team will be required to undertake when processing PDS
- The additional workload generated by the amendments will need to be managed

IT Systems:

- Amendment of existing PDS requirements for affected technology types
- Amendments to the RHI user guide to reflect the changes to the register and CRM due to the amendments
- New upload mechanism to allow participants to upload their air quality information

Payments

4.12. The payments team authorise the RHI payments to participants which are made via the SUN system. To administer the Phase 2 amendments, the current payment process will require the following changes to be made:

- Provision for payments to be withheld / adjusted depending on compliance with the biomass sustainability and air quality criteria.

Table 3 – Payment

| Changes required |
|---|
| <p>Development:</p> <ul style="list-style-type: none"> • Updates to the RHI guidance documents and topic guides where appropriate • Update to NIRHI website, including updated tariff tables |
| <p>Operations:</p> <ul style="list-style-type: none"> • Training of current staff and new starters on changes and how these will impact on the current operation of the RHI scheme • Changes to the existing payment operational processes • Impacts on payments and PDS due to new ongoing obligations |
| <p>IT Systems:</p> <ul style="list-style-type: none"> • Amendment of tariff tables and payment calculations for large biomass and biomethane |

Fraud and Compliance

4.13. The Fraud Prevention Strategy for the RHI provides an overview of Ofgem's assessment of the potential for fraud in the administration of the scheme and can be found in Appendix 3. It sets out the types of controls carried out to prevent and detect fraudulent activity from both internal sources (e.g. staff) and external sources (e.g. participants or installers). This strategy is updated annually.

- 4.14. The fraud risks associated with the Phase 2 amendments are to a large extent covered by the existing Fraud Risk Register (Appendix 2). However this study has identified three key areas which will require updates to the Fraud Risk Register. The areas that may present an increased fraud risk are:
- a) the interaction with the Renewables Obligation in respect of biomass sustainability criteria and CHP eligibility criteria
 - b) biomass participants to show compliance with the biomass sustainability criteria (Stage 2)
 - c) the production of a sustainability audit report regarding a biomass participant's compliance with the biomass sustainability criteria (Stage 2)
- 4.15. The biomass sustainability requirement will also represent a new area of non-compliance under the scheme, which will likely generate additional non-compliance cases for the fraud and compliance team to manage.
- 4.16. The RHI team will be able to utilise existing enforcement powers, including the ability to withhold or recoup payments where non-compliance is found with the biomass sustainability criteria. These changes will affect the RHI non-domestic team in different ways, as follows:

Table 4 – Fraud and Compliance

| Changes required |
|---|
| <p>Development:</p> <ul style="list-style-type: none"> • The NIRHI website will need to be updated • Review of the fraud strategy to reflect new responsibilities. • Review of operational processes to ensure appropriate safeguards are in place to mitigate against new fraud risks. • Review of processes to ensure additional areas of non-compliance are captured by the operational team for review by the compliance team. |
| <p>Operations:</p> <ul style="list-style-type: none"> • Training for the RHI team on the new fraud risks |

- 4.17. It is important to note that the RHI team intends to take a risk based approach to evidence with regard to compliance with the biomass sustainability requirements. Our current approach to checking audit obligations is proportionate to the risks to ensure administrative costs are not excessive. For consistency we will adopt a similar approach in the first instance with regards to checking the sustainability criteria (which is also an ongoing obligation).

Audit

- 4.18. The audit strategy for the RHI (Appendix 4) provides us with a robust and fit for purpose audit regime to monitor participant compliance with RHI eligibility criteria and obligations, detect fraud and non-compliance and act as a deterrent to participants that might be tempted to break the rules of the scheme. The audit program is updated as and when required to take into account legislative changes and process changes such as those detailed in this study.

- 4.19. The audit requirements associated with the Phase 2 amendments are covered in part by the existing audit strategy; however there are additional considerations that will need to be incorporated into the strategy, which are detailed in the table below.

Table 5 – Audit

| Changes required |
|---|
| <p>Development:</p> <ul style="list-style-type: none"> • The Audit Strategy is already being reviewed and developed to reflect the introduction of biomass sustainability on GB RHI (including review of the sustainability audit report). This will be reviewed once final to ensure NI amendments are considered. • Update of relevant guidance materials and Standard Operating Procedures. |
| <p>Operations:</p> <ul style="list-style-type: none"> • Training for the RHI team and management of the additional workload for accreditation, audit, compliance, PDS and amendment teams. |

Reporting

- 4.20. Reports are produced from the RHI Register and CRM system and are generated for internal and external stakeholders including for suppliers, and going forward, for DETI. The internal reports cover the following areas:

- operational reports - daily & monthly operational / productivity reporting for accreditations, periodic data and enquiries
- monthly technical, audit, payments, fraud and compliance and communications reporting
- segmentation reporting
- Implementation Board monthly report
- Balanced Score Card

- 4.21. The main external reports produced are the following:

- Public report (system generated)
- Statistical report to DETI on an annual basis

All of the reports listed above will need to be reviewed and potentially updated to reflect the Phase 2 amendments, including the report being developed to reflect the new biomass sustainability information reporting requirement.

5. Implementation and resources

Development workstreams

5.1. On the basis of the policy changes detailed in chapter 3, the following workstreams have been identified, the details of which can be found in the previous chapters.

- Policy development
- IT amendments to RHI Register and CRM
- Business processes and documentation updates/creation
- Stakeholder management and communications (including amendments to the guidance and other associated documents, the NIRHI website and enquiries lines to take)

Project and risk management

5.2. Delivery of the Phase 2 amendments will require effective project management throughout the development and hand-over phase. The development team project manager will produce the relevant project management documentation, ensure the project risks are monitored correctly, and that the project receives independent assurance.

Delivery Plan

5.3. The high level delivery plan for Stage 1 of the project is provided in Appendix 1.

Development Resources

5.4. The RHI non-domestic project team is responsible for the successful implementation of the Phase 2 amendments. The team is comprised of staff from three functional teams: RHI Non-domestic development, RHI Non-domestic operations, and Information Management and Technology.

| Workstream | Development | Systems (IT) | Business Assurance | Stakeholder Engagement |
|-----------------|--|----------------|--------------------|------------------------|
| Lead | Katy Read | Ali Iqbal (PM) | Cheryl Fox | Jodie Lahon |
| Development | Katy Read, Sarah Driver, Nicola Percival, James Segura-Woods, Callum Green | | | |
| RHI Op (SMEs) | Nigel Stokes; Frances Hale; Neil Coffey; Tommy Moody; Andy Morral, Lewis Martin Cheryl Fox, Sarah Russell | | | |
| Fraud and Audit | Amy Powell- Tuck Shaneigh Turner | | | |
| IM&T | Prashanth Motapothula, Tola Coker | | | |
| Legal | OmoladeBarker, James Robinson | | | |
| Comms | Jodie Lahon, Cida Morrison | | | |
| Finance | Peter Rice & Sajith Sasikumar | | | |

RHI Non-domestic development

- 5.5. The RHI non-domestic development team's role is to establish and implement the systems and processes required for Ofgem E-Serve to administer the RHI. It is also responsible for implementing any amendments to the existing scheme. The RHI non-domestic team will produce the following deliverables:
- a) secure independent assurance as to the delivery of the project
 - b) work closely with the Operations team to amend current standard operating procedures and create new procedures where required
 - c) ensure that the business requirements are catered for effectively when managing amendments to the IT system (RHI Register and CRM)

RHI Operational Team

- 5.6. The RHI non-domestic scheme is administered by the RHI Operational team within Ofgem. Under the Phase 2 amendments project, the subject matter experts (SMEs) in RHI Operations will continue to contribute resource and subject matter knowledge to the successful delivery of the project. Each SME is an expert in a particular area of the system and legislation and will work with the development team and business analysts to develop the IT system to incorporate the relevant legislative changes.
- 5.7. Key deliverables include reviewing and commenting on sections of key documentation such as the guidance material, user acceptance testing, reviewing amended operational procedures. Their input will be essential in mitigating any potential operational issues and it will be the SMEs that will be the key internal users of the updated guidance material, IT system and business processes that the RHI non-domestic development team produces. Much of the work required for Phase 2 by the operational team has already been carried out as part of the GB scheme Batch 3 February 2015 amendments, which will ensure time and cost savings in the ability to utilise the new skills, processes and documents developed.
- 5.8. The Business Assurance resource in the RHI Operations team will also provide support in updating and testing the CRM to reflect the amendments where appropriate.

IT development team

- 5.9. The IT development team is responsible for the development and scope of all IT changes related to the amendments. The IT development team produces deliverables including those outlined below, with regular engagement with RHI development and RHI Operations:
- a) vision and discovery documents
 - b) use cases
 - c) walkthroughs
 - d) user acceptance testing
 - e) amendments to the RHI register and CR

6. Risks and Mitigating Actions

Key risks identified

6.1. The key risks and associated mitigation controls identified for the project are provided below. Appendix 2 contains the complete Risk Register.

| Ref. no | Risk | Impact | Mitigation Controls and Further Actions |
|--------------------|--|---|---|
| Finance | | | |
| 1 | Last minute change in scope to agreed policy assumptions not budgeted for | May result in: <ul style="list-style-type: none"> - Additional cost to administer - Inappropriate operational processes - Team unable to administer the scheme effectively - Increased risk of non-compliance | - Agree scope of work/ assumptions and associated costs in Feasibility Study |
| Project Management | | | |
| 2 | Slippages to DETI timeline | May result in: <ul style="list-style-type: none"> - Delivery timetable affected - Delay to project - More expensive to deliver | Regularly inform DETI on impact on dependencies, time wastage, costs including resources and risk |
| Resources | | | |
| 3 | Adequate Operational resource not available at key points of project | May result in: <ul style="list-style-type: none"> - Operational issues not reflected in Regulatory development | Operations representative could be included in signing off the IT requirements |
| IT | | | |
| 4 | IT development over budget | May result in: <ul style="list-style-type: none"> - Unable to incorporate all IT functionality - Reputational damage - Increased fraud risks - Inefficient admin functions - Premature stop to IT development | Close supervision of IT costs throughout options and development phase |
| 5 | Pressure to deliver IT system (and agree system requirements) to tight timetable | May result in: <ul style="list-style-type: none"> - Operational problems, manual workarounds - Greater risk of errors / fraud - Reputational damage - damage to working relationship with DETI - Overspend on budget | Agree scope of work/ assumptions and associated costs in Feasibility study. |
| 6 | Other internal projects not delivered on time | May result in: <ul style="list-style-type: none"> - Increase cost of delivery, development of IT functionality for short period - Requirement for interim manual workarounds | Awareness of other delivery teams and close supervision of dependencies |

7. Recommendations summary

- 7.1. This chapter summarises our recommendations and preferred approach to administering the NIRHI Phase 2 amendments, as detailed in chapter 3.

Operational team staff resources

- 7.2. The RHI Non-domestic Operations team is responsible for the operation of the NIRHI non-domestic scheme on behalf of DETI. The Operations team will be the key internal end user of the updated RHI Register and guidance material.
- 7.3. No additional staff resources are required to deliver the increase in workload resulting from the recommended approach to administering the first stage of Phase 2 amendments. The increased impact on the Operations team will be absorbed by the existing Operations team. For the second stage of amendments, the impact on staff resources will need to be assessed, once the details of the changes are confirmed and understood.
- 7.4. There will likely be an increase in calls to enquiries in the first six months after the first stage of Phase 2 amendments regulations have taken effect, however this increase will be subsumed by the existing Enquiries team. The impact from the second stage of amendments will need to be assessed, once the details of the changes are confirmed and understood.

Development Costs

- 7.5. Development costs are based on the assumptions stated earlier in this document and the policy material produced by DETI to enable the project team to deliver the Phase 2 amendments.

The costs of the preferred option for each amendment (either IT delivery costs or manual solution) are detailed in the table below. The total estimated cost for implementing the Phase 2 amendments is £120,465, which is made up of automated and manual solutions for Stage 1, totalling £27,325, and £93,140 for Stage 2, which is also a mixture of automated and manual solutions.

STAGE 1

| Amendment | Delivery component | Manual / Auto | Estimated cost |
|-----------|--------------------------|---------------|----------------|
| 1 | CHP | Manual | £9,675 |
| 2 | Biomass tariff extension | Automated | £14,489 |
| 3 | Other issues | Manual | £3,161 |
| | Total | | £27,325 |

STAGE 2

| Amendment | Delivery component | Manual / auto | Estimated cost |
|-----------|---|---------------|-----------------|
| 4 | Cost control | Automated | £5,329 |
| 5 | Introduction of support for ASHP | Automated | £9,293 |
| 6 | Introduction of support for deep geothermal | Manual | £3,215 |
| 7 | Introduction of support for district heating | Automated | £13,070 |
| 8 | Introduction of support for large biomass | Automated | £7,370 |
| 9 | Introduction of biomass sustainability requirements of installations over 1MW | Automated* | £35,880 |
| 10 | Increased tariff for biomethane injection | Automated | £10,264 |
| 11 | Introduction of air quality standards | Automated | £8,719 |
| | Total | | £93,140 |
| | Total stage 1 plus stage 2 | | £120,465 |

7.6. Automated solutions offer the most robust and low risk solution to administering the amendments, however the low predicted uptake figures mean that their high cost is a barrier to recommending automated solutions for every amendment.

7.7. *Recommendation is based on the assumption that implementation and requirements are largely aligned with the GB scheme.

Appendix 1 - High level plan

| STAGE 1 | 2015 | | | | |
|---------------------------------------|------|------|--------|-----------|---------|
| | June | July | August | September | October |
| Policy and regs | | | | | |
| Final policy published | | | | | |
| Regulations cleared by DSO | | | | | |
| Regulations laid with Assembly Office | | | | | |
| Regs made and in operation | | | | | |
| Feasibility study | | | | | |
| Initial project scoping | | | | | |
| Options analysis | | | | | |
| First draft | | | | | |
| Review and sign-off | | | | | |
| IT Development | | | | | |
| Vision/Discovery | | | | | |
| Use cases | | | | | |
| Build | | | | | |
| QA&UAT | | | | | |
| Guidance | | | | | |
| Scoping | | | | | |
| Drafting | | | | | |
| Sign-off | | | | | |
| Standard Operating Procedures | | | | | |
| Identify and plan SOPs | | | | | |
| Drafting SOPs | | | | | |
| Training | | | | | |
| Handover | | | | | |

Appendix 2 – Risk Register

| Category | Name | Description/Impact - Consider and describe impact of risk on Time, Cost and Deliverables affected | Severity | Likelihood | Mitigating Controls | Severity | Likelihood |
|----------|--|---|----------|------------|--|----------|------------|
| Comms | Cross-overs with RO not recognised or considered | Unaligned regulatory frameworks, increased burden on participants, inconsistent messaging between both schemes, increased development and operational burden/cost | Moderate | Likely | Biomass Sustainability working Group set-up with RO colleagues Consistent messaging to DECC regarding need for consistency | Moderate | Possible |
| Comms | Guidance documents not sufficiently clear for complex requirements | Misunderstanding by participants of requirements results in non-compliance and increase in query volumes | Moderate | Possible | Plan for review of guidance materials with stakeholders and independent internal review | Moderate | Unlikely |
| Finance | Last minute change in scope to agreed policy assumptions not budgeted for | Additional cost to administration, operational processes not appropriate, team unable to administer the scheme effectively, reputational damage, risk of non-compliance | Major | Possible | Agree scope of work/ assumptions and associated costs in baseline document (FS) and manage variance using agreed change control process | Moderate | Possible |
| IT | IT development timetable too long | Delay to project delivery, manual workaround required, impact on operational team and reputational risk | Moderate | Possible | Look to identify alternative approaches to IT development/ improved ways of working with IT | Moderate | Unlikely |
| IT | IT deliverable does not meet operational requirements for Phase 2 | Manual workarounds required, delays in operational delivery times, backlog of applications, reputational damage | Major | Possible | Set out requirements clearly and in unambiguous language so all understand Walkthroughs so able to see how system will operate before it is fully built/ reduce no. of defects Agree early assumptions | Major | Unlikely |
| IT | Pressure to deliver IT system (and agree system requirements) to tight timetable | IT decisions taken too quickly lead to IT system launched without sufficient testing/significant number of defects | Major | Likely | Business to be clear with IT on requirements | Major | Possible |
| IT | IT development over budget | Delivery of amendments significantly over budget, reputational risk with DETI, risk of inadequate system being delivered | Moderate | Likely | Close supervision of IT costs throughout options and development phase | Moderate | Possible |

| | | | | | | | |
|--------------------|---|--|----------|----------|---|----------|----------|
| IT | Other internal projects (PDS and GB Sustainability) not delivered on time | Increase cost of delivery, development of IT functionality for short period or requirement for manual workarounds in interim | Major | Likely | Attendance at project boards, close working with other delivery teams and close supervision of dependencies | Moderate | Possible |
| Legal | Legal resource not available at key points in the projects | Delivery timetable affected, delay to project | Major | Possible | Close engagement with legal team during drafting, regulations and development phase to identify | Moderate | Unlikely |
| Project Management | Senior management unavailable at key points of the project | Delay to delivery timetable if Senior Management unable to sign-off on key decisions at appropriate times | Major | Possible | Senior managers included in plan and agreed in advance | Major | Unlikely |
| Policy | Last minute change to policy | Additional cost to administration, operational processes not appropriate, team unable to administer the scheme effectively, reputational damage, risk of non-compliance | Moderate | Possible | Work closely with DETI during legislative amendment phase in order for any last minute change to be identified as early as possible | Moderate | Possible |
| Policy | Regulations not robust | Increased risk of challenge, increase in non-compliance, affect scheme reputation | Moderate | Possible | Work closely with DETI during the legislative drafting phase to provide assistance/guidance on proposed drafting. | Moderate | Possible |
| Project Management | DETI timelines slip | Delivery timetable affected, delay to project, more expensive to deliver | Moderate | Likely | Regularly inform DETI on impact on dependencies, time wastage, costs including resources and risk | Moderate | Likely |
| Resources | Insufficient operational resource | Input by operational team into proposed admin of amendments limited/ non-existent - operational solutions not effective, leading to increased pressure on operational team and reputational impact | Moderate | Possible | Agree for operational resource in development team during development | Moderate | Unlikely |

Appendix 3 – Fraud Prevention Strategy

1. Introduction

- 1.1 This document describes the key elements of the Non Domestic Renewable Heat Incentive (NDRHI) Fraud Prevention Strategy. It has been reviewed by Deloitte as part of the review of NDRHI Systems and Processes, which took place in July/August 2011. The document was updated in August 2012 to include the Northern Ireland NDRHI scheme.

2. Background

- 2.1 The NDRHI is an environmental programme introduced by the Government designed to promote the widespread uptake of renewable heat generation technologies at the commercial and industrial scales. It is the first scheme of its kind worldwide, intended to encourage a radical change in the way we generate heat by bridging the gap between the cost of conventional and renewable heat systems at all scales, taking UK demand of renewable heat from 1% of total heat demand to 12%. A Domestic RHI scheme will be launched in 2014.
- 2.2 DECC estimates the RHI will deliver an additional 12,000 heat generation installations by 2015 and DETI estimates the NI RHI will deliver an additional 360 heat generation installations by 2015. Dealing directly with and making payments to such large numbers of consumers is new to Ofgem and does not fall within its normal core area of business.

3. Scope and limitations

- 3.1 This Fraud Prevention Strategy is a high-level overview of the RHI fraud threats and seeks to provide assurance on the adequacy of the measures in place to prevent the opportunity for fraud and non-compliance, detect fraudulent or non-compliant activity and enforce sanctions when appropriate.
- 3.2 This Fraud Prevention Strategy has a wider scope than activities that fall within the strict definition of fraud. Gaming opportunities and abuse of the system is also considered however, it should be noted that under the RHI Regulations for both the GB and NI schemes, our power to investigate, request information and take enforcement action is limited to participants and does not extend to third parties such as installers and manufacturers.

4. Definition of Fraud

- 4.1 For the purpose of this document, the act of fraud is as stated in Ofgem E-Serve's Fraud Policy (Ref. FRM04/2012):
- '...activity aimed at securing a gain, causing a loss, or exposing somebody to the risk of a loss, through false representation, failing to disclose information, or through abuse of position...'
- 4.2 For a person to have committed fraud, they must have acted dishonestly and with the intent of making a gain for themselves or anyone else, or inflicting a loss (or risk of a loss) on another.
- 4.3 For the RHI, examples of fraud would include falsifying meter readings/periodic data submissions, submitting false documentation in support of an RHI application, submitting applications for bogus, non-existent installations or an Ofgem member of staff diverting RHI support payments to their own bank account.

5. Fraud Response (including Enforcement)

- 5.1 The action taken when we uncover suspected fraud or non-compliance within the RHI will depend on the seriousness of the fraud or non-compliance.

- 5.2 We have recourse to a range of sanctions that we can enforce including temporary suspension of payments under the scheme, reducing or withholding payments and exclusion from the scheme. Any sanction applied would be in accordance with the RHI Regulations⁴.
- 5.3 Where, due to the nature of the non-compliance uncovered, we are unable to rely on data being provided and are therefore unable to calculate payments, we are not able to impose a sanction on future payments. In such cases, we will advise the participant that we are unable to make payments and require them to rectify the situation to our satisfaction before payments can continue.
- 5.4 Due to limitations in our statutory powers, we are not able to conduct criminal investigations. It is expected that majority of breaches that will occur in the RHI will be dealt with via the compliance route while the more serious and deliberate attempts to cheat the system will be referred to the appropriate authorities via the Action Fraud online reporting tool for their consideration of conducting a criminal investigation. This will not prohibit Ofgem from also enforcing any of the sanctions detailed in the RHI sanction policy.
- 5.5 Fraudulent cases involving Ofgem staff will be dealt with in accordance with Ofgem E-Serve's Fraud Policy (Ref. FRM04/2012).

6. Stakeholders/agencies

- 6.1 The main stakeholders/agencies associated with RHI fraud prevention and the outcomes of the association are:
- 6.2 National Fraud Authority (NFA)⁵:
- Had an input in developing the RHI fraud risk register and provided advice on government best practice on fraud prevention/detection, including providing useful contacts within the Serious Organised Crime Office (SOCA)⁶ and the Department of Works and Pensions;
 - Created and implemented a new Home Office Counting Rule that will enable Ofgem (and other Government departments) to report suspected fraud via the Action Fraud online reporting tool;
 - Delivered training to Ofgem Fraud Prevention Managers on how to use the Action Fraud tool; provided initial support in the development of an E-learning Fraud Awareness toolkit for E-Serve staff and delivered workshops during Fraud Awareness week.
- 6.3 Serious Organised Crime Agency (SOCA):
- We worked jointly with SOCA to put measures in place to prevent access by organised criminals and money launderers;
 - We held workshops with SOCA and outcomes include changes made to the RHI IT system to strengthen our fraud controls, provision of both Amberhill (details of known fraudulent identities) and Fraudulently Obtained Genuine (FOG) data so that we can periodically check both against our RHI applicant details.
- 6.4 Department for Work and Pensions (DWP):
- We consulted with the DWP regarding risks associated with making payments directly to a large number of participants. In particular, the DWP gave valuable advice on how to approach the issue of identity verification and bank account validation.

⁴ Renewable Heat Incentive Regulations 2011 and Renewable Heat Incentive (Northern Ireland) Regulations 2012

⁵ The National Fraud Authority will be disbanded from March 2014 and its functions will be split between the National Crime Agency, City of London Police, Home Office and the Cabinet Office.

⁶ The Serious Organised Crime Agency is now part of the newly formed National Crime Agency

6.5 Fraud Prevention and Audit Managers Group:

- This group meets bi-monthly and its purpose is to promote best practice, share experience, help maintain relationships with other fraud prevention managers and act as a forum for discussion of common issues and barriers.

6.6 Fraud Prevention, Audit & Governance Team:

- Share best practice for the identification, prevention and escalation of fraud within Ofgem Environmental Programmes.
- Peer review of Fraud Prevention strategies and Fraud Risk Registers

6.7 Department of Energy and Climate Change (DECC):

- Set Ofgem legislative powers for investigation and imposition of sanctions;
- We are involved in the new DECC/OFGEM Fraud and Risk Working Group which has been set up to develop a suitable framework and procedure for the rapid and effective exchange of information on suspected scheme abuse, misuse or fraud, including fraud risk identification and management. We are piloting a counter fraud agreement on the NDRHI scheme, which will be rolled out to cover all schemes in due course.

7. Threats and Prevention Measures

7.1 In accordance with best practice, Ofgem supports and maintains an anti-fraud framework across the organisation. This includes having established general anti-fraud controls, a competent internal audit programme, mandatory fraud awareness training for E-Serve staff, a fraud policy, a whistleblowing policy and an employee Code of Conduct. With this framework in place, an anti-fraud culture already exists within Ofgem.

7.2 Due to the size of the RHI scheme and the large amount of public funds involved, there is a significant risk of fraud and non-compliance both from within and outside Ofgem. Possible sources are shown in Table 1 below.

Table 1: possible sources of fraud

| Internal | Participants | Contractors | Criminals |
|-------------|--|---|-------------------------|
| Ofgem staff | Participants | Site Auditors | Organised criminals |
| . | Independent Report on Metering Arrangements (IRMA) authors | Consultants | Opportunistic criminals |
| 3 | Installers | Identity and bank validation service provider | Computer hackers |
| T | Manufacturers | | |

The RHI Fraud Risk Register identifies a number of areas where the risk of fraud within the RHI might arise. A selection of the higher rated amongst these risks with a summary of the controls in place are:

RHI specific threats

- **Risk that the scheme may be targeted by organised criminals/money launderers.**

Prevention: We have worked with the Serious Organised Crime Agency to put in place measures to mitigate this risk. This included holding joint workshops to get a better understanding of how organised criminals might infiltrate the RHI; establishing a process for Ofgem to be able to check new RHI participants details against lists of known fraudulent identities (Amberhill database); and also against their of Fraudulently Obtained Genuine (FOG) identities database to identify high-risk

participants for more in-depth review or audit as required. We also use a third party provider to verify Authorised Signatory identities to ensure that they are genuine.

- **The risk of participants providing false metering or periodic data information in order to increase the level of RHI support payments they receive**

Prevention: The requirement that 'multiple' installations larger than 45kW capacity and all installations over 1MW provide an Independent Report on Metering Arrangements (IRMA) as part of the accreditation process will help to mitigate the risk of accrediting both a) incorrectly designed systems and b) systems where the meters have been inappropriately calibrated; There are pre-programmed values in the RHI database for how much heat an installation could plausibly generate - if any periodic data falls outside this range an exception will appear. All exceptions are checked by the Periodic Data Submissions Team; The RHI website has a link to B&ES to metering code of practice; Information on correct meter configuration is included in our Guidance document; There have been Regulatory changes to streamline metering requirements; Photographic evidence of opening meter readings is requested as part of desk top audits; Uploading of corroborating photographs of meter readings will be required once a year as part of system improvements to be introduced in March 2014.

The risk that participants may purposefully generate unwanted heat purely to claim RHI support payments, which is in breach of the RHI regulations.

Prevention: Measure in place to mitigate against this risk include the functionality of the RHI IT system to auto-identify when the declared capacity of a new installation is inconsistent with the capacity of the equipment it has replaced, checking (during inspection audits), where installations have a heat rejection facility, that it is properly metered. Also, through discussions with DECC, the wording of the Regulations has been amended to clarify what is classed as eligible heat and clearly states that participants must not "generate heat for the predominant purpose of increasing their periodic support payment". In addition, the tiered tariff for biomass (a higher tariff rate is paid for the first 15% of annual heat generation hours) reduces the incentive to purposefully generate then waste heat.

Internal threats

- **The risk that an Ofgem staff member fraudulently manipulates the RHI IT system to divert payments into other bank accounts or otherwise misuses confidential personal data held on the system.**

Prevention: There are suitable controls on the RHI IT system and segregation of duties to prevent unauthorised use of the system; A third party provider is used to carry out Authorised Signatory identity and bank account verification for all new applications (and when we are notified of a request to change any of these details). In addition, participant bank details are stored in a separate database and system with only key identified staff allowed access; Bank details are sent in by post and stored securely - in both a locked mailbox and filing cabinet with access restricted to key staff; Payments are only made into accounts that are in the owner's name. All requests for a change in bank details are processed by the Fraud and Compliance team who contact the Authorised Signatory to verify confidential information before making the change.

Further preventative controls include: Increased focus on fraud and compliance in Ofgem with the creation of the Fraud Management Group and Fraud & Audit Managers Forum; Mandatory fraud awareness staff training and development of fraud prevention micro website by the Fraud Prevention, Audit and Governance Team; 10% Delegated Authority sample checks of all Periodic Data Submissions; 10% Delegated Authority sample checks of all approved payments; All estimated data cases are agreed at band C level and all Periodic Data Submission account managers are permanent staff;

- **The risk of bribery or corruption of Ofgem staff, which may lead them to collude with a participant using their knowledge to set up new accounts or circumventing inbuilt controls.**

Prevention: Fraud awareness training for staff, controls such as segregation of duties and suspicious item matching are built into the RHI IT system. In addition, the Fraud & compliance Team sample check a percentage of all accreditations. We are currently developing an automated management information tool, which will help to identify any anomalies in the system. Recently launched whistleblowing policy and mandatory whistleblowing training for all staff. There is also a segregation of location – periodic data assessments are carried out in Glasgow and the payments team are located in London.

Gaming opportunities

- **Participants may generate heat for eligible purposes but which do not meet the spirit of the RHI Regulations (e.g. heating empty buildings or empty greenhouses, using inappropriately sourced fuel), or may waste heat in a compliant manner by using heat in a non-energy efficient way.**
- **Over sizing of boilers to ensure high proportion of heat is generated at a higher tariff rate; under sizing of boilers/installing multiple separate boilers in order to maximise the applicable tariff rate.**

Prevention: To help combat this, the RHI Regulations stipulate what constitutes eligible heat and give Ofgem the power to ask participants for evidence to demonstrate that the heat they are claiming RHI for is being used for eligible purposes. The Regulations also clearly state that participants should not generate heat purely for the purpose of increasing RHI payments. In addition, the tiered tariff for biomass (meaning a higher tariff rate is paid for the first 15% of annual heat generation hours) reduces the incentive to purposefully generate then waste heat.

At present no remedy is available within the RHI regulations to address the issue of over/under sizing of boilers. Information has been provided to DECC and consideration is being given to regulatory amendments.

8. Detection

8.1 Despite the mitigating actions put in place, there will be instances when fraud or non-compliance will occur. In order to combat this, we have a range of mechanisms in place to enable us to identify fraud or non-compliance and deal with it as soon as possible. These include:

- i. A rolling programme of on-site audits of accredited and pre-accredited installations. Installations will be subject to inspection both at the accreditation stage and throughout the duration of eligibility for incentive payments. In accordance with the RHI site audit plan, site audits will take place regularly throughout the year and, as mentioned above, will consist up of a mix of targeted and randomly selected installations. We have an Audit Strategy for audit of RHI installations and this is due to be reviewed in the new year.
- ii. In addition to site inspections, we carry out desk-based audits, which includes review of relevant documentation.
- iii. Robust IT monitoring, reporting and quality management systems: in addition to standard security features, various checks are built into the RHI IT system such as
 - Tolerance level checks (to help identify cases where there may be anomalies in data submitted)
 - Suspicious item matching (e.g. Matching post codes, serial numbers etc)

- Functionality to identify cases for targeted inspections (eg. where the declared heat output is slightly within tariff thresholds, multiple installations on one site etc.)
- iv. Watch lists for staff to record concerns about installations, periodic data or IRMA providers.
- v. Ofgem whistleblowing procedure for members of staff and the public to report any concerns to us
- vi. Ofgem fraud policy that sets out staff responsibilities with regard to fraud prevention and includes the procedure for staff to report any fraud or suspicions of fraud
- vii. Sharing and exchanging information with other government departments as appropriate. This is subject to any legal requirements and Ofgem's own policies/procedures regarding the exchange of information. Ofgem will only exchange personal data in accordance with the requirements of the Data Protection Act 1988⁷.
- viii. All operational members of the NDRHI team complete mandatory e-learning training on Fraud Prevention and Whistleblowing. This increases staff awareness and knowledge of fraud prevention and detection and encourages staff to pro-actively identify fraud risks. In addition, the NDRI Fraud and Compliance Team deliver training sessions to staff as required and provide feedback on findings. This will help to ensure that staff are more aware and alert to triggers and what they should look out for.
- ix. Our Internal Auditor (Deloitte) has a key role in designing and carrying out tests to detect fraud and highlight weaknesses in the NDRHI administration process to ensure that it is as fraud proof as possible.

9. Handling identified instances of suspected fraud

- 9.1 Any suspected fraudulent or non-compliant activity in relation to the NDRHI scheme should be reported to the Fraud and Compliance Manager who will decide how to conduct an investigation. They may need to be guided by the Fraud Prevention, Audit and Governance Team, NDRHI operational and technical staff, and/or legal staff in reaching this decision.
- 9.2 The Fraud and Compliance Manager will ensure that an Instant Notification Report (INR) is circulated to appropriate staff.
- 9.3 Ofgem E-Serve's Fraud Policy (FRM04/2012) should be followed when securing evidence in an investigation.

10. Review of decisions

- 10.1 As stated at paragraph 5, for cases where we establish non-compliance with the scheme, we may enforce one or more of the range of sanctions that are available to us under the Regulations.
- 10.2 Where we do impose a sanction on a participant, we will
 - Inform the person or business concerned why we have taken the decision
 - Provide details of evidence supporting the decision
 - Outline the effect of the decision
 - Outline the review process available including steps the participant must take to instigate the review.
- 10.3 Where a review takes place, the outcome could be to

⁷ www.legislation.gov.uk/ukpga/1998/29/contents

- Confirm the sanction
- Amend the sanction or replace it with one or more alternative sanctions
- Remove the sanction

11. Next Steps

- 11.1 Ofgem remain committed to addressing the fraud risks within the NDRHI scheme We will constantly continue to review and revise this strategy to ensure it remains relevant, fit for purpose and continues to provide assurance on the level of fraud prevention activity that is in place for the NDRHI.
- 11.2 Discussions are underway with the legal team and DECC as part of a review of the effectiveness of the current sanctions regime.

12. Conclusion

- 12.1 We are committed to tackling fraud and non-compliance within the RHI and we will work hard to ensure we do this in an effective and organised way including liaising closely with other schemes within Ofgem and will rely on the principles included in this document to achieve this. We will continue to review our rules and procedures and will make sure that this document is reviewed at least annually to ensure that it remains effective.

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