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Renewable Heat Incentive: Consultation on the proposed RHI financial support scheme

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Sourced by RHI Inquiry 20/10/17
Annotated by RHI Inquiry
Forword

Tackling climate change is the key challenge facing our generation. Maintaining security of energy supply is a closely related imperative. The Department of Energy and Climate Change was set up to integrate and lead the Government’s efforts on both fronts.

Our UK Low Carbon Transition Plan sets out our overall strategy for reducing the level of carbon dioxide emissions, while at the same time exploiting the opportunities that the green economy presents. The Renewable Energy Strategy is our action plan for delivering on renewable energy. A key challenge within this is to increase significantly the amount of renewable heat generation.

Heating accounts for approximately half of the UK’s carbon dioxide emissions and more than half of average domestic energy bills. Saving energy continues to be a crucial challenge and we will be publishing our Strategy on this shortly. However, we also need to green our supply of heat. Currently, 1% of our heating comes from renewable sources and it is crucial that we take action now, to encourage the switch to greener, alternative sources of heat.

In order to make this change, we need to provide the right financial framework to enable individuals, communities and public sector organisations, businesses and industry to take up renewable heating and make it tomorrow’s mainstream heating choice. Climate change and energy security represent long-term challenges that need long-term solutions: we are putting in place policies that will deliver for the next decade and beyond.

Financial incentives have already proved successful in increasing significantly the level of renewable electricity generated in the UK. The Renewables Obligation has succeeded in tripling eligible renewable electricity generation, from 1.8% in 2002 to 5.4% in 2008. To help bolster this, we are also introducing Feed-in Tariffs in April 2010, to encourage smaller renewable electricity generation at the local level.

We are now proposing to introduce a Renewable Heat Incentive, a ground-breaking initiative which will provide the necessary financial support to increase significantly the level of renewable heat generation.
It will be the first of its kind and will demonstrate to the world the UK’s commitment to tackling climate change head on. The scheme will enable us all to play our part in reducing our emissions and ensure our energy supply is secure. This investment will help stimulate the renewables industry, encourage further innovation and bring down the cost of renewable heating technology.

Climate change is a threat. Tackling it brings the opportunity of creating a new, greener, sustainable future for all and the chance to strengthen the green economy. These proposals provide the financial framework for ensuring that opportunity is realised.

The Rt Hon Lord Hunt of Kings Heath OBE

Minister of State for the Department of Energy and Climate Change
Executive Summary

Renewable energy, as part of our wider switch to a low carbon economy, plays a vital part in our work to tackle climate change and maintain secure energy supplies. Our Renewable Energy Strategy (RES), published on 15 July 2009, sets out the path towards achieving our target of 15% of our overall energy consumption to come from renewable sources by 2020.

In order to enable individuals, communities and others who are not professionals in the energy business to play their part in bringing forward renewable energy, we committed to introducing clean energy cash-back for renewable electricity and heat. We will deliver clean energy cash-back for renewable heat through the Renewable Heat Incentive (RHI).

This consultation sets out the Government’s proposals on the design and operation of the Renewable Heat Incentive, with the aim of providing financial support that encourages individuals, communities and businesses to switch from using fossil fuel for heating, to renewable technologies and sources.

**We propose the following key aspects of the RHI:**

- The scheme should support a range of technologies, including air, water and ground-source heat pumps (and other geothermal energy), solar thermal, biomass boilers, renewable combined heat and power, use of biogas and bioliquids and the injection of biomethane into the natural gas grid.

- RHI payments to be claimed by, and paid to, the owner of the equipment.

- In small and medium-sized installations, both installers and equipment to be certified under the Microgeneration Certification Scheme (MCS) or equivalent standard, helping to ensure quality assurance and consumer protection.

- We propose payments will be paid over a number of years; annually for installations below 45 kW and quarterly for those above this level; and always subject to conditions such as continuing to operate and maintain the equipment.

- Tariff levels have been calculated to bridge the financial gap between the cost of conventional and renewable heat systems at all scales, with additional compensation for certain technologies for an element of the non-financial cost (e.g. the inconvenience of digging up a garden to install a ground-source heat pump). Tariff levels are proposed to provide a rate of return of 12% on the additional capital cost of renewables, with a lower rate of return of 6% given to solar thermal.
**Renewable Heat Incentive: Consultation on the proposed RHI financial support scheme**

- Payments to be calculated on the annual amount of heat output, expressed in kilowatt hours (kWh). At the small and medium scale, the amount of heat generated by the equipment is proposed to be estimated (or “deemed”) when installed in most cases. This will allow the beneficiary of the incentive to receive a set amount based on the deemed output, to encourage low energy consumption and discourage wasting heat.

- For large installations and process-heating, heat output to be metered, and the total annual support calculated from the actual energy generated, multiplied by the tariff level.

- We have already committed that the RHI will remain open to new projects until at least 2020. Its design and tariff levels will be reviewed from time to time for new projects, so as to adapt to changes in technology costs and other circumstances.

- As announced in the RES, we will also allow eligible installations completed after 15 July 2009, but before the start of the RHI, to benefit from the scheme as if they had been installed on the date of its introduction.

- Ofgem will administer the RHI, making incentive payments to recipients and taking responsibility for auditing and enforcing the scheme. We will work with Ofgem to devise a simple process for accrediting smaller installations. This is to ensure that standards are met and payments can be made.

- The Energy Act 2008 provides the statutory powers for a renewable heat incentive scheme to be introduced across England, Wales and Scotland. The detailed legal framework will be set out in secondary legislation.

**How the scheme will be funded**

- Following informal consultation with stakeholders and appraisal of the issues associated with raising funds for RHI payments, the Government is considering what would be the most effective way to fund the RHI, including reviewing the levy provisions in the Energy Act 2008. The Government plans to make a further announcement at Budget 2010. Work to assess options for funding the RHI scheme will not impact on our intention to launch the scheme in April 2011.
How to respond

Comments on all aspects of the proposals contained in this document are invited. The closing date for responses is 26 April 2010. E-mail responses are preferred. Please submit replies to: rfi@decc.gsi.gov.uk.

Alternatively, for those without access to email, we would be happy to supply a template. Hard copy replies should be sent to:

   RHI team
   Department of Energy and Climate Change
   Area 4A
   3 Whitehall Place
   London, SW1A 2AW

Additional copies

You may make copies of this document without seeking permission. Further printed copies of the consultation document can be obtained from the above address. An electronic version can be found at www.decc.gov.uk/en/content/CMS/consultations/rhi/rhi.aspx.

Confidentiality and data protection

In line with the Government’s Code of Practice on consultations and the Department of Energy and Climate Change policy of openness, at the end of the consultation period we will summarise all responses and place this summary on our website at www.decc.gov.uk. This summary will include a list of names of organisations that responded but not people’s personal names, addresses or other contact details. If you do not want all or part of your response or name to be made public, please state this clearly in the response. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

You should also be aware that information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information regimes (primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004).

If you want information that you have provided to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, among other things, with obligations of confidence.
In view of this it would be helpful if you could explain to us why you regard the 
information you have provided as confidential. If we receive a request for disclosure of 
the information we will take full account of your explanation, but we cannot give an 
assurance that confidentiality can be maintained in all circumstances.

The Department will process your personal data in accordance with the DPA and in the 
majority of circumstances this will that your personal data will not be disclosed to third 
parties.

Help with queries

Please direct any queries about this consultation to our dedicated e-mail address: 
rfi@decc.gsi.gov.uk, or in writing to the above address.

This consultation has been produced in line with the Government’s Code of Practice on 
Consultation, which can be found at www.berr.gov.uk/files/file47158.pdf. If you have 
any complaints about the consultation process (as opposed to comments about the 
issues which are the subject of the consultation) please address them to the DECC 
Consultation Co-ordinator:

    DECC Consultation Co-ordinator
    3 Whitehall Place
    London SW1A 2AW
    Email: consultation.coordinator@decc.gsi.gov.uk
Introduction

The Renewable Energy Strategy¹ (RES) and the UK Low Carbon Transition Plan² set out the UK Government’s 2020 vision for the switch towards a low-carbon economy and society. By 2020 our aim is to be firmly on track towards achieving an 80% reduction in carbon emissions by 2050. Renewable energy from wind, water, sun and sustainable bio-energy will play a crucial role in making this vision a reality.

The desire to increase renewable energy consumption is shared across the European Union (EU), with the 2009 Renewable Energy Directive setting a binding target of having 20% of the EU’s energy consumption coming from renewable sources by 2020. The UK share of this target commits us to sourcing 15% of our energy from renewable sources by 2020.

The RES, published in July 2009, sets out the comprehensive policy framework within which we will achieve our goals, and describes a possible scenario of where this renewable energy will come from. In the strategy we envisage that:

- over 30% of our electricity could come from renewable sources, compared with 5.4% in 2008. This could be made up of 29% large-scale electricity generation, and 2% small-scale electricity generation;
- 12% of our heat could come from renewable sources; and
- 10% of energy used in transport to come from renewable sources.

Heat

Heating accounts for 47% of the UK’s carbon dioxide emissions and 60% of average domestic energy bills.³ In homes we use this heat to keep warm, for hot water and cooking. In other buildings it can also be used for industrial processes.

The most recent data (2007) show that approximately 69% of heat is produced from gas. Oil and electricity account for 11% and 14% respectively, solid fuel 3% and renewables just 1%. Heat sold i.e. heat that is produced and sold under the provision of a contract (including CHP plants and community heating schemes) accounted for 2% (see chart overleaf).

¹ www.decc.gov.uk/en/content/cms/what_we_do/uk_supply/energy_mix/renewable/res/res.aspx
Global energy demand is forecast to increase by around 40% between 2007 and 2030, with more than three quarters of the rise from fossil fuels. Without action the UK would be more reliant on imported fossil fuels, and further exposed to global energy price fluctuations, especially when demand recovers as the world emerges from the economic downturn. In 2008 the UK imported around 25% of its natural gas. Projections suggest that by 2020 this could rise to around 60%.

Conserving heat (e.g. insulation) will be the first and often most cost-effective step in the control of energy demand. But if we are to meet our targets to reduce carbon emissions and ensure continued energy security, we must find new ways of generating and supplying heat for our homes, businesses and industries.

At present, we cannot expand heat generation from renewable sources without some form of financial assistance, as other forms of heat are currently cheaper. Financial support will allow more people to afford renewable heat, and, by expanding the market, help bring costs down more quickly.

The Renewable Heat Incentive

We have already acted to increase the use of renewable sources in electricity generation and transport fuel. The Renewables Obligation (RO) provides financial incentives for larger-scale renewable electricity and, from April 2010, the Feed-in Tariffs (FiTs) scheme will provide support for small-scale generation. We have also introduced

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the Renewable Transport Fuel Obligation, which requires suppliers of fossil fuels to ensure that a specified percentage of the road fuels they supply comes from renewable sources.

To encourage a radical change in the way we generate heat, and following the consultation on the RES in 2008, the Department of Energy and Climate Change (DECC) announced during the parliamentary passage of the 2008 Energy Act its intention to introduce the Renewable Heat Incentive (RHI).

We are working to have the RHI up and running from April 2011.

The RHI will lead to a significant increase in the level of renewable heat at the domestic, commercial and industrial scale and we estimate it could save up to 60 million tonnes of carbon (MtCO₂) by 2020. The RHI will operate across England, Scotland and Wales, bridging the financial gap between the cost of conventional and renewable heat systems at all scales. Northern Ireland has the power to introduce its own primary legislation in respect of renewable heat, and is beyond the remit of the RHI.

This consultation sets out the Government’s approach to providing financial support that encourages individuals, communities and businesses to switch from using fossil fuel for heating to renewable technologies and sources. It provides an opportunity for stakeholders to comment on our proposals.

Following the passage of the scheme’s enabling powers in the Energy Act 2008, DECC has moved quickly to develop the proposed RHI design and faces a challenging timetable until the proposed start of the programme in April 2011. In addition, the UK is developing a ground-breaking initiative so there is very limited experience in the UK or elsewhere of policies similar to the RHI from which we could learn. There may therefore be aspects of the design and operation of the RHI which may not be covered in this consultation. We welcome feedback on all aspects of the scheme, including issues not specifically referred to here.

Q1: Are there any issues relevant to the design or operation of the RHI that are not addressed in this consultation document? If so, how should we deal with them?

Renewable heat technologies

The primary legislation to establish the RHI allows for the scheme to support a number of different renewable technologies and sources.

Air source heat pumps

Air source heat pumps (ASHPs) are electrically driven heat exchanger systems that warm cold air inside a building as it passes through an exchanger which extracts heat
from the air outside. The reverse situation, in which heat is removed from a building and deposited externally, is in essence an “air conditioning” system, or refrigerator. All heat pumps have a “coefficient of performance” (CoP), defined as the ratio of the amount of heat produced per unit of electricity consumed.

ASHPs in the UK are normally coupled with heating systems that require relatively low operating temperatures, such as under-floor heating. But there are also systems available that can integrate with conventional radiator systems.

**Ground source heat pumps**

Ground source heat pumps (GSHPs) operate in a similar way to ASHPs, but take their heat from the ground. They tend to be installed in one of two ways. One method, which requires large amounts of space, is to install a “slinky”, or network of horizontal piping, under the surface layer of soil outside the building. Where space is at a premium, GSHPs can be installed in vertically bored holes. However, this can be an expensive process. In both cases the piping contains a liquid which, after being warmed by the earth, enters the heat exchanger and transfers heat from the ground to a second medium, usually water, which is then used to heat the building.

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6 Ground and water source heat pumps work in a similar way, although the heat source in each case is different.

7 Conversely, air conditioning systems can operate in reverse as air source heat pumps.

8 This issue applies to all forms of heat pump, whether they be of the air, ground or water source type.
Solar thermal

Solar thermal technologies collect heat from the sun onto a collector which transfers the heat energy to a working liquid. This liquid can then be used directly to provide hot water within a building, or an exchanger can transfer the heat from the working liquid to the water.

All solar heating systems contain a storage element, in the form of a hot water tank or similar. This is to ensure that the heat can be provided at the desired time, and not just during daylight hours. The amount of heating a system can provide is dependent on the surface area of the collector. Solar thermal systems are normally roof-mounted.

Biomass boilers

Biomass boilers generate heat through burning organic matter. The heat can either be used directly for heating, or to produce hot water or steam, the latter being more suitable for commercial applications. The most common fuel used in biomass boilers is wood, which can be derived directly from forestry, or as a forestry by-product. High-yielding energy crops such as willow and poplar, together with straw and other plant residues, are suitable for use as fuel in larger biomass boilers.

The technologies used to generate heat in this manner vary from basic hand-fed fires that incorporate water heating, to complex and fully automated industrial boilers.
Biogas

Anaerobic digestion occurs when organic matter is broken down by bacteria in a four-stage process, the main output of which is biogas. For the purpose of heat generation, biogas can be burned and used to create heat directly or to boil water and produce steam. The feedstock for anaerobic digestion tends to be wet biomass material such as manures and slurries from agriculture, food waste and sewage sludge.

The process of gasification or pyrolysis (high temperature treatment in the presence of little or no oxygen) produces a range of products including a gas that can be converted and used in a similar way to biogas. It is often referred to as syngas and, where the feedstock is biomass, this gas is renewable.

Biomethane in the gas grid

An alternative to burning biogas involves removing the carbon dioxide and other impurities from biogas in a process known as scrubbing, and ensuring that the calorific value, or energy content, closely matches that of the natural gas in the network. The resulting methane gas can then be odourised and compressed, and the processed “biomethane” injected into the gas grid. A proportion of the gas in the network would then be of renewable origin.

Bioliquids

Biomass can be processed to produce a fluid known as a “bioliquid”, when used for heat and electricity, and a “biofuel” when employed in transport. Bioliquids typically have a very high energy density and, when blended with a mineral fuel component, the resulting fuel blend can be burned to produce heat.

Renewable combined heat and power

Combined heat and power (CHP) is a term used to describe the simultaneous production of electricity and heat from a fuel. It uses fuel more efficiently than plant which generates electricity only. For example, an electricity-only power station produces significant waste heat. A CHP plant will make use of the heat produced when generating electricity. A more efficient use of energy under CHP means that it also produces carbon savings over conventional electricity generation. While the total amount of energy generated by the plant (both heat and power) for the same quantity of fuel is much greater than a power-only plant, the electrical efficiency of the plant drops. Renewable CHP is a subcategory in which the fuel is renewable – normally biomass, but bioliquids can be used.

Renewable district or community heating

District heating, whether in the form of a central boiler for an apartment building, or as a network of pipes delivering heat from a central installation to a number of local...
households or businesses, can be a useful and cost-effective alternative to installing individual heating systems in individual properties.

Costs and benefits to consumers

The provisional costs and benefits are set out in the accompanying consultation-stage impact assessment.\(^9\)

Funding the RHI

Chapter 3 on tariffs describes the proposed levels of support for the generation of renewable heat. To fund this support, the Government will look to ensure an approach which is consistent with tax guidelines, other related levies and taxes and legal constraints such as EU State Aid rules.\(^10\)

The RHI powers in the Energy Act 2008 enable the introduction of a new levy on fossil fuel suppliers who supply fossil fuel to consumers for the purpose of generating heat. Prior to this consultation, we met a variety of stakeholders including key representatives of organisations who could be liable to meet the cost of funding the RHI to discuss the RHI funding mechanism. The Government has listened to the concerns of stakeholders about some of the potential practical problems of implementing a new levy equitably, transparently and efficiently. It also recognises that there are concerns that the current primary legislative powers for such a levy, contained in the Energy Act, could make its enforcement and administration complex and, as a result, potentially costly to business and Government.

Therefore, following our informal consultation with stakeholders and appraisal of the issues associated with raising funds for RHI payments, the Government is considering what would be the most effective way to fund the RHI, including reviewing the relevant Energy Act provisions. It plans to make a further announcement at Budget 2010.

Work to assess options for funding the RHI scheme will not impact on our intention to launch the scheme in April 2011.

Next steps

The Government intends to hold stakeholder outreach events over the course of the consultation period. We will publish details on our website at www.decc.gov.uk/en/content/cms/consultations/rhi/rhi.aspx. Following the consultation close, having considered the consultation responses, the Government will draft a set of regulations outlining the policy in detail. The regulations will then be laid before Parliament and

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9 www.decc.gov.uk/en/content/cms/consultations/open/open.aspx
10 See HM Treasury, Tax and the environment: using economic instruments, November 2002; www.hm-treasury.gov.uk/prebud_pbr02_adtaxenvir.htm
must be approved by a resolution of each House of Parliament before coming into force. The aim is for the scheme to start in April 2011.

All the proposals contained in this consultation document are subject to State Aid clearance and approval by the Houses of Parliament.
Chapter 1

Accessing the RHI
Who can benefit from the RHI?

The RHI will be open to individuals, community groups, and businesses. As set out in our Low Carbon Transition Plan, it is important that all sections of society play a part in the switch to a low carbon economy. Our intention is to design the RHI, especially with regard to the tariffs and registration procedures, to work well for different types of investors, ranging from small domestic households to large industrial organisations.

Households

We foresee households playing a large role in the success of the RHI, leading the way with their own actions and influencing the actions of others. At the domestic level, the RHI offers financial support for a range of technologies, including ground and air source heat pumps, biomass boilers and solar thermal. Households who currently use conventional fossil fuel to heat their homes, such as gas, heating oil or coal, will be able to claim the RHI if they switch to renewable technologies.

We would like to see all households have access to the RHI. Private landlords who own the renewable heating equipment in the properties they let will be able to receive a return on their investment by claiming the RHI, making renewable heating a logical financial decision as well as an environmentally positive one.

For some residential properties, access to a renewable district heating scheme may be the most appropriate and cost-effective way of reducing carbon emissions and energy bills and the RHI will provide support for such heating solutions.

Social Housing

We believe the RHI presents a big opportunity for social landlords to invest in low carbon technologies to provide real benefits for their tenants, who could see lower heating bills as a result, and reduced costs for landlords in the long-term when they update the heating systems in their housing stock.

Social landlords are already leading in the retrofit and low carbon agenda and we believe the RHI will enable social landlords to further benefit tenants. While there is no requirement for landlords to adopt renewable technologies, the incentive and its potential to pay back on investment will offer a strong business case for landlords to plan for the deployment of renewable heat and to offer this choice to their tenants.

To help landlords plan their individual approaches, Government will work with the sector to develop new guidance to enable them to achieve higher levels of energy performance for their housing stock, including the provision of cheaper and more sustainable energy. This guidance will supplement the current Decent Homes standard, which will continue to operate as a minimum threshold, so that any home that falls below the standard will be improved. But this new guidance will not set new requirements regulated by the Tenants Services Authority.

Case study

In April 2009, the Government launched a £21 million fund to support the development of low carbon community heating infrastructure and tackle fuel poverty within the housing growth programme, which covers the Growth Areas and Growth Points.

The overall aim was to bring forward green technologies that would exemplify low carbon development and act as demonstrators for the whole country.

The funding will support the refurbishment of a dated heating system contained within the 13-storey Manton and Reynolds tower blocks located in Newtown in Birmingham and link this to a biomass boiler/combined heat & power plant to be installed in the new Holte School being constructed under the Building Schools for the Future (BSF) programme.

The key project outcomes will be the reduction of total carbon emissions from the two tower blocks by 296 tonnes per annum as well as the scheme having the potential for future expansion to benefit the wider Newtown housing-led redevelopment (an HCA priority within the emerging Local Investment Plan). The scheme will help to support some of the most vulnerable groups and provide them with a low-cost, secured and sustainable energy supply for the future.

Source: Homes and Communities Agency (HCA), December 2009
As the RHI will subsidise costs associated with fitting renewable heating technologies, it could enable local authority landlords, Arms Length Management Organisations (ALMOs) or other Registered Social Landlords (e.g. housing associations) to use revenues from the scheme within a wider programme of refurbishment. Financing the upfront capital costs of renewable heat will be the responsibility of the landlord, as will recouping payments. We expect a number of options to be available to recoup payments, some of which are covered below in the section on financing.

The Government is also concerned that those in society who are less able to pay for these technologies should be amongst the first to benefit. Because many social tenants are in vulnerable groups or are on low-incomes (around three-quarters of tenants in social housing are in receipt of income or disability related benefits, or aged over seventy), social landlords therefore have a big opportunity to make a real contribution to ensure social justice in the transition to a low carbon economy.

The scale, professionalism and long-term approach of asset management programmes in social housing enable landlords to plan for renewable heat. We are keen to work with the sector to realise the potential enabled by the RHI. In turn, realising this potential for large volumes of renewable heat installations in social housing means that the sector could be the catalyst for developing industry capacity and robust supply chains.

In the short term, we will engage positively with the sector to encourage landlords to consider renewable heat alternatives, instead of upgrading or installing new traditional heating systems, for example amongst the group of authorities who will not have completed their Decent Homes programmes by the end of 2010, or where authorities or other social landlords are planning major refurbishment programmes.

Around 1.6 million homes in social housing are in apartment buildings or flats of various types which could be heated through community or district heating schemes, while small estates could be supplied by a network of pipes delivering heat from a central installation. The RHI could make this approach a useful and cost-effective alternative to installing individual heating systems in individual properties, whilst still allowing residents control over the heating in their own homes.

**Rural communities**

The potential benefits of the RHI to rural communities are considerable, especially those not connected to the gas grid and currently using more expensive fuels to heat their homes. The RHI would allow the households concerned to switch permanently from higher cost, off-grid fossil fuel sources to renewable technologies, and thus significantly reduce heating bills. This could be of particular benefit for those households who are in or are facing the risk of being in fuel poverty. The most recent data in DUKES indicates that in 2007 around one in four of all fuel poor households lived in areas off the gas grid (figures only available for England), which are predominantly in rural areas. Rural households make up over 20% of the fuel poor in England.

12 Digest of United Kingdom energy statistics (DUKES): 2009
Case study

Ulrome and Skipsea are small rural communities without a gas supply, in which private and social residents have been spending more than the national average on oil, coal, storage heaters and LPG to heat their homes. Many households were choosing to just heat one room using portable appliances, resulting in cold, damp homes, and poor health conditions.

Community Energy Solutions (CES), a non-profit distributing organisation, worked with East Riding of Yorkshire Council to roll-out ASHP installations in both private and social dwellings in a number of villages. By November 2009 a total of 83 private and social dwellings had switched to these systems, reducing carbon dioxide emissions by an estimated 328 tonnes per year. ASHPs have been installed in properties of all ages, including over 100 years old, and some have been combined with solar thermal hot water heating.

Funding came from a mix of Government grants, including the Low Carbon Buildings Programme. When it is launched in April 2011 the RHI will help turn community projects such as this from trailblazers to mainstream practice.

Air Source Heat Pump in situ, Ulrome

13 www.cesgroup.org.uk
The RHI could reduce the dependence of remote rural communities and businesses on more expensive fossil fuels with a limited choice of supplier. In addition, we have been working closely with OFTEC\(^\text{14}\) to enable anyone who switches from using 100% heating oil to a blended fuel which includes renewable content to benefit from an RHI subsidy. The cost of converting an existing oil boiler to use a blended fuel is relatively small (around £250-£300) and may, in particular, be of benefit to those in rural communities where there is a high reliance on heating oil or to those on low incomes who may choose not to switch or not be able to access the necessary capital for a more expensive renewable system. The relatively large number of off-grid rural communities means we must also consider the potential impact of the RHI funding mechanism.

DECC will work closely with the Commission for Rural Communities in England and other Government departments including the Devolved Administrations in Scotland and Wales, to ensure that rural issues are considered as an integral part of this policy, and the benefits can be realised across these communities.

**Fuel poverty**

There is a high propensity for fuel poverty off the gas grid, and there is therefore a significant potential for individuals in fuel poverty to benefit from the RHI. Switching to renewable technologies for heating can help to significantly reduce bills and shield vulnerable consumers from large increases in fossil fuel prices.

The Government wants all households to play a part in generating renewable energy. Although Feed-in Tariffs and the Renewable Heat Incentive will make payments over the life of installations, low-income households may still find it difficult to meet upfront costs. Building on the experience of pilot projects for Pay as You Save financing and Warm Front, the Government will consult later this year on measures to help low-income households take advantage of the RHI.

We must bear in mind, however, that anticipated fossil fuel price increases will affect all consumers, including the most vulnerable. DECC is exploring options to ensure that the potential benefits and support available through the RHI are available to fuel poor and other low income, vulnerable households. The Government has various measures in place to tackle fuel poverty, such as the Warm Front scheme and Community Energy Savings Programme, plus new measures such as social price support.

**Public sector**

The Government intends that public sector bodies act as pioneers in building to zero carbon standards and in the procurement of heat under long-term contracts. In the 2008 Budget, the Government therefore announced its ambition for all new non-domestic buildings to be zero carbon from 2019, with the public sector leading the way

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\(^{14}\) www.oftec.org/
from 2018. Public sector projects can provide a market for new technologies, and the reliable, long term demand necessary to make a community project economic and viable.

As announced at the Pre-Budget Report in December 2009, the Government will also examine the scope for local authorities to borrow against Renewable Heat Incentive and Feed-in Tariffs revenue streams, to support further investment in low-carbon technologies.

**Role of local authorities**

Local authorities can play a vital role in tackling climate change through their role on planning, building control, through action on their own estates and operations including social housing, and procurement. We want local authorities to develop their leadership role on this agenda and we are piloting the concept of local carbon frameworks. Local authorities will be able to access the RHI to support investments in renewable heat measures, for example on their own buildings, and we announced in the Pre Budget Report that we will consider the scope for local authorities to borrow against the income streams from the RHI (and Feed-in Tariffs). We are also keen for local authorities to work with other partners on community-scale renewable heat schemes which can be supported by the RHI.

**Industrial and commercial sector**

To meet our UK 2020 renewable energy target, we will need a large proportion of renewable heat to be delivered by the industrial and commercial sectors. Certain industries, such as the pulp and paper, agricultural and food and drink industries, are ideally suited to switch from fossil fuels to a renewable heat source like solid recovered fuel where the calorific value and renewable content can be varied to meet user requirements.

Non-domestic buildings often have greater potential than dwellings for on-site renewables (e.g. more roof space), and their size and location could lead them to play a critical role in the viability of community heat and energy networks. Non-domestic buildings have great potential for generating substantial levels of heat and can be used to stimulate and contribute to the overall viability of community energy network development, particularly for heat networks.

**Financing**

Chapter 3 explains that we intend to deliver RHI support in the form of payments made over a number of years rather than as an upfront payment. Ways in which the upfront costs of installing renewable heat will be financed will therefore be an important issue for those considering a switch to renewable heat who may not have the necessary funds (e.g. savings) readily available for investment. Although forecast to fall, the current cost of renewable heating technologies may dissuade many consumers from
installing them. However, it is expected that the RHI will stimulate the market to provide a number of different financing options. These could cover the upfront costs (e.g. cost of installing the equipment) and ongoing operational costs (e.g. fuel costs) for the lifetime of the technology.

Possible models include:

- **energy service companies** – a combination of local authority, community and energy company expertise in a body that provides a finance package to deliver renewable heat technologies using RHI payments;

- **public sector financing** – local authorities are potentially able to take advantage of economies of scale and a lower cost of capital;

- Government policies such as **Pay As You Save** – we launched the Home Energy Pay As You Save pilots in December 2009. These give households the opportunity to invest in energy efficiency and microgeneration technologies in their homes with no upfront cost.\(^{15}\) Householders will make repayments spread over a long enough period so that repayments are lower than their predicted energy bill savings, meaning financial and carbon savings are made from day one;

- **fossil fuel suppliers** – providing renewable heating as an option alongside their current package of services;

- **developers** – arrangements to be agreed between the builder and buyer of new homes or non-domestic buildings where the builder would finance the installation of renewable heat equipment as part of the overall building cost, and in turn would receive RHI payments from the buyer;

- **banks and other lenders** – lenders to finance upfront capital costs for an assigned proportion of the RHI.

Q2: Do you see any barriers to such financing schemes coming forward? In particular, are there any limitations in leasing and finance legislation that you feel inappropriately restrict the development of RHI financing models?

The initial registration process

Under the proposals in this consultation, the Office of Gas and Electricity Markets (Ofgem) will play a leading role in ensuring the RHI runs efficiently and effectively. In addition to making payments to owners, their day-to-day functions will include registering all owners and monitoring and enforcing the scheme. Further details of Ofgem’s role are covered in Chapter 6 (Administration).

We propose that, irrespective of size, the details of all owners will be held in a central database administered by Ofgem. However, the accreditation and registration process

\(^{15}\) [www.decc.gov.uk/en/content/cms/news/pn140/pn140.aspx](www.decc.gov.uk/en/content/cms/news/pn140/pn140.aspx)
for owners of small and medium or large-scale generation equipment will differ. This will include information on the site, technology and its ownership, in order to unambiguously identify owners, assign the correct tariffs and prevent double counting.

**Small and medium generators**

For the registration of technologies at the small and medium scale, including households, small businesses and public sector buildings such as schools, we propose requiring an installer who is certified under the Microgeneration Certification Scheme (or equivalent) to install the appropriate technology for the site (see also Chapter 2 on use of certified installers and equipment as a condition for RHI eligibility). “MCS or equivalent” means the Microgeneration Certification Scheme or equivalent schemes accredited under EN 45011, which certify microgeneration products and installers in accordance with consistent European standards. The installer will forward basic details to Ofgem for registration in its database. Separate arrangements may apply to technologies currently not covered by the MCS, such as biogas and bioliquids.

**What is the MCS?**

The Microgeneration Certification Scheme (MCS) is an independent, industry-led certification body accredited by the United Kingdom Accreditation Service (UKAS). The MCS assesses installation companies and products against robust standards. It provides assurances as to the quality, durability and energy generation performance of microgeneration products, and guarantees to consumers on the quality of installations. In addition, the MCS provides a level of consumer protection that meets the requirements of the Office of Fair Trading.

**Owner-occupiers**

For an owner-occupier, the proposed process is illustrated below:

- The **first step** for a homeowner is likely to ensure they have access to information about renewable heating options and the RHI, particularly at key points such as when an existing boiler breaks down. There will be a role for both the market and delivery partners such as the Energy Saving Trust to communicate

16 [www.microgenerationcertification.org/](http://www.microgenerationcertification.org/)
17 These basic steps do not include options for capitalising the upfront costs of technologies and their installation. This is covered in the section on financing earlier in this chapter.
to homeowners the potential benefits of renewable heat. Installers of heating equipment will also have a crucial role to ensure householders, whose boiler may be beyond repair, are informed at the time of the renewable heating options.

- **The second step** will be for the homeowner to make contact with a certified installer who can assess the needs of their home, provide a quote and information on RHI (or other) support, and, if acceptable, fit the appropriate technology for the property. The homeowner could then be issued with a certificate completed by the installer.

- Proof of installation will be sent to Ofgem (the **third step**), so that the applicant can be formally registered in the scheme.

- Once the **fourth step** of registration and accreditation is complete, Ofgem will begin paying the incentive. This is likely to be in the form of an annual lump sum, probably credited to the owner’s bank account.

**Large-scale installations**

Renewable heat systems greater than the maximum output capacity certified by the MCS will be required to register and seek accreditation directly from Ofgem, in a manner similar to the Renewables Obligation (RO) process. This will reduce the administrative burden for generators currently using the system, but looking to switch to the RHI, or who are familiar with the RO through other generating plants. The registration and accreditation process will require that RHI applicants answer a number of questions related to the site, technology and its proposed use. Once accredited, generators will be eligible for RHI support, and subject to enforcement and auditing practices, as discussed below.

**Getting paid; ongoing obligations**

**Payments**

The Energy Act 2008 specifies that RHI payments can only be made to the “owner” of the plant used or intended to be used for the renewable generation of heat, to a producer of biogas or biomethane or to a producer of biofuel for generating heat. The word “owner” has its standard meaning, so the owner of a plant will be the person with exclusive rights and liabilities in respect of that plant. The owner will therefore usually be the person who purchased and paid for the installation of the equipment.

However, where a hire purchase agreement, conditional sale agreement or other similar arrangement has been entered into to cover the cost of purchasing and installation, the legislation provides that the individual in possession of the plant under that agreement is the “owner” and the payment would therefore be made to the recipient of the loan, despite the fact that the terms of the loan agreement may provide that they are not legal owner.
There may be situations where the owner is not the person operating the equipment – if, for example, a local authority funded the installation of renewable heat technologies for social housing and retained all rights and liabilities – the RHI would be paid to the authority.

We propose payments to be made annually for installations below 45 kW and quarterly for those above this level.

**Self-certification**

To continue to qualify for RHI payments over the lifetime of the scheme, the recipient will need to comply with the rules of the RHI. When the technology is installed, in order to receive RHI payments, the owner of the equipment may be asked to sign a declaration that they agree to meet their obligations under the scheme (e.g. keeping the equipment working and well-maintained). Ofgem may then require further declarations (e.g. annually) from the owner confirming that they continue to meet their obligations and still qualify for incentive payments.

**Maintenance**

Questions of maintenance and breakdown are particularly relevant if tariffs are deemed over the lifetime of the equipment (see section on metering and deeming in Chapter 3). To ensure that the incentive is paid only to installations that function correctly, regular evidence of ongoing maintenance and repair may be required within a fixed time period, or payment of the incentive would be at risk. We propose that an approved/qualified person should be required to carry out any maintenance or repairs to smaller technologies.

**Q3: Do you agree with our proposed RHI registration and payment approach? If not, can you suggest how this approach can be improved?**
Chapter 2
Eligibility and standards
Introduction

We will provide support for a wide range of technologies, as already announced in our 2009 Renewable Energy Strategy. We propose to include those that are consistent with the EU’s Renewable Energy Directive\(^\text{18}\) (and which therefore contribute to meeting the EU’s 2020 targets) and the UK Energy Act 2008.\(^\text{19}\)

Of the sources of energy listed in Section 100 of the Energy Act, we propose to support those that are listed below:

- **Bio-energy**
  - solid biomass – as defined in the Renewable Energy Directive,\(^\text{20}\) but proposing to exclude its use in stoves and similar applications;
  - biogas – heat produced from on-site combustion of biogas (including from landfill and sewage plants, and syngas), and injection of biomethane into the gas grid;

- **Energy from the ground** – ground source heat pumps or geothermal sources;

- **Energy from the air** – air source heat pumps;

- **Energy from water** – water source heat pumps; and

- **Energy from the sun** – solar thermal panels, but not passive solar heating.

In addition, we intend to amend the definitions in the Energy Act to enable RHI support for bioliquids and gasification.

We refer to these throughout this document interchangeably as “energy sources” or “technologies”.

Consumer protection standards

Only equipment and fuels of suitable quality and energy efficiency should qualify for RHI support. This is to ensure that we build and maintain consumer confidence in the renewable heat market. The market is in its infancy and many of the technologies are unfamiliar to consumers who will expect long-term use from their equipment and may view many renewable technologies as unproven.

Article 14 of the Renewable Energy Directive places requirements on Member States to ensure that certification schemes are available for installers of renewable technologies. At the domestic and other microgeneration scale, currently up to 45kW, the Microgeneration Certification Scheme (MCS, see Chapter 1) and equivalent


\(^\text{20}\) The biodegradable fraction of products, waste and residues from biological origin from agriculture (including vegetal and animal substances), forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of industrial and municipal waste.
European standards, provide a suitable set of standards for certifying installers and equipment. Eligibility for currently available central Government grant support (e.g. the Low Carbon Buildings Programme) already requires compliance with these standards. Separate arrangements may apply to technologies currently not covered by the MCS, such as biogas and bioliquids.

Work is now underway to extend the upper limit of MCS by the end of 2010. For biomass the limit has already been extended to 300kW, and other technologies are similarly under consideration. We anticipate that for all renewable heat technologies up to the upper limit, the RHI will require that beneficiaries use only MCS-certified (or equivalent) installers and equipment.

Above this upper limit, we do not intend to impose similar standards. We would instead expect those involved with larger projects to have or obtain the necessary expertise to make appropriate choices and ensure they get value for money.

**Q4:** Do you agree with our approach of requiring products and installers for installations up to 45kW within RHI to be accredited under MCS or equivalent?

**Q5:** Where MCS is extended beyond the current limit, do you agree that we should require the use of MCS certified installers and equipment for eligibility for the RHI?

**Q6:** Can you provide details of any UK or European standards that should count as equivalent to MCS? How should we recognise these standards for the RHI?

**Eligibility**

We need to ensure that we only support useful renewable heat generation under the RHI. We consider useful heat as heat that is used for: space heating, water heating, cooking, low to high temperature industrial processes, drying and separating. Our approach on metering and deeming of heat, set out in Chapter 3, aims to ensure that the scheme avoids funding heat that serves no useful purpose. This chapter also describes our proposed approach to installations that use both renewable and non-renewable fuels.

**Innovation**

Although our aim is to include a wide range of technologies in the RHI, the initial focus will be on more established technologies. See Chapter 4 for our proposed approach on innovative technologies.
New, repaired, refurbished and converted equipment

We propose that, in general, only the installation of new equipment will be eligible for the incentive, i.e. equipment installed after 15 July 2009. See Chapter 5 for more details on transitional arrangements applying to the period until the RHI is up and running in 2011. Any increase in capacity would be eligible for RHI support as if it were a new installation. New installations would also be eligible where they replace existing installations, but refurbishment, repair or conversion of equipment would not create any RHI entitlement beyond that which was in place before such works were carried out (with the exception of conversion of domestic heating oil boilers to use bioliquids, see below). We are open to views as to the types of situations that should be defined as new or replacement installations on the one hand or refurbishment, repair or conversion on the other hand. See also Chapter 5 on transitional arrangements applicable to certain installations completed before the start of the RHI.

Electricity; process-internal heat

We propose that heat used for generating electricity, i.e. where heat is used to combust fuel to drive an electricity generator, will not be eligible for RHI support. The Renewables Obligation (and, from April 2010, the Feed-in Tariffs) already support electricity generation. Therefore, we propose that any installation that generates renewable heat which is then used to generate electricity (either on-site or externally) will only be eligible for RHI support if its RHI entitlement is metered rather than deemed (see Chapter 3), and the meter used for RHI purposes is set up to only record any useful heat that is not used for electricity generation. Similarly, we do not propose to support any heat that is produced from anaerobic digestion purely for the purpose of keeping the plant in operation.

District heating; CHP

We propose that eligible energy sources will be supported whether they are standalone installations or part of a wider district heating network, and that combined heat and power (CHP) will be eligible for the same tariffs for its useful renewable heat output as dedicated heat installations. We do not propose to require the Combined Heat and Power Quality Assurance (CHPQA) standard (used for the Renewables Obligation) under the RHI. See Chapters 3 and 5 for further details on our proposed approach to district heating and CHP.

Cooling

The RHI is designed to support the generation of renewable heat, but there is also the important question of renewable cooling technologies. As the purpose of the scheme is to support the generation of renewable heat, the RHI will not support renewable cooling. However, trigeneration systems, where cooling is produced alongside heat and
electricity, will be supported for their heat output. We propose that other forms of cooling, including passive cooling from building design or cooling provided by air conditioning units or the reverse operation of heat pumps (even where the heat sink is ground or water rather than air, as in conventional air conditioning) will not be eligible for RHI support.

**Heat pump efficiency**

In order to count towards our binding 2020 renewable energy target, the Renewable Energy Directive requires the heat output of heat pumps to significantly exceed the electricity needed to drive the pump, and provides a formula for calculating this. This ensures that only efficient heat pumps are supported.\(^{21}\) All heat pumps within the Microgeneration Certification Scheme (MCS, see Chapter 1) product list\(^ {22}\) exceed these minimum performance standards\(^ {23}\) and will be eligible for support under the RHI. The European Commission will establish guidelines on the implications of the Directive formula for the use of heat pumps in different climates, particularly very cold conditions, by January 2013. Taking this into account, we will need to work with MCS to consider whether to raise the standards for heat pumps at later reviews of the RHI.

**Wood burning stoves, open fires**

We propose excluding wood burning stoves, air heaters, open fires and similar applications from the RHI. These present practical difficulties as it is extremely difficult to monitor how much they are used (they are usually a secondary source of heat the use of which will be optional), and to what extent they are used with renewable fuel rather than, for instance, coal. The administrative cost of including these appliances in the RHI in a fair way would likely be very high.

**Bioliquids**

In order to generate renewable heat from bio-matter, it is normally better – in terms of cost-effectiveness – to use solid biomass feedstocks such as wood chip or Miscanthus pellets, rather than bioliquids made from arable crops such as rapeseed. We are currently considering the best use of available bioliquids given their limited supply so, in the initial stage of the RHI, we do not propose making bioliquids generally eligible for support.

That said, there are certain situations in which it may be more appropriate to use bioliquids rather than solid biomass for heat. A key example is heating supply to homes

\(^{22}\) www.microgenerationcertification.org/Home+and+Business+Owners/Microgeneration+Products/Heat+Pumps

\(^{23}\) The MCS product certification standard for heat pumps is available at: www.microgenerationcertification.org/docs/standards/MCS%200007%20-%20Issue%201.5%20 Product%20Certification%20Scheme%20Requirements%20-%20Heat%20Pumps%2025%20Feb%2009.pdf
that are not connected to the National Grid gas network. Up to 8% of British homes are currently heated by oil-based systems. Such installations use oil, stored in a large outdoor tank, to supply a boiler which produces hot water for the central heating and domestic hot water supply. Replacing such systems with new renewable heat installations may be more expensive than converting the existing boiler to use a fuel blended from part renewable oil/part heating oil. This would allow a proportion of the heat to be generated via renewable means, without having to replace the boiler. We are therefore minded to support the use of bioliquids where they replace the use of domestic heating oil, subject to any further developments to the contrary during the first half of 2010 in the evidence base on the sustainability and wider impacts of bioliquids.

We are likely to require certification of the blended fuel to ascertain its renewable content. FAME (Fatty Acid Methyl Ester) is a renewable liquid fuel with similar properties to diesel. It is produced from virgin or waste vegetable oil by reacting the oil with methanol in the presence of a potassium or sodium hydroxide catalyst. We are minded to initially consider only FAME blended with heating oil for RHI eligibility since this blend is at an advanced stage of development and certification. We are open to considering including the use of bioliquids other than FAME in converted domestic heating oil boilers provided:

- they are suitable for use in converted domestic heating oil boilers; and
- there is a way of reliably establishing and certifying the renewable content of such fuels.

We also intend to implement a process for consideration of blends and bioliquids for future RHI eligibility on a rolling basis.

We do not propose to provide RHI support to bioliquids where support for a specific batch of fuel has already been claimed under the Renewable Transport Fuel Obligation (RTFO).

Q7: Do you agree with our proposed approach to eligibility of energy sources, technologies and sites?

Q8: Do you agree with our proposed approach on bioliquids? Are you aware of bioliquids other than FAME that could be used in converted domestic heating oil boilers? If so, should we make them eligible for RHI support, and how could we assess the renewable proportion of such fuels to ensure RHI is only paid for the renewable content of fuels?
Bio-energy Strategy

Going forward, we will need to continue to review our evidence as part of determining support for bio-energy across all Government support mechanisms (RHI, RTFO, RO and FITs) and ensure our biomass strategy remains fit for purpose.

Bio-energy standards

Bio-energy sustainability

In the Renewable Energy Strategy we set out the features that we would like to see included in sustainability criteria to ensure that bio-energy used in heat generation, electricity and transport is sustainably produced. Until there is a common standard, our approach is to follow, where appropriate, the existing arrangements for reporting on biomass sustainability as set out in the Renewables Obligation and implement sustainability requirements under the RED for bioliquids.

- As regards bioliquids, the Renewable Energy Directive introduced a mandatory minimum greenhouse gas emissions savings requirement of 35% and lists a number of criteria regarding good agricultural practices and controls to protect land of high biodiversity or high carbon stocks. By the time the RHI becomes operational, bioliquids suppliers will need to demonstrate that they comply with these standards in order to have the fuel classified as renewable for the RHI.24 We will work closely with both the Department for Transport and the Renewable Fuels Agency (RFA) to utilise the expertise on monitoring and verifying the sustainability of liquid fuels derived from biomass that the RFA have developed during their administration of the RTFO.

- The European Commission is currently looking at sustainability criteria for solid biomass and we expect them to report on appropriate criteria and to bring forward proposals. In view of this, we introduced sustainability reporting questions into Article 54 of the Renewables Obligation Order 2009 requiring biomass-based generators above microgeneration level to provide certain information to Ofgem including on their fuel source, sustainability and usage, in order to monitor and promote the use of sustainable biomass.25 We propose that, above microgeneration level, users of biomass under the RHI should be required to address these sustainability reporting provisions until a harmonised standard for the use of solid biomass in new installations is introduced. When such a standard is introduced, we would allow for a transitional period before the rules

24 The Environment Agency has also produced a quality protocol for the production of biodiesel. This will help biodiesel producers by clarifying the point at which biodiesel has been fully recovered, and can be used without having to comply with waste management controls (see: www.environment-agency.gov.uk/business/topics/waste/39019.aspx).

are applied to existing RHI-registered biomass installations. This would give such installations sufficient time to obtain their fuel supplies from sources that comply with the sustainability standard. If we believe that the sustainability standards set by the EU are insufficient, we will consider setting our own standards within EU and International law.

- **Biogas** and biomethane are derived from either solid or liquid bio-matter. Given that the source biomass is subject to sustainability requirements as detailed above, we do not propose to introduce any RHI-specific standards for biogas or biomethane.

**Biomethane guidance**

Guidance for potential producers of biomethane, considering injection into the gas grid, is available on the DECC website. There are a number of technical and regulatory requirements that must be met. An early step should be to contact the appropriate Gas Distribution Network Operator; contact details are provided in the Guidance Document.

**Air quality standards**

We recognise that rolling out large numbers of biomass installations may, cumulatively, have a detrimental impact on air quality in urban areas. The burning of waste, including oils, is regulated by the Waste Incineration Directive. However, these provisions do not apply to most biomass boilers as they are largely used to burn processed wood pellets or wood chips.

In the case of large-scale installations (over 50 MW aggregated rated thermal input), biomass applications fall under the Integrated Pollution Prevention Control (IPPC) legislation, regulated by the Environment Agency in England and Wales or the Scottish Environment Protection Agency. At levels of between 20 and 50 MW, individual units are regulated by the Scottish Environment Protection Agency or local authorities in England and Wales. Stringent emissions standards are already applied at both these scales, so there is no need for the RHI to impose any additional eligibility requirements.

For biomass boilers below 20 MW, there are currently no regulations that apply across the UK. In the Renewable Energy Strategy we said that we would work with industry and other key stakeholders to introduce emissions performance standards for biomass boilers which are not adequately covered by other legislation. At the time we considered possible maximum emissions levels of 20g/GJ for particulate matter (PM), and 50g/GJ for nitrogen oxides (NO\textsubscript{x}). We have now reviewed these limits in consultation with stakeholders and on the basis of research commissioned by Defra, which suggests that they would rule out most currently produced biomass boilers.

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27 [www.environment-agency.gov.uk/netregs/62983.aspx](http://www.environment-agency.gov.uk/netregs/62983.aspx)
We are now minded to consider maximum emissions standards for biomass boilers of 30g/GJ for PM and 150g/GJ for NO\textsubscript{x}, at least in the initial implementation of the RHI. Defra is undertaking further consideration of the potential impact of these revised emissions standards on air quality, and in terms of health costs.

**Q9: Do you agree with the proposed emissions standards for biomass boilers below 20MW? If not, why, and do you have any evidence supporting different ones, in particular on how they safeguard air quality?**

**Building standards and energy efficiency**

There are strong synergies between heat and broader objectives of encouraging better energy efficiency and reducing carbon emissions from domestic buildings through lower energy consumption. We want to encourage renewable energy systems to be installed in buildings alongside (or in addition to) adopting a basic level of energy efficiency measures in a “whole-house approach”. A basic minimum level of energy efficiency required for existing homes would be:

- at least 125mm of loft insulation; and
- cavity wall filled where appropriate.

To incentivise households to implement to these standards, we are proposing to introduce so-called “deemed” (rather than metered) compensation under the RHI. This would be done through an assessment using the Standard Assessment Procedure (SAP)\textsuperscript{28} (or similar) used for energy rating of buildings to identify the appropriate deemed heat demand of the building based on the assumption that the minimum energy efficiency measures will have been taken up alongside the renewable heat installation. This will encourage prospective generators to insulate their homes to the minimum standard as their potential RHI compensation would not otherwise be enough to cover the cost of the additional heat demand. Anyone who had already installed or exceeded the minimum standard of insulation would not lose out under our proposed approach as, unlike under metering, they would not see their level of compensation under the RHI fall where they reduced their energy consumption. See Chapter 3 for further details on our proposed deeming approach.

We also recognise that the installation of renewable heat equipment could be used as a route to better information provision (e.g. applicants would be provided with wider energy efficiency information when installing renewable heat equipment).

Potentially, we could go even further by requiring householders to provide proof that the minimum level of energy efficiency had been achieved through the installation of loft and cavity wall insulation before being able to access the RHI. However, we do not propose to make eligibility for RHI contingent upon a particular building standard, or

\textsuperscript{28} www.bre.co.uk/sap2009/page.jsp?id=1642
take-up of more demanding energy efficiency measures (for example, solid wall insulation).

A similar set of issues arises in relation to new build homes and buildings. We want to avoid the situation where builders pursue lower standards of energy efficiency than would have been the case in the absence of the RHI – particularly in advance of the more demanding energy efficiency standards that will come into effect in 2013 and 2016.29 Further work will be undertaken during the consultation period to devise a suitably robust approach.

Q10: Do you think the RHI should be structured to encourage energy efficiency through the tariff structure (in particular the use of deeming), or, additionally, require householders to install minimum energy efficiency standards as a condition for benefiting from RHI support?

Q11: Can you provide suggestions for how to ensure that developers do not build to lower energy efficiency standards as a result of the RHI in advance of 2013 and 2016 building regulations taking effect?

Planning permission or environmental consents

Planning permission may not always be necessary for small-scale renewable equipment. Changes to permitted development rights removing the need for a planning application in certain cases have been made, or are proposed.30 Where any planning, environmental or other permits are required for projects such as the installation of renewable heat systems, the appropriate approvals will need to be obtained by the owner outside of the RHI. We do not propose to verify this or to make eligibility for RHI conditional upon obtaining any necessary planning permission or environmental consents.

29 See part B of www.communities.gov.uk/publications/planningandbuilding/futureofcodeconsultation for Government’s proposals for the energy efficiency standards that will apply to new homes from 2013 and 2016.

30 On 17 November 2009, the Government launched a consultation on proposals to introduce permitted development rights for small-scale renewable and low-carbon technologies in domestic and non-domestic settings. www.communities.gov.uk/publications/planningandbuilding/microgenelectriccars
Chapter 3

Tariffs
Overview

In most cases the market value of energy does not yet make generating renewable energy attractive from a financial perspective. This is the case for both renewable electricity and renewable heat. In the case of renewable electricity, the support provided under the Renewables Obligation (RO) for large-scale installations, and for small-scale installations under the new Feed-in Tariffs (FITs) from April 2010, aims to fill this gap. The RHI as proposed pursues the same objective for renewable heat at all scales.

As set out in the Renewable Energy Strategy (RES), our approach to providing support in both renewable electricity schemes and the RHI follows two broad objectives:

- The support levels aim to provide a reasonable level of compensation. They aim to make investing in renewables financially attractive, but at the same time avoid unnecessarily high levels of compensation, in order to keep costs under control.
- Support should be available for a wide range of technologies and investor types. Reaching our ambitious target of 15% renewable energy by 2020 will require a portfolio of technologies and a spectrum of investors, both from within and outside the energy sector.

There are significant uncertainties when setting renewable heat support levels. In the UK there is little on-the-ground experience, and therefore little data on which to base our assessment of technology costs. Over the past year and a half we have made considerable efforts to obtain all the available information through research projects and consultations, most recently in a study of technology costs that was published for consultation last summer.31

The tariff-setting approach proposed in this consultation aims to provide several benefits to those joining the scheme.

- Firstly, compensation is to be provided for the financial costs associated with renewable heat, and the tariffs aim to do so by covering the difference in upfront capital and ongoing costs between renewable and conventional heat.
- Compensation is also to be provided for some non-financial barriers, such as the disruption of digging up gardens to install ground source heat pumps.
- Finally, the tariffs should also pay an investment return, proposed at 12% across all technologies, with 6% for solar thermal. We do not believe that it would be enough to merely pay the cost difference with conventional heat. When we ask people to install renewable heat technologies, we expect them to make a considerable upfront investment in terms of equipment and installation costs. As with any other investment, many people – and even more so businesses – will be

looking for a return on this investment that reflects the opportunity cost of capital and the level of risk and effort involved.

The proposed tariff structure also allows generators to retain the benefit of any future rises in fossil fuel prices. If fossil fuel prices rise, renewable energy generators will save more money compared with a situation in which they had stayed with fossil fuel heating. Conversely, if fuel prices fall, they will save less.

Tariff-setting methodology

Rate of return

We have calculated tariffs on the basis of a rate of return of 12% across the tariff bands, with 6% applying to solar thermal. The tariffs have been calculated on the basis of a “reference” installation in each tariff band; installations with lower or higher costs than the average installation would therefore likely see higher or lower rates of return.

The rates of return have been determined on the basis of our understanding of the return that commercial and domestic investors will expect; advice from our consultants; and by considering the differences between renewable heat and electricity (where we have already proposed Feed-in Tariffs last summer).

In order to keep costs under control, we clearly want to keep the rate of return at a reasonable level. Nevertheless, we concluded that higher rates of return would be required than the rates proposed for the Feed-in Tariffs. The rates of return for renewable heat need to reflect that we will need high growth on renewable heat. The Renewable Energy Strategy considers that renewable heat is likely to have to grow from currently around 1% to around 12% by 2020 to help meet our overall binding renewable energy target of 15% by 2020. Encouraging such high growth will be particularly challenging against a background where the renewable heat sector is still less mature than the renewable electricity sector.

We propose a lower rate of return for solar thermal panels than for the other technologies. Solar energy technologies are comparatively well-known, and they represent relatively low installation challenges. This is why, in our consultation last year on renewable electricity Feed-in Tariffs, we proposed a rate of return for solar photovoltaics electricity which was somewhat lower than that for other technologies. The proposed rate of return of 6% (including barrier compensation) reflects the same approach for solar thermal under the RHI. Since current solar thermal costs are

32 This is in addition to compensation for non-financial barriers, except for solar thermal where the rate of return includes any compensation for non-financial barriers.

33 For further details on the use of reference installations and other aspects of our tariff-setting methodology, see the accompanying consultation stage Impact Assessment and the report by our external consultants (published together with this consultation document): NERA (2010), Design of the Renewable Heat Incentive.
significantly higher than those of other renewable technologies, we believe that this approach is also a proportionate means of keeping the overall costs of the scheme manageable.

We have calculated the proposed tariff for **biomethane injection** on the basis of parity with the Feed-in Tariffs rather than on the basis of a rate-of-return approach. Generators will have the option of generating electricity from biogas through on-site combustion, or turn the biogas into biomethane and inject it into the grid. In the former case they could receive support for renewable electricity (most likely Feed-in Tariff support, given the typical sizes of such installations). We want to avoid a comparison between support levels rather than appropriate use determining generators’ choices between electricity generation and biomethane injection.\(^{34}\)

For **large biomass** installations (either in the form of dedicated heat plants or the heat output of combined heat and power plants) we are providing a range of support levels in this consultation within which we propose to set the tariff. The range reflects the variation between a tariff calculated on the basis of the costs of dedicated large biomass installations, and a tariff set at a similar level to the support for CHP heat currently provided under the Renewables Obligation.

At the first RHI review, we intend to revisit the wider issue of the support levels that should be available for bio-energy across the financial incentives. We shall only do this when we are in a position to consider the matter in a coordinated approach across all sectors and incentives.

**Number of tariffs**

We propose separate tariffs for each type of eligible renewable heat technology or source. Within each supported technology we intend to differentiate the tariffs by size. In setting the boundaries between tariffs, we have aimed to group together installation sizes with similar cost levels. This helps to ensure that each tariff level is appropriate to the costs of the installation size it covers. At the same time we have tried to keep the total number of tariffs to a minimum in order to make the RHI as simple as possible. We believe that the size boundaries chosen should in most cases align well with the size requirements of different types of generators. This should reduce the risk of generators being able to adjust the installation size to fall within a more attractive tariff.

**Tariff lifetime**

We propose that RHI beneficiaries receive support over a number of years rather than in the form of a single upfront payment. This will encourage owners to keep their equipment operating and well maintained. The proposed tariffs are on the basis of payments made over the same period of time as the expected useful life of the equipment (10 to 23 years, depending on the technology).

\(^{34}\) For further details see the accompanying Impact Assessment.
An alternative approach would be to pay the tariffs over a shorter lifetime. This could be attractive as it would reduce the payback period. It could also reduce the total cost of the RHI, calculated over the total lifetime of the scheme. It would, however, increase the annual costs in the short to medium term.

All payments will be subject to continued operation of the equipment (see Chapter 1 on self-certification and Chapter 6 on administration).

**Compensation for cost difference**

Tariffs have been calculated to cover the expected cost difference (both as regards upfront capital costs and fuel/other ongoing costs) between renewable and conventional heat. It is reasonable that the RHI should in most cases pay only the additional cost of renewable heat above the fossil fuel alternative, rather than the full cost. The cost of the non-renewable option would have to be paid in any case, so the RHI should not need to bear this part of the total cost. This does not apply to the upfront capital costs of solar thermal installations, where the renewable heat system would in most cases be a complementary rather than replacement system.

With most of the proposed tariffs we have used the assumed costs of gas-fired generation for the purpose of calculating the difference with the cost of conventional heating, with the exception of bioliquids and small-scale biomass, where we have assumed non-net-bound fossil fuels such as heating oil or coal as the alternative. Instead of this approach we could try to differentiate the tariffs depending on what the fossil fuel alternative in a specific situation would be, but we do not think it would be practical to implement this. The proposed RHI tariffs may therefore in many cases provide somewhat higher rates of return to those currently using heating options which are more expensive than gas. These will often be particularly carbon-intensive installations, such as coal or oil, or households in fuel poverty, so we believe that this is a worthwhile additional incentive to encourage the switch to renewable heat.

**Metering and deeming**

We want RHI support to encourage people to only generate heat that they themselves need. Additional heat should only be encouraged where it can be exported for others to use (as in district and community heating networks). Paying the tariffs on a **metered basis** could have the undesirable effect of encouraging the generation of surplus heat in order to obtain more RHI support. As mentioned above, the RHI tariff is intended to provide compensation for both upfront capital cost and ongoing fuel and other operating costs, and the resulting total tariff per unit of heat produced could be higher than the cost of only the input fuel (such as biomass) per unit of heat. In this case there would be a net profit for every additional unit of heat generated, regardless of whether it is needed. This could result in excess heat being generated and dumped, and would conflict with our broader goals of encouraging and rewarding energy conservation.
We expect this is more likely to be a risk with space heating installations, where the decision to keep the heat on and open the window could be based purely on the effect of the RHI. In process heating (i.e. large-scale industrial heat), this may be less of an issue, because the RHI compensation will likely be only one of many factors in deciding whether or not to run a factory.

Another potential drawback of metering may be the availability, cost and standards of verifying heat meters. Since heat metering is not as well established or as straightforward as electricity or gas metering, the associated costs will often be high. Again, this is likely to be more of an issue at the smaller-scale, where the cost of a heat meter would constitute a higher proportion of the total cost.

A solution to the kind of perverse incentives outlined above could be to pay a fixed annual compensation rather than one based on the number of heat units generated. This would be implemented by paying the tariff not on the basis of a metered number of kWh generated, but instead on a “deemed” number of kWh, namely the reasonable heat requirement (or heat load) that the installation is intended to serve. However, such deeming can only work in situations where a robust process for establishing the deemed heat requirement is available.

We believe that existing methodologies could be used and adapted to provide such a deeming assessment, in particular the Standard Assessment Procedure (SAP, for domestic situations) and the Simplified Building Energy Model (SBEM, for non-domestic situations), as well as the assessments carried out to create Energy Performance Certificates (EPCs) for new buildings in particular. SAP is currently used to evaluate the energy performance of dwellings and thereby helps deliver many existing Government policies on energy efficiency. For new dwellings, SAP is also used to demonstrate compliance with relevant building regulations in England and the devolved nations. Both SAP and SBEM can be used to estimate the heat requirement for space and hot water heating, but neither is meant to assess the amount of heat used in large-scale industrial processes. EPCs are used to assess and record energy efficiency of buildings to allow comparison between buildings by means of an A-G rating.

We therefore propose to use deeming of heat demand for all installations at the small and medium-scales where SAP, SBEM or EPCs can provide us with a deeming methodology or the basis for developing one.

An alternative, particularly for medium-scale installations, would be to use metering up to a capped maximum number of kWh. This would use the advantage of metering to provide accurate rather than estimated heat amounts, whilst still – by means of the cap


36 See the tariffs table on page 46 for details on the small and medium size ranges.
– reducing the risk of heat wasting or dumping. On balance, we do not see this as a preferable option: in order to be able to establish and apply such caps, we would still need to set up the same deeming process as in our proposed approach; the additional use of metering would mostly add the costs of meters as well as an incentive on the generator to maximise heat use up to the cap. We do, however, propose to give medium-scale biomass installations the option of using a heat meter in addition to deeming. If those using such installations believe that from time to time their actual heat use may exceed the deemed heat load, they could receive an additional lower RHI payment only for fuel costs (in addition to the base compensation calculated through deeming). We have calculated this additional metered tariff to cover the difference between the cost of biomass fuel and the cost of the counterfactual fossil fuel (the “fuel tariff”). The fuel tariff would be paid for metered heat above the deemed heat load.

For large installations as well as process heating at any scale, we expect that it would be more difficult to establish an appropriate deeming methodology. We propose to rely on metering of heat generated and used (similar to renewable electricity). We expect that the risks and costs of metering, as outlined above, apply to a lesser extent in these large-scale situations. This suggests that straightforward metering at the larger scale (including for process heating at any scale) is the right approach.

For biomethane injection and district heating, we propose metering at all scales. Both for biomethane injection and district heating, the main driver will be demand from third party customers, removing the risk of generation driven by perverse incentives. To ensure that it is the customer who drives the heat amount generated, we expect to require, as a condition for receiving RHI support, that district heat metering takes place in a way that allows the customers to pay for, and control, the amount of actual heat they use.

Our approach can be summarised as follows:

- **Small-scale (covered by SAP/SBEM/EPC)** – each installation’s tariff entitlement is established by multiplying the proposed tariff per kWh with a deemed heat requirement (number of kWh per year). This is established through an assessment process based on SAP (or variant) at the beginning of the project.

- **Medium-scale (where covered by SAP/SBEM/EPC)** – in principle the same approach applies as for small-scale installations. However, in this group we propose to allow for the option of metering for solid biomass installations. Installations choosing this approach would still receive the same tariff for the same deemed number of kWh, but where the metered number of kWh used exceeds the deemed number, an additional lower tariff per kWh would be paid for the metered excess.

- **Large-scale and process-heating (and medium-scale, where not covered by SAP/SBEM/EPC)** – support would be calculated as the metered number of kWh multiplied by the tariff per kWh.

- **Biomethane injection and district heating** to be metered at all scales.
Practicalities of deeming

The methodology for the deeming assessment will need to be straightforward and user-friendly. For small-scale space heating, MCS-certified installers are already carrying out assessments of the heat requirements of buildings as part of their normal work. We propose to use or adapt SAP and SBEM (or variants) so that they can be used by installers to determine deemed heat loads for the range of domestic and non-domestic space heating installations covered by the small and medium-scale tariffs.

SAP is currently under review with a view to producing a revised version of the methodology (SAP 2009), which is anticipated to come into operation later this year. We anticipate that the new additions will help in our assessment of the deemed heat requirement for the dwelling.

We envisage that for householders the deeming process will establish the deemed heat load for a property based on the average heat load of a property of the same type with reasonable energy efficiency measures installed (for instance cavity wall and basic loft insulation). Annex 2 contains examples of useful energy for heat based on BRE standard house sets developed for CERT.37

Energy Performance Certificates

New buildings will have an Energy Performance Certificate (EPC) already setting out the actual heat requirement and we propose using this as the starting point for the deeming process for the heat load.

In many cases, using the heat load from the EPC rather than a deemed average from SAP/SBEM will be more appropriate for new buildings where these will have been constructed to more stringent energy efficiency requirements than older properties, and will have a smaller heat requirement than the average. Using the lower heat load from the EPC and lower resulting total RHI compensation would therefore be appropriate.

We will need to consider whether it would be appropriate to take the heat load appearing in EPCs – without any modifications – as the heat load to be used for calculating RHI payments in all situations of deeming for new buildings; it may be necessary for the deeming procedure to calculate the appropriate RHI payment according to an adjusted heat load rather than purely on the EPC data. In particular, in situations where there may be a risk of builders using renewable heat installations as a way of avoiding installing far-reaching energy efficiency measures for new builds ahead of stricter Building Regulations coming into force in 2013 and 2016 (see the section on energy efficiency in Chapter 2).

37 We will also consider whether it would be feasible and appropriate to take climatic differences across the UK into account in establishing the deemed heat load.
Transitional arrangements for deeming

We will develop the deeming methodology over the course of 2010. As set out in our Renewable Energy Strategy, installations completed after 15 July 2009 would be eligible for RHI support from April 2011 as if they had been installed then. It will be important to indicate how installations will be treated that have been completed before the deeming procedure has been finalised. See Chapter 5 on transitional arrangements, setting out how small-scale installations completed during the interim period can use a simplified procedure for establishing the deemed heatload.

Practicalities of heat metering

Accurate metering of electricity is more common, easier and cheaper than heat metering. Given that heat meters are not regulated in the UK, there is currently no legal requirement for them to be approved or verified prior to being put into use. However, a set of standards for the design and installation of heat meters exists under British Standard EN 1434.38 Where metering is required under the RHI, we propose that the meters should meet the requirements to provide a good degree of confidence to consumers that the devices are reliable. We propose to look further into the question of appropriate regulation of heat meters for the RHI together with the National Measurement Office to consider how fair and accurate measurement can be realised.

Where metering is used, we propose a requirement that the installation does not have any outlet valves that could be used for heat dumping after the point where the heat meter is installed. This would help ensure that only useful heat is compensated.

Multiple technologies on the same site

At sites where multiple technologies are in use (for instance a heat pump and solar heating panels) each will be eligible for the relevant RHI tariffs, provided that the technologies meet the individual eligibility criteria. At the smaller scale, we propose to ensure that the deeming assessment will assess the contribution of each technology towards the overall heat load and allocate the resulting appropriate fraction of the total deemed heat load to each technology for the purpose of calculating RHI entitlement.

Q12: Do you agree with our proposals on where we should meter and where we should deem to determine an installation’s entitlement to RHI compensation?

Q13: Do you agree that a process based on SAP or SBEM for existing buildings or the Energy Performance Certificate for new buildings is the best way of implementing deeming? Do you have any suggestions on the details of how this assessment process should work?
Q14: Do you agree that at the large scale/in process heating, where we propose metering, the risk of metering resulting in a perverse incentive to overgenerate is low? How could we reduce it further within the constraints of using metering, to ensure only useful heat is compensated? Do you see any practical difficulties concerning use of heat meters (such as on availability, reliability or cost of heat meters) and, if so, how should we address them?

Table of tariffs

The following table sets out the proposed tariff levels to apply from the start of the RHI in April 2011. These tariffs will also be available to eligible projects where installation was completed before April 2011 (see Chapter 5 on transitional arrangements).

The tariffs are proposed to be available equally to dedicated heat installations and for the heat output of CHP installations, and to on-site installations and installations serving district or community heating networks. In addition, we are minded to provide a tariff uplift for district heating, see the section on district heating below.

Small installations (1)

<table>
<thead>
<tr>
<th>Technology</th>
<th>Scale</th>
<th>Proposed tariff (pence/kWh) (2)</th>
<th>Deemed or metered (3)</th>
<th>Tariff lifetime (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid biomass</td>
<td>Up to 45 kW</td>
<td>9</td>
<td>Deemed</td>
<td>15</td>
</tr>
<tr>
<td>Bioliquids (7)</td>
<td>Up to 45 kW</td>
<td>6.5</td>
<td>Deemed</td>
<td>15</td>
</tr>
<tr>
<td>Biogas on-site combustion (5)</td>
<td>Up to 45 kW</td>
<td>5.5</td>
<td>Deemed</td>
<td>10</td>
</tr>
<tr>
<td>Ground source heat pumps (8) (9)</td>
<td>Up to 45 kW</td>
<td>7</td>
<td>Deemed</td>
<td>23</td>
</tr>
<tr>
<td>Air source heat pumps (9)</td>
<td>Up to 45 kW</td>
<td>7.5</td>
<td>Deemed</td>
<td>18</td>
</tr>
<tr>
<td>Solar thermal</td>
<td>Up to 20 kW</td>
<td>18</td>
<td>Deemed</td>
<td>20</td>
</tr>
</tbody>
</table>
### Medium installations

<table>
<thead>
<tr>
<th>Technology</th>
<th>Scale</th>
<th>Proposed tariff (pence/kWh) (2)</th>
<th>Deemed or metered (3)</th>
<th>Tariff lifetime (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid biomass</td>
<td>45-500 kW</td>
<td>6.5</td>
<td>Deemed</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 (fuel tariff)</td>
<td>Optional: for metered kWh above deemed number of kWh</td>
<td>15</td>
</tr>
<tr>
<td>Biogas on-site combustion (5)</td>
<td>45-200 kW</td>
<td>5.5</td>
<td>Deemed</td>
<td>10</td>
</tr>
<tr>
<td>Ground source heat pumps (8)(9)</td>
<td>45-350 kW</td>
<td>5.5</td>
<td>Deemed</td>
<td>20</td>
</tr>
<tr>
<td>Air source heat pumps (6)(9)</td>
<td>45-350 kW</td>
<td>2</td>
<td>Deemed</td>
<td>20</td>
</tr>
<tr>
<td>Solar thermal (6)</td>
<td>20-100 kW</td>
<td>17</td>
<td>Deemed</td>
<td>20</td>
</tr>
</tbody>
</table>

### Large installations

<table>
<thead>
<tr>
<th>Technology</th>
<th>Scale</th>
<th>Proposed tariff (pence/kWh) (2)</th>
<th>Deemed or metered</th>
<th>Tariff lifetime (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid biomass (4)</td>
<td>500 kW and above</td>
<td>1.6 – 2.5</td>
<td>Metered</td>
<td>15</td>
</tr>
<tr>
<td>Ground source heat pumps (8)(9)</td>
<td>350 kW and above</td>
<td>1.5</td>
<td>Metered</td>
<td>20</td>
</tr>
</tbody>
</table>

### Biomethane injection

<table>
<thead>
<tr>
<th>Technology</th>
<th>Scale</th>
<th>Proposed tariff (pence/kWh) (2)</th>
<th>Deemed or metered</th>
<th>Tariff lifetime (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomethane injection</td>
<td>All scales</td>
<td>4</td>
<td>Metered</td>
<td>15</td>
</tr>
</tbody>
</table>
Notes:

1. HM Treasury/HM Revenue will clarify the treatment of RHI payments for income tax purposes in due course.

2. Proposed tariff levels have been rounded to the nearest half pence and are in 2009 prices and would be recalculated to 2011 prices for the start of the RHI in 2011, taking into account inflation. We also intend to adjust tariff levels for inflation going forward for both new and existing projects.

3. The information in this table on where we propose to meter and where to deem is simplified. In particular process heating and district heating are proposed to be metered regardless of technology and size. See the section on metering and deeming above for more detail.

4. **Large biomass.** We propose to provide the same tariffs for biomass CHP and biomass used for heat-only. RHI compensation for large-scale CHP under the large-scale biomass tariff would compare to support currently available under the Renewables Obligation for the heat part of CHP in the form of a half-ROC uplift. Analysis undertaken on the cost of large-scale heat-dedicated biomass boilers suggests that their required support level may be lower than the equivalent of the half-ROC uplift for biomass CHP under the RO. Our current proposal for the large-scale biomass tariff as set out in the tariffs table reflects this variation by indicating a range of tariff levels. Over the coming year more analysis will be conducted to define the right compensation level for these technologies, and we welcome views from stakeholders on this issue.

5. **Biogas combustion.** The biogas tariffs are proposed to apply to all forms of biogas including syngas. Injection of biomethane into the gas grid is subject to a separate tariff. We will need to consider the approach on RHI tariff(s) for biogas combustion above the ones proposed up to 200 kW. We have calculated the proposed tariffs up to 200 kW on the basis of the costs of dedicated heat installations. Above 200 kW, biogas combustion installations may more likely come forward in the form of CHP, in which case it could be more appropriate to calculate the RHI tariff for biogas combustion at such sizes on the basis of the additional cost for CHP to be compensated in addition to the compensation available through the Feed-in Tariffs. We welcome views from stakeholders on this issue.

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**Q15:** What is the right incentive level required to bring forward renewable heat from large-scale biomass including in the form of CHP while minimising costs to consumers?

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39 This refers to half of the full current ROC price.
Q16: What is the right incentive level required to bring forward renewable heat from biogas combustion above 200 kW including in the form of CHP while minimising costs to consumers? Do you have any data or evidence supporting your view?

6. Air source heat pumps and solar thermal. We currently have do not have sufficient data on air source heat pumps above approximately 350 kW, and solar thermal heat above approximately 100 kW to inform decisions on tariffs above these scales (in addition to the data gap on biogas combustion above 200 kW as mentioned in note 5 above). We would welcome any available evidence which indicates whether tariffs above these sizes are needed, and at what level they should be set.

Q17: Do you have any data or evidence on the costs of air source heat pumps above 350 kW or solar thermal above 100 kW?

Although we would endeavour to introduce any appropriate tariffs for larger-scale air source heat pumps, solar thermal and biogas combustion in time for the 2011 start of the RHI, this would depend on obtaining sufficiently robust cost data in time.

7. Bioliquids. All tariffs are given for 100% renewable use. The bioliquids tariff will only be available for the renewable fraction of the blend used. See the section on mixed fuels further below in this chapter for the proposed treatment of installations with part-renewable operation, or part-renewable input fuels.

8. Heat from the ground. The tariffs for ground source heat pumps are also intended to cover other eligible heat from ground energy such as geothermal. See also Chapter 4 (section on innovation).

9. Water source heat pumps. We intend to include water source heat pumps as eligible either for the tariffs of ground or air source heat pumps. We invite views as to which of these are more appropriate for water source heat pumps given their cost levels.
Example of calculating RHI entitlement

A household’s useful energy demand for heat averages 15,000 kWh per year. The property is a three bed semi-detached house with cavity wall type construction.

A switch from current gas use to a combination of biomass and solar thermal is being considered. Under the proposed deeming approach based on an on-site assessment by an accredited installer, the process for determining the level of RHI compensation could be as follows.

The installer determines that a reasonable space heating requirement for this property is 10,000 kWh, taking into account some straightforward energy efficiency measures the household could implement, for instance installing loft and cavity wall insulation. Hot water will require approximately 3,700 kWh/year.\(^40\) The total deemed heat load in this situation would therefore be 13,700 kWh/year.

He might conclude that solar thermal panels would provide 60% of the hot water requirement (2,200 kWh), with the biomass boiler providing the rest (1,500 kWh) as well as the space heating requirement (10,000 kWh).

In this case the RHI entitlement would be:

\[
\begin{align*}
2,200 \text{ kWh} \times 18p &= \text{about £400 per year for 20 years} \\
11,500 \text{ kWh} \times 9p &= \text{£1,035 per year for 15 years}
\end{align*}
\]

Total RHI payments would be over £1,400 per year for the first 15 years (and around £400 per year for the following 5 years). This amount would be paid as a fixed (deemed) annual amount regardless of actual energy use (subject to the terms set out by the RHI such as continuing to use the equipment).

Q18: Do you agree with the proposed approach to setting the RHI tariffs, including tariff structure and rates of return? Do you agree with the resulting tariff levels and lifetimes? If not, what alternatives would you prefer, and on the basis of what evidence?

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\(^{40}\) This is consistent with the BRE Standard House Set figures provided in Annex 2 where a property of this type is deemed to require 9,674 kWh/year for space heating and 3,742 kWh/year for hot water.
Mixed fuel use

Where an installation can generate heat from both renewable and non-renewable fuels, the RHI tariff should only reward the renewable component of the mixed fuel load. These situations will usually involve CHP or district heating installations, using energy from waste.

At the small scale, the only situation of mixed fuel use we envisage is the use of bioliquids in converted heating oil installations. As stated in Chapter 2, supported bioliquids will likely, at least in the initial years, be blends with fossil fuels. The tariff proposed for these installations would only be paid for the certified renewable content (which in the initial years we expect to be around 30% of the fuel blend).

In all other situations, except in the case of municipal waste (see below), the RHI will require the use of separate boilers (with a dedicated boiler for the renewable fuel), and RHI support will be paid on the metered useful heat output from the renewable fuel boiler.

Where the plant is used to generate heat from municipal waste, our proposed approach follows the principles of the Renewables Obligation Order 2009.41 It may in practice not be feasible to separate the biomass content of the waste stream. Accordingly we propose to allow mixed waste to be combusted in a single boiler. Equally, it may be difficult to carry out ongoing metering of input fuels. In line with the RO, we therefore propose that, subject to establishing sufficient evidence for Ofgem that the fossil fuel content is unlikely to exceed 50% and that the municipal waste has not been subject to any process before being used that is likely to have materially increased that proportion, generators can agree with Ofgem that 50% of the full RHI biomass tariff be paid.

Our approach to the use of mixed fuels under the RHI is summarised in the table below:

<table>
<thead>
<tr>
<th>Bioliquids</th>
<th>Medium/large</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified renewable content</td>
<td>(Not eligible)</td>
</tr>
<tr>
<td>Energy from waste (CHP)</td>
<td>RHI proportion determined on basis of agreeing with Ofgem sufficient evidence for 50% fossil fuel content; additional supporting evidence required for claiming less than 50% fossil fuel content</td>
</tr>
</tbody>
</table>

Q19: Do you agree with our proposed approach on mixed fuels? Do you agree with our proposal that, at larger sites, with the exception of EfW, RHI will require the use of a dedicated boiler for the renewable fuel? Where our approach is to follow the Renewables Obligation, do any aspects need to be adapted to account for the different situation of renewable heat?

District and community heating

District heating, whether in the form of a central boiler for an apartment building, or as a network of pipes delivering heat from a central installation to a number of local households or businesses, can be a useful and cost-effective alternative to installing individual heating systems in individual properties.

As a starting point we propose that district heating installations have the same access to RHI tariffs as other systems.

The financial viability of district heating projects depends not only on the costs of generation, as networks require pipes and other infrastructure to deliver the heat to the consumers. The legislative powers provided for implementation of the RHI under the Energy Act are aimed at providing support for renewable heat only, rather than district heating more broadly. We nevertheless believe that there are good reasons for considering additional support through the RHI to help with the costs of infrastructure.

In particular, district heating may in certain cases be the only viable option for delivering renewable heat. In these “hard to treat cases” it may be physically impossible or disproportionately expensive to install individual renewable heating as a result of, for example, space constraints in tower block apartments or particularly dense urban areas. Here, the stand-alone tariffs proposed would either be irrelevant or not high enough, and a district heating uplift could be a cost-effective way of increasing the potential uptake of renewable heat. We are therefore minded to provide an uplift to the proposed RHI tariffs based on district heating networks supporting hard to treat properties, subject to further analysis.

In particular, we currently do not have sufficient evidence to propose the level of such uplift. Annex 3 contains a call for evidence to help determine any uplift.

42 Studies also suggest that in many cases district heating provides more cost effective carbon reductions than individual renewable heat installations. These better carbon savings and the contribution of district heating are important given the UK’s wider targets for energy and climate change. However, it is likely that this better carbon efficiency exists predominantly in situations where there are very high heat load densities, reducing the length of pipe and improving project economics. Since these situations are also likely to represent the hard to treat cases referred to above, for the sake of simplicity, we will assume that where properties are hard to treat, they also represent better carbon savings than the alternative individual renewable technology.
We propose that a district heating uplift would only be available where the network is built simultaneously with the installation of boiler eligible for the main RHI tariff. Where a network already existed, the uplift would only be available if the network is extended with or after the installation of the eligible boiler, and in this case all calculations will be based on the part of the network’s heat output that serves the customers connected through the extension.

We propose to calculate the level of any uplift by taking into account the likely extent to which district heating networks will supply hard-to-treat properties, but it may not be practical to check this for each individual case, and to make any uplift subject to supplying a minimum level of hard-to-treat properties in each individual case.

We also propose that, for the purpose of receiving an uplift, district heating would be defined as a situation with a minimum number of customers, for instance 10. We do not believe that an uplift should be available, for instance, in a typical combined heat and power situation with one or a small number of external heat users located close to the CHP plant. In these situations the costs of exporting the heat to these clients would already have been included in our standard cost calculations for CHP, and the available main tariffs for both renewable electricity and heat output should suffice to cover these costs.

RHI support will be available to the extent that the district heating system provides renewable heat.

**Q20:** Do you believe that we should provide an uplift for renewable district heating?

**Q21:** Do you believe that an uplift should be available to all eligible district heating networks, or that eligibility should be determined on a case-by-case basis depending on whether a network contributes to the objective of connecting hard-to-treat properties (and, if the latter, how should we determine this for each case)? Do you agree that situations of one or a small number of large external heat users should not be eligible for an uplift, and, if so, what should be the minimum eligibility requirement for an uplift (expressed for instance as a minimum number of external customers)?

See Annex 3 for a call for evidence needed to help calculate the level of any uplift.
Chapter 4

The RHI beyond 2011
Our proposals throughout this document describe the intended design for the RHI at the start of its operation in April 2011. This chapter considers whether tariff levels should be fixed for the lifetime of projects once installed, how we intend to respond to changing circumstances over the years by reviewing the RHI and how we intend to consider innovative technologies that may make a contribution in the longer term.

**Fixed levels of support**

Government is likely to alter tariff levels for new projects from time to time to respond to changes in technology costs and other circumstances. However, once installation of a project has been completed, investors will consider it important that its support levels are not changed later on. Such a guarantee not to change support for existing projects is known as grandfathering.

For renewable heat there are nevertheless reasons to consider that fixed or grandfathered support levels for the lifetime of projects’ entitlement of support might not deliver the kind of certainty investors need. Most of the available renewable heat technologies have significant ongoing fuel costs (e.g. the cost of solid biomass or bioliquids, and that of electricity in the case of heat pumps). If these costs were to rise, fixed RHI tariffs might make continued operation of the renewable heat installation less attractive, which is a risk from the generator’s point of view. If the costs were to fall, fixed tariffs could over-reward existing projects, which is a risk from the perspective of keeping the RHI costs under control.

Given that the RHI is intended to cover the cost difference between renewable heat and the cost of fossil fuel, these considerations not only apply to fluctuations in the price of input fuels for fossil fuels heat, but also the price of fossil fuels. For example, if gas prices go up, an RHI tariff that compensates for the cost difference between gas and renewables could arguably go down, and vice versa.

We are nevertheless inclined to provide the RHI tariffs as fixed (grandfathered) tariffs:

- In general, attempting to build tariff fluctuations into the RHI would make the scheme significantly more complex. For biomass in particular, it would be very difficult, certainly in the near future, to find a reliable price index. Also for electricity and gas prices no single transparent price index exists at present. We are currently considering under the Renewables Obligation whether we could determine a usable index of wholesale electricity prices (as part of our work on so-called contracts for difference), but this would not produce an index of consumer prices, and in any case it is still uncertain if and when this can be produced. Unless we could find an objective and transparent methodology that would give investors clarity on how the support would fluctuate, such an approach might in practice not be perceived by the market as giving greater certainty on investment returns.

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One of the principal reasons for switching to renewable heat will be reduced exposure to future rises in fossil fuel prices. Reintroducing this effect into the RHI would take away what is for many one of the major attractions of renewable heat.

An alternative option would be to commit to full grandfathering for tariffs other than the bio-energy tariffs, and for bio-energy to exclude the part of the tariffs intended to compensate for bio-matter fuel costs from grandfathering, but grandfather the remainder of the tariffs proposed in Chapter 3 into a fuel component and a non-fuel component for this purpose. Providing a different grandfathering regime for biomass would be more consistent with the Renewables Obligation.

Q22: Do you agree that RHI tariffs should be fully fixed (other than to correct for inflation) for the duration of any project’s entitlement to RHI support? Do you agree that we should include bio-energy tariffs, including the fuel part of those tariffs, in such a grandfathering commitment?

The value of heat sold to third parties

The RHI will provide compensation in addition to the benefit that a renewable heat generator gets from the avoided cost of gas or other fossil fuel. Where the heat is sold by the generator to a third party instead of being used on-site (e.g. in the case of district heating, or injection of biomethane into the grid), the equivalent benefit to savings on fossil fuel bills is the actual revenue received by the generator from the sale of the heat or biomethane.

Although we are proposing that the RHI tariffs be paid as fixed (guaranteed) tariffs, we do not propose to regulate the price that generators can receive for such sales of heat or biomethane to third parties. Our approach is thus similar to the Renewables Obligation, where generators are free to secure a price in the market place for their electricity (on top of the compensation provided by the RO in the form of Renewable Obligation Certificates). As under the RO, those selling heat or biomethane under the RHI will likely be professionals used to working in a commercial environment and as such they can be expected to negotiate appropriate sales arrangements for their heat and biomethane. A fixed price for exported heat could add disproportionate complexity to the RHI, possibly involving an obligation on the suppliers of grid gas to pay the export tariff for biomethane, as well as a process that equalises the costs between gas suppliers.

Degression

Over the years we expect the costs of renewable heat equipment to fall as the industry matures and economies of scale are achieved, both in the UK and globally. As a result we would look to reduce RHI support levels for new projects accordingly, to ensure
that the scheme delivers value for money. As discussed below, periodic reviews of the RHI will allow us to reassess technology cost levels as appropriate.

When it comes to the periods between reviews, there is a useful, alternative concept which has been applied in renewable electricity schemes in other countries; this is known as “degression”. Under this approach, support levels would drop by a given percentage (e.g. 3%) each year for new projects built in that year. Existing projects would be unaffected.

We do not propose implementing degression from the outset as there are such significant uncertainties in costs and initial take-up of renewable heat technologies. However, we believe that degression could be a useful means to ensure that the costs of the RHI are kept down, as it ensures that tariffs reflect falling capital costs of the technologies and so do not provide greater support than is necessary. We will therefore consider the case for introducing degression at the first regular review.

Q23: Do you agree with our proposal not to introduce degression from the outset of the scheme but consider the case at the first review?

Innovation

Our 2020 renewables target is less than a decade away, and our priority is therefore to introduce the RHI as quickly as possible. In order to achieve our objective of starting the RHI in April 2011, the focus for now must be on introducing the scheme in a way that works for the most commonly-used technologies. We have therefore set each tariff level on the basis of the cost of what we consider to be the most mainstream applications of the energy source in question. For example, the tariffs for energy from the ground are based on the cost of ground source heat pumps rather than deep geothermal energy.

At the same time, we recognise the importance of encouraging potential future options not yet available for mainstream use, in order to maximise our available low carbon solutions for the longer term beyond 2020. We therefore propose to define the technologies eligible for each tariff widely, to avoid unintentionally excluding options. This will allow emerging technologies that meet the eligibility criteria to benefit from the relevant mainstream tariff, even where they may not get a dedicated tariff. For example, syngas would be eligible for the biogas tariff. Also, in the absence of any current wide-spread application for renewable heat from water sources, we intend to make water source heat pumps eligible for the tariffs aimed at ground or air source heat pumps.

Innovative technologies often still have higher costs than the respective mainstream technologies and dedicated, higher tariffs might therefore be the most effective way of helping such technologies to come forward. We will at the first full review of the RHI consider whether there is scope for more dedicated tariffs. In addition, as set out in the
Renewable Energy Strategy, a range of policies outside the RHI already exists to support emerging and innovative technologies.\(^{44}\)

We are also conscious of the need to keep encouraging innovation, including on cost reduction, in the mainstream technologies for which we are proposing dedicated tariffs. This would be particularly desirable for solar thermal, which is currently significantly more expensive (per unit of heat generated) than the other technologies. Suggestions have been made that this cost could be reduced by applying international best practice, for instance using solar thermal as a contributor both to hot water and space heating requirements, rather than the more common installation in the UK where solar thermal contributes to hot water only. We welcome views on how to encourage such best practice and other cost-reducing innovations. Options include reducing tariffs over time (for instance through reviews or degression, as explained above) to encourage the market to reduce costs, or to make eligibility for RHI support subject to meeting certain best practice or cost-reducing installation features.

Q24: Do you agree with our proposed approach on innovative and emerging technologies?

Q25: Do you have any views on how we should encourage technology cost reductions through the RHI, particularly on solar thermal heat?

Duration of the RHI and reviews

Fixed tariff levels can provide one form of investor certainty. But it is also important to provide long-term certainty to the renewables sector on the availability of support, giving the market the confidence to invest, and allowing supply chains to develop. This is why in the Renewable Energy Strategy we committed to keeping the RHI open to new projects until at least 2020. Even if we later decided that, after 2020, new projects no longer needed RHI support, the scheme would continue to pay out for many years after 2020, until all RHI projects had received the full length of their support entitlement.

Notwithstanding our long-term commitment to the RHI, or perhaps because of the very nature of the RHI as a long-term policy, we will need to review the RHI and its tariff levels from time to time to adapt to changes in technology costs and other circumstances. Such reviews are established practice in existing renewable electricity support schemes, both in the UK and internationally. Under our grandfathering proposals outlined above, such reviews would only affect new projects installed after review changes come into force.

Reviews will be an opportunity to reconsider also various aspects of the RHI other than the tariff levels. We expect to take the opportunity to assess the operation of the scheme and to evaluate the ease of use of the scheme for RHI recipients.

We intend where possible to align the timing of RHI reviews with those of our other renewable energy support schemes, thereby increasing the coherence level between schemes. Avoiding staggered reviews will give investors greater certainty across the range of support schemes. For the first review this may not be possible. The next planned review of the Renewables Obligation is scheduled to be implemented in 2013, and for the Feed-in Tariffs we have proposed the same timing for its initial review.

For the RHI this would mean that the first review would take place barely one year after the launch of the scheme, providing only very limited experience on which to base any changes. However, we expect to start the RHI first review in 2013 to ensure some coherence with the RO and FITs, and to come into effect in 2014/15.

In addition, as we are dealing with an immature market, we also propose to establish a process for enabling a review to take place should a significant occurrence happen between regular reviews. For example, we may receive evidence of a significant change in costs of technology or levels of take-up which may necessitate an emergency review. We propose to work closely with our stakeholders over the next few months to determine situations that may trigger an emergency review in order to set appropriate criteria.

Q26: Do you agree with our proposed approach to reviews, and the timing and scope of the initial review?

Q27: Can you provide examples of situations that could be taken into consideration in determining criteria for an emergency review?
Chapter 5

Interaction with other policies
Interaction with other Government policies

The intention of the Renewable Heat Incentive (RHI) is to increase the use of renewable technology in heat generation. Financial incentives for renewables also exist or are being introduced for other energy sectors, in particular the Renewables Obligation (RO) and Feed-in Tariffs for renewable electricity, and the Renewable Transport Fuel Obligation for renewable transport.

Policies other than financial incentives can also have an impact on renewables deployment, such as those aimed at reducing carbon emissions or increasing energy efficiency through regulations. We do not intend for the RHI to make any special provisions for such schemes, but to provide the same access to the RHI for all, whether or not they are targeted by other regulations.

However, we want to avoid the situation in which eligibility for the RHI results in the diversion of effort away from the primary objectives of such other schemes which, for example, promote energy efficiency or the use of building insulation. Other policies may therefore put in place limitations for receiving support under the RHI. This will mainly be the case for schemes designed to support non-renewable low-carbon solutions such as energy efficiency. Such restrictions (including consultation thereon) are dealt with as part of the decision-making process for those schemes, outside the implementation process for the RHI.

Policies (other than financial incentives) affecting renewable heat

- **Carbon Emissions Reduction Target (CERT)** – The CERT mandates energy suppliers to provide measures that deliver carbon dioxide savings from domestic properties. It is aimed largely at improving domestic energy efficiency. Under the Low Carbon Building Plan the plan is to extend CERT to the end of 2012. A consultation was published at the end of 2009 which included proposals to include an additional target based on tonnes of CO₂; a new Super Priority Group of low income vulnerable households; and measures to stimulate the promotion of insulation measures (including where supported by RHI). The recent consultation on the extension to CERT also asked whether micro-generation measures should remain eligible measures under the CERT extension. If so, the consultation also asked whether any new rules be adopted e.g. that these measures or subsets of these measures only remain eligible to Priority Group (and proposed Super Priority Group) households or no longer be eligible for a carbon uplift.
• **Community Energy Saving Programme (CESP)** – Under this scheme, energy companies must deliver low-carbon measures in a “whole-house” approach to homes in low-income communities. The companies concerned can deliver measures from a prescribed list, including renewable as well as other low-carbon solutions, to fulfil the obligation. Where renewable heat is supported by the RHI this will not prevent such heat from being counted towards fulfilment of the CESP obligation.

• **Voluntary Reporting Guidance (VRG)** – This refers to the guidance to organisations on how to measure and report their greenhouse gas emissions [www.defra.gov.uk/business/reporting/index.htm](http://www.defra.gov.uk/business/reporting/index.htm). The Guidance recommends that organisations generating heat from ‘owned or controlled’ renewable heat sources such as solar thermal can account for this at zero emissions.

• **CRC Energy Efficiency Scheme**45 – The CRC is designed to increase energy efficiency in large public and private sector organisations – for example local authorities, service industries and retailers. It is designed to drive behaviour and infrastructure change to achieve carbon reductions, primarily through energy efficiency and fuel switching. All heat production, regardless of origin, is zero rated under the scheme, although carbon allowances must be surrendered for fuel supplies to (non EU ETS) combustion plants. In contrast, all electricity supplies will be considered as grid average, with ‘Electricity Generating Credits’ available in some specific circumstances for electricity generation.

• **Zero Carbon Homes** (and other building regulations) – Under this policy, all new homes in England will from 2016 have to comply with zero carbon building standards. In the interim, building standards for new homes are being tightened step by step. The policy will mandate high level of energy efficiency in zero carbon homes. We intend that certain on-site renewables including where supported by the RHI count towards the zero carbon standard. The Welsh Assembly Government is also working towards zero carbon homes, with the intention that all new buildings in Wales will be zero carbon from 2011. The devolution of building regulations is being pursued in order to help achieve this goal.

• **Zero carbon new non-domestic buildings** – The Government is currently consulting on the ambition that all new non-domestic buildings be zero carbon from 2019, with the public sector leading the way from 2018. Energy efficiency and on-site renewables, including where supported by the RHI, would count towards this standard. The expectation is for larger non-domestic buildings to act as anchor loads for community-wide heat schemes and/or to export heat to surrounding buildings.

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45 formerly Carbon Reduction Commitment.
Transitional arrangements

We announced in the Renewable Energy Strategy (RES) that we would give access to RHI tariffs to projects installed before the start of the RHI in April 2011, namely where they completed installation after the publication date of the RES (15 July 2009). We believe that this will have encouraged and will continue to encourage projects to build now rather than wait until the introduction date of the RHI. Such projects, where they meet the RHI eligibility requirements, will receive RHI support from the start date of the scheme, which we propose will be in April 2011, as if their installation had been completed on the start date, i.e. for the same tariff lifetime and at the same tariff level as new projects completed on such a date.

We are proposing that projects where an installation was completed before 15 July 2009 will not be entitled to RHI support. It has been suggested that some existing bio-energy projects in particular should receive some support because otherwise it would not be financially viable for them to continue operating, but we do not have any evidence to support this.

As set out in Chapter 2, we propose that only new installations (including where they replace existing installations) are eligible, so installations completed before the above cut-off date would not become eligible by carrying out refurbishment, repairs or conversions after the above cut-off date (with the exception of domestic heating oil installations). We are open to views as to the types of situations that should be defined as new or replacement installations on the one hand or refurbishment, repair or conversion on the other hand.

Q28: Do you agree with our proposed approach to allow access to RHI support to new projects where installation completed after 15 July 2009, but not before? Do you have any evidence showing that in particular situations RHI support for installations existing before this date would be needed and justifiable?

Transitional arrangements regarding deeming for small-scale installations

We committed in the RES that installations completed in the interim period between the publication of the RES and the start of the RHI would be eligible for RHI support as if they had been completed at the start of the RHI in April 2011. This means that such installations will, for instance, start receiving support payments from 2011 in the same way as installations built in 2011, and that they will be subject to the same eligibility and other requirements as such installations.

As set out in Chapter 3, we are proposing that one of these requirements – for most small and medium installations – will be to establish the installation’s estimated (or “deemed”) heat demand. We will develop the deeming methodology over the course of 2010, but in the meantime it will be important to indicate how installations will be...
treated that have been completed before the deeming procedure has been finalised, in order to give such projects the certainty they need to go ahead now rather than in 2011 or later.

We therefore intend to apply the following transitional arrangements to installations completed between the date of this consultation document (1 February 2010) and the start date of the RHI.

In case of eligible renewable heat projects in existing buildings, the applicant will need to submit statements to Ofgem from at least two installers certified under the Microgeneration Certification Scheme (MCS) (or equivalent), stating:

- the installer’s estimate of the annual useful space heating and hot water requirement in kWh (the “heat load”);
- where the project in question includes solar thermal: the installer’s estimate of the proportion of this heat load to be served by the solar thermal installation; and
- that the estimate of the heat load (and, where applicable, the estimate of the contribution of solar thermal) has been produced using SAP or, as appropriate, SBEM.

Ofgem will apply the lowest estimate(s) as the basis for the project’s RHI entitlement. Where renewable heat is installed in new buildings, the heat load will be as set out in the building’s Energy Performance Certificate (EPC); in addition, where the installation in a new building includes solar thermal, the transitional arrangement set out above for deeming the contribution of solar thermal in existing buildings will apply, unless the EPC provides this information as well.

We will apply these transitional arrangements to small-scale installations only (installations covered by the small-scale tariffs as set out in Chapter 3), and only where, following completion of the project:

- the renewable heat installation will be the sole fixed heating installation in the property (not counting any immersion heater that may form part of such installation), or
- solar thermal panels and one other (renewable or non-renewable) installation will be the only fixed heating installations in the property.

Other installations completed during the interim period will need to satisfy the final requirements of the RHI as if they had been completed when the RHI starts in April 2011.

Installations eligible for these transitional arrangements may still instead use the final procedures once available, if they prefer.

These transitional arrangements will apply instead of the final deeming requirements to be put in place for establishing RHI entitlement, but they do not replace other parts of
the registration process, as indicated in Chapter 1, or other eligibility criteria, as proposed in Chapter 2, or any of the other proposals in this consultation document.

Grants

Where a project is otherwise eligible for RHI support but has received or receives a central Government grant, we may require that such grant monies be paid back in order for the project to be eligible for RHI support. As stated in the RES, we will not require this for grants received at the domestic level before the start of the RHI. At this level, householders will not have to pay back central Government grants in order to receive RHI support. RHI eligibility will also not be limited where grants other than those funded by central Government (i.e. European or local grants) are taken up. However, in all these situations, State Aid limitations may nevertheless restrict the extent to which generators would be able to combine RHI support with grant support.

Combined heat and power

Since April 2009 the RO has provided an uplift to support renewable combined heat and power. In most cases the RO grants an additional 0.5 Renewable Obligation Certificates (ROCs) per MWh of electricity produced from a renewable CHP plant over that generated by an electricity-only system using the same technology.

This RO uplift is subject to meeting the “Good Quality” requirements of the CHPQA scheme, aimed at maximising the generation of both electricity and “useful heat” in the absence of a specific incentive for heat generation. We believe that direct RHI support for the heat output of CHP will in itself provide a suitable incentive to generators to balance electricity and heat output efficiently without the need for the controls imposed by the CHPQA. We therefore propose not to require CHPQA for RHI eligible CHP.

Under our proposals in this consultation, CHP installations will be eligible for the same RHI tariffs for their useful renewable heat output as dedicated renewable heat installations. The introduction of dedicated RHI support for heat raises the question of the status of the RO uplift for CHP. Separating out support for renewable CHP into discrete instruments for heat and electricity will provide greater policy clarity. More importantly, it could provide a stronger incentive to operators to increase the use of heat output beyond minimum standards. This increase in overall efficiency would lead to greater renewable output and progress towards renewables targets, as well as energy and carbon savings. The following transitional arrangement is proposed:
Renewables Obligation

- For RO-eligible CHP stations installed after the publication of the Renewable Energy Strategy, we will offer a one-off choice to claim RO + uplift, or RO (without uplift) + RHI. Once a station has become accredited under the RHI as well, it will not be possible to reverse this decision.

- This transitional arrangement would be available for new installations completed before the implementation of the review of the Renewables Obligation in 2013.

- Operators of such CHP stations could decide between uplift and RHI at any point between the start of RHI in 2011, and 2013.

- Once the choice is made, stations will be “grandfathered” on this basis.

- After 2013 the RO uplift will no longer be available for new installations, and all new CHP stations will be able only to claim the basic RO tariff + RHI.

Feed-in Tariffs

- The Feed-in Tariffs (FITs) will not offer any compensation or uplift for heat output of CHP. As regards the useful heat output of FITs-eligible CHP installations, we propose that normal RHI eligibility criteria (as set out throughout this document) will apply.

A number of issues need to be addressed in moving towards separate support for heat and electricity output under the RHI, RO and FITs. These include administrative and compliance costs, and consistency with European laws such as the Cogeneration Directive.
Chapter 6

Administration
Role of administrator

Ofgem will be responsible for the overall administration of the RHI. It will make incentive payments to RHI recipients and deal with the auditing and enforcement of the scheme.

We believe that Ofgem is the best placed body to administer the RHI. It has administered the Renewables Obligation for a number of years, and from April 2010, is due to be taking on the management of the Feed-in Tariffs scheme (FITs). Both of these schemes offer financial support to increase the deployment of renewable electricity. Ofgem can build on its experience to help ensure that the RHI operates as effectively and efficiently as possible.

Ofgem has recently been restructured to reflect its increasing role in delivering the Government’s environmental programmes. In September 2009, it announced the creation of E-serve. This body will focus on the administration of environmental programmes, and the delivery of sustainability projects such as offshore wind, smart meters, the proposed carbon capture and storage levy and Feed-in tariffs, as well as the RHI.

Compliance

While we expect the vast majority of owners of heat generating equipment to comply with the rules of the RHI, it is important that there is an effective auditing and compliance regime in place for those that do not.

Non-compliance could take a number of different forms. RHI recipients could provide incorrect meter readings leading to higher incentive payments being made, equipment could be used inappropriately, or, where technology is deemed, they could stop using the equipment or even sell it, yet continue to receive RHI tariffs. Accredited installers could install equipment that does not qualify for support yet falsely claim that it does, or deem the heat demand to be higher than appropriate.

As with any scheme, there will be a spectrum of non-compliance, ranging from those who inadvertently break the rules owing to an honest mistake, to those who deliberately flout the law for financial gain. It is important, therefore, that Ofgem has an auditing and enforcement regime which is effective, proportionate and sufficiently flexible to identify and deal with the full range of non-compliance.

Auditing

As set out in Chapter 1, the onus will be on the owner of the renewable heat equipment to comply with the rules of the RHI. When the technology is installed, in order to receive RHI payments, we propose that the owner of the equipment should be asked to sign a declaration that they agree to meet their obligations under the scheme.

46 www.ofgem.gov.uk/e-serve/Pages/e-serve.aspx
(e.g. keeping the equipment working and well-maintained). We then intend Ofgem to require further declarations (e.g. annually) from the owner confirming that they continue to meet their obligations and still qualify for incentive payments.

Ofgem already has governance, auditing and assurance procedures in place, some of which will be suitable for use with the RHI. As a general principle, where existing procedures exist, such as those used for the Renewables Obligation or Feed-in Tariffs, we will look to replicate the auditing procedures. These include automated checks, together with ad-hoc and scheduled audits and assessments.

In line with the principles of the Hampton Review of regulatory inspection and enforcement, we expect Ofgem to take a risk-based approach to auditing, where the procedures used are proportionate to the potential impact of non-compliance. Procedures could include random spot checks or tests (for instance equipment tests). In taking this approach, Ofgem will need to consider the burden, time and cost of further investigative work and weigh these against the potential costs to energy consumers and the taxpayer more generally from non-compliance.

**Accredited suppliers**

At the smaller scale, we have proposed that accredited installers should only install equipment that meets the required European standards and our proposed deeming process aims to ensure that it is appropriately sized for the location. There is a risk that installers could breach these requirements in order to gain financially (e.g. apply the deeming procedure incorrectly to over-estimate heat demand). We will work with Ofgem and the accreditation bodies to ensure that appropriate auditing processes are in place, in order to detect and tackle any such non-compliance.

**Deemed installations**

With deeming, owners of heating equipment will not be required to supply meter readings for the purposes of determining incentive payments, but will instead receive a set amount based on the technology installed. There is a risk that an owner of heating equipment could stop using the equipment, use it inappropriately or sell it, but continue to receive RHI tariffs.

Generally speaking, it is unlikely that an owner of heating equipment will go to the trouble and expense of installing equipment and then not use it, particularly as most technologies will replace existing heating systems, and therefore become their primary source of heat. However, we must take care that adequate checks are in place to ensure that the RHI is not abused. We will work with Ofgem to consider carefully what auditing processes are necessary for deemed equipment, while bearing in mind the administrative burden and cost that extra checks would impose.

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Q29: Are there any parts of the proposals set out in this consultation that in your view would allow for unacceptable abuse of RHI support, or other unintended consequences? If so, how could we tighten the rules while keeping the scheme workable, and avoiding an overly high administrative burden?

**Enforcement**

We expect that most breaches of the rules will be accidental or minor, and can be dealt with through the auditing process. However, there will need to be an enforcement regime that can address the more serious cases.

In line with the findings of the Macrory Review\(^{48}\) of regulatory sanctions and enforcement, we believe that Ofgem should be given access to a range of powers in order to deal with the full spectrum of non-compliance. As with auditing, any enforcement action should be risk-based and proportionate to the nature and impact of the breach.

**Sanctions**

Non-compliance could in many cases be dealt with through informal responses such as advice and guidance, particularly in the early stages of the RHI, during which owners of heating equipment and installers will be adapting to the new regime. No formal action will be necessary in such cases. For the more serious breaches, where some form of formal action is called for, we will introduce a range of sanctions. Ofgem already has access to a number of sanctions in its licensing regime, in respect of gas and electricity suppliers. These include powers such as warning letters, enforcement orders and monetary penalties. As far as possible, we will look to align any new sanctions with Ofgem’s existing powers, whilst ensuring that they are appropriate for the RHI regime.

If a recipient of the payment is found to be abusing the RHI, such as deliberately claiming a larger incentive payment than that for which they are eligible, we propose giving Ofgem the power to exclude them from the scheme.

Where an RHI recipient has received an over-payment, we intend to allow Ofgem to offset the excess against future payments. If an owner of heating equipment has been excluded from the scheme, but has already received an over-payment, we would expect them to repay the money. If they fail to return the money, Ofgem may seek to recover it through the civil courts, as well taking more punitive action for the breach (e.g. imposing a monetary penalty) where appropriate.

If an accredited installer is found to be breaking the rules of the RHI, we expect the accreditation body to take action against them. This could include them losing their

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accreditation status, which would have a significant financial and reputational impact on their business. Such breaches may also fall foul of consumer protection law.

Deliberate attempts by owners of heating equipment or accredited installers to gain financially by providing false information could constitute fraud and would be dealt with accordingly. Where Ofgem believes fraud has occurred, it will be able to report such cases to the appropriate prosecuting authority who will decide whether or not to prosecute.

In order to maintain transparency and consistency, we expect Ofgem to publish an enforcement policy setting out the circumstances in which the regulator is likely to take action, and what sanctions it might employ. This policy would also outline the factors taken into consideration when deciding on what action to take.

Rights of redress

Where any sanction is imposed, such as a monetary penalty or enforcement notice, there will need to be an appeal route so the person subject to the sanction can challenge its imposition.

We will also work with the organisations involved in running the RHI to ensure that there are processes for handling complaints against Ofgem, approved installers, or any other body involved in delivering the scheme.

Data collection

In order to assess how well the RHI is meeting its objectives on incentive take-up and the amount of renewable heat generated, a range of data will be collected. The responsibility for data collection will lie with Ofgem.

The data collected will include:

- number and type of installations;
- cost of installation;
- amount of heat generated;
- source of heating that owners of heating equipment are switching from and to; and
- demographic information – country, region, urban/rural, etc.

As well as monitoring RHI take-up, the data collected by Ofgem will be made available to DECC and, where appropriate, the Devolved Administrations for other statistical purposes, such as monitoring renewable energy consumption as required by the Renewable Energy Directive. Ofgem will need to consider the burden of providing data when making any requests and ensure that anything that is requested will be used and is necessary.
Role of the Devolved Administrations

This consultation sets out the UK Government’s approach to renewable heat. The Energy Act 2008 provides statutory powers for the RHI to be established across England, Wales and Scotland. Details of how the RHI will operate will be set out in the form of regulations that we expect to be laid before Parliament in early 2011.

When it comes to the nations and regions of the UK, the proposed regulations are likely to cover partly devolved and partly reserved matters. We have engaged closely with the Devolved Administrations to develop our proposals for consultation and will continue to work closely with them to develop the regulations that will underpin the scheme.

In addition, the Devolved Administrations are developing their own plans to increase the use of renewable energy. We are working closely with them to ensure that our proposals for the RHI complement their plans.

Scotland

As heat is devolved to Scotland, Section 100 of the Energy Act 2008 provides that Scottish Ministers will be consulted, and, where appropriate, their consent obtained, before the regulations establishing the scheme are implemented. This is to ensure that Scottish interests are appropriately taken into account in the design of the scheme.

Scottish Ministers attach a high priority to the development of a policy on renewable heat. This is evident in the Climate Change (Scotland) Act 2009, which mandates the Scottish Executive to produce a plan for the use of heat from renewable sources and to report regularly on its progress.

Scottish Ministers see a particular opportunity for communities and businesses in rural off-gas grid areas to benefit from switching to renewable energy sources, where the economic case for doing so is strong. Individual solutions based on micro-renewables such as biomass, solar thermal and heat pumps will be particularly important. In urban and semi-urban locations there are greater opportunities for the use of renewable district heating.

The Scottish Renewables Action Plan, published in July 2009, identifies collective actions by the Scottish Executive, its agencies and partners, to ensure that by 2020 at least 20% of Scotland’s energy comes from renewable sources.49 This is supplemented by a more detailed Renewable Heat Action Plan for Scotland, published in November 2009,50 which sets out a framework for activity across a wide range of areas to contribute to Scotland meeting its 2020 targets.

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49 www.scotland.gov.uk/Publications/2009/07/06095830/0
Specifically, the Scottish Renewables Action Plan:

- **Gives an overview of Scotland’s current position and goals** – Heat constitutes some 50% of energy demand in Scotland. Renewable heat use is currently around 1.4% (829 GWh). By 2020 Scotland must increase its uptake of renewable heat to 11% of total demand, to contribute to an overall renewable energy target (including electricity and transport) of 20%.

- **Identifies what needs to be done, and by when** – Scotland needs to use all the technological options available, at all scales. Biomass, on an industrial and commercial scale, will make the most impact in the short to medium term. The domestic sector, which is the largest consumer of heat, is more challenging and will contribute to longer-term targets along with technologies such as energy from waste and biogas.

- **Identifies indicative milestones to 2020**

<table>
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<tr>
<td>2018</td>
<td>9.0%</td>
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<tr>
<td>2020</td>
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**Wales**

The Renewable Energy Route Map for Wales (2008) illustrates Wales’s current best estimate of practicable heat and electricity outputs from each of the technologies by 2025.\(^{51}\) The Welsh Assembly Government’s Bio-energy Action Plan consultation shows how by 2020 Wales could generate around 2.5 TWh of renewable heat per annum from biomass.\(^ {52}\) The development of the Welsh Assembly Government’s low carbon energy policy statement updates the estimates contained within the Renewable Energy Route Map and will be published early in 2010.


The Welsh Assembly Government is also proposing to change the Home Energy Efficiency Scheme which will mean it will be able to support the installation of renewable heat technologies, where appropriate, as part of a whole house approach focused on the most inefficient properties.

Arbed: the new Strategic Energy Performance Investment Programme, is a joint housing, regeneration and energy efficiency initiative, which will invest in the energy performance of buildings which in turn will generate green jobs and drive innovation. In total, it is estimated that up to £350 million will be invested in the energy performance of Welsh homes over the next three years, coordinated through Arbed. Renewable heat technologies will be among the measures supported as part of a whole house approach.

The Welsh Assembly Government has also secured European funding for a Community Scale Renewable Energy Generation project and a Wood Energy Business Scheme that will support renewable heat installations across Wales.

**Northern Ireland**

Northern Ireland will not be included in the RHI as the province is not covered by the legislation in the Energy Act 2008.
Annex 1

Glossary
AD – Anaerobic Digestion; a biological process which produces bio-gas from discarded food and farm waste.

Banding – a mechanism to provide different levels of support to different technologies based on, for example, technology type and installation capacity.

BCC – Birmingham City Council.

BSF – Building Schools for the Future.

CERT – Carbon Emissions Reduction Target; an obligation on energy suppliers to deliver measures that provide CO₂ savings.

CESP – Community Energy Saving Programme; a programme to deliver energy efficiency packages.

CHP – Combined Heat and Power; the simultaneous generation of useable heat and electricity in a single process.

CHPOA – CHP Quality Assurance Programme, provides a means to assess and monitor Good Quality CHP capacity.

DECC – Department of Energy and Climate Change.

Defra – Department for the Environment, Food and Rural Affairs.

Degression – a mechanism whereby tariffs are reduced annually to reflect, and to some extent encourage, expected decreases in technology costs.

DUKES – Digest of UK Energy Statistics.

EfW – Energy from Waste.

EN 45011 – General requirements set by national standards bodies for bodies operating Certification Schemes.


Feedstock – input material in process.

FITs – Feed-in Tariffs.

g/GJ – Grammes per gigajoule.

GWh – Gigawatt hours.

Grandfathering – provides certainty for an investor by setting a guaranteed support level for projects for their lifetime in a scheme, regardless of future reviews.

HCA – Homes & Communities Agency.

kWh – Kilowatt hour (heat output).

LCBP – Low Carbon Buildings Programme; a programme providing grants for the installation of microgeneration technologies.
MCS – Microgeneration Certification Scheme.
MW – Megawatts (heat output).
NOx – Nitrogen oxide.
Ofgem – Office of Gas and Electricity Markets.
Oftec – Oil Firing Technical Association.
PM – Particulate Matter (emissions measurement).
RFA – Renewable Fuels Agency – administers the RTFO for Government.
RHI – Renewable Heat Incentive.
RO – Renewables Obligation.
ROC – Renewable Obligation Certificate.
RTFO – Renewable Transport Fuel Obligation; an obligation on supplies of road fuels to ensure a certain percentage of the fuel they supply is made up of renewable fuels.
SAP – Standard Assessment Procedure – for the energy assessment of dwellings.
TWh – Terawatt hours (heat output).
UKAS – United Kingdom Accreditation Service.
Annex 2

The BRE Standard House Set and deeming useful energy for heat
This annex provides illustrative estimates of useful energy for space heating in the domestic sector. Although the exact deeming methodology will be determined post consultation, Table 1 can give an indication of the approximate deemed heat demand for a number of characteristic dwellings.

### Table 1: Useful energy for space heating broken down by property type and number of bedrooms per property

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<tr>
<td></td>
<td>Units</td>
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<td>Flat</td>
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<td>3</td>
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<td>Mid-terrace house</td>
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<td>3</td>
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<td></td>
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### Notes:
1. The useful energy requirement for hot water is assumed constant across all property types and sizes at 3,742 kWh/year.
2. The figures presented in this table assume filled cavity walls and adequate (150mm) loft insulation where appropriate.
3. Figures in bold are for base case dwellings. Figures in ordinary type have been extrapolated from the base case dwelling numbers using a scaling factor.
Origin of data:

The information provided in Table 1 is based on the Standard House Set which was developed by BRE with Defra to calculate energy savings for eight main dwelling types found in Great Britain in the context of the Energy Efficiency Commitment (EEC) 2008-11. Drawings were created for these dwelling types and the dimensions of the external walls, roof, floor, windows and doors provided inputs in BREDEM, BRE’s Domestic Energy Model.

This information is used in analysis underpinning DECC’s Carbon Emissions Reduction Target program (CERT). Rather than calculate energy consumption and savings from efficiency measures, the useful energy for heat has been extracted for seven of the eight ‘base case’ dwellings. Specifically, the table presents useful energy for space heating for the base case dwellings, shown in bold type and underlined. Figures for other dwelling sizes have been extrapolated from the base case dwellings using a scaling factor. These ‘variant’ dwellings are shown in ordinary type.

The useful energy requirement for hot water does not depend on the property size and is assumed constant across all dwelling types at 3,742 kWh/year, corresponding to an occupancy rate of 2.9. Again this is the assumption put forward by BRE for CERT.

53 BREDEM-12 was used to generate the numbers presented in this document. More information on BREDEM can be found at: www.bre.co.uk/index.jsp
54 A single Flat type is used where EEC 2008-11 presented two separate Flat designs.
Annex 3

Call for Evidence on district heating networks
On the basis of our previous research and consultations we currently do not have sufficient data, particularly on the details of network costs, to propose a level of uplift. We intend to determine any uplift as follows.

- As with our approach to setting the main tariffs where we have used the costs of average installations (or “reference installations”) in each tariff, we would use “reference networks” to determine the level of uplift. As with the costs of generating equipment, network infrastructure costs will vary (depending on for instance the length of pipes or heat load density). It would not be practical to calculate different tariffs or uplifts for each installation based on its specific costs. We would welcome views on the characteristics of “typical” district heating situations that should be used to determine the costs of reference networks.

- It is likely that only parts (or a percentage) of such typical networks would meet our objective of reaching hard-to-treat properties, since other parts of the network could feasibly be supported by stand-alone renewable technologies. So any uplift should only pay for the costs of that proportion of the network which served hard-to-treat properties. We would therefore also welcome views on what proportion of the reference district heating network would typically be supplied to hard-to-treat properties.

- Using this information we would set an uplift in p/kWh which can be added to the main tariff. We welcome views on whether the resulting single uplift would be capable of accommodating differences in physical network size or boiler size, and whether we should accordingly have one uplift for all sizes of installations, or several.

In summary, this approach would involve setting an uplift amount by taking the network costs of a typical district heating system (in p/kWh of the network’s heat load over the lifetime of the main tariff in question), and multiplying this with a deemed percentage reflecting the proportion of the network that would typically serve hard-to-treat properties. In addition to feedback from this consultation, we will undertake further research into these aspects during the first half of 2010, and publish any uplift level(s) together with or shortly after the final main RHI tariffs.
Q30: Do you agree with our proposed overall approach to setting the level of the uplift? Can you provide evidence that would help us to determine the level of uplift? In particular:

- Can you describe typical district heating networks that would be appropriate as reference networks, and what are their network costs, heat loads, and customer numbers and characteristics?

- What proportion of the heat load of such networks is typically supplied to hard-to-treat properties? What proportion of the total network of the reference installation(s) supply heat to hard to treat properties?

- Should we choose one reference network and determine one uplift (in p/kWh) applicable to all sizes of networks, or should there be several based on a number of differently sized reference networks?
Dear Secretary of State

RAB Response to the Consultation on the Renewable Heat Incentive – April 2010

The Renewables Advisory Board is pleased to submit the following response to the Consultation on the Renewable Heat Incentive, issued on 1st February 2010. RAB welcomes the proposals and believes they go a long way to encouraging the development of renewable heat, though we are concerned that the opportunity to make use of renewable heat through district heating is given insufficient emphasis. We congratulate DECC on the progress made to date, and being on track to meet the very challenging April 2011 implementation timescale.

RAB’s Task Group on Renewable Financial Incentives has met on several occasions in recent months to consider the Government’s proposals, most recently on 12th April. This response also takes into account discussion at the full RAB meeting on 25th March. RAB does not propose to respond to individual questions in the consultation, however this letter provides RAB’s views on what we consider to be the key issues raised.

The key points that RAB wishes to make are summarised below:

- RAB welcomes the RHI proposals and congratulates DECC on the progress made to date, and being on track to meet the very challenging April 2011 implementation timescale. We believe that the over-riding imperative is for the UK’s suite of financial incentives to facilitate, in aggregate, the achievement of the UK’s target under the Renewables Directive for energy production in 2020. To achieve this, the incentives must be attractive and stable enough to attract the necessary investment, and there are aspects of the RHI where we believe this is not the case.

- RAB is supportive of the principle of providing a fixed rate of return to RHI customers and the proposal to coordinate the RHI with other renewables incentives. We also support the proposal to encourage energy efficiency through deeming. DECC should consider the option for payments to be split into a fixed payment based on repayment of capital and one linked to a relevant fuel price index (where appropriate). The key is to set a tariff structure that grandfathers the return to consumers.

- RAB believes that networked renewable heat solutions should be considered on the same footing as stand-alone applications and strongly recommends that the RHI give renewable district heating a high priority. We believe the Government should initially choose the simple approach of a fixed level of support (10p/kWh) over a fixed lifetime (20 years) accompanied by a period of research into the opportunities available and options
for longer term support, and a thorough review of the position when the RHI is first reviewed in 2013.

- The RHI should be available to early adopters that have installed qualifying technology prior to 15th July 2009. RAB wishes to see that early adopters are not discouraged as this will engender a ‘wait and see’ mentality.

- Whilst RAB supports the central administration of the RHI by Ofgem, we suggest that further discussion is required around the optimal billing, compliance, auditing and customer services processes and systems.

- The current accredited installer base is limited and requires significant development. RAB believes the MCS needs rapid reform if it is to fulfil its role of certifying products and installers under the RHI. It is important that appropriate standards are put in place, especially emissions standards for biomass boilers below 20MW. Consumers must also have access to independent advice on the costs/benefits of the various options available to them.

- RAB believes that the requirement for RHI payments to go to the owner of the equipment will restrict the implementation of innovative financing mechanisms. DECC needs to clarify whether the legislation allows payments to be secured by a lender and whether leasing can work under the current arrangements.

- RAB welcomes the extra half ROC uplift provided for renewable CHP since April 2009 and the one-off choice to retain this or claim support for the heat under the RHI. However we recommend that the delay caused by a combination of the credit crunch and uncertainty over biomass grandfathering be factored into the transitional arrangement, providing a revised deadline for the one-off choice of April 2015.

- RAB is concerned that the RHI does not make provision for supporting renewable cooling, despite the fact that the Renewable Energy Directive appears to give equal weight to renewable energy heating and cooling throughout its text. DECC needs to clarify whether renewable cooling energy per se can be counted against the UK’s Directive target and, if so, provide details on the exact definition for compliance purposes.

RAB provides the following more substantive response to the RHI consultation:

**Policy background and principles**

- RAB supports the proposed approach to provide a predictable and stable return to RHI customers. However, the proposed policy aims to cover both return on capital (fixed in nominal terms) and incremental fuel costs (which may be highly variable over a given installation’s lifetime). It may therefore be necessary to devise a tariff structure that can account for fluctuations in fuel prices for relevant technologies.

- RAB supports fully the need to put energy efficiency first, and supports the approach, for small scale systems, that the deemed heat should be based on the assumption that all cost effective energy efficiency measures have already been taken. RAB believes that taking this further, for example, through a regulatory requirement for such measures as a pre-condition for RHI entitlement would be a step too far and would risk imposing unrealistic requirements on installers, particularly in the household sector.

- RAB believes the RHI should be available to the early adopters that installed qualifying technology prior to 15th July 2009. RAB wishes to see that early adopters are not
discouraged (as has happened with the FiT). The higher costs of RHI and FiT are justified if they create sustainability champions in communities - implying that the early adopters who are already doing this should not share in this extra reward will be very counterproductive and engender a 'wait and see' mentality. There is also an argument that the introduction of the RHI will create greater demand for biomass, raising the price - this will actually penalise early adopters who could not have foreseen this when they made their decisions.

- RAB has concerns about the implementation timetable and need for new legislation to implement the regulations and funding arrangements. The supply chain needs reassurance that the RHI will be in place in time and provide the required support.

**Support for renewable district heating**

- RAB strongly recommends that the RHI should provide additional support for renewable heat delivered via district heating systems and that this should be given a high priority, to kick-start activity in this area. It should not be limited just to “hard to treat” properties, as networked solutions may be able to provide the most cost-effective means of delivering renewable heat even where stand-alone applications are feasible. Networked renewable heat solutions should therefore be considered on the same footing as stand-alone applications, as should their potential role in supporting manufacturing and other energy intensive industry. A wide range of bioenergy heat sources should be eligible, including new build biomass, waste to energy plants and advanced thermal treatment facilities.

- The consultation document suggests a mechanism for calculating the district heating uplift and calls for evidence to support the level at which it should be set. Although individual organisations represented on RAB may be able to provide evidence on the costs of networks, the Board itself is not in a position to provide such data.

- Nevertheless RAB believes that the RHI needs to send a strong signal to the marketplace that it is encouraging the uptake of renewable heat through heat distribution systems, in particular to ensure that local authorities give the opportunities thus afforded proper consideration when updating their development plans in line with the revised PPS1/22. We believe that, of the range of mechanisms that could be used to support such networks, the Government should initially choose the simple approach of a fixed level of support (10p/kWh) over a fixed lifetime (20 years). This would apply to units of heat from an eligible renewable heat technology, delivered through a district heating network either at a ready to use temperature or upgraded via a heat pump at the point of load. We think that this figure is justified as providing a rate of return commensurate with that proposed for stand-alone installations, on the basis of RAB members’ feasibility studies and further views given to us by the Combined Heat and Power Association. We would be happy to undertake a limited study in the coming months to review the available evidence and, if necessary, propose an alternative initial tariff structure.

- The initial tariff period should be accompanied by research into the market opportunities and options for longer term support, and a thorough review of the position undertaken when the RHI is first reviewed in 2013. However RAB believes that if a strong signal is not sent from the outset, much of the potential in this area could be lost.

- We believe that DECC needs to clarify the eligibility criteria for heat delivered through low temperature heat distribution systems and upgraded to higher temperature using heat

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1 This is clearly demonstrated in the Pöyry / AECOM report, “The Potential and Costs of District Heating Networks”, April 2009. Figure 1 in the report compares the cost of providing waste heat through a large-scale DH network with a range of other heat supply technologies, including stand-alone renewable installations and a counterfactual baseline.
pumps at the point of use. This may well afford a very attractive option compared with individual renewable heat installations.

- RAB notes that the financial and non-financial barriers that exist for district heating are largely applicable to both renewable and fossil fuel fired district heating schemes and therefore, in order to prove effective, a renewable district heating uplift must address more than the disparity between the costs of renewable and fossil fuel networks.

- RAB agrees that the supply of heat to a single external user should be suitably incentivised under the standard RHI tariff and should therefore not be eligible for an additional uplift. We would comment however that the proposed criteria of a minimum 10 connections to a network appears to be an arbitrary figure and may preclude smaller networks which could potentially supply a small number of industrial installations amounting to a significant supply of renewable heat.

- Additionally, well designed large-scale plant do not generate high grade waste heat and therefore the Renewable Heat Incentive should take into account that the provision of high grade heat or steam suitable for most industrial applications or district heating schemes is only at the expense of electricity production.

**RHI tariffs**

- RAB believes that DECC should consider the option for payments to be split into a fixed payment based on repayment of capital and one linked to a relevant fuel price index or differential (this applies both to bioenergy applications and the electricity required to run heat pumps). The key is to set a tariff structure that (ex ante) grandfathers the average return to users of renewable heat solutions.

- RAB is concerned that the exclusion of ASHP from the tariff table on large-scale installations implies a size cap on this technology and believes that DECC needs to clarify whether ASHP projects above 350 kW (based on a modular combination of smaller size units) will be eligible for the 45-350 kW tariff under 'medium installations'. If this is the case then it would be appropriate to remove the upper size limit for ASHP. RAB believes that the tariffs applicable to larger ASHP and GSHP installations should be based on the size of the individual units used (rather than the total project capacity), so long as the project is making use of the largest available equipment on the market. This is because there are few economies of scale involved in the installation of multiple modular units.

- DECC needs to use the relative tariff structures in the RO/RHI/FiTs to ensure that the most energy efficient bioenergy options are favoured.

- RAB also notes that in practice, capital and operational costs for CHP plants do not increase in linear proportion to the generating capacity of the plant. In addition, smaller plant are likely to be able to source all, or the majority, of their feedstock from local sources which are likely to be less costly than the imported feedstocks necessary to meet the demand of larger scale CHP installations. Any further consideration or assessment of the large-scale installation tariff should take such considerations into account and RAB would comment that it may be necessary to provide further variation within the tariff technology categories in order to ensure appropriate support is offered to a range of operating capacities.

- RAB believes that it would be more efficient to subsidise the producers of bio-liquids rather than the users. Is this not analogous to biomethane injection to the gas grid?
Financing renewable heat investments

- RAB believes that the requirement for RHI payments to go to the owner of the equipment will restrict the implementation of financing mechanisms. Whilst there is nothing to stop the owner assigning the right to receive the payment to a third party, equally there is also nothing to stop the reversal of this. Commercial lenders, particularly to consumers, therefore face a considerable credit risk that could be avoided (thereby reducing overall financing costs of the RHI) if they were legally entitled to receive the payments direct. This could be of particular benefit to fuel poor households, because it will allow installations of renewable heat equipment to take place in fuel poor and other vulnerable households without the occupant needing to become involved in the commercial arrangements / payment flows associated with their installations. Given concerns that the fuel poor are likely to pay disproportionately for the costs of the RHI, RAB sees it as particularly important that the legislation is framed to allow the maximum possible chance of them benefiting from the measures the RHI supports.

- There therefore needs to be a facility for payment to go directly to the financier or developer (the “assignee”) to minimise credit risk. RAB's current reading of the relevant primary legislation is that a consumer would be able to reverse any decision to assign payment rights (although doing so might place them in breach of a credit agreement), and strongly recommends DECC clarify the legal position as to whether the legislation allows payments to be irreversibly secured by a lender. The financing arrangements for the RHI need to be same as for Feed in Tariffs.

- RAB believes the RHI should encourage all forms of financial instrument, including, for example, leasing and other forms of asset finance. Under current legislation, RAB believes such means of finance are not possible other than under a designated affordable warmth scheme, because the Capital Allowances Act prevents the writing down for tax purposes of any equipment installed in a dwelling/house. This is a particular constraint for Local Authorities and Housing Associations.

Deeming at small and medium scale

- RAB supports the proposal to deem heat requirements at small and medium scale, which should lead to a strong element of self-regulation. In the household sector, this should be based on established methods such as SAP, and on the assumption that all cost effective energy efficiency measures have already been taken. However we recognise that there will be situations where deeming may not give the right answer (e.g. where renewable energy provides only a partial load). Therefore other options also need consideration.

- Consumers must have access to independent advice on the costs/benefits of the various options available to them. It is also particularly important that consumers are not given misleading advice on the suitability of products eligible for the RHI. Whilst it would be disproportionate to expect every company, irrespective of size, to be able to advise on all options available to a householder, it is essential consumers are not misled as to the performance claims of the product on offer by that salesperson, and this should be policed as part of the certification process. For example, advice from a salesperson only dealing with solar thermal that “our system should provide around 50% - 70% of a household’s hot water” may well be accurate, but “solar thermal is a more cost effective option than cavity wall insulation” is unlikely to be. It is important therefore that the Microgeneration Certification Scheme develops a system of spot-checks and randomly sampled consumer feedback to ensure consumers are being given accurate information.
Emission limits for biomass installations

- The indicative emissions performance standards for biomass boilers are significantly higher than those found in other European countries. Consequently it is likely that many installations will require additional flue gas treatment systems and will be bespoke in design. In those circumstances ‘across the board’ accreditation would need to be replaced with individual compliance / accreditation. This also implies that systems would require regular checks to demonstrate continuing compliance with statutory emission limits and efficiency standards, perhaps on a 24 or 36 month cycle. Pollutants monitored should include combustion and acid gases, particulates, PM10 and PM2.5 and heavy metals.

- This will significantly increase the capital cost and administrative burden for biomass combustion plant, so the level of support given will need to be sufficient to support this where these standards are applied. In any event, RHI emission standards should be aligned with those in the Clean Air Act so that there is continuity in regulation.

- The current proposals fail to address the cumulative impacts of a number of biomass installations within a particular locality in an urban area. Current regulations for installations above 20MW require the impact of the plant on the surrounding air quality levels to be assessed against national air quality objectives, thereby taking account of background air quality which would include existing biomass installations in the area. A similar approach would be more appropriate for biomass boilers under 20MW, allowing their impacts to be assessed on a case-by-case basis which considers the air quality of that locality.

- However, while such standards are necessary in smoke control areas, they should not be necessary or as low in rural locations where biomass combustion systems do not pose any threat to air quality levels.

- Finally, anyone installing a biomass combustion system between 15th July 2009 and the date of the statutory adoption and implementation of the RHI should be entitled to the full incentive regardless of meeting the final agreed standard for emissions.

RHI administration and certification

- The RHI needs a clear auditing process, in particular for the deeming of heat requirements. The administration systems need to discourage any gaming or mis-selling. RAB supports the principle of using the MCS for this purpose at the scales of technologies to which the MCS applies, but is concerned that the MCS needs considerable change if it is to be fit for this purpose. Currently BRE runs a robust accreditation process for the MCS scheme, which assesses the competence and quality of installers. The range of installers and experience and capability required for large scale installation will require a parallel (and appropriately named) scheme tailored to the different needs of installations in the MW rather than kW range.

- RAB believes considerable work needs to be done to allow the MCS to be suitable across all products for assessing the deemed annual heat against which the RHI will be paid, and that there need to be safeguards built in to ensure that RHI payments are only made to systems actually being used, and being serviced properly to maintain their performance levels. There must also be safeguards against consumers stopping using the renewable energy equipment (especially in cases where it is not the only source of heat, for example where a gas boiler alternative remains in place) or, in the case of metered facilities, dumping heat to improve income.
• RAB believes it is essential that organisations with experience of dealing with mass-market registration, billing and payment systems are brought in to administer the consumer-facing aspects of RHI administration. RAB believes that whilst Ofgem may carry ultimate responsibility, it lacks the necessary experience to do this in house, and that customer experiences with the Renewables Obligation, particularly for householders, have been unwieldy and over-bureaucratic. RAB is aware that commercial service providers stand ready to bid competitively for many aspects of RHI administration, and that this should be encouraged - if necessary with proper ring-fenced bidding by Ofgem's E-serve also being permissible. RAB believes it is important that DECC clarify what the current legislation allows with respect to delegating Ofgem's role.

• RAB also believes that Ofgem would be well placed to act as a regulator of compliance for the scheme, and that this is entirely appropriate and in keeping with Ofgem's more general role; for it to act as the administrator as well presents a clear conflict of interest as it would be determining complaints about its own performance.

• DECC must be clear about which equipment certification standards will apply, including those from other EU countries.

• RAB accepts that some issues will not be resolved by April 2011 and that loopholes can be closed in due course. DECC needs to find the right balance between governance and excessive bureaucracy.

• When properties change hands, there must be a mechanism for the buyer to access information on the RHI contract.

• Finally we would like to stress the importance of coordinating the registration systems across the various renewables incentives.

Transitional arrangement for CHP heat supported under the RO

• RAB welcomes the extra half ROC uplift provided for renewable CHP since April 2009 and the one-off choice to retain this or claim support for the heat under the RHI. However the credit crunch and uncertainty over the grandfathering of biomass under the RO is delaying the implementation of many biomass projects. The Government has announced a consultation on proposed changes to RO policy to resolve the grandfathering issue and we hope that momentum on projects stalled in the process will gather in the second half of 2010.

• Biomass construction periods are very long (30 to 36 months) and accreditation under the RO can only take place once the plant is operational. Therefore, it is now likely that projects which are financed in the second half of this year will only become operational in the first half of 2013 but, under the transitional arrangements, will lose their right to choose to grandfather the heat half ROC in April 2013. Whereas government might argue that it is being replaced by the RHI, the fact of the matter is that projects have committed to heat arrangements based on the certainty of the half ROC income stream and financial models depend on it. Equally, we do not want a situation where the banks, having got comfortable with biomass grandfathering, get uncomfortable with the removal of heat ROC grandfathering.

• RAB therefore strongly recommends that the delay caused by a combination of the credit crunch and uncertainty over biomass grandfathering be factored into the transitional arrangement, providing a revised deadline for the one-off choice of April 2015.
Role of renewable cooling

- In May 2009 RAB submitted a paper to DECC – “Renewable Cooling, the Case for Incentivisation”. In it we recommended that the compliance position of renewable cooling energy towards meeting the UK’s target needs to be urgently confirmed as, if renewable cooling energy itself is compliant (as opposed to the obvious Directive target compliance of renewable heat converted to useable cooling via an absorption chiller), there is a high likelihood of perverse outcome if not carefully considered in RHI policy derivation, particularly as little unequivocal compliance definition appears to be available within the Directive itself. We have therefore requested a statement from DECC as to whether renewable cooling energy per se can be counted against the UK Directive target and if so would also seek details on the exact definition for compliance purposes.

- RAB is concerned that the RHI does not make provision for supporting renewable cooling, despite the fact that the Renewable Energy Directive appears to give equal weight to renewable energy heating and cooling throughout its text. We recognise the danger that air source heat pumps can be used in cooling mode as well as heating mode and that there is a risk of increased electricity use during summer periods from the use of such cooling if provided as an “extra” function with an air source heat pump. RAB would support steps to be taken to prevent this possible perverse outcome.

- However the use of air conditioning in the UK is already steadily rising in both the commercial and domestic sector, and this trend is likely to continue and possibly even accelerate if climate change results in higher summer temperatures. RAB believes that renewables policy should recognise this inevitable trend and maximise the contribution that renewable cooling can make particularly as other member states will rely on renewable cooling energy to achieve their National target, leaving the UK disadvantaged if this potential sector is not supported (dependant of course on confirmation as to whether renewable cooling energy can be accounted towards the Directive target compliance).

- Indeed ground source heat pumps operated in cooling mode can provide a means for replenishing underground heat stores, i.e. the ground or ground water can act as an interseasonal heat store, charging with heat during the summer and with cooling during the winter, improving seasonal Coefficients of Performance both in heating and cooling mode. In fact Environment Agency Policy document GP3 has classed heat or “coolth” as a potential pollutant of open or ground water and as such requires all ground source heat pump installations above 20kW heat output to be “sustainable”, defining sustainable as being in thermal balance (effectively a statement that over a defined period of time any heat extracted must be actively replaced on a net basis with a similar requirement for cooling, to comply with EA licensing conditions) a regulation which mirrors the highly successful Dutch regulation which has already driven performance improvement in Dutch heat pump systems such as Aquifer Thermal Storage to the point that these systems are the lowest carbon emitting ambient source heat pump systems capable of serving normal built environment heating and cooling needs.

- Open loop cooling is also an important source of ground water to improve the efficiency of process refrigeration (as opposed to air conditioning) equipment on for instance supermarkets and cold stores. Currently the high capital cost of the boreholes deters this solution from being widely used.
Interaction with the Carbon Reduction Commitment

- As RAB pointed out in our response to the Consultation on Renewable Electricity Financial Incentives 2009, we believe that there is a role for the FIT and RHI to have policy interaction with CRC in later phases of the CRC when participants have already made a substantive reduction in their carbon emissions and are thus finding it increasingly difficult to provide further economic improvements through energy efficiency. We believe that the cascading of the CRC and renewables incentives would, if carried out effectively, enable the Carbon Reduction Commitment at higher carbon reduction levels to act as a positive incentivisation mechanism for higher performing CRC participants.

Miscellaneous

- Heat pumps provide an opportunity to upgrade heat from ambient sources to higher temperatures for use in heating and process applications. The directive stipulates that, for the energy delivered by the heat pump to be counted as renewable heat, the seasonal performance factor (SPF) must meet a minimum threshold. The Commission has undertaken to establish guidelines by 1 January 2013 on how to calculate the contributions from various heat pump technologies but the industry needs such guidance now on the treatment of heat pumps under the RHI, including what heat sources they can use.

Conclusion

We hope that the views in this letter will prove helpful in steering the implementation of the proposals and are keen to continue working with your officials on any detailed aspects that require further discussion.

Yours faithfully

M.P. Landy

p.p. Keith Maclean Dave Sowden

Co-Chairs, RAB Task Group on Renewable Financial Incentives

cc  Bernie Bulkin, DECC
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(b) make any provision which, but for a repeal or modification under paragraph (a), could be made by regulations made under section 29 of the Electricity Act 1989.

Commencement
Pt 5 s. 99(1)-(2)(b): Date to be appointed (not yet in force) (2008 c. 32 Pt 6 s. 110(2))

Extent
Pt 5 s. 99(1)-(2)(b): England, Wales, Scotland

Renewable heat incentives

Law In Force

100 Renewable heat incentives

(1) The Secretary of State may make regulations—
   (a) establishing a scheme to facilitate and encourage renewable generation of heat, and
   (b) about the administration and financing of the scheme.

[(1A) Regulations under this section may confer any function on any person.

(1B) Regulations under this section may provide for a function conferred on a person to be exercisable on behalf of another person.]

(2) Regulations under this section may, in particular—
   (a) [make provision giving any of the following persons entitlements to payments (“RHI payments”) in specified circumstances—] [2]
      (i) the owner of plant used or intended to be used for the renewable generation of heat, whether or not the owner is also operating or intending to operate the plant;
      (ii) a producer of biogas or biomethane;
      (iii) a producer of biofuel for generating heat;
   (b) make provision about the calculation of [RHI payments] [3];
      [(ba) make provision about the circumstances in which, and descriptions of persons to whom, the whole or a part of an entitlement to an RHI payment may be assigned (whether the person has the entitlement by virtue of regulations under paragraph (a) or regulations under this paragraph);
      (bb) authorise or require the Secretary of State, the Authority, designated fossil fuel suppliers, or any person with any other administration function, to make an RHI payment—
         (i) to the person who is entitled to the payment by virtue of regulations under paragraph (a), or
         (ii) where that entitlement has been wholly or partly assigned in accordance with regulations under this section, to the person or persons for the time being enjoying the entitlement or any part of it;]
   [4]
   (c) make provision about the circumstances in which [RHI payments] [5] may be recovered;
   [(d) authorise or require a person to provide specified information;] [6]
(e) require the payment of a levy by designated fossil fuel suppliers [...];
(f) make provision about the calculation of the levy;
(g) make provision for payments to fossil fuel suppliers in specified circumstances;
(h) make provision about the enforcement of obligations imposed by or by virtue of the regulations (which may include a power [...] to impose financial penalties);
(i) [...];
[j] authorise the Secretary of State to make payments to a person in respect of the exercise by the person of functions under regulations under this section;
(k) make provision about the resolution of disputes relating to the exercise of functions under regulations under this section, including provision about arbitration or appeals (which may, in particular, provide for the person conducting an arbitration or determining an appeal to order the payment of costs or compensation).]

(3) In this section—

“Authority” means the Gas and Electricity Markets Authority;
“biofuel” means liquid or gaseous fuel which is produced wholly from biomass;
[“biogas” means gas produced by the anaerobic or thermal conversion of biomass;] ¹¹
“biomass” means material, other than fossil fuel [...] , which is, or is derived directly or indirectly from, plant matter, animal matter, fungi or algae;
“biomethane” means biogas which is suitable for conveyance through pipes to premises in accordance with a licence under section 7 of the Gas Act 1986 (c. 44) (gas transporter licences);
“designated fossil fuel suppliers” means—
(a) if the regulations so provide, a specified class of fossil fuel suppliers, and
(b) in any other case, all fossil fuel suppliers;
“fossil fuel” means—
(a) coal;
(b) lignite;
(c) natural gas (within the meaning of the Energy Act 1976 (c. 76));
(d) crude liquid petroleum;
(e) petroleum products (within the meaning of that Act);
(f) any substance produced directly or indirectly from a substance mentioned in paragraphs (a) to (e);
“fossil fuel supplier” means a person who supplies fossil fuel to consumers for the purpose of generating heat;
[“other administration function” means a function relating to the administration of a scheme established under this section, other than a function conferred by regulations under subsection (2)(bb);] ¹³
“owner”, in relation to any plant which is the subject of a hire purchase agreement, a conditional sale agreement or any agreement of a similar nature, means the person in possession of the plant under that agreement;
“plant” includes any equipment, apparatus or appliance;
“renewable generation of heat” means the generation of heat by means of a source of energy or technology mentioned in subsection (4).

(4) The sources of energy and technologies are—
(a) biomass;
(b) biofuels;
(c) fuel cells;
(d) water (including waves and tides);
(e) solar power;
(f) geothermal sources;
(g) heat from air, water or the ground;
(h) combined heat and power systems (but only if the system’s source of energy is a renewable source within the meaning given by section 32M of the Electricity Act 1989 (c. 29)).
(i) biogas.\textsuperscript{14}

(5) Regulations may—
(a) modify the list of sources of energy and technologies in subsection (4);
(b) modify the definition of “biogas” or “biomass” in subsection (3).

(6) Regulations may make provision, for the purposes of subsection (2)(a)(iii) and the definition of “fossil fuel supplier”, specifying that particular activities do or do not constitute generating heat.

(7) Before making regulations under this section which extend to Scotland, the Secretary of State must—
(a) if the regulations contain any provision which would be within the legislative competence of the Scottish Parliament if it were contained in an Act of that Parliament, obtain the consent of the Scottish Ministers;
(b) in any other case, consult the Scottish Ministers.

Notes
1 Added by Infrastructure Act 2015 c. 7 Pt 6 s.51(2) (February 12, 2015)
2 Words substituted by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(a) (February 12, 2015)
3 Words substituted by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(b) (February 12, 2015)
4 Added by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(c) (February 12, 2015)
5 Words substituted by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(d) (February 12, 2015)
6 Substituted by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(e) (February 12, 2015)
7 Words repealed by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(f) (February 12, 2015)
8 Words repealed by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(g) (February 12, 2015)
9 Repealed by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(h) (February 12, 2015)
10 Added by Infrastructure Act 2015 c. 7 Pt 6 s.51(3)(i) (February 12, 2015)
11 Definition substituted by Renewable Heat Incentive (Amendment to the Energy Act 2008) Regulations 2011/2195 reg.2(2)(a) (September 6, 2011)
12 Words inserted by Renewable Heat Incentive (Amendment to the Energy Act 2008) Regulations 2011/2195 reg.2(2)(b) (September 6, 2011)
13 Definition inserted by Infrastructure Act 2015 c. 7 Pt 6 s.51(4) (February 12, 2015)
14 Added by Renewable Heat Incentive (Amendment to the Energy Act 2008) Regulations 2011/2195 reg.2(3) (September 6, 2011)

Commencement
Pt 5 s. 100(1)-(7)(b): January 26, 2009 (SI 2009/45 art. 2(d)(vi))

Extent
Pt 5 s. 100(1)-(7)(b): England, Wales, Scotland
From: McCoy, Laura on behalf of Hepper, Fiona
To: DfE Private Office
Cc: Sterling, David; Thomson, David; McCutcheon, Joanne; Baxter, Clare; McCune, David; Hutchinson, Peter; Sinton, Dan; Aiken, Glynis; Stewart, Susan; Ross, Alastair; LMU; Neth_Energy
Subject: LMU 20/12: Query from the ETI Committee in relation to the Renewable Heat Regulations SL1
Date: 25 April 2012 10:15:00
Attachments: Appendix I - RHI Consultation Responses - Overview paper.docx
image001.png
LMU 20 12 - Query from the ETI Committee in relation to the Renewable Heat Regulations SL1 DOCK
Importance: High

Private Office

Please see attached submission from Fiona Hepper for the attention of the Minister.

Regards,

Laura McCoy
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Analysis of Consultation Responses

Energy

A Consultation on the Development of the Northern Ireland Renewable Heat Incentive

20 July – 3 October 2011
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Introduction

On 20 July 2011, DETI launched a public consultation on the development and implementation of a Northern Ireland Renewable Heat Incentive (RHI). The proposals outlined were designed to support the achievement of 10% renewable heat by 2020 and utilise funding made available from Her Majesty’s Treasury in the most appropriate fashion. The proposals outlined were specifically designed for the Northern Ireland heat market and provide long term, consistent support for those wishing to deploy renewable heat technologies.

The consultation had several elements, these included;
- The outline of the Northern Ireland RHI for non-domestic customers;
- The treatment of heavy industrial sites;
- The treatment of the domestic sector (via interim Renewable Heat Premium Payments);
- The establishment a cross-departmental strategy group to focus on the wider development of the renewable heat market; and
- A call for evidence into the potential deployment of deep geothermal heat.

The consultation closed on the 3 October 2011 with 78 responses received (detailed at Annex A). DETI is grateful for the number and quality of responses to this consultation and to those that attended the consultation events held in September 2011. Responses can be found at www.detini.gov.uk.

This report is a summary analysis of the responses received, where possible bodies of opinion have been identified rather than every specific issue. Each of the questions raised in the consultation document have been addressed and general comments, outside of the specific questions, have also been included.

In general, there was widespread support for the introduction of a Northern Ireland RHI and Renewable Heat Premium Payments, as well as an acknowledgement that it is important that a Northern Ireland approach is taken in relation to support for the renewable heat market. There was also support for the establishment of an overarching strategy group to consider wider renewable heat issues and considerable interest from consultees on how best to co-operate with this group. The call for evidence into deep geothermal energy also provoked a number of detailed responses providing useful information on the current barriers to deep geothermal development and its potential for deployment by 2020.

There were, of course, a number of issues where consultees were not fully in agreement with the current DETI proposals, these issues included;
- The proposed tariff structure (rates, banding, eligible and ineligible technologies);
- The exclusion of heat from Anaerobic Digestion from receiving incentive payments;
- The treatment of the heavy industrial sector and, to a lesser extent, the treatment of domestic customers;
- The interaction between DETI policies on the extension of the gas network and renewable heat; and
- The linkages with the Renewable Heat Incentive and wider Executive policies, such as fuel poverty and the Green New Deal.

This summary seeks to outline the opinions expressed by consultees and highlight areas of agreement and disagreement.
2.1 Do you have any comments on the current status of the Northern Ireland heat market?

In general respondents were content with the overview of the current Northern Ireland heat market provided by DETI within Chapter 2 of the consultation document. Some comments were received which sought to emphasise specific aspects of the heat market which are unique to Northern Ireland.

In particular, consultees agreed that Northern Ireland was overly reliant on imported fossil fuels, especially oil, and that this dependence resulted in poor fuel security, an unsustainable heat market and global price fluctuations impacting Northern Ireland more so than the rest of the United Kingdom. It was agreed that Northern Ireland should seek to reduce our dependency on fossil fuels and increase the level of renewable heat. It was agreed that for this to happen, long term investment was needed, with the RHI proposal preferred to capital grants that had often led to confusion in the past and a ‘stop/start’ approach.

There were also comments on the interactions between the development of renewable heat and the extension of the gas network. Some respondents felt that these policies were inconsistent and that DETI should not seek to extend the gas network and further increase Northern Ireland’s dependence on fossil fuels. Other consultees commented that the limited gas infrastructure increased the need for renewable heat. Others were entirely content with the pursuit of both policies in tandem.

In terms of developing renewable heat, a number of respondents highlighted the heavy industrial sector as a key area to be targeted given that 22% of Northern Ireland’s heat demand is across 17 large industrial sites. Other consultees suggested that the public sector has an important role to play in creating confidence and developing exemplar renewable installations.

It was also suggested that other policy areas would need to be considered as this work progresses including the need for a renewable heat policy to complement work on alleviating fuel poverty. The importance of encouraging and supporting the uptake of energy efficiency measures was also raised. In addition, some respondents asked that further consideration was given to the development of district heating networks.

Finally, it was suggested that DETI need to consider a longer term target beyond 2020 to demonstrate the expected market share of renewable heat at 2050 and beyond.
Chapter 3 - A Renewable Heat Incentive for Northern Ireland

3.1 Do you agree with the decision to introduce a RHI tailored for Northern Ireland instead of pursuing other options considered? If not, please elaborate.

The vast majority consultees agreed that the most appropriate method of incentivising the local renewable heat market would be through a specifically tailored RHI for Northern Ireland. The majority of respondents agreed with the Department’s rationale that the differences between the heat markets in Great Britain and Northern Ireland meant that it was essential that a separate approach was taken – the example of the Northern Ireland Renewable’s Obligation was cited, where different levels of support were introduced due to Northern Ireland specific issues.

In addition, consultees argued that a Northern Ireland RHI was the most appropriate option given the existing position in Great Britain and the pursuit of a RHI by DECC. The fact that GB had developed an RHI meant that Northern Ireland would be best placed to follow and introduce a specific Northern Ireland scheme.

A small number of respondents disagreed with the introduction of a Northern Ireland specific RHI favouring simply extending the GB RHI to Northern Ireland.

3.2 Do you agree that Ofgem are best placed to administer the NI RHI? If not, who should administer the NI RHI?

There was a level of debate around the issue of administration with roughly the same number of respondents agreeing with the Department’s proposal as those disagreeing. There were also a number of consultees who were undecided regarding the preferred method of administration at this stage.

Consultees agreeing that Ofgem should act as the administrator cited Ofgem’s experience of developing and administering the GB RHI as a major reason. It was felt that Ofgem’s role in this scheme would benefit the Northern Ireland RHI in terms of efficient delivery, consistency of approach and reduced administrative costs through economies of scale. Ofgem’s role in the NIRO was also seen as a benefit as it demonstrated experience and would ensure those individuals in receipt of RHI payments and ROCs would only be dealing with one body. Ofgem’s independence was also cited as a reason for its appointment as the administrator.

Those who disagreed with the Department’s proposal argued that the role of administrator could support new jobs and skills if delivered within Northern Ireland. Other reasons put forward included a view that the NI RHI would be different to the GB scheme and this could lead to confusion within Ofgem. It was also suggested that Northern Ireland had the capability and local knowledge to deliver the scheme more effectively. Some respondents suggested alternative administrators in particular the NI Authority for Utility Regulation.
3.3 Do you agree with the eligibility requirements as prescribed? Please provide comments.

There was general agreement on eligibility requirements such as MCS accreditation for microgeneration installations and that commercial applications should be targeted ahead of domestics.

There were some disagreements relating to specific issues, such as the treatment of heat from Anaerobic Digestion or renewable combined heat and power, the treatment of large industrial sites or domestic customers and the proposed tariff structures (technologies, levels, banding etc). These issues are covered in more detail at Q 6.3.

Another issue raised was the deeming of installations commissioned before 1 September 2010 as not being eligible for RHI. Some respondents believed this to be discriminatory to early adopters; further to this, those who had installed technologies requiring a bioenergy fuel source might be further disadvantaged by increased fuel costs following the introduction of the RHI.

3.4 Do you agree with DETI’s treatment of those who have received grant support for renewable heat installations?

All those responding agreed that those who had previously received grant support for renewable heat installations should not automatically qualify for RHI payments. There was agreement that those who had received grant support should either be able to;
- Agree to pay the grant back in full and receive full RHI payments; or
- Keep grant support and receive adjusted RHI support.

However, some respondents felt that if grant support was not paid back then no RHI support should be made available.

There was agreement that if DETI was to provide adjusted levels of support for those in receipt of previous grant that this would need to be a clear, transparent and manageable process.

3.5 Are there any further issues, at this stage, which you think DETI should also consider?

Some issues that were raised at this stage included;
- The need for a clear communications strategy to support the roll-out of the RHI;
- The role of other government policies in supporting the RHI;
- The potential impact of carbon pricing;
- Using generated renewable electricity to convert to renewable heating;
- Need to further incentivise large scale projects through up-front funding;
- Potential role of district heating schemes;
- The impact on the supply chain, specifically biomass market; and
- The importance of checking and policing installations.
3.6 **Do you agree with the proposed eligible technologies and standards? If not, please explain.**

Questions relating to the eligible technologies, standard, tariffs and banding provoked a wide ranging response with many varying opinions.

In terms of the technologies that were deemed eligible most comments related to bioliquids and air-source-heat-pumps (ASHPs). Generally speaking the other eligible technologies were accepted as well established and it was agreed that they should be included, there were, of course, comments on tariff levels, which are detailed in Q 3.7.

Regarding the two technologies included in the Northern Ireland RHI that are not currently part of the GB RHI, there was a mixed response with a high number of respondents welcoming DETI’s proposal to incentivise these technologies from the outset, however some consultees did raise some issues. Those welcoming the inclusion of these technologies felt that this was progressive from the Department and would increase the range of renewable heating options for consumers. However it was also argued that the introduction of these technologies should be delayed until further research was carried out; this was specifically raised for ASHPs. Some respondents referenced recent studies into ASHPs which questioned efficiencies and reliability.

Regarding those technologies that have not been deemed eligible the one that received the most comment was heat from Anaerobic Digestion. A high number of respondents argued that waste heat from AD should be awarded given the costs involved in capturing and using the heat. It was also felt that by not incentivising the waste heat that DETI was missing an opportunity to increase renewable heat levels and achieve the target set. A number of other respondents raised similar concerns in regards to renewable fuelled CHP and waste heat from electricity generation. It was felt that this should receive an incentive and that incentive should not relate to the existing incentives for the renewable electricity generation.

A number of respondents also asked for DETI to reconsider the exclusion of other technologies not currently included in the RHI proposals. These technologies included deep geothermal energy, heat from landfill gas and wood pellet stoves. Further to this, consultees also raised the issue of district heating and asked the Department to consider providing an uplift for such schemes given the capital costs involved.

In terms of standards of equipment there was agreement that DETI should publish clear guidelines on eligible and ineligible equipment, in particular respondents felt this was essential for heat pumps. One respondent raised the issue that only new equipment would be incentivised and asked that DETI consider supporting refurbished equipment also. The role of energy efficiency measures were also queried with a number of consultees wishing to see higher standard employed before RHI payments would be made. Finally, one respondent raised the issue of fossil fuel contamination and argued that no contamination or co-firing should be allowed.
3.7 Do you agree with the proposed tariff levels and standards? Where you disagree with the proposed approach evidence should be provided to the contrary.

The majority of respondents were concerned that tariff levels were too low to generate required interest and investment, with consultees explaining that higher tariffs in the GB RHI exacerbated this issue. A high number of respondents specifically referenced the GB RHI tariff levels and suggested that the difference in tariff levels would lead investors to GB rather than Northern Ireland and would widen the gap in GB and Northern Ireland energy prices. In addition, a number of respondents volunteered alternative tariff levels, depending on their own area of expertise; these included large biomass tariffs, bioliquids and large ground source heat pumps. In terms of biomass specifically, the issue of tiering tariff levels, again similar to GB, was raised.

Another key issue for respondents was the current banding arrangements of the Northern Ireland RHI. Consultees felt that it was overly focused on smaller projects and discriminated against large commercial applications, and therefore it should be reviewed. One respondent argued that the entire budget allocation should be focussed on the commercial and industrial sectors.

Finally, one respondent argued that for the scheme to be successful and have impetus that higher tariffs should be set initially to create investment and momentum; these tariffs could then be reviewed within 18 months.

3.8 Do you agree with the Department’s rationale for tariffs? If not, please provide comments on the assumptions contained in the economic appraisal on the technical performance and cost of heating technologies and fuels.

In terms of the assumptions that were made in developing the tariffs there was a wide-range of comments. There were a number of respondents who agreed with the DETI rationale of using oil as the counterfactual position; however there were also a number disagreeing. Those that accepted this assumption felt it was appropriate given oil’s position as the predominant fuel source and the heating source of most of those that will switch to renewable heat. However it was also argued that by taking this position DETI was discriminating against gas customers and accepting a position of continuing higher energy prices. It was also suggested that this would not facilitate a wholesale switch away from fossil fuels or assist in realising a zero-carbon heating market. Finally, it was suggested that as the tariffs stood there was no incentive for someone remaining on renewable heat at the end of the lifetime of the technology if gas was available and therefore behaviour change could be temporary.

Another major issue relating to technology assumptions was current and future biomass prices. A high number of respondents suggested that biomass prices were already higher in Northern Ireland than in comparison to GB and that this affected the set tariffs. It was also suggested that biomass prices would continue to rise given the introduction of the GB RHI, the carbon tax in the Republic of Ireland and the limited resource available in Northern Ireland. There were also
concerns that the future price projections of fossil fuels were overly optimistic and did not appear to reflect the recent prices rises announced.

3.9 Do agree that all heat should be metered under the Ni RHI? If not, please explain.

3.10 Do you expect any obstacles or difficulties in metering heat output? Please give details.

3.11 What alternative measures to metering heat could DETI employ in ensuring payments are made on heat delivered?

The majority of respondents agreed that metering should be required within the RHI. It was accepted that metering was necessary to prevent fraudulent activity and to ensure that accurate data was gathered in terms of actual heat output. It was also suggested that the accuracy and availability of heat meters had increased over recent years and that they are already common in many commercial applications.

Those consultees who disagreed with heat metering did so either on a technology specific issue or a sector specific issue. For example, it was suggested that bio-liquids would not be suitable for heat metering and therefore an alternate method of measurement would be needed. In addition, some respondents suggested that metering should only be enforced in commercial scale applications and not within the domestic sector where the cost and maintenance of meters could be prohibitive.

Further to this, it was highlighted that metering heat potentially increased the risk of over-sizing renewable equipment or perversely wasting heat to claim a higher incentive than required.

Alternative measures to metering heat largely involved the ‘deeming’ of payments, where an application would receive a set payment (dependent on the size, type and efficiency of installation and heating requirement) with no actual heat measurements taken. It was proposed that this method would be most appropriately used in the domestic sector and would prevent the wasting of heat and reduce administrative costs of checking equipment. It was also suggested metering could be used but complemented by a ‘capping’ measure where no incentive was paid beyond a point deemed the maximum heat requirement, therefore reducing the risk of over-using and over-sizing renewable installations.

3.12 Do you agree that sustainability reporting should be introduced as part of the Ni RHI?

3.13 Have you have any views on how sustainability reporting should be handled by DETI?

There was virtual unanimous support for sustainability reporting within the NI RHI with most respondents agreeing that the reporting element should be restricted to the largest renewable heat installations, but other respondents suggesting that reporting should be for installations with an output greater than 1 MW output.
However, one consultee did request that all biomass installations be subject to some level of sustainability reporting.

It was felt that sustainability reporting was vital for gathering information and ensuring a sustainable fuel source was being developed and incentivised. There was also agreement, however, that the reporting should not be overly bureaucratic or burdensome otherwise it could become costly and a barrier to renewable heat deployment of large installations. It was agreed, therefore, that appropriate guidance should issue and that the implications for non-compliance are clear.

In developing the reporting criteria, respondents felt it was essential that EU guidelines should be followed and the experience within the GB RHI learned from. It was also noted that the Department of Agriculture and Rural Development was involved in sustainability reporting and therefore DETI must liaise with them in this respect. A number of respondents asked that the industry was involved or, at the very least, kept informed of progress in this area.

Finally, some consultees asked that DETI consider the existing reporting that is required in this area and questioned whether the reporting arrangements for the NIRO and the RHI could dovetail.

3.14 Do you have any comments on the accessibility arrangements for the NI RHI?

Comments in regards to accessibility of the RHI included issues relating to financing projects, the process of accreditation and payments through Ofgem and how changing ownership of equipment is dealt with.

In terms of financing, a number of respondents agreed that it was important that the role of Energy Service Companies (ESCos) was encouraged and that the RHI remained accessible to third party owners. This would therefore provide an alternative finance model to domestic or business consumers purchasing and operating the equipment themselves, indeed it was felt that the large capital cost associated with many technologies could be a significant barrier, especially to domestic customers. Encouraging ESCos and other appropriate finance models is vital therefore for the RHI to be successful. However some respondents felt the fact that tariffs in Northern Ireland in comparison to GB were lower could be a barrier to uptake.

It was also agreed that the application process and accreditation process should be as simple as possible and ensure that non-energy professionals were not unintentionally excluded from the scheme. For large projects it is important that a pre-accreditation process is designed so projects can understand requirements, eligibility and tariffs before financial commitments are made.

Finally, there were some comments in regard to dealing with a change of ownership of equipment during the lifetime of the RHI. It was suggested that DETI consider how this issue could be addressed to prevent it from being a barrier to deployment.
3.15 Do you agree that regular planned reviews should be undertaken? If not, please explain.

All respondents agreed that regular, planned reviews were important so the scheme could be updated and amended to reflect changes in the wider energy or financial market. The reviews would also be an opportunity to consider the inclusion of emerging technologies and review tariff levels for renewable technologies. The issue of reviews was closely linked to the issue of ‘grandfathering’ in consultees responses, with many highlighting the need for certainty and therefore stating that it was essential that tariffs were guaranteed for the life-time of the installation.

In terms of timing of reviews there were mixed responses with consultees keen that reviews were planned and spaced to allow the market time to grow but were flexible enough so that necessary changes could be made, especially in the first few years of the scheme. A number of respondents felt that planned reviews every 3 or 4 years were necessary but the first review should take place much earlier than 2015 and possibly as early as 12 to 18 months into the scheme. It was also suggested that an early review could allow higher rates to be set to create interest and momentum and then reduced once the market has begun to develop.

Some respondents felt it was important that no unplanned reviews take place and that no ‘emergency’ changes are made to the RHI once in place. DETI should clearly set out the dates of reviews, the parameters of the review and when changes might be expected to be enforced. It was also suggested that it would be important that reviews were carried out by an independent body and not by DETI.

3.16 Do you agree that the tariff levels should be guaranteed for the life-time of the installation at the point of accreditation?

There was complete unanimity in responses that tariff levels should be guaranteed for the life-time of the installation at the point of accreditation. It was felt that this was essential to create confidence and give investors certainty and that without the guarantee of ‘grandfathering’ large scale investment would be too much of a risk. It was also agreed that tariffs should be linked in some way to inflationary pressures (either RPI or CPI).
Chapter 4 - Support for the Industrial Sector

4.1 Do you agree that the heavy industrial sector should be treated separately under the NI RHI? If not, please explain giving evidence to the contrary.

The majority of respondents disagreed with the proposed approach to the industrial sector and argued that there should be no difference in how large industrials are treated in comparison to other commercial sites.

Those who argued that industrials should not have to face additional eligibility standards felt that too much focus had been placed by the Department on protecting the current, or future, natural gas network. It was argued that as GB was incentivising the uptake of renewable heat in large gas applications that DETI should do likewise. It was also highlighted that in many cases larger applications of renewable heat were the most cost-effective and would be required to meet the 10% target – creating barriers to uptake therefore was inadvisable. In addition, issues were raised as to whether excluding the large industrial from RHI led to competition issues in comparison to GB competitors.

Generally, respondents preferred that the same standards applied to all installations and argued that large industrials had an important role to play in the development of renewable heat, the reduction of CO2 and decreasing dependence on fossil fuels. Finally, consultees were concerned that added eligibility and standards might be overly complicated and the application process bureaucratic and costly. It was also felt that this would not provide sufficient certainty for investors.

Those consultees that agreed with the DETI proposal accepted that given the small number of sites and the specific issues that need to be considered that a separate approach was more appropriate. These respondents were content with a case by case assessment, however concerns remained that the impact on the gas network would be an assessment criteria. It was suggested that the application process would need to be fair, simple and transparent.

Finally, it was also suggested that if the development of the natural gas market was a key issue for DETI, then the Department should consider incentivising or supporting the uptake of gas fired CHP.

4.2 What is your view regarding heavy industrial sites being awarded relevant tariffs on a case-by-case basis, following consideration by DETI of the need, value for money and sustainability of the proposal?

Responses to this question were largely similar to the previous question in that the majority of respondents do not want the industrial sector to be treated separately.

However, there were some consultees who accepted that it might be necessary for a case-by-case assessment to be taken on those applying for support. This was seen as a reasonable approach and appropriate given the variety of
applications in this sector. As before, it was deemed that transparency and clarity would be essential in the application process.

Those who did not want a case-by-case basis introduced reiterated the issues already highlighted such as the importance of the large industrial sector and the potential competitiveness issues in comparison to GB industrial sites.

4.3  **Do you agree with the criteria set by DETI for this sector?**

Some issues were raised in relation to the criteria set by the Department for assessing incentive support for large industrial users.

There was overwhelming agreement that DETI should not use a criteria relating to the potential impact on the current or future gas network as an assessment tool when considering whether a large industrial site will be eligible for support. This was argued by a range of respondents with many focusing on the fact that natural gas is a fossil fuel and that the GB RHI is designed to move large applications from gas to renewables.

Some respondents emphasised the importance of the sustainable fuel source criteria and highlighted the dangers on the supply chain if a number of large users switched to renewable heat.

Other consultees however suggested that the only relevant criteria for assessment was the technical capability of a site to switch to renewables, however it was also highlighted that sharing such information would have wider commercial issues.

Overall, respondents reiterated that there should be no additional criteria for large industrial users and that any barriers placed in the Northern Ireland RHI that did not exist in the GB RHI could affect competitiveness amongst NI industry.

4.4  **Do you agree that co-firing should be allowed in this sector and, if so, should it be time limited?**

There was a mixed response to the question relating to co-firing within the industrial sector, with broadly equal numbers agreeing and disagreeing that co-firing should be allowed.

Those that argued that co-firing should not be deemed eligible stated that the RHI should focus on incentivising a wholesale switch to renewable energy and should not support the use of fossil fuels in anyway. It was also highlighted that co-firing represents an inefficient use of biomass and could also support reliance on imported feedstocks. Those that were against co-firing were in favour of a very controlled and time-restricted system if DETI choose to deem it eligible.

Respondents also argued that only a reduced tariff should be allowed and that those wishing to co-fire would have to commit to full conversion to renewable heat and this should be a pre-requisite to eligibility.

Consultees that agreed that co-firing should be allowed suggested that given the nature of the Northern Ireland biomass supply that one or two large industrial
users switching completely to biomass could distort the entire market and have significant consequences on fuel security. It was also highlighted that co-firing would allow large users to switch by reducing risks involved in sourcing new fuel supplies given it is an emerging fuel source. It should also be noted however that those agreeing that co-firing should be eligible were largely against a blanket time limit and instead asked for a more flexible approach.
Chapter 5 - Interim Support for Domestic Households

5.1 Do you agree with the phased approach for the domestic sector as proposed by DETI?

The majority of those responding agreed with DETI’s rationale for treating the domestic sector differently in the first instance and providing upfront capital support in advance of longer term RHI payments. Respondents agreed that this interim support was appropriate and that capital support would be important in this sector.

It was accepted that it was necessary for the commercial sector to be incentivised first to create momentum and that there were a number of issues still to be addressed within the domestic market. Some of the issues that were identified included the use of heat meters, the supply of appropriate fuel, consumer confidence and availability of finance. It was also suggested that DETI need to consider how premium payments could be targeted to support those in fuel poverty.

It was also clear, however, that respondents felt that any delay in introduction (to October 2012) should be kept to an absolute minimum with some consultees preferring for domestic consumers to be included in the mainstream RHI from the outset. It was also recommended that DETI make clear plans for the domestic market (RHI and premium payments) as soon as possible to remove uncertainty from the market. Those that disagreed with DETI’s position on the domestic sector emphasised the lack of confidence in the market given the closure of grant schemes and the need for immediate intervention.

Consultees also advised that it was essential that early adopters were not disadvantaged and remained eligible for payments under a wider RHI, some respondents suggested that there should be no reduction in payments. It was also highlighted that shorter tariff terms may generally work better in this sector.

Finally, it was suggested that, as it stands, the scheme proposed by DETI was overly targeted towards the domestic sector, which is not the most cost-effective method of reaching the set target. It was also suggested that DETI should consider premium payments for large commercial applications in the first instance.

5.2 What is your view of the proposed support levels under the Renewable Heat Premium Payments?

Many of the respondents were content with the proposed support levels and welcomed that premium payment levels under the NI scheme were higher than those offered in GB. The levels were seen as a good incentive for domestic consumers to switch to renewable heat. It was suggested that funding should be ring-fenced for payments until October 2012.

A number of issues were brought up, however, other than the actual tariff levels. Several respondents were not content with the difference in payments between ‘detached dwellings’ and ‘all other dwellings’. It was felt that this wasn’t
appropriate and it was suggested that payments should be made based on the size of the equipment or that no divergence should be made.

A number of consultees felt that the incentives were overly generous especially in comparison to tariffs set for commercial and industrial applications. It was suggested that DETI consider grant payments for a range of schemes including large scale industrial renewable heating, district heating projects and deep geothermal developments.

Some respondents felt that additional information on longer term tariffs was needed.

**5.3 Do you agree with the proposal that existing gas customers should not be eligible for Renewable Heat Premium Payments?**

There were many responses to this question. Overall, the majority of consultees did not agree that existing gas customers be excluded from RHPP.

A range of reasons were given to support this opinion. Many felt that by excluding existing gas customers that DETI was limiting choice, affecting competition and discriminating against those who had already moved to a lower carbon fuel and may also wish to now move to renewable heating. It was also highlighted that gas is not a renewable fuel and whilst being lower carbon than oil did still emit CO2.

Others suggest that this policy limited the potential uptake of renewables and might also create confusion in the market. It also would prevent gas boilers at the end of their natural lifetime from being replaced.

Finally, it was also suggested that if gas was superseded by renewable heating that it would be a positive step for Northern Ireland.

Some respondents, however, did feel that it was appropriate for existing gas customers to be excluded from receiving RHPP. This was because of the limited funding available for RHPP and therefore it was most appropriately targeted towards existing oil consumers so Northern Ireland’s dependence on oil could be reduced and carbon savings maximised. Respondents that agreed with DETI’s position on this issue went as far as suggesting the overall focus of the RHI should be on non-gas areas and that all gas customers (commercial, public, domestic etc) should be excluded from the incentive scheme.

**5.4 Any other comments on incentive support for the domestic sector are welcome?**

Additional issues to those already covered in this section included the consideration of additional technologies for RHPP, namely bioliquids and micro CHP systems.

Respondents highlighted the need for fuel supply to be considered and those other barriers to uptake amongst domestic consumers to be addressed. In this regard, it was suggested that DETI learn from the experience of RHPP in GB to ensure that opportunities are realised.
Finally, some consultees reinforced the need for DETI to consider the role of district heating, the linkages with fuel poverty and the need for certainty and timely guidance on the issue of RHPP and the domestic RHI.
Chapter 6 - Interactions with other DETI Energy Policies

6.1 *What impact do you think the implementation of the NI RHI will have on the future development of the natural gas market? Please provide evidence of any impact.*

The vast majority of respondents believed that the introduction of the RHI would have a minimal impact on the existing and future gas network, suggesting that the determining factor in the development of natural gas was the cost of natural gas, rather than a RHI. It was widely recognised that the fact that tariffs were designed against an oil counterfactual position, the RHI would have a great impact on oil consumption. Many felt that this focus was absolutely correct. However a few consultees felt this was uncompetitive.

In most cases respondents suggested that the renewable heat market and the natural gas market should grow simultaneously and that the key issue for consumers was increased choice.

It was suggested that the current design of the RHI was excessively protective of the gas industry and that this could limit uptake of renewable heat. It was specifically raised that the design would prevent opportunities in the industrial sector and in manufacturing being released. Some respondents felt that whilst natural gas was an important industry in the short and medium term, that in the long term, focus should be on developing renewable heat as it provides opportunities for Northern Ireland to become a self-sufficient, zero-carbon heating market. Therefore the RHI should be designed to increase renewable heat and not protect gas.

Other respondents suggested that the extension of the natural gas market should be prioritised ahead of renewable heat, especially in areas where extending the gas network is already economically viable. If it was determined that future extension to any part of Northern Ireland was not economically viable then Renewable Heat should be prioritised in those areas. A number of respondents suggested that DETI consider varying tariff levels for gas and non-gas areas.

6.2 *Do you agree with DETI’s assessment of potential support CHP and agree that no changes should be made to existing arrangements until April 2014, at the earliest? If not, please explain.*

There was general agreement that the existing arrangements for support for renewable CHP should remain in place until April 2014 in order to allow investors time to plan projects.

There was also general acceptance that DETI should avoid circumstances where installations were being ‘double-funded’ through receipt of an uplifted ROC rate and RHI.

Some respondents asked for greater clarity on this issue and an early decision on the treatment of renewable fuelled CHP. It was also clear from responses that DETI should ensure that renewable heat output from CHP is utilised.
6.3 **What is your view on the proposal that AD systems which avail of the NIRO will be excluded from receiving payments for useful heat output under the NI RHI?**

The majority of respondents who answered this question disagreed with current proposals to exclude heat generated from AD plants in receipt of NIROCs from receiving RHI payments.

Those who disagreed with the position suggested that without an appropriate incentive, heat would be lost, impacting on the potential ability to meet the 10% renewable heat target. Consultees also emphasised the costs and difficulties involved in capturing heat from AD and considered that the NIROCs were not sufficient to incentivise this. Furthermore, respondents felt that the rural nature of most AD plants meant that an incentive would be required to find a useful heating requirement.

Those who agreed with the Department’s proposal argued that AD was already highly incentivised through NIROCs and that it was important that other technologies were not ignored because one technology was ‘overfunded’. It was also suggested that this position would need to be reviewed in the future as, whilst the NIRO was currently generous enough to support AD, if this position changed then RHI payments might have to be extended.

6.4 **Would you support a reduced ROC level in order to avail of the RHI also?**

This question provoked a range of responses. Many consultees were adamant that ROC levels should not be reduced and that a RHI payment should be additional to NIROCs not in place of it. There was however some suggestion that the additional RHI payment could consider existing NIROC support and therefore be at a lower rate. Respondents who were opposed to a reduced ROC level suggested that this would affect investor confidence and that as the funding streams for NIROCs and RHI were different that there should be no connection in support levels.

Some respondents accepted that a reduced ROC level may be necessary for RHI payments to be extended to AD installations; however the overall support level (NIROC plus RHI) should not be lower than the current support levels (just NIROC).

One consultee suggested that AD should be treated similarly to CHP where NIROC support can be uplifted to take account of heat usage.

A number of respondents felt that there was a lack of information or evidence to make a definitive decision on this issue and therefore a more detailed review was required.
Chapter 7 - Renewable Heat Strategy Group

7.1 **What key actions should the Renewable Heat Strategy Group consider in supporting the development of the renewable heat market?**

A range of actions were identified by consultees that should be considered by the Renewable Heat Strategy Group in supporting the development of the renewable heat market. These included:

- Monitoring progress against the 10% renewable heat target and reviewing the RHI as required.
- Considering supply chain issues.
- Maximising biomass resource.
- Developing appropriate sustainability criteria.
- Introducing and enforcing standards for renewable heat technologies and fuel sources.
- Engaging with industry.
- Developing skills and training in this sector.
- Advising on public sector deployment.
- Considering the role of district heating.
- Considering and developing linkages to the Green Deal.
- Consider how renewable heat could alleviate fuel poverty.
- Assessing market conditions in GB and ROI and the relevant impact on the Northern Ireland heat market.
- Assessing and removing barriers to deployment of renewable heat.
- Assessing procurement guidelines in respect of ESCos.
- Develop appropriate communicates to raise awareness of renewable heat issues.
- Assessing the impact on other fuel sources.
- Assessment of the potential for deep geothermal deployment and appropriate support levels.

7.2 **Is there a need for ongoing engagement with external stakeholders as renewable heat policy is developed?**

There was overwhelming agreement that external stakeholders should be engaged with further as the renewable heat policy is developed and once the RHI is in place.

7.3 **Do you wish to be considered to potentially give evidence on renewable heat to a future meeting of the Renewable Heat Strategy Group?**

A number of respondents asked to be considered when/if the Renewable Heat Strategy Group decides to gather further evidence on the renewable heat market.
Appendix 1 - Call For Evidence – The Costs of and the Barriers to the Deployment of Deep Geothermal Energy in Northern Ireland

DETI received a number of responses specifically focusing on deep geothermal energy and the potential development of schemes in Northern Ireland. As well as replying to the questions below, respondents also provided detailed information on existing geothermal schemes. This additional information is currently being assessed and is not specifically referenced in the summary below.

A.1 What is your assessment of the geothermal potential in Northern Ireland?
(Any available documentation on specific potential Northern Ireland projects would be appreciated.)

Those consultees that responded to this section of the consultation were generally positive about the potential development of deep geothermal energy. Many felt that deep geothermal could play a significant role in the Northern Ireland heat market and support a move away from fossil fuels. One respondent suggested that DETI consider, as a priority, the establishment of pilot schemes, the creation of licensing frameworks and the introduction of a specific tariff under the RHI.

Evidence was provided on geothermic conditions in Northern Ireland determined by previous studies. This suggested that geothermal schemes could be implemented in Northern Ireland; these schemes would largely be in urban areas. Examples of actual schemes in Germany were also provided.

One consultee, whilst positive about the potential development of deep geothermal energy, felt further research might be required.

A.2 What are the perceived major barriers to the deployment of geothermal energy?

A wide range of barriers were identified that potentially hindered the deployment of deep geothermal energy, these barriers included regulatory and legislative issues, financial issues and other matters.

Firstly, respondents asked for a clear framework to be developed that would deal with the absence of legislation and regulation in the deep geothermal sector. It was argued that primary legislation would be required to deal with issues such as ownership of geothermal resources and provision of licenses for exploration and development. There was also a need for greater regulation and for the introduction of standards across the industry. It was also suggested that a central authority would need to be created to deal with these issues, with the example of the role of the Environment Agency in GB given.

In terms of financial barriers, the high capital costs were explained to be a major barrier and therefore DETI would need to consider both the introduction of a specifically designed RHI tariff and the need for other innovative financing measures. The potential of pilot schemes and capital support was raised, as was the need to support domestic consumers linking into a geothermal system.
Consultees also suggested that there was currently a lack of awareness and understanding of deep geothermal energy amongst public representatives and policy makers. For the full potential to be realised there would need to be increased education and some communication measures.

Another perceived barrier raised related was the current planning process, with it being suggested that large scale deep geothermal projects might not come forward due to uncertainty or problems with the planning application process.

A number of consultees also highlighted the need for increased information and research into deep geothermal conditions. Respondents also asked for geothermal information currently held by DETI to be released, on a commercially sensitive basis, to interested parties.

Finally, one respondent argued that DETI’s statutory obligation towards the gas market was a major barrier given the potential development of deep geothermal energy would be in areas with access to natural gas. It was suggested that DETI would need to be very clear on how deep geothermal energy would be incentivised when it was directly competing with natural gas.

A.3 Does geothermal energy require a specific tariff level under the NI RHI? If yes, please provide supporting evidence.

Those consultees responding to this section were in agreement that a specific tariff for deep geothermal energy would be required. Respondents highlighted the high capital costs involved in deep geothermal in comparison to large scale GSHP projects. The costs of the various technologies were shown to be largely different and therefore it was argued that a specific tariff should be developed.

Consultees suggested that a tariff rate between 3p/kwh and 5p/kwh would be required to make deep geothermal projects viable. Background information was also provided to DETI which will be analysed further.

A.4 How realistic is geothermal deployment in Northern Ireland by 2020?

Respondents felt that with the appropriate legislative and regulatory framework and with a specific tariff in the region of the figures above that there could be significant deployment of renewable heat by 2020.

The actual deployment would depend on the policy position developed by DETI; however if one large scale project came on line by 2020 that could equate to 3-4.5% of total heat demand. In addition, figures and tables were provided suggesting that if the entire estimated geothermal resource was utilised that over 25% of Northern Ireland heat demand could be met by deep geothermal energy.
Index of RHI Consultation Responses

Public Sector

NI Courts and Tribunal Service
Castlereagh Borough Council
NI Housing Executive
Belfast City Council
Antrim Borough Council
Ballymena Borough Council
Southern Health and Social Care Trust
Western Development Commission

Not-for-profit organisations

Disability Action
Friends of the Earth
World Wildlife Fund
Energy Savings Trust
Action Renewables
Bryson Energy
Northern Ireland Environment Link

Industry Body

Ulster Farmers Union
Energy Institute
CBI
NI Chamber of Commerce
Oil Firing Technical Association
NI Manufacturing

Consumer Bodies

Consumer Council

Political Parties

Green Party

Education

Shimna Integrated College
Private Sector

NI Oil
O’Hanlon and Farrell
Dale Farm
Institution of Civil Engineers
Northway Mushrooms
Linden Foods
Creagh Concrete
Fane Valley
Mitsubishi Electric
Pritchitts (Lakeland Dairies)
Moy Park
Maguire & Associates
SLR Consulting Ireland
Farm Woodlands
Blakiston Houston Estates

Renewable companies

AcrEnergy Ltd
Kingspan Renewables
Renewable Products Limited
Energy Control Ireland
Waterfield Consultants
Vykson Ltd
Dimplex Renewables Division
Daly Renewables
Rural Generation
BioGas Nord (Ireland)
Glantek Alliance
HIS Renewables
Pierce Group
Carillion Energy Services
Irish Bioenergy Association
Dalkia
Warmflow Engineering
Green Energy Engineering
Philippe DUMAS, European Geothermal Energy Council
Biogas Developers
Solmatix Renewables
Biomass Energy Northern Ireland
AD and Biogas Association
Momentum Energy NI Limited
GT Energy
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arc21
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Balcas Ltd
R&S Biomass Equipment
GMX
Kedco
Renewable Energy Association

**Electricity companies**

Power NI
Airtricity

**Gas Companies**

Phoenix Natural Gas
Bord Gáis

**Individuals**

Michael Coyle
From: Fiona Hepper  
Energy Division  

Date: 25 April 2012  

To: 1. Andrew Crawford  
2. Arlene Foster MLA  

LMU 20/12: QUERY FROM THE ETI COMMITTEE IN RELATION TO THE RENEWABLE HEAT REGULATIONS SL1  

Issue: Following receipt of the renewable heat regulations SL1 letter, the ETI Committee has requested further information on the current status of the Renewable Heat Incentive (RHI) scheme.  

Timing: The ETI Committee has asked for a response by Thursday 3 May 2012.  

Need for referral to the Executive: Not applicable  

Presentational issues: None  

FOI implications: This submission is exempted under Section 35 of the Freedom of Information Act.  

Financial Implications: N/A  

Legislation Implications: N/A  

PSA/PFG Implications: None  

StatutoryEquality Obligations: None.  

Recommendation: That you approve the draft response at Annex A.
Background

Following your approval of SUB 167/12, relating to the Northern Ireland Renewable Heat Incentive (RHI), a SL1 letter was sent to the ETI Committee advising of the Department’s intention to legislate on this matter. The ETI Committee considered this letter at its meeting of 19 April and, as a result, requested further information on the proposed RHI.

2. Specifically, the Committee has requested information on incentives for domestic installations; how payments will be made, their levels and how these have been calculated; the future timelines; and availability of consultation responses. A proposed response is at Annex A for your consideration.

Current position

3. As we are still awaiting approval from the EU Commission, DETI is limited in what can be released to the ETI Committee. The most recent correspondence with the EU Commission was on 17 April where it was advised that the case handler was largely content with the papers but still had to consider the proportionality of the incentives.

4. We are also awaiting correspondence from DFP Supply on the business case that was submitted on 22 March 2012.

5. The proposed response to the Committee includes as much information as possible without divulging the tariffs that would pre-empt necessary approvals. An overview of consultation responses, as requested by the Committee, had previously been shared with the Committee, these are attached at Appendix I.

Recommendation

6. It is recommended that you approve the attached response to the ETI Committee Clerk (Annex A).

FIONA HEPPER
Energy Division
(Ext 29215)

cc: David Sterling
    David Thomson
    Joanne McCutcheon
    Clare Baxter
    David McCune
    Peter Hutchinson
    Dan Sinton
    Glynis Aiken
    Susan Stewart
    Alistair Ross MLA, APS
    DETI LMU
REQUEST FROM THE COMMITTEE

In relation to SL1 Renewable Heat Regulations: The Committee asked the Department for more details on:

- incentives for domestic installations (Regulation 15 (1);
- 15 (2) payment to participants, levels of tariffs and how these will be calculated (Regulation 37);
- the timeline; and
- availability of consultation responses.

DEPARTMENTAL RESPONSE

The SL1 letter on the Renewable Heat Incentive (RHI) regulations was an early notification that DETI would be seeking to legislate in this area in the near future. The draft regulations are currently being finalised along with the final policy position. At this stage DETI is limited as to the detail that can be provided as the approvals required from DFP and the EU Commission (re State Aid) have not yet been received.

The Committee will be aware that following the consultation process (July – October 2011) DETI carried out further economic analysis on the proposed RHI in order to consider a number of issues raised by stakeholders. This analysis has informed the final policy position. DETI has also been working to achieve all the necessary approvals that are required for the scheme to be in place, these include;

- DETI Casework Approval: Given the scale of the proposed incentives and the overall cost of the scheme an internal DETI Casework Committee considered draft proposals on 9 March 2012. The Committee was content with the proposals.

- Ministerial Approval: Following DETI Casework Approval, and in parallel with seeking DFP approval, the detailed proposals were sent to the Minister for consideration and approval. This has been received and the Minister is content.

- DFP Supply Approval: Following DETI Casework Approval a full business case was submitted to DFP Supply for consideration. DETI is awaiting comment from DFP. (Note: DFP approval is required for both the RHI and the Renewable Heat Premium Payments for domestic households)

- EU Commission consideration of State Aid regulations: DETI submitted a pre-notification document to the EU Commission in December 2011; this was updated by a further submission in February 2012 containing the post consultation revised tariff levels etc. DETI is now awaiting correspondence from the EU Commission in regards to the Northern Ireland RHI scheme. To date, informal comments received through UKREP have been
positive. However, the scheme cannot be implemented until the Commission advises that it is content. (Note: State Aid approval is required for the RHI only; the Renewable Heat Premium Payments does not require State Aid approval).

Agreement with Ofgem to act as the administrator of the RHI scheme: Following DETI Casework Approval, DETI sought and received DFP (Central Procurement Directorate), DETI Accounting Officer and Ministerial approval for Ofgem (the GB Energy Regulator) to act as the administrator of the Northern Ireland RHI. This will be implemented via an Agency Services Agreement with Ofgem.

Given the scheme is still subject to the aforementioned approvals DETI cannot provide specific figures on the actual tariffs etc, however as much information as possible has been provided on the Committee’s queries below.

- **Incentives for domestic installations**

As detailed in the consultation, the RHI is expected to be implemented in a phased approach with the first phase including established cost-effective technologies in the non-domestic sector and the second phase to consider domestic installations and other potential technologies. This is consistent with the GB RHI.

In advance of a longer term scheme being introduced for domestic installations, grants will be made available in the form of **Renewable Heat Premium Payments**. The levels included in the July 2011 consultation were as follows;

<table>
<thead>
<tr>
<th>Technology</th>
<th>Support per unit (£) in a detached dwelling</th>
<th>Support per unit (£) in any other dwelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Source Heat Pump</td>
<td>1860</td>
<td>1170</td>
</tr>
<tr>
<td>Biomass boiler</td>
<td>2580</td>
<td>1620</td>
</tr>
<tr>
<td>Ground Source Heat Pump</td>
<td>2250</td>
<td>1410</td>
</tr>
<tr>
<td>Solar Thermal</td>
<td>480</td>
<td>480</td>
</tr>
</tbody>
</table>

These figures have been revised following the consultation and will reflect the wider changes proposed to the tariffs. DETI has also re-considered the proposal for separation of tariffs for detached and non-detached dwellings and the exclusion of customers already on natural gas.

- **Payment to participants, levels of tariffs and how these will be calculated**

RHI payments will be made on a quarterly basis and are determined by multiplying the applicant’s actual (metered) heat output with the relevant tariff level. Under the RHI only ‘useful heat’ is deemed eligible; this is defined as heat that would otherwise be met by fossil fuels, this excludes deliberately...
wasting or dumping heat with the sole purpose of claiming incentive payments. Payments will be made by the scheme administrator.

The exact tariff levels are still to be confirmed and cannot be released until they are approved by both the EU Commission and DFP Supply. The tariffs published in the July 2011 consultation were as follows:

<table>
<thead>
<tr>
<th>Tariff name</th>
<th>Eligible Technologies</th>
<th>Size</th>
<th>Tariff duration (years)</th>
<th>Northern Ireland recommended levels (pence per kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Source Heat Pumps</td>
<td></td>
<td>Less than 45kWth</td>
<td>20</td>
<td>3.3</td>
</tr>
<tr>
<td>Ground Source Heat Pumps</td>
<td>Including water source heat pumps and deep geothermal</td>
<td>Less than 45kWth</td>
<td>20</td>
<td>4.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above 45kWth but excluding large industrial sites</td>
<td>20</td>
<td>0.9</td>
</tr>
<tr>
<td>Bioliquids</td>
<td></td>
<td>Less than 45kWth</td>
<td>20</td>
<td>1.5</td>
</tr>
<tr>
<td>Biomass</td>
<td>Solid biomass; Municipal solid waste(^1) (inc. CHP)</td>
<td>Less than 45kWth</td>
<td>20</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Above 45kWth but excluding large industrial sites</td>
<td>20</td>
<td>1.3</td>
</tr>
<tr>
<td>Biomethane</td>
<td>Biomethane injection and biogas combustion, except from landfill gas</td>
<td>Biomethane all scales, biogas combustion less than 200kWth</td>
<td>20</td>
<td>2.5</td>
</tr>
<tr>
<td>Solar Thermal</td>
<td></td>
<td>Less than 200kWth</td>
<td>20</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Following the consultation further analysis on the tariffs was carried out. This focused on tariff levels, banding and eligible technologies and there will be changes to the above table in the final scheme (provided that DFP and EU are content).

\(^1\) Defined under the Waste and Emissions Trading Act 2003, Section 21
The main objectives in designing the NI RHI tariffs are:

- To support a range of technologies, installation sizes, and investors to order to achieve 10% renewable heat by 2020;

- To provide adequate compensation to create a level playing field between renewable heat technologies and fossil fuel alternatives whilst avoiding overcompensation;

- To consider potential linkages with other renewable energy support mechanisms (primarily the Northern Ireland Renewables Obligation) and to guard against areas of overcompensation in these areas.

The RHI tariffs (set at pence per kilowatt hour of renewable heat output) are designed to cover the cost difference between the heat generated from renewable heat technologies and heat generated from the fossil fuel alternative (for Northern Ireland oil is set as the “fossil fuel counterfactual”). This cost difference accounts for capital costs and ongoing operating costs. The tariff also includes consideration of non-financial costs or ‘hassle factors’ that installers might face when considering renewable heat.

A rate of return is also offered on the net capital expenditure to ensure the renewable energy technology is attractive to investors. This rate of return is also essential to reflect the potential financing costs of the investment as well as accounting for the perceived risk associated in investing in a relatively new technology.

The tariff setting methodology has three general principles:

a. Renewable installations are divided depending on the type of technology and size of installation;

b. Within each banding a reference technology is chosen to develop a consistent tariff across technologies and scales; and

c. The net costs (difference between capital and operating costs of fossil fuel counterfactual and renewable alternative) are calculated and a tariff determined.

In order to set a fixed incentive rate for each band a ‘reference installation’ is chosen and the tariff set relates to this installation and provides appropriate subsidy to make it viable. In line with DECC’s methodology, the reference installation is chosen as the installation requiring a subsidy that would incentivise half of the total potential output from the technology that could be taken up across the period 2011-20 if that rate was offered to that band in every year. Total potential output is calculated as heat output that could be achieved if all technically viable segments within the band installed the technology.
The costs are determined by assessing the differences in the costs of installing a renewable technology, over and above the fossil fuel counterfactual. In order to assess these costs data was gathered for a number of components for both the renewable heat technology and the fossil fuel alternative:

- **Ongoing Costs**
  - Fuel/electricity costs (variable)
  - Maintenance costs (fixed)
  - Ongoing demand-side barrier/administrative costs (non-financial hassle factors)

- **Upfront Costs**
  - Capitals costs of equipment and installation
  - Up front demand-side barrier/administrative costs (non-financial hassle factors)

The ‘hassle’ factor costs are included to account for non-financial choices that consumers have to make when considering the uptake of renewable heat technologies. These account for time/understanding required in considering installing renewable heat technologies, the potential disruption (digging up ground for GSHPs) or the additional space required (biomass boilers). Changing to renewable heat is a considerable behaviour change and therefore it is important that non-financial barriers are accounted for.

The RHI is designed to provide support on an ongoing basis, over the lifetime of the equipment (a maximum of 20 years). The 20 year payments therefore seek to address all the ongoing and upfront costs which would be additional to the counterfactual installation.

- **The timeline**

The timescale for implementation of the NI RHI is not fully within DETI’s control, as approvals from the EU Commission and DFP are required before the scheme can be progressed.

Once all necessary approvals are in place a public announcement will be made outlining the design of the RHI, accessibility arrangements and expected timescales. However, as the premium payment scheme for domestic customers requires only DFP approval (and not State Aid) it is likely that this can be launched sooner than the RHI itself.

The RHI cannot be launched until legislation is in place and the administration arrangements set up. Once the final policy is approved the legislation will be finalised and submitted to the Committee for consideration. Concurrently, Ofgem will be instructed to begin the implementation process of the RHI. Once the legislation is approved and administration arrangements in place the RHI will be open for applications.
DETI wish this to be in place as soon as possible but cannot progress further at this stage without EU Commission and DFP approvals.

- **Availability of consultation responses**

An overview of the consultation responses is included at Appendix I; this was previously provided to the Committee on 23 November 2011. All consultation responses can be found on the DETI website.

Energy Division
April 2012
Gareth,

My colleague Alison Clydesdale previously spoke to you and then emailed in April 2011 in regards to the Northern Ireland Renewable Heat Incentive (RHI).

Work is finalising on the economic appraisal of a NI RHI and we will shortly be engaging with our Minister to agree on the final design of a local RHI scheme. Many of the eligibility and accessibility arrangements will be similar to the GB model, the major differences will relate to tariff levels, there may also be differences in the technologies we support (with consideration being given to biofuels, ASHPs and deep geothermal) and in how we treat very large installations.

We would be hoping to engage with Ofgem on the matter of administration as there are obvious economies of scale in doing so, as well as the expertise that Ofgem has built up in the roll-out of the GB RHI.

At this stage, I would be grateful if you could advise on how this process of engagement should begin (i.e. appropriate contacts, need for meetings, need for information on a proposed scheme) and would you be able to advise on the potential costs that could be incurred by DETI in setting up the NI RHI and having it administered by Ofgem. We have preliminary tariffs in place, however these are subject to further verification and Minister, we could share these with you if needed. We would also have some questions in regards to option of front-loading tariffs and the possible administration of domestic grants, akin to the 'renewable heat premium payments'.

Once we have engaged further with our Minister we would be hopeful to go to public consultation over the Summer and then seek the introduction of relevant legislation in Autumn, it is hard to see a RHI scheme in place until January 2012 at the earliest, possibly more like April 2012. Obviously we will need to understand administration costs in advance of this.

Happy to speak more on this matter. If you can advise on the appropriate contact point on this matter and what discussions/information is required from DETI that would be greatly appreciated.

Many thanks,

Peter

Peter Hutchinson
Sustainable Energy
Department of Enterprise, Trade & Investment
Netherleigh  
Massey Avenue  
Belfast, BT4 2JP  
Tel: 028 9052 9532 (ext: 29532)  
Textphone: 028 9052 9304  
Web: www.detini.gov.uk

Please consider the environment - do you really need to print this e-mail?

From: Clydesdale, Alison  
Sent: 15 April 2011 11:57  
To: ‘gareth.atkins@ofgem.gov.uk’  
Cc:  
Subject: Administration of RHI in Northern Ireland

Gareth

We spoke a long time ago about the administration of the RHI.

I understand that Ofgem e serve will be administering the RHI in GB for DECC.

Northern Ireland currently has CEPA and AEA carrying out an economic appraisal for us on a RHI for Northern Ireland and we hope to consult on the final form of that in the summer.

We have been allocated £25m from DECC for an RHI here and we would be keen to discuss if there is any way we could be included in the current system of RHI administration that is being planned for GB - in a similar way to current RO.

It is likely that our tariffs will be different to GB but in all other respects it looks like the final scheme will be very similar to the GB model. We will be including the need for MCS accreditation. It's unlikely we will be up and running before jan 2012 in any case.

I'm not sure if we should discuss with yourselves directly or via DECC or both so I am copying in [I] from the RHI team in DECC as well.

Grateful if you can advise if this would be a possibility for Northern Ireland and what would be the best way to move it forward?

Best Regards

Alison

Alison Clydesdale  
Sustainable Energy  
Department of Enterprise, Trade & Investment  
Netherleigh  
Massey Avenue
From: Fiona Hepper  
Head of DETI Energy Division

Date: 11 July 2011

To: Gareth Atkins  
Head of Implementation, RHI, Ofgem

ADMINISTRATION OF THE NORTHERN IRELAND RENEWABLE HEAT INCENTIVE

Thank you for your agreement to consider the administration of the Renewable heat Incentive (RHI) in Northern Ireland. Ofgem’s experience in developing and implementing the RHI in Great Britain will be invaluable in the administration of the Northern Ireland scheme given the many similarities in the two incentive measures.

I am writing formally to you to request that you provide an outline proposal in regards to the Northern Ireland RHI. Grateful if you would give an overview of the next steps, timescales and potential costs in delivering the Northern Ireland RHI. Once this proposal has been considered we will then be able to begin the feasibility study for this project.

Thank you in advance for your co-operation and I look forward to Ofgem and DETI working closely on this matter.

Fiona Hepper  
Head of Energy Division  
Department of Enterprise Trade and Investment

cc. Matthew Harnack, Ofgem  
Joanne McCutcheon, DETI  
Peter Hutchinson, DETI
Please see attached from Fiona Hepper.

Regards

Laura McCoy
PS/Fiona Hepper
Department of Enterprise, Trade & Investment
Netherleigh
Massey Avenue
Belfast, BT4 2JP
Tel: 028 9052 9200 (ext: 29200)
Textphone: 028 9052 9304
Web: www.detini.gov.uk

Please consider the environment - do you really need to print this e-mail?
Please see attached an electronic copy of a submission which was passed to the Minister in hard copy.

Many thanks

Janice

Janice Hill
Permanent Secretary's Office
Department of Enterprise, Trade & Investment
Netherleigh
Massey Avenue
Belfast, BT4 2JP
Tel: 028 9052 9441 (ext: 29441)
Textphone: 028 9052 9304
Web: www.detini.gov.uk

All e-mails and attachments issued by the Permanent Secretary's Office must be filed appropriately by the responsible business area. The Permanent Secretary's office does not keep official records of such correspondence.

Please consider the environment - do you really need to print this e-mail?

-----Original Message-----
From: Hill, Janice
Sent: 10 August 2011 11:33
To: Hill, Janice
Subject: Emailing: Final - Submission - DAC and Business Case for Ofgem

The message is ready to be sent with the following file or link attachments:

Final - Submission - DAC and Business Case for Ofgem

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.
From: Fiona Hepper  
Energy Division  

Copy Distribution List Below

Date: 10 August 2011

To: 1. David Sterling [Content 10/8/2011]  
2. Andrew Crawford  
3. Arlene Foster MLA

BUSINESS CASE FOR THE APPOINTMENT OF OFGEM (VIA A DIRECT AWARD CONTRACT) TO CARRY OUT A FEASIBILITY STUDY INTO THE ADMINISTRATION ARRANGEMENTS FOR THE RENEWABLE HEAT INCENTIVE (RHI) FOR NORTHERN IRELAND

Issue: The submission seeks the mandatory internal approvals to appoint Ofgem to carry out a feasibility study into the administration arrangements for the Northern Ireland Renewable Heat Incentive. If approvals are forthcoming Energy Division will approach Central Procurement Directorate to consider the award of the direct award contract and DFP supply for the consultancy spend element. To note: CPD have informally indicated that they are content.

Timing: Desk Immediate: DFP Supply approval is required and the study must begin as soon as possible to allow for implementation of the Northern Ireland RHI within proposed timescales.

Need for referral to the Executive: Not applicable at this stage.

Presentational issues: Not at this stage, however there has been increased interest in this work area following the launch of the public consultation document.

FOI implications: This submission is exempted under Section 35 of the Freedom of Information Act.

Financial Implications: This assignment will cost in the region of £100,000.

Her Majesty's Treasury (HMT) has advised that
funding of £25m will be available over the spending period for a Northern Ireland RHI scheme, should one be introduced.

Legislation Implications: DETI does not hold primary powers for renewable heat, however, Energy Division officials have secured an amendment to the current 2011 Energy Bill to extend necessary powers. Subordinate legislation to prescribe the administration aspects of the RHI will be required in due course and in advance of implementation.

PSA/PFG Implications: None at present, but it is likely that new PSA targets in relation to renewable heat will have to be developed.

Statutory Equality Obligations: None.

Recommendation: That the Departmental Accounting Officer authorises awarding this contract to Ofgem via a direct award contract and approves the attached business case for the project.

That the Minister notes the award of the contract and approves the business case for the appointment of Ofgem at a cost of £100,000, to undertake a feasibility study into the administration arrangements of a RHI scheme for Northern Ireland.

Once approval has been obtained, DFP approval to award the contract and incur the expenditure will be sought.

Background

You will be aware that the consultation on the development of a Northern Ireland Renewable Heat Incentive (RHI) was launched on Wednesday 20th July and will be open for comments until Monday, 3 October 2011.

2. The consultation document sets out DETI’s proposals to incentivise the uptake of renewable heat technologies in Northern Ireland. The development and implementation of the Northern Ireland RHI follows on from research commissioned by DETI Energy Division and is designed to support the achievement of the Executive set target for renewable heat.

Administration of the Northern Ireland RHI
3. For the Northern Ireland RHI to be implemented it requires the services of an appropriate delivery agent. The resource needed to deliver the scheme in terms of technical expertise, people and IT systems, is not available within DETI. The GB RHI is to be administered by the Office of Gas and Electricity Markets (Ofgem). I am proposing that DETI also seek the services of Ofgem to act as the administrator of the Northern Ireland RHI.

4. Ofgem is the energy regulator in GB and is governed by an Authority, consisting of non-executive and executive members and a non-executive chair. For funding, Ofgem recover costs from the licensed companies it regulates. Licensees are obliged to pay an annual licence fee which is set to cover Ofgem’s running costs. Ofgem is independent of the companies it regulates.

5. Ofgem has vast experience in administrating large scale energy programmes and has a dedicated team, known as E-Serve, which currently deals with a range of energy schemes including the Feed-in-tariff, Smart Metering, the Renewables Obligation as well as the GB RHI. E-Serve is also responsible for the administration of the Northern Ireland Renewables Obligation (NIRO).

6. There are several reasons for having Ofgem administer the Northern Ireland RHI;
   
a. **Track record and expertise** – Ofgem has a proven track record in delivering large scale energy projects, as outlined in para 5, similar to the Northern Ireland RHI. For the Northern Ireland RHI to be successful it must be accessible and professionally delivered.

b. **Economies of scale** – Given that Ofgem has been engaged with DECC over the past 18 months in designing the GB RHI they have built up expertise that can be utilised in implementing the Northern Ireland RHI. The existing administrative system can be used – bringing a significant saving to DETI.

c. **Legislative position** - The primary legislative powers which provide DECC with the authority to introduce the RHI in GB lie within Section 100 of the 2008 Energy Act\(^1\). These powers specifically define Ofgem as “the Authority” and refer to them as having the power to make payments under the RHI, enforce the scheme, require information from applicants etc. Ofgem are therefore, within the primary legislation, described as the administrators of the RHI in Great Britain. Subordinate legislation\(^2\) which sets out how the GB RHI will be administered, eligibility standards and regulations, prescribe in more detail the role of Ofgem as administrator. A similar legislative position will exist for DETI when the 2011 Energy Bill receives Royal Assent.

---


Feasibility study

7. In order for Ofgem to implement the Northern Ireland RHI a detailed feasibility study is required to determine exactly how the Northern Ireland scheme could be administered, what resource requirements are needed and what the expected ongoing cost may be. The feasibility study will ensure that the implementation of the Northern Ireland is fully costed, that guidelines and governance issues are in place and that the final scheme is fit for purpose.

8. Specifically the feasibility study will deliver the following;

- A high level reporting and governance structure between Ofgem E-Serve and DETI.
- A cost/benefit analysis to identify the most effective internal options for developing and operating the scheme, focusing on those (few) elements which are different from the GB RHI.
- High level process maps showing how the processes will be carried out in practice.
- Risk analysis identifying the risks associated with Ofgem E-Serve taking on this role in addition to operating the GB RHI - and proposed mitigation.
- Identified key workstreams and deliverables for development, and resources (staff, IT, legal, technical support etc) required.
- Evaluation of resources required for operations.
- Detailed costs for the development and implementation phase.
- A full timetable for delivery of the scheme.
- Legislative advice on draft regulations.

9. Ofgem will provide a full outline proposal in advance of the work beginning. It is expected that the study will take up to 12 weeks and will cost in the region of £100,000 (budget cover is available within Energy Division).

10. The feasibility study will advise on the appropriate administrative arrangements required for the Northern Ireland RHI and the expected delivery timetable and costs. This is an essential piece of work for the future implementation of the Northern Ireland RHI.

11. A full business case for this proposal is attached at Annex B.

Direct Award Contract

12. I have sought guidance from Central Procurement Directorate (CPD) within DFP on the award of the contract for the proposed feasibility study. CPD has advised that this contract would be classed as a Direct Award Contract (formerly a Single Tender Action). The reasons for the award of this contract to Ofgem have been outlined above, specifically the legislative position of Ofgem within the primary legislation provides a sound argument for this direct award contract.
13. CPD have indicated that there is a case for a direct award contract in this instance.

14. For a direct award contract to be awarded Departmental Accounting Officer approval is required. I have attached the necessary completed pro forma at Annex A for your consideration. If you provide your approval this will be forwarded to CPD for authorisation.

Recommendation

15. It is recommended that the Departmental Accounting Officer;

i) Authorises the appointment of Ofgem to carry out a feasibility study into the administration arrangements for the Northern Ireland RHI via a Direct Award Contract (pro forma at Annex A); and

ii) Approves the business case for the proposed assignment (attached at Annex B).

16. It is recommended that the Minister;

i) Notes the appointment of Ofgem for this assignment via a Direct Award Contract; and

ii) Approves the business case for the proposed assignment (attached at Annex B).

(signed)

FIONA HEPPER
ENERGY DIVISION
(Ext 29215)

Distribution List:

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Press Office
Annex A

CENTRAL PROCUREMENT DIRECTORATE (CPD)

Request for Procurement Advice in respect of a Direct Award Contract (DAC)

Please complete this form with all relevant details and send to CPD.

### Section 1. Client Contact Details

<table>
<thead>
<tr>
<th>Name of Contact</th>
<th>Peter Hutchinson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Department of Enterprise, Trade and Investment</td>
</tr>
<tr>
<td>Branch/Division</td>
<td>Renewable Heat Branch, Energy Division</td>
</tr>
<tr>
<td>Address</td>
<td>Netherleigh Massey Avenue Belfast</td>
</tr>
<tr>
<td>Postcode</td>
<td>BT4 2JP</td>
</tr>
<tr>
<td>e-mail address</td>
<td><a href="mailto:Peter.hutchinson@detini.gov.uk">Peter.hutchinson@detini.gov.uk</a></td>
</tr>
<tr>
<td>Office Telephone Number</td>
<td>028 9052 9532</td>
</tr>
<tr>
<td>Mobile Telephone Number</td>
<td>-----------</td>
</tr>
</tbody>
</table>

### Section 2. Direct Award Contract (DAC) Details

<table>
<thead>
<tr>
<th>Title of DAC</th>
<th>Feasibility study into the potential administration of the Northern Ireland Renewable Heat Incentive (RHI) by the Office of Gas and Electricity Markets (Ofgem)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the estimated value of this DAC?</td>
<td>£100k</td>
</tr>
<tr>
<td>What is the proposed length of this DAC?</td>
<td>12 weeks</td>
</tr>
</tbody>
</table>
Section 3. DAC Justification

3.1 Technical Reasons or Exclusive Rights

Is this DAC being justified for technical or artistic reasons or because the supplier has exclusive rights?

If yes, please specify the reasons and explain in detail the various intellectual property rights governing each element of the system and who owns these rights. Please reference here, if applicable, the relevant contract clauses from the original contract. If applicable a copy of the original terms and conditions of contract should be attached to this form.

Ofgem is the Energy Regulator for Great Britain and has a close working relationship with the Department of Energy and Climate Change (DECC). Ofgem acts as the delivery body for a number of DECC led renewable energy schemes including the Renewable Obligation (and the Northern Ireland Renewables Obligation), the Feed-in-Tariff and the GB RHI.

Over the past 18 months Ofgem and DECC have worked closely to develop administration arrangements for the GB RHI, design IT equipment and draft guidance documents that underpin the scheme. The work that Ofgem has carried out has been vital for the introduction of the GB RHI.

By contracting with Ofgem for the delivery of the Northern Ireland RHI DETI would be in position to benefit from the expertise developed by Ofgem in the design and delivery of the GB RHI. Further to this, DETI could utilise existing IT systems, guidance documents and legislative advice which are already in place for the GB RHI. This presents significant economies of scale, will ensure consistency in approach with GB in the delivery of the two similar incentive schemes and will assist in the implementation of the NI RHI in a cost-effective and timely manner.

The first stage of the implementation of the NI RHI through Ofgem is the carrying out of a feasibility study which will advise on the cost/benefit of the various options of administration; advise on any technical or legislative requirements; and recommend the way forward. This will also allow provide full costings for administration (up front and ongoing costs).

Given Ofgem’s role in the GB RHI and expertise in delivering large scale renewable energy projects it is the view of Energy Division that it is the only viable option for the administrator of the Northern Ireland RHI.
Is this DAC in respect of a good or service which must meet specific legislative requirements e.g. Home Office Approval

If Yes, please provide details of the legislative justification.

The primary legislative powers which provide DECC with the authority to introduce the RHI in GB lie within Section 100 of the 2008 Energy Act. These powers specifically define Ofgem as “the Authority” and refer to them as having the power to make payments under the RHI, enforce the scheme, require information from applicants etc. Ofgem are, within the primary legislation, described as the administrators of the RHI in Great Britain. Subordinate legislation which sets out how the GB RHI will be administered, eligibility standards and regulations, prescribe in more detail the role of Ofgem as administrator.

Northern Ireland was not included under the 2008 Energy Act. DETI have been successful in seeking an amendment to the current 2011 DECC Energy Bill that will provide DETI with the powers conferred on DECC under Section 100 of the 2008 Energy Act. Therefore, the primary powers under which the Northern Ireland RHI will be implemented will prescribe Ofgem as “the authority” with the appropriate powers to administer the scheme. The 2011 Energy Bill is due for Royal Assent in early Autumn 2011.

Therefore, Ofgem’s role as administrator of the Northern Ireland RHI will be set out in primary legislation. The appointment of Ofgem to carry out a feasibility study in advance of implementation is necessary to identify costs, risks and benefits and advise on aspects of administration.

### 4.1 Was there a Contract which has / or is about to expire?

<table>
<thead>
<tr>
<th>Please provide the name of the supplier</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Please provide the start and end dates of the contract including extensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Date</td>
</tr>
</tbody>
</table>

If the contract has been extended beyond the original options to extend please provide details.

---


Was this contract awarded under Single Tender Action?

| Yes | No |

If No, was there an advertisement placed in the local papers and/or the OJEU, if so please provide dates

| Date in Local papers | Date in OJEU |

What was the actual value of the initial contract at the time of award?

What has been the actual spend to date form the commencement of this contract?

### 4.2 Is this a new requirement?

Please provide the name of the proposed supplier

| Ofgem |

Please provide justification for the DAC to this supplier

This is a new requirement. DETI is proposing to introduce a Northern Ireland Renewable Heat Incentive (RHI) and is currently consulting on the design of such a scheme. The Northern Ireland RHI is designed to incentivise the uptake of renewable heat technologies to support the achievement of targets set by the Executive and obligations set by the European Union. Further to this the increase of renewable heat in Northern Ireland will assist in increasing fuel security, reduce carbon emissions and provide opportunities for ‘green jobs’. Her Majesty’s Treasury has provided £25m over the next 4 years for the introduction of a Northern Ireland RHI.

For the scheme to be successful, accessible and not subject to fraudulent activities, it is vital that an administrator is put in place to monitor the scheme, make payments, enforce standards and eligibility and ensure accessibility.

Ofgem have been appointed to administer the GB RHI and DETI wish to also appoint them to administer the Northern Ireland RHI. Ofgem is the energy regulator in GB and is governed by an Authority, consisting of non-executive and executive members and a non-executive chair. For funding, Ofgem recover costs from the licensed companies it regulates. Licensees are obliged to pay an annual licence fee which is set to cover Ofgem’s running costs. Ofgem is independent of the companies it regulates. Ofgem has vast experience in administrating large scale energy programmes and has a dedicated team, known as E-Serve, which currently deals with a range of energy schemes including the Feed-in-tariff, Smart Metering, the Renewables Obligation and the GB RHI. E-Serve is also responsible for the administration of the Northern Ireland Renewables Obligation (NIRO).

There are a number of reasons for appointing Ofgem to this role;

- Economies of scale due to Ofgem’s role as GB administrator, DETI would be benefitting from existing expertise, guidance documents, IT systems etc.
Consistency of approach with GB, the GB RHI and Northern Ireland RHI are largely similar, discrepancies in administration could cause confusion and prevent uptake. Ofgem has a track record in delivering large scale energy projects such as the roll out of smart metering, the Feed-in-Tariff and the Renewables Obligation (including the Northern Ireland element).

Further to this, is the legislative position (outlined previously) which determines that Ofgem can act as the administrator and provides powers for Ofgem to make payments, enforce standards and deliver the RHI.

In advance of the Northern Ireland RHI being implemented it is vital that a feasibility study is carried out to advise on technical and legal requirements, consider the most appropriate method of administrations and to allow costs to be estimated.

If Ofgem are to administer the Northern Ireland RHI they must first carry out this feasibility study.

**APPROVALS**

**Requestor**
I hereby declare that I **do not** have an external personal or monetary interest in the company to which this DAC will be awarded.

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<tr>
<td>Peter Hutchinson</td>
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**Recommended by Head of Branch**
I hereby declare that I **do not** have an external personal or monetary interest in the company to which this DAC will be awarded.

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**ACCOUNTING OFFICER DECISION**

I hereby declare that I do not have an external personal or monetary interest in the company to which this DAC will be awarded. I have read CPD Policy Guidance Note 02/10 and the comments provided by CPD.

a) I request CPD to progress this DAC on behalf of the Contracting Authority with -------------------------------.

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<td>David Sterling</td>
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BUSINESS CASE FOR PROPOSAL TO ENGAGE A CONSULTANT

SECTION 1: NEED FOR THE ASSIGNMENT

Background – Purpose of the assignment

This paper is prepared in line with the DFP Guidance for the use of consultants (22 December 2009).

The purpose of this assignment is to appoint the Office of Electricity and Gas Markets (Ofgem) to undertake a feasibility study into the administration of a Northern Ireland Renewable Heat Incentive (RHI) in advance of the launch of the scheme, scheduled for April 2012. The administration of the RHI is a complex issue which will require subordinate legislation, the development of protocols and agreements between DETI and Ofgem, the design of IT systems and ongoing management. Ofgem are best placed to carry this work out given their role as GB Energy Regulator, previous experience of administering the Feed-in-Tariffs, the roll out of smart meters and the Renewables Obligation, as well as their role in designing and delivering the GB RHI on behalf of the Department of Energy and Climate Change (DECC).

Further to this, the primary legislative powers which provide DECC with the authority to introduce the RHI in GB lie within Section 100 of the 2008 Energy Act. These powers specifically define Ofgem as "the Authority" and refer to them as having the power to make payments under the RHI, enforce the scheme, require information from applicants etc. Ofgem are, within the primary legislation, described as the administrators of the RHI in Great Britain. Subordinate legislation which sets out how the GB RHI will be administered, eligibility standards and regulations, prescribe in more detail the role of Ofgem as administrator.

Northern Ireland was not included under the 2008 Energy Act. DETI have been successful in seeking an amendment to the current 2011 DECC Energy Bill that will provide DETI with the powers conferred on DECC under Section 100 of the 2008 Energy Act. Therefore, the primary powers under which the Northern Ireland RHI will be implemented will prescribe

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1 An RHI is an incentive scheme that will reward those who install eligible renewable heat technology with a set tariff to be paid over a number of years, the level of tariff and length of payment is determined by the size and type of technology involved. The tariffs are set in order to cover the capital, operating and other non-financial costs of installing such technologies.


Ofgem as “the authority” with the appropriate powers to administer the scheme. The 2011 Energy Bill is due for Royal Assent in early Autumn 2011.

Therefore, Ofgem’s role as administrator of the Northern Ireland RHI will be set out in primary legislation. The appointment of Ofgem to carry out a feasibility study in advance of implementation is necessary to identify costs, risks and benefits and advise on aspects of administration.

**Strategic/policy context**

In September 2010, DETI published the Strategic Energy Framework\(^4\) (SEF) which had been agreed and endorsed by the Executive. The SEF included a target of 10% renewable heat by 2020 and explained that this was required to increase fuel security, reduce dependence on fossil fuels, support the drive for a cut in emissions and provide opportunities for green jobs. In the same month, the DETI Minister announced DETI would seek to introduce a RHI in Northern Ireland should one be economically viable\(^5\).

The Minister’s announcement followed on from research that demonstrated a RHI could support the delivery of the Executive target and would be required for the market to be developed. Further to this, GB had made clear plans to introduce a GB RHI, Northern Ireland had not been included in this measure because of the differences in the two different heat markets, these differences meant that a Northern Ireland specific approach was required.

In October 2010, Her Majesty’s Treasury allocated DETI with £25m over the next 4 years for the introduction of a RHI. Following on from this, DETI appointed Cambridge Economic Policy Associates (CEPA) and AEA Technologies, following a competitive tender process, to carry out an economic appraisal\(^6\) of a RHI. This appraisal informed a final policy position which was endorsed by the DETI Minister and a public consultation on the introduction of the Northern Ireland RHI was launched on 20 July 2011\(^7\).

**What is the need for the assignment?**

In order for the RHI to be introduced and implemented it needs to be administered. The role of the administrator will be to deal with applications, make payments and ensure that conditions of the scheme are in place. The administrator will also have powers to withhold payments, seek information on installations and carry out inspections if required.

DETI propose to appoint Ofgem to the role of administrator. Ofgem are fulfilling the role for DECC in regards to the GB RHI. They are experts in the design of the scheme, have developed guidelines for administration and have IT systems in place to make payments. By DETI contracting with Ofgem there will be significant economies of scale and savings by utilizing the significant work already undertaken. Ofgem have a proven track record in the delivery of such schemes and are the administrators for the Northern Ireland Renewables Obligation (NIRO).

In order to Ofgem to administer the scheme a feasibility study is required. This will advise on the appropriate structures that need to be in place, the optimum method of administration, the introduction of necessary legislation and the design of appropriate IT systems. This study will also advise on start-up costs of administrating the scheme and ongoing staffing costs.

**What is the scope of the assignment, i.e. tasks anticipated to provide desired outcomes?**

A focused feasibility study will provide a detailed evaluation of preferred options to implement the Northern Ireland RHI. In doing so we will deliver the following:


\(^7\) [http://www.detini.gov.uk/consultation_on_the_development_of_the_northern_ireland_renewable_heat_incentive](http://www.detini.gov.uk/consultation_on_the_development_of_the_northern_ireland_renewable_heat_incentive)
- A high level reporting and governance structure between Ofgem E-Serve and DETI
- Use a cost/benefit analysis to identify the most effective internal options for developing and operating the scheme, focusing on those elements which are different from the GB RHI
- High level process maps showing how the processes will be carried out in practice
- Risk analysis of risks associated with Ofgem E-Serve taking on this role in addition to operating GB RHI - and proposed mitigation
- Identified key workstreams and deliverables for development, and resources (staff, IT, legal, technical support etc) required
- Evaluation of resources required for operations
- Detailed costs for the development and implementation phase
- A full timetable of the scheme delivery

In addition Ofgem legal advisors and development staff will carry out one full review of the draft regulations, and will advise DETI on Ofgem’s ability to implement the regulations as drafted, what changes may be needed to enable us to implement them in practice, and what changes may be required to streamline or improve implementation.

Timing of assignment – when is the information required and is there any possibility of deferring the assignment?

It is essential that this work is carried out as a matter of urgency. The GB RHI is scheduled to be in place shortly and delays to the introduction of a NI incentive scheme will lead to concerns that the NI market is being disadvantaged. Delay would also lead to money allocated by HMT not being utilized and the 10% target not being met.

It is anticipated that the NI RHI will be in place by April 2012. For this to be achieved the feasibility study must be completed as a matter of urgency.

Description of previous similar consultancy assignments, including an analysis of past expenditures (corresponding evaluations must also be appended)

No previous consultancy has been carried out on the administration of a Northern Ireland RHI. Two previous pieces of consultancy on the renewable heat market are detailed below;

- Assessment into the potential development of the renewable heat in Northern Ireland (June 2010) by AECOM Ltd and Poyry Energy Consulting. Cost:
- A Renewable Heat Incentive for Northern Ireland, a report for DETI (June 2011) by CEPA and AEA Technologies. Cost

A post project evaluation (PPE) for the first study is attached at Appendix I. A PPE for the second study is underway.

SECTION 2: BENEFITS & THEIR TIMING

What are the projected outputs from the assignment?

The immediate output will be a feasibility study on how the Northern Ireland RHI can be efficiently and cost-effectively rolled out in a timely manner. This will ensure that the administration arrangements are fit for purpose and fully costed.

In advance of this project being initiated a full outline proposal will be submitted to DETI. The key expected outputs from this assignment are;
- A focused feasibility study providing a detailed evaluation of preferred options to implement the Northern Ireland RHI.
- A high level reporting and governance structure between Ofgem E-Serve and DETI.
- Use a cost/benefit analysis to identify the most effective internal options for developing and operating the scheme.
- High level process maps showing how the processes will be carried out in practice.
- Risk analysis of risks associated with Ofgem E-Serve taking on this role and proposed mitigation.
- Identified key workstreams and deliverables for development, and resources (staff, IT, legal, technical support etc) required.
- Evaluation of resources required for operations.
- Detailed costs for the development and implementation phase.
- A full timetable of the scheme delivery.
- Review of draft regulations.

What are the expected benefits to be delivered from the assignment and give an indication of when they are likely to accrue?

The main benefit of this work will be the delivery of the feasibility study advising on the appropriate method of administering the Northern Ireland RHI and the expected costs. This study is expected to be completed within 12 weeks of commissioning.

The longer term benefit is that the future Northern Ireland RHI can be introduced and implemented in a timely and efficient manner. The feasibility study will ensure that the appropriate systems are put in place, that technical/IT issues are resolved and that expected costs are known in advance. The success of the Northern Ireland RHI relays on many aspects, one of which is reliable administration. If the administration is poorly planned or executed there is real danger that consumers will not be willing or be unable to avail of the incentive. It is vital that the administration systems are assessed, costed, planned and agreed in advance, with any potential risks or dangers identified. The feasibility study into the administration arrangements is important for the future success of the Northern Ireland RHI.

What are the implications of the assignment not going ahead?

If this assignment does not go ahead the introduction of a Northern Ireland RHI would be in significant doubt as there would be no viable method of administration. This in turn would result in money set aside for the scheme (£25million over 4 years) having to returned to HMT and the target for renewable heat, set by the Executive, not being achieved. Further to this, DETI would not be contributing to the UK target set by the EU Renewable Energy Directive.

There would also be substantial criticism from the renewable heat industry that Northern Ireland was being significantly disadvantage in comparison to the market in GB.

SECTION 3: ASSESSMENT OF ALTERNATIVE OPTIONS

A number of alternative options to external consultancy have been considered;

**Option 1 – Do nothing**

Doing nothing would result in the Northern Ireland RHI not going ahead due to a lack of viable administration options. DETI are unable to deliver the scheme given the scale and complexities. Ofgem, through their experience of working with DECC in designing and implementing the GB RHI, are the only body able to deliver the scheme in a timely and effective manner.
Doing nothing would lead to no Northern Ireland RHI, a loss of allocated funding, criticism from stakeholders and failure to achieve Executive and EU set targets.

**Option 2 – Complete the analysis in-house**

The necessary resources and technical expertise do not exist in-house in Energy Division.

**Option 3 – Partial completion of assignment using in-house resources**

The necessary resources and technical expertise to develop appropriate administration measures for the Northern Ireland RHI do not exist in-house. DETI Energy staff will work alongside Ofgem during the feasibility stage to ensure that the agreed policy position can be delivered and the NI RHI can be accessed by consumers wishing to avail of the incentive scheme.

**Option 4 – Short/Medium term secondment of industry experts**

This is not a viable option given the urgency of the assignment. In addition, long term administration support will be required in the future; this cannot be fulfilled by short/medium term secondment of industry experts.

**Option 5 – Use of External consultants**

This is our preferred approach and the only viable option. This will ensure the feasibility study is carried out in a timely and effective manner by a body experienced in delivering such programmes. This will also support the implementation of longer term administration plans following consideration of recommendations contained in the feasibility study.

### SECTION 4: EXPECTED DELIVERABLES

Please provide details on the deliverables expected from consultancy. If available, a copy of the draft terms of reference for the proposed consultancy should be attached.

The key expected deliverables from this consultancy will be:

- A focused feasibility study providing a detailed evaluation of preferred options to implement the Northern Ireland RHI.
- A high level reporting and governance structure between Ofgem E-Serve and DETI.
- Use a cost/benefit analysis to identify the most effective internal options for developing and operating the scheme.
- High level process maps showing how the processes will be carried out in practice.
- Risk analysis of risks associated with Ofgem E-Serve taking on this role and proposed mitigation.
- Identified key workstreams and deliverables for development, and resources (staff, IT, legal, technical support etc) required
- Evaluation of resources required for operations
- Detailed costs for the development and implementation phase
- A full timetable of the scheme delivery
- Review of draft regulations.

This feasibility study will inform the future administration arrangements of the Northern Ireland RHI. Following this assignment, DETI will consider the study and how the Northern Ireland RHI can be most effectively implemented.
**SECTION 5: SKILLS TRANSFER**

Outline the potential for skills transfer?

There will be some potential for skills transfer during this assignment, this will largely be in the form of increased knowledge and understanding amongst Energy Division members of the potential administration issues of a Northern Ireland RHI.

By working closely with Ofgem, Energy Division staff will be able to understand better the requirements of the administration aspects, potential risks or failings and how the scheme’s accessibility can be optimized.

**What arrangements have been put into place to facilitate the transfer of skills from the consultants to departmental staff to the extent that this is a benefit of the consultancy?**

Throughout the project there will be some opportunity for skills transfer to Departmental staff. This knowledge and understanding will increase through close contact with the appointed consultants and can be maintained following the successful completion and implementation of the project.

**When is it anticipated that knowledge and skills delivered by the consultancy will be transferred to internal staff?**

Knowledge and skills delivered by the consultancy will be transferred to internal staff throughout the project through meetings and discussions about the elements of the project. This will be increased further on delivery of the draft report through the process of quality assurance. The final report will assist in the implementation of the Northern Ireland RHI.

**What are the implications of skills transfer for future consultancy support?**

The project will assist in the design of appropriate administrative arrangements to allow the successful delivery of the Northern Ireland RHI. The administration and implementation of the Northern Ireland RHI will be delivered by Ofgem with oversight from DETI.

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**SECTION 6: PROPOSED DIVISION OF WORK**

**What in-house support will be given to the consultants e.g. technical/specialist inputs, accommodation, photocopying and typing services etc?**

Ofgem will be required to provide the delivery of specific objectives as described in the project proposal.

Energy Division staff will be used to manage the delivery of the project, assisting consultants with queries, advising on policy issues and ensuring the project is delivered on time and on budget. It is expected that there will be ongoing contact in terms of phone calls, email correspondence and tele/video-conferencing. Consideration will also be given to the need for face-to-face meetings. Departmental economists will be included as required.

**Provide indicative estimates of the expected number of consultancy days by consultancy grade.**

The assignment is estimated to take up to 80 consultancy days as follows:

- Project Manager – up to 15
- Principal Consultant – 20 to 25
- Junior Consultant – 20 to 25
- Legal Advice – up to 15
Provide indicative estimates of the expected number of in-house staff days by staff grade.

The assignment is estimated to take up to 20 in-house staff days, estimated at 12 days at DP, 5 days at G7 and 3 days at Deputy Economist.

SECTION 7: EXPECTED COSTS OF THE ASSIGNMENT

External Consultancy Costs

What is the expected cost of the external consultants’ input to the assignment? Information derived from section 6 should be used alongside estimated consultancy rates to derive an estimate of the cost. Costs should be provided on a nominal basis. Affordability should be addressed, i.e. is budget provision available?

It is expected that the cost of this assignment will be in the region of £100,000.

Budget is available within the Energy Division Budget.

In-House Costs

What are the estimated in-house support costs for the assignment? Information derived from section 6 should be used alongside staff rates to derive an estimate of the cost. Costs should be provided on a nominal basis.

The in house costs based on 20 staff days (12 days at DP, 5 days at G7 and 3 days at Deputy Economist) for meetings, reading time and project management is in the order of £6,000.

SECTION 8: PROJECT MANAGEMENT/PERFORMANCE REVIEW ARRANGEMENTS

What are the proposed project management arrangements, including details of monitoring officers, draft reports, Steering Groups etc?

The project will be managed by Renewable Heat Branch with the project team in Ofgem expected to liaise closely with the Head of Branch and Deputy Principal on a regular basis. A Deputy Economist will also provide support throughout the project, as requested.

Proposed arrangements for on-going monitoring of consultancy performance and expected deliverables. The project managers should ensure that appropriate mechanisms are in place for influencing performance at interim stages;

Regular meetings will take place throughout the project with the consultants obliged to submit regular update reports (at agreed intervals) to enable the review of progress. A final report will be required by 4 November 2011.

Identify person/persons responsible for managing/delivering skills transfer.

The progress of the assignment will be monitored closely by the Deputy Principal to ensure that the project is completed on time and within budget.

What are the performance review arrangements for the assignment, e.g. the quality assurance employed from Departmental specialists?

Payment will only be made following sign-off at Grade 5 level. Departmental economists will be involved in quality assurance as required.
Skills transfer it should be pro-actively managed and monitored like any other consultancy benefit.

The appointed project team will be expected to attend project management meetings, provide regular update reports and be contactable throughout the contract. Ofgem will be expected to explain the analysis carried out and the evidence gathered so skills and knowledge will be transferred.

SECTION 9: IMPLEMENTATION AND EVALUATION PLAN

How will the results of the consultancy be implemented?

The results of this consultancy will be to provide an evidence base for the administration arrangements and implementation of the Northern Ireland RHI.

Proposed arrangements for evaluating the outputs delivered by the consultancy assignment. This should include information on who is the responsible officer for ensuring the evaluation takes place and also information on when it is proposed to carry out the evaluation. Whilst ideally the evaluation should be independent of the project promoters, in most instances, evaluations should be carried out by internal resources, i.e. in-house staff or internal consultancy.

Following the completion of this assignment a Post Project Evaluation on the work of the consultants will be carried out by Energy Division, to be completed within 6 months of the satisfactory conclusion of the project.
Section 1: Background

Provide a brief description of the assignment including:

- What was the purpose of the assignment?

The assignment was expected to cover the following:

a. undertake an independent assessment to identify and quantify the current scale, future sustainable growth potential and optimum size and scale of the renewable heat sector in Northern Ireland. The successful consultant will be required to provide a statistical evidence base to verify their findings;

b. make recommendations as to the options for encouraging the deployment of renewable heat technologies in Northern Ireland. The successful consultants must examine the appropriateness of a RHI for NI and will be expected to provide an analysis of the needs or otherwise for any short term incentive that may be required in the absence of anticipated legislation for a RHI in NI in the short term; and

c. make recommendations for an appropriate evidence-based renewable heat target and to consider how this target might impact on existing energy markets in NI.

- What was the need for the assignment?

Following developments in renewable heat policy in both the EU and Great Britain, namely the renewable energy directive and the introduction of the Renewable Heat Incentive (RHI)
respectively, DETI commissioned a piece of research in order to gather up to date information on Northern Ireland heat market and assess the potential for developing renewable heat. This piece of research was essential to provide the evidence required to inform future policy development in this area and to establish how the renewable heat sector in Northern Ireland could be most effectively supported and developed. With the introduction of binding EU targets in respect of renewable heat (the UK is expected to that 15% of its energy consumption, including heat, comes from renewable sources by 2020, Northern Ireland is expected to contribute to this target) and the introduction of the RHI in Great Britain but not in Northern Ireland, evidence needed to be gathered to inform future policy decisions so the market here would not be disadvantaged.

- **Who was the appointed consultant and when were they appointed?**

AECOM Ltd and Pöyry Energy Consulting were appointed in December 2009 following a competitive tender.

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**Section 2: Assessment of Costs**

*This section should provide a comparison of the actual costs of the external consultancy with the agreed contract value.*

Where the variation between contract value and actual costs is greater than 10%, an explanation for the variation must be provided. [Note where actual costs exceed the cost approved by DFP by more than 10%, then DFP must be informed].

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**Section 3: Assessment of Deliverables**

*This section should provide detail on what was delivered by the consultants. The extent to which projected deliverables, as outlined in the Terms of Reference, were met by the consultants, and the quality should be assessed.*

The project deliverables, as specified in the Terms of Reference, were as follows:

i. To provide up to date and accurate statistics on the current heat and renewable heat usage in Northern Ireland.

ii. To produce a base heat map for Northern Ireland in a Geographic Information Systems format that identifies, as a minimum, high-level heat users and their location; highlights heat demand and resource in NI; and identifies locations which offer the best potential for developing renewable heat technologies.

iii. To benchmark Northern Ireland’s renewable heat potential against Renewable Heat markets in GB, ROI and at least 2 other European regions.

iv. To consider and present options on how the Renewable Heat market in Northern Ireland could be encouraged / incentivised.

v. To make an evidence based assessment of the need for an interim measure in Northern Ireland to stimulate the Renewable Heat market in light of the introduction of the Renewable Heat Incentive in Great Britain, and present options for any short term incentivisation.
vi. To make projections as to evidence-based target for renewable heat to 2020 for Northern Ireland, setting out clearly the potential impact of any target on other existing energy markets (i.e. electricity, gas, coal and oil).

On the whole the deliverables as outlined in the ToR were met, quality was consistently good throughout with minimal supervision required.

The terms of reference stipulated that the successful consultant would provide a draft report for consideration by Sustainable Energy Branch (SEB) followed by submission of a final report. These reports were delivered to agreed timescales and to a good standard. Some changes were requested but these were incorporated into the final report. AECOM and Pöyry both worked closely with SEB staff, providing regular updates on their research throughout the contract and were also available to answer questions or discuss certain issues further.

The final report is a substantial piece of research and includes detailed analysis of the current status of both the heat and renewable heat markets in Northern Ireland. It provides information on Northern Ireland’s position in comparison to other EU states and regions and presents various evidence-based options on how the market could be developed. Recommendations are made on how DETI should proceed with this policy area and how a 10% target of renewable heat by 2020 could be achieved. GIS maps have also been provided for DETI’s use.

The consultants demonstrated throughout an in-depth knowledge of renewable heat, and wider issues that would affect the rollout of heat policies.

Section 4: Assessment of Benefits

This section should provide detail on the benefits provided by the consultancy assignment. For example:

- Were the deliverables achieved within the timescale specified in the contract?

The deliverables of the project, as detailed in the terms of reference, were achieved with the final report covering all aspects required in great detail. This work has informed decisions taken on renewable heat policy as it was intended. There was some delay in completing the project.

- Reasons for any delays and the impact on expected benefits should be explained.

The project was delivered with some delay, largely due to a delayed start and the amount of data collection that was required. Timescales were revised following discussions between SEB and the consultants. This had limited impact and the final report is of a good standard with excellent detail.

- Was the consultancy assignment used for the purpose originally intended?

The consultancy assignment was used for the purpose originally intended.

- How were the outputs delivered by the assignment used?

The project provided a detailed analysis of the current status of the renewable heat market, the potential for growth and the possible support measures (both policy and financial) that would be required. The report has informed decisions on future renewable heat policy, detailed in a statement by the Minister on 20th September 2010. The Executive Summary of the report was also circulated to interested parties and placed on the DETI website for information.
SEB now plan to carry out a short piece of economic work aimed at developing a RHI specifically for Northern Ireland, as advised in the report. This work will assess the cost/benefit of such a policy to ensure that it is the most appropriate scheme for Northern Ireland and so that funding secured will be sufficient for the expected demand.

Section 5: Division of Work

This section should provide details of the division of work between in-house staff and the consultants. Evidence should be provided of whether the in-house assistance provided matched what was in the business case.

The business case for this assignment stated that a project steering group would be set up to monitor progress of the consultants and that this group would include representatives from the public sector, private sector, academia and others. This group was established in January 2010 and chaired by Jenny Pyper, Head of Energy Division. Project Steering Group meetings were held on 19 January 2010, 11 March 2010 and 26 April with members of the PSG invited to comment on progress, advise on work areas and quality assure findings.

In addition, the business case stated that there would be regular meetings between the consultants and officials from SEB (G7/DP) and update reports would be submitted at agreed intervals.

An inception meeting between SEB and AECOM and Pöyry was held on 1 December 2009 to discuss the project and the expectations and deliverables. Further meetings were held throughout the project, as well as continual communication via telephone and email. Regular update reports were submitted during the data gathering element of the assignment, with a draft outline report and final draft submitted and considered in advance of a final draft being agreed.

Section 6: Skills Transfer

- What mechanisms were put in place to allow the transfer of skills and knowledge to happen?

As a result of the close contact with AECOM and Pöyry throughout the project staff in SEB have a significantly increased understanding of the heat market in Northern Ireland and a better knowledge of the various renewable heat technologies and the economics in comparison to existing fossil fuels. Skills transfer was largely through learning and development gained on a day to day basis working with the AECOM / Pöyry team.

- Assess the extent to which transfer of skill and knowledge to in-house staff has taken place and what impact has this had on in-house capability?

This knowledge has been very useful in developing policy options to support the Northern Ireland market and has informed this policy area’s work plan for the next 12-18 months.

- Has the need for future consultancy support diminished as a result of skills transfer?

Despite the increased understanding there will still be a need to employ experienced energy economists to carry out an economic appraisal of a renewable heat incentive because of the level of technical expertise required.
Section 7: Assessment of Project Management Arrangements

This section should provide an assessment of the project management arrangements. For example:

- Were the monitoring arrangements put in place to manage the consultant's satisfactory?

From the outset of the project it was agreed that regular detailed update reports would be provided by the consultant, specifically in terms of progress of data collection, and that informal contact in the form of phone calls and email would be expected. This system worked well and SEB were kept informed of progress, advised of difficulties and were able to offer appropriate support and advice as appropriate. AECOM and Pöyry were also able to advise of development in renewable heat policy in GB which benefited the project as a whole.

- Was there an opportunity to influence performance interim stages?

There were opportunities to influence performance at interim stages, and this was utilized most between the draft and final report stages.

- Was the project managed effectively?

There were no issues with project management – appropriate levels of staff from AECOM and Pöyry were made available to work on the project and good contingency arrangements were in place where required. The project was managed effectively by AECOM.

Section 8: Conclusions and Recommendations

Conclusions

Provide a summary of what value was added by this assignment and assess whether, on balance, value for money was achieved.

The assignment provided SEB with a sound evidence base to make policy decisions on renewable heat, namely an appropriate target for 2020 and a view on how this could be achieved. It also provided up to date accurate information on the heat and renewable heat markets in Northern Ireland for the first time. The final report is a detailed document which will be of significant value to SEB as this work progresses and policy is developed and legislation drafted.

The assignment was viewed as the first step in the development of the local renewable heat market, by developing this sector there are significant opportunities to reduce carbon emissions, increase fuel security and realize the potential for new ‘green jobs’.

On balance Value for Money was achieved.

Recommendations

Provide a summary of the lessons learnt and provide details on how these will be disseminated within the Department/Agency.

The report allowed the adoption of a 10% target for renewable heat in the Strategic Energy Framework which has been agreed by the Executive as part of Northern Ireland’s vision for energy policy.

One lesson learnt from this assignment is that in future more time is required for an assignment that requires so much data collection. The use of a Project Steering Group to manage the process was also useful and worked well.
From: Fiona Hepper  
Energy Division

Copy Distribution List Below

Date: 10 August 2011

To: 1. David Sterling  
2. Andrew Crawford  
3. Arlene Foster MLA

BUSINESS CASE FOR THE APPOINTMENT OF OFGEM (VIA A DIRECT AWARD CONTRACT) TO CARRY OUT A FEASIBILITY STUDY INTO THE ADMINISTRATION ARRANGEMENTS FOR THE RENEWABLE HEAT INCENTIVE (RHI) FOR NORTHERN IRELAND

Issue: The submission seeks the mandatory internal approvals to appoint Ofgem to carry out a feasibility study into the administration arrangements for the Northern Ireland Renewable Heat Incentive. If approvals are forthcoming Energy Division will approach Central Procurement Directorate to consider the award of the direct award contract and DFP supply for the consultancy spend element. To note: CPD have informally indicated that they are content.

Timing: Urgent: DFP Supply approval is required and the study must begin as soon as possible to allow for implementation of the Northern Ireland RHI within proposed timescales.

Need for referral to the Executive: Not applicable at this stage.

Presentational issues: Not at this stage, however there has been increased interest in this work area following the launch of the public consultation document.

FOI implications: This submission is exempted under Section 35 of the Freedom of Information Act.

Financial Implications: This assignment will cost in the region of £100,000. Her Majesty’s Treasury (HMT) has advised that
Overview:

This document sets out the proposed resourcing requirements Ofgem will need in order to complete the development of the Northern Ireland Renewable Heat Incentive (NI RHI) in partnership with the Northern Ireland Department of Enterprise, Trade and Investment (DETI), and undertake the administration of the NI RHI if appointed by DETI. This proposal is based on a number of assumptions and will be refined if and when DETI choose to appoint Ofgem as administrators.

Confidentiality

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Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

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Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Executive Summary

Introduction

Ofgem was approached by the Department for Enterprise, Trade and Investment (DETI) to undertake a feasibility analysis for the Northern Ireland Renewable Heat Incentive (NI RHI) scheme. DETI are yet to confirm the role that the Northern Ireland Authority for Utility Regulation (NIAUR) will play in the administration of the scheme. However for the purposes of this study we have assumed that NIAUR will be the scheme administrator under the regulations. If appointed by DETI/NIAUR Ofgem will undertake the delivery and ongoing administration of the scheme. The NI RHI follows the model provided by the Great Britain Renewable Heat Incentive Scheme (GB RHI). The environmental programme is designed to promote the widespread uptake of renewable heat generation technologies.

Ofgem were identified for this role because of our experience in effectively and efficiently developing and administering other Government environmental programmes including the GB RHI and the Northern Ireland Renewables Obligation (NIRO). It is also believed that if Ofgem is to administer the NI RHI alongside the GB RHI, it will provide significant cost savings to DETI and the Northern Ireland taxpayer.

Purpose

This study has been prepared to provide DETI and Ofgem senior management with a detailed understanding of the delivery and ongoing administrative implications of the scheme for Ofgem. This includes an analysis of costs, delivery options, risks and enforcement requirements.

Proposed Implementation and Delivery Solution

This feasibility study proposes an implementation and delivery solution that takes account of the limited time for delivery, maximises economies of scale to be achieved by making use of existing development work, systems and business processes developed for the GB RHI and adapting them as needed. We propose that:

- Ofgem has an overarching scheme management coordination role as administrator of the NI RHI.
- Ofgem has direct lead responsibility for accreditation of generators, development and operation of the IT system, making payments to generators at all scales, auditing and assurance of all RHI systems and processes, and enforcement of performance standards and reporting. Functions may be outsourced where it is more cost-effective to do so, such as onsite auditing.
- The Microgeneration Certification Scheme (MCS) be required to certify renewable equipment and equipment installers at the small scale (possibly medium scale in future), verify generator and installation details as required and pass details of certified installations on to Ofgem.
• DETI/NIAUR should retain formal enforcement powers under the scheme. Ofgem should be responsible for providing DETI/NIAUR with all necessary information around suspected instances of non-compliance. However final decisions about enforcement action should be taken by DETI/NIAUR, which Ofgem will execute under direction.

• As part of the Development Phase, Ofgem will prepare a detailed Communications Strategy. This will involve close consultation with DETI/NIAUR around the communications needs in Northern Ireland and production of materials suitable to those needs, which may include information documents, consultation on guidance materials, press releases and related media materials. We will also prepare a schedule of stakeholder events the timeframe for which will be determined following confirmation of project funding and launch date.

The approach will need to be facilitated by an agreement with NIAUR as the proposed administrator of the scheme under the draft regulations. This is consistent with the management and administration of the NIRO, which is administered by Ofgem in line with an Agency Services Agreement (ASA) with NIAUR.

This approach would enable the NI RHI to achieve a value for money solution that benefits from not only a fit for purpose IT system but also the business processes, staffing capacity and development work undertaken in the preparation of the GB RHI.

Key Dependencies

This feasibility study has been drafted based on assumptions agreed with DETI and it has been prepared on the understanding that Ofgem will work towards an April 2012 launch date provided the following conditions are met:

• DETI will confirm Policy on the NI RHI and provide the significantly finalised draft legal instruments by 23 December 2011;

• Ofgem can draw down adequate funds from DETI to cover all tariff payments on time by July 2012;

• DETI will confirm their commitment to cover agreed administration costs for the scheme (separate to support payments); and

• DETI will agree to release funding for the development phase by 23 December 2011 in order to allow Ofgem to recruit the Development team.

Should there be delays in gaining these approvals and key dependencies, alternate scheme delivery options have outlined in Chapter 6 ‘Implementation’.

Risks

Risk management is a key component of good project management, and this will be built into the development work programme from the beginning. A key risk to this project is the fact that 1 April 2012 is a very challenging target date to launch the scheme. While we propose to work towards meeting this date for scheme launch, our ability to do so is contingent on the key dependencies being met. Failure to meet the key dependencies will result in the launch date being pushed back into the summer. Another key risk of this project for Ofgem is the legal risk surrounding the scheme. Based on Ofgem’s experience administering environmental schemes it is crucial to
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establish early in a project where primary responsibility for funding the costs around legal challenges should lie.

In our experience such challenge could be in relation to DETI’s policy or NIAUR’s determinations or to the administration carried out by Ofgem.

We are aware that DETI will retain all of the risk and therefore hold adequate legal budget to deal with any challenge. At this stage we would recommend that DETI a fund of no less than £1million per year would be appropriate to deal with potential legal challenges to the scheme.

**Timescale for Delivery**

Our assessment during the feasibility phase has shown that based on the current scope of work (in line with the draft regulations shared with Ofgem on 11 October 2011) a launch date of 1 April 2012 would be achievable, as long as the following conditions are met:

1. **Gaining the necessary approvals:**
   - Formal agreement on budgets and assumptions from DETI; and
   - GEMA approval.

2. **The following Policy assumptions being met:**
   - Air Source Heat Pumps are not included;
   - Case-by-case approach to Heavy Industrial Sites is not included; and
   - Policy remains broadly in line with GB RHI.

3. **And the following dependencies are met:**
   - Final policy decisions and “draft regulations finalised from a policy perspective” are provided by Friday 23 December;
   - Some aspects of the development can be undertaken after 1 April 2012; and
   - Budget approval given by Friday 23 December (so we time to get the team in place to commence Tuesday 3 January 2012).

Following discussions with DETI we have provided indicative timeframes and costs for two alternate scenarios in case these dependencies cannot be delivered. Refer to Chapter 6, ‘Implementation’ for further detail.

Consideration should be given to the possibility that the NI RHI may be subject to similar set-backs to the GB scheme such as delays in finalising regulations, seeking State Aid approvals, policy changes or political factors that could impact on Ofgem’s development work and cause delays in scheme implementation. Should any of these delays be incurred, costs and delivery timeframes may need to be reconsidered.

In the event that the project is suspended or delayed DETI will be required to cover Ofgem’s staff costs. In this instance Ofgem will endeavour to reallocate staff after four weeks to minimise the costs to DETI, unless otherwise agreed by the Administration Board.

**Cost Summary**
Ofgem aims to develop a robust and effective NI RHI scheme to commence on 1 April 2012. This will include an IT system that provides a front-end user function for registration in addition to a central register that will hold the account data. The estimated costs for Ofgem to develop and administer the NI RHI scheme based on an April 2012 launch are as follows:

**Development Costs Forecast**

<table>
<thead>
<tr>
<th>Delivery Component</th>
<th>Cost (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Scheme Development delivery team</td>
<td>£96,000</td>
</tr>
<tr>
<td>Internal Ofgem legal costs</td>
<td>£62,000</td>
</tr>
<tr>
<td>IT delivery costs</td>
<td>£143,000</td>
</tr>
<tr>
<td>Independent risk assessment</td>
<td>£10,000 (excluding £10,000 deferred from feasibility study)</td>
</tr>
<tr>
<td>Overheads</td>
<td>£75,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£386,000</strong></td>
</tr>
</tbody>
</table>

Scheme development costs could vary if Ofgem are not able to commence Development work on 3 January 2012 as planned. We have attempted to minimise development costs to DETI through finding internal efficiencies. For example IT costs have been reduced by coordinating NI RHI testing with systems testing required for upgrades for the GB RHI. A later commencement date for NI RHI Development may mean that such opportunities for cost savings can no longer be utilised. The recommended budget for Development provided in this study is based on an April 2012 launch. Any change from this assumption may require further consideration of resourcing.

**Operational Cost Forecasts (based on 3% uptake rate)**

<table>
<thead>
<tr>
<th>Operational Component (based on 3%)</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHI operational staffing</td>
<td>£78,927</td>
<td>£102,721</td>
<td>£143,135</td>
<td>£193,714</td>
</tr>
<tr>
<td>IT business application support costs*</td>
<td>£27,000</td>
<td>£27,000</td>
<td>£27,000</td>
<td>£27,000</td>
</tr>
<tr>
<td>IT infrastructure costs*</td>
<td>£23,000</td>
<td>£23,000</td>
<td>£23,000</td>
<td>£23,000</td>
</tr>
<tr>
<td>Internal legal costs</td>
<td>£6,732</td>
<td>£4,614</td>
<td>£4,799</td>
<td>£4,991</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£135,660</strong></td>
<td><strong>£157,336</strong></td>
<td><strong>£197,935</strong></td>
<td><strong>£248,706</strong></td>
</tr>
</tbody>
</table>

*IT costs are based on year 1 forecasts and may need to be reassessed pending final IT requirements

These figures are a forecast based on the policy assumptions agreed with DETI staff. We have drawn on internal pricing structures and costs associated with administering other environmental programmes to establish these cost projections.

**Development Contingency**

Given the uncertainty around final scheme policy, the need to finalise IT feasibility work to refine the cost estimates, and the legal risks of the NI RHI, we have allowed adequate contingency to cover the potential additional costs of the scheme. We would propose:

- IT contingency of 100% or £133,000 until feasibility work has been completed at the end of December. At this point IT contingency is expected to drop to 33%;
- Legal contingency of £200,000 to provide for the possible costs incurred if Ofgem Legal are required to engage external counsel to advise on local legal issues; and
- Contingency funding of 25% or £43,000 to cover all other areas.

The total contingency recommended for the scheme comes to 100% of Development budget or £386,000. As agreed, this fund is not expected to be transferred to Ofgem until it is needed. DETI will retain the risk that sufficient funds are available should they be needed.
Our primary aim is to deliver the right scheme for DETI, industry and most importantly for consumers. We aim to deliver the scheme for the lowest possible cost to all stakeholders without endangering delivery or effectiveness. The costs outlined include efficiencies and synergies that have been incorporated to drive down the total cost. We would expect to use existing processes, systems and the RHI Operations team to achieve the lowest cost solution.
1. Introduction

Chapter Summary

This chapter sets out the purpose of this document, the background to the project, the legal framework in which this scheme will be developed and our proposed approach to administering the NI RHI. It also deals with the relationship between Ofgem and DETI/NIAUR and issues regarding confidentiality.

The objective of this Feasibility Study

1.1. This study has been carried out by Ofgem to assess the options available for the administration of the Northern Ireland Renewable Heat Incentive (NI RHI). It is based on the approach agreed between Ofgem and DETI that by aligning the NI RHI with the GB RHI, we can maximise the economies of scale to be gained by adopting existing systems and processes resulting in a more cost effective solution.

1.2. This feasibility study considers and analyses options for Ofgem to implement its administration of the NI RHI scheme and details the business processes that need to be amended or implemented, working towards a scheme launch date of 1 April 2012. This launch date is contingent on key dependencies being delivered by Ofgem and DETI as outlined above.

Northern Ireland Renewable Heat Incentive

1.3. The NI RHI will utilise the system established to underpin the RHI scheme that commenced in Great Britain in 2011. The environmental programme is designed to promote the widespread uptake of renewable heat generation technologies at domestic, commercial and industrial scales. While the approach taken in the GB RHI will be used as the basis for the Northern Ireland scheme, there will be key differences to meet the specific needs of the Northern Ireland heat market.

1.4. While natural gas is the primary heating fuel in Great Britain, Northern Ireland’s natural gas network is still developing. Northern Ireland’s primary heating fuel is oil, 98% of which is imported, leaving consumers vulnerable to price fluctuations and exposing them to a higher risk of fuel poverty. The NI RHI is 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 renewable heat demand in Northern Ireland from 1.7% of total heat demand to 10% by 2020.

1.5. The NI RHI represents investment in the local renewable heat market of up to £25 million over the next 4 years and will play a substantial role in supporting the achievement of the 10% target for renewable heat by 2020. Given the size of this investment it is important to consider the scheme administration options and to provide confidence to stakeholders that the scheme will be administered effectively and efficiently. It is also critical that appropriate processes are put in place to monitor the compliance of generators with their obligations.

1.6. DETI undertook consultation on the development of the NI RHI from July 2011 to 3 October 2011. The outcome of this consultation process is currently being
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

reviewed to inform DETI’s final policy position, so changes to key aspects of the scheme are possible. This is particularly the case for areas such as the approach to the Heavy Industrial Sector; the inclusion of Air-Source Heat Pumps (ASHPs) and bioliquids; and a dedicated tariff for Deep Geothermal installations. Notwithstanding this uncertainty, the key high level NI RHI design aspects that are not expected to change are as follows:

- Generators will receive a tariff payment from Ofgem for every kilowatt hour (kWh) of energy generated (technology and capacity dependant);
- Domestic installations will be considered for inclusion in the scheme at a later point, and will be offered the Renewable Heat Premium Payment (RHPP) until that time (the development and administration of which falls beyond the scope of this Feasibility Study);
- Preliminary accreditation will be available subject to final NI RHI regulations not requiring substantial changes to the current RHI system;
- Generation will be metered and generators will inform Ofgem of their meter readings on an agreed basis;
- Generators will receive payment on a quarterly basis;
- Generators will be required to provide Ofgem with an annual declaration of their ongoing compliance with the scheme conditions;
- The following technologies will be supported: Ground Source Heat Pumps (GSHPs); Solar Thermal; Biomass Boilers; Biogas; injection of Biomethane into the gas grid; Renewable combined heat and power; and Renewable district or community heating;
- The administration of the NI RHI maximises the economies of scale to be gained by making use of existing RHI systems and processes to minimise the development and start-up costs while providing a simple and user-friendly system.

1.7. In line with this, the administration of the NI RHI should be:

- User friendly so that uptake and ongoing administration is as simple and clear for potential generators as possible;
- Effective and efficient to minimise administrative costs;
- Integrated with the GB RHI from a user-end perspective to enable seamless participation in both the GB RHI and NI RHI schemes for eligible users;
- Designed and operated to minimise fraud and to ensure that the right payments are made to the right generator at the right time; and
- Robust and flexible, to respond easily to growth in the number of installations and any future changes in NI RHI policy.

Legal framework

Primary legislation

1.8. The Energy Act 2011 (the Act) was given Royal Assent on 18 October 2011. Section 113 of the Act introduced powers for DETI to establish a Renewable Heat Incentive scheme for Northern Ireland.
1.9. Section 114 of the Act grants DETI and NIAUR the ability to enter into arrangements with GEMA (Ofgem) to act on their behalf in carrying out any of the functions of the scheme. Refer to Appendix 1 ‘Legislative Basis’.

Secondary legislation

1.10. Revised draft regulations were provided to Ofgem on 11 October 2011 outlining the details of how the Northern Ireland Renewable Heat Incentive will be administered. These draft regulations do not include any of the aspects of the scheme outlined in the consultation document that differ from the GB RHI scheme, as a final policy position is yet to be decided.

1.11. As agreed with DETI on 13 October 2011, Ofgem has undertaken this Feasibility Study in accordance with the draft regulations received on 11 October 2011 until such time as Ofgem is provided with additional detail around DETI’s final policy position for the NI RHI.

1.12. Should final policy differ considerably from the draft regulations on which this study is based, additional preparatory work may be required. This work will determine the costs and further work needed to incorporate changes from the policy position detailed in the draft regulations to business processes and IT systems. Depending on the extent of the departure from the GB RHI scheme further development work may also be necessary. The extent of the changes to NI RHI policy from the assumptions in this Feasibility Study will determine whether this will impact on delivery timeframes. In the case of ASHPs and Heavy Industrial sites, we have performed some preliminary feasibility work and provided approximate costs where possible. The proposed Development Budget is based on the draft regulations and therefore does not include Heavy Industrial or ASHPs. The budget for including these additional scheme features would need to be refined following the provision of final policy detail.

State Aid

1.13. State Aid approval is required by the European Commission for assistance schemes provided by the Government that may lead to market distortion and an imbalance of trade between member states of the EU. DETI have responsibility for seeking State Aid approval and this may have an impact on the overall timetable for scheme delivery. Following delays to the GB RHI scheme in gaining State Aid approval, DETI are encouraged to commence the process for the NI RHI as soon as a final policy position has been reached.

1.14. In the event of delays in gaining State Aid approval Ofgem will make every effort to avoid any additional costs. However should cost overruns be incurred by Ofgem as a result of delays to delivery timeframes, additional funding may be required.

Scope of Work

1.15. The work we have undertaken during the Feasibility Phase has included:
   - Agreeing policy assumptions with DETI;
   - Mapping the business processes for the scheme, adapting existing GB RHI processes wherever possible;
   - Analysing the risks of the scheme;
   - Analysing the delivery options for the scheme;
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- Analysing the legal position of the scheme;
- Undertaking an IT feasibility study;
- Undertaking detailed costs analysis of the preferred delivery option;
- Attending relevant meetings, workshops and presentations; and
- Forming conclusions and making recommendations.

**Development Phase**

1.16. Should DETI select Ofgem to undertake the administration of the NI RHI scheme, Ofgem would propose to commence the Development Phase on 3 January 2012 with a view to launching the scheme on 1 April 2012 provided key dependencies have been met and final approvals and funding had been agreed with DETI by this stage.

1.17. In the event that the key dependencies can not be met, timeframes for delivery will have to be re-negotiated. The alternate timeframe for scheme launch will depend on the extent of the differences in final policy from the assumptions in the feasibility phase and the extent of the delays in gaining the necessary approvals and funding. The components that Ofgem can deliver and when we can deliver them will be subject to negotiation once the detail of DETI’s final policy has been shared with Ofgem. Refer to Chapter 6 ‘Implementation’ for further detail on alternate timeframes for delivery.

1.18. The work to be undertaken in the development phase is outlined in further detail in Chapter 11. A summary is outlined below:

**The Policy Development team will be responsible for**
- Developing Guidance Material specific to the NI RHI scheme. This material will utilise the text of the current GB RHI guidance with additional detail provided to NI RHI participants in areas where the schemes vary or where additional information is required.
- Developing and adapting Standard Operating Procedures for the NI RHI.
- Developing call scripts for the internal contacts team.
- Developing training materials for the RHI Operations Team and rolling out training to all relevant members of staff.
- Any necessary work in finalising contracts and tenders (or negotiating new agreements) in consultation with Procurement and the Legal team to accommodate the NI RHI scheme in current RHI business processes including on-site audit contracts and Identity Verification.
- Preparation of an Agency Services Agreement between NIAUR and Ofgem, in consultation with DETI. Advice from the Legal Team will also be sought.

**The IT Development Team will be responsible for:**
- IT Systems Development (refer to Chapter 7 for further detail on the scope of development work).

**The Legal Team will be responsible for:**
- Conducting a thorough review of the final draft scheme regulations and raising/resolving any issues with DETI.
• Input into the preparation of an Agency Services Agreement between NIAUR and Ofgem, in consultation with DETI.
• Any necessary work in finalising contracts and tenders (or negotiating new agreements) in consultation with the Policy team and Procurement to accommodate the NI RHI scheme in current RHI business processes including on-site audit contracts and Identity Verification.

The RHI Operations Team will be responsible for:
• Recruiting additional staff members, potentially including a NI RHI specialist.
• Ensuring staff are trained and knowledgeable in the differences between the NI RHI and GB RHI schemes and can handle and escalate enquiries appropriately.
• Ensure staff are trained in new operating procedures and processes and can adapt to resourcing issues arising due to different scheme needs.

Scheme Commencement and Ongoing Operation

1.19. The Development Phase will prepare the internal contacts team and the RHI Operations Team with a view to launching the scheme on 1 April 2012. This launch date is based on the scheme as set out in the regulations shared with Ofgem on 11 October 2011, and key dependencies being met. The components that Ofgem will be able to deliver by this deadline will be confirmed once Ofgem have been provided with details on DETI’s final policy position.

1.20. While Ofgem will make every effort to minimise costs, in the event of delays to scheme commencement as a result of DETI’s inability to meet key deliverables, additional funding may be required to meet cost overruns incurred by Ofgem as a result of such delays. This includes delays in establishing Regulations (following appropriate consultation with Ofgem Legal), gaining State Aid Approval, or satisfying any other necessary legal requirements of the scheme.

Key Scheme Features

1.21. Administration of the NI RHI scheme will require a series of functions to ensure a robust and responsive process for enquiries and scheme entry, user-friendly processes through which participants can meet ongoing obligations, and accurate and timely reporting to ensure transparency and accountability. The key scheme features that will facilitate these ends and that have been examined during the feasibility phase are set out below.

1.22. The high-level end-to-end process Ofgem would propose for administering the NI RHI is represented in Figure 1.1 below. Refer to Appendix 3 for a more detailed business process map representing this process.

Figure 1.1

Protect - Commercial-in-Confidence
1.23. **Accreditation of Generators greater than 45kW:**

There will be a central accreditation and registration system for NI RHI generators based on the existing NI RHI system. As well as registration and certification details, metering, biomass sampling and any other necessary information to determine eligibility will be assessed as part of the accreditation process. As with small scale generators, much of this will be done through our online portal but due to the complexities of large scale sites and technologies we expect there to be a more hands on approach in verifying details for accreditation.

1.24. **Accreditation of Generators less than 45kW:**

In order to minimise the administrative and compliance burden on generators it is intended to make maximum use of third-party certification of installations less than 45kW. The MCS will play a central role in certifying smaller installations, and then the installer and/or the generator will contact Ofgem to register and once all details are confirmed they will be accredited and eligible for NI RHI tariff payments. Participants will apply through a web based portal for accreditation and capture of certification details using the RHI Central Register, with a back up phone contact function to deal with queries and for generators who can’t or don’t have access to the internet.

1.25. **Central Register:**

The Central Register will act as a central data repository for all information necessary as part of this process. Prospective generators that have been accredited will be entered into a Central Register, which will be used to verify eligibility, to ensure that accurate payments are made using the appropriate tariffs and to minimise the potential for abuse. The register will include details of the site, technology and ownership in order to identify the generator unambiguously. It will also capture metering and sampling details.

1.26. **Contact management:**

Strategies will need to be formulated during the development process for managing potentially higher levels of call and paper based registration processes. For generators who cannot access the web portal for registration it will be necessary to provide a call function, this will also handle complaints, queries and directing calls (for example Energy Saving Trust (EST) for technology advice, MCS for certification issues and DETI for policy queries). Detailed and technical accreditation queries will be forwarded to the generator enquiries team in the RHI Operational Team.

1.27. **Customer Relationship Management CRM Software:**

The CRM software system will manage the contact function with generators. It will be used to record queries and complaints, allow access to some information on the central register for call handlers and serve as a means for phone and postal registration if generators cannot use the web portal. The system can also be used
to send out targeted material to generators such as reminders that declarations are due and tariff rate announcements.

1.28. Periodic Information Capture:

There will be a need to collect meter readings and sampling information or periodic information capture. Generators will be informed during the accreditation process of requirements for the payments process and when the information will be expected. A generator will take a meter reading or obtain sampling information and inform Ofgem so this can be logged on the central register. Ideally this will be done through the web portal but generators may choose to call or post and the information will then be logged by an administrator for payments and compliance checks.

1.29. Calculation of payments:

The information collected as part of the accreditation process will be used by the central register to calculate payments based on tariff rates (at the time of accreditation) for the lifetime of the scheme. Metering and sampling information will also form part of the calculation using the tariff rates matrix loaded onto the system.

1.30. Payments Processing:

We recommend that payments be made through SUN, Ofgem’s internal payments processing system.

1.31. Fraud Prevention:

Ofgem will be responsible for scheme auditing and compliance. Key fraud risks and mitigants are outlined in Chapter 10. While Ofgem is responsible for scheme auditing and compliance, an important part of the fight against small-scale generator fraud must be performed by the MCS (or equivalent) at installation and through on-going maintenance checks.

The Central Register will also play a key role in fraud prevention by holding key data relating to all NI RHI installations. The Central Register's main purpose is to ensure compliance with the proposed NI RHI scheme and determine payments. An effective Central Register is vital for scheme oversight, mitigating fraud and finding errors. It will allow audit checks to be carried out on all generation data, summary reports to be run across all generators and that relevant interfaces with other systems can occur efficiently and effectively. Checks that Ofgem will incorporate into their system may include:

- Checks at accreditation to avoid duplicate accounts.
- Verification of MCS certification.
- Checks at accreditation of large-scale certification.
- Trend analysis reporting on the data contained in the Central Register to identify suspicious activity.
- Checks that the generation meter readings (where applicable) are consistent with the generation capacity for that type of technology and installation size.
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- Checking the consistency over time of meter readings (e.g. checks that generation isn't double last period's generation or that generation isn't exactly the same as last period's generation).
- Registrations and accounts audited regularly on a sampled basis.
- Fraud audit of the systems.
- Random physical verification of installations, meters and meter readings.

1.32. **Audit and assurance:**

The NI RHI administration and all of the organisations, systems, and processes, which form part of it, will be subject to audit to ascertain the validity and reliability of information, and to provide an assessment of relevant internal controls. The goal of the audit will be to express an opinion on each of the system components based on work done on a test basis. The audit will be risked based with the areas of greatest risk subject to greatest testing, to provide reasonable assurance that the RHI payments are free from material error. The onsite audit function will be outsourced to protect the scheme against generator fraud, while providing a cost-effective alternative to in-house auditing.

1.33. **Enforcement:**

DETI/NIAUR should retain enforcement powers under the NI RHI. Ofgem will identify instances of suspected fraud or non-compliance, investigate these incidents and provide information to DETI/NIAUR relating with recommended action. DETI/NIAUR will be responsible for decision making and Ofgem will be instructed in accordance with their decision. An appeals process will be in place for participants who disagree with the action taken. Please refer to Chapter 6 for further information on the proposed enforcement process.

1.34. **Reporting:**

It is anticipated that Ofgem will make available regular public reports on the NI RHI, which may contain information on amount and value of the heat generated under the scheme and the number and type of generating stations accredited for the scheme. Additional reporting will be provided internally to DETI/NIAUR in accordance with their needs and the performance of scheme functions.

**Report Structure**

1.35. Our report sets out the findings of our analysis and recommendations, and is structured as follows:

- **Chapter 3** ‘Value for Money’ substantiates some of the efficiencies and cost savings to be achieved through Ofgem, particularly by making use of the existing RHI Central Register and Operations Team.

- We’ve started with identifying the high level options available for each scheme administration function. The options assessed are set out in **Chapter 4**
‘Preliminary Review of Implementation Options’. This chapter sets the scope for the options that will be pursued in Chapter 5 ‘Business Processes’.

- In Chapter 5 we have performed a more detailed analysis of each scheme function and set the scope for the development work and resources required to deliver each function for the NI RHI. A more detailed breakdown of the workstreams and resource requirements is provided in Appendix 2, and Appendix 3 includes a series of business process maps setting out the high level processes involved in the administration of the NI RHI.

- Chapter 6 examines the implementation of the scheme including governance structures, enforcement and ongoing contact and reporting mechanisms between DETI and Ofgem. We have also outlined alternate delivery timeframes in the event that the key dependencies for an April 2012 delivery are unable to be met.

- Chapter 7 is the IT Options Analysis. This chapter assesses the IT options available and provides a recommendation on which option provides the required functionality while remaining cost effective. This is supported by Appendix 4 which provides a full IT feasibility analysis and detail around the scoping, requirements and necessary systems features, gap analysis and key assumptions.

- In Chapter 8 we consider some of the areas where the NI RHI is proposed to differ from the GB RHI. We have set out some of the additional work that will be required and high level costs involved in including these additional technologies in the scheme.

- Chapter 9 addresses the case-by-case approach to the Heavy Industrial Sector proposed by DETI in the consultation document, and offers a low, medium and high level of potential resource requirements that might be incurred depending on what the final policy position requires for the administration of these sites.

- Chapter 10 outlines outlines some of the key risks of the NI RHI scheme and recommended actions to manage or mitigate against these risks.

- In Chapter 11 we outline the resource requirements and a breakdown of the teams that will be involved in scheme delivery and operations, and their responsibilities.

- Chapter 12 provides a summary of our key recommendations and conclusions.

1.36. We have also provided a series of appendices, which include supporting material and further detail around the business processes involved in administering the NI RHI scheme:

- Appendix 1 provides the legislative framework for the NI RHI scheme, setting out the primary legislation that provides for the set up of the scheme and the transfer of powers by DETI/NIAUR.
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- **Appendix 2** contains a series of tables setting out the detailed resource requirements during the development phase and ongoing operational needs specific to the NI RHI.

- **Appendix 3** contains Business Process Maps setting out the high level business processes that Ofgem’s systems and RHI Operations team can deliver to DETI/NIAUR.

- **Appendix 4** sets out the IT Options analysis. This includes stakeholder requests and key systems features, IT Assumptions and Gap Analysis providing further detail on the systems changes required to administer the NI RHI using the RHI Central Register; and tables breaking down the IT resource requirements.

- **Appendix 5** contains a risk register setting out the risks and issues we have identified throughout the Feasibility phase and recommended actions to manage or mitigate against these risks during Development and Operations.

### Engagement with DETI

1.37. Whilst it is understood that DETI is currently reviewing the outcome of their consultation process, further detail around their final policy position is required so that work can proceed on designing the processes, procedures and systems for administering the NI RHI.

1.38. The more significant the differences between the NI RHI and GB RHI schemes, the greater the resourcing requirements will be. This will also impact Ofgem’s ability to deliver the NI RHI scheme within agreed timeframes.

1.39. Ofgem is engaged with DETI to manage this uncertainty where possible and will continue to do so throughout the development process. Key working assumptions have been discussed between DETI and Ofgem and much of the process design and Feasibility Study has been based on these points.
2. Key working assumptions

Chapter Summary
This chapter sets out the key working assumptions that form the basis on which we are able to estimate the resourcing requirements for Ofgem to undertake the development and implementation of the NI RHI.

Legal framework

NI RHI Regulations

2.1. A key working assumption of this Feasibility Study is that DETI will make regulations governing the NI RHI, detailing the scheme functions and which body will be responsible for administering the scheme. DETI will provide Ofgem with the final version of the draft regulations with adequate time to review them and resolve any problems. Once the draft regulations have been finalised from a policy perspective Ofgem Legal will require two weeks to review them and provide comments. After revision Ofgem Legal will require a subsequent two weeks to review these largely finalised regulations. It will be DETI's responsibility to ensure that the regulations are in place in time for scheme launch following appropriate consultation with Ofgem Legal.

2.2. DETI are responsible for ensuring NI RHI regulations are in line with the Energy Act 2011 and all relevant Northern Ireland legislation.

2.3. The costs and delivery timeframes cited in this Feasibility Study are provided on the basis of the draft regulations shared with Ofgem on 11 October 2011. If final scheme policy and regulations differ considerably from the draft regulations on which this study has been based, DETI and Ofgem will have to re-negotiate the costs and delivery timeframes possible based on the final detailed policy position.

2.4. Ofgem will make every effort to prevent any impacts on scheme cost and delivery in the event of issues arising in DETI finalising the regulations and providing Ofgem with adequate time to review them. However should delays occur due to regulations are not yet being in place, Ofgem may require funding to cover any consequent cost overruns.

Agency Services Agreement

2.5. In the draft regulations circulated to Ofgem on 11 October 2011, NIAUR is identified as responsible for the administration of the NI RHI. This is a significant difference to the GB RHI where Ofgem is named as the scheme administrator. However the primary legislation does make provision for NIAUR and DETI to enter into arrangements for Ofgem to undertake various scheme functions on their behalf.

2.6. A key working assumption of this study is that should DETI choose Ofgem to administer the NI RHI scheme an Agency Services Agreement (ASA) will be agreed by both parties setting out the terms, obligations and costs of the arrangement. This agreement should follow the format and approach taken in
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previous ASAs between NIAUR and Ofgem for the administration of environmental schemes such as the NIRO and NI REGO.

State Aid Approval

2.7. It is DETI’s responsibility to ensure that State Aid approval is gained for the NI RHI. This is a key legal requirement and it is important that this is gained in good time. This will ensure that delivery timeframes for the scheme are not compromised.

2.8. This feasibility study assumes that State Aid approval is gained from the European Commission at the end of the three month standstill period, i.e. without any further standstill due to Commission questions.

2.9. While Ofgem will make every effort to minimise cost overruns, in the event of delays caused to scheme commencement as a result of failure to gain State Aid approval, additional funding may be required to cover costs incurred by Ofgem as a result of a delayed scheme launch.

Differences from the GB RHI scheme

Policy Differences

2.10. In July 2011 DETI released a document for public consultation outlining their intentions for the NI RHI scheme. The broad approach was consistent with the GB RHI scheme. However there were several key differences:

- A case-by-case approach to the Heavy Industrial sector;
- The inclusion of Air Source Heat Pumps (ASHPs);
- The inclusion of bioliquids; and
- A dedicated tariff for deep geothermal installations.

2.11. If these differences from the GB RHI scheme form part of DETI’s final policy position there could be a need for significant changes to the systems and business processes, which may mean additional resource requirements. The more the NI RHI scheme differs from the GB RHI scheme, the less opportunity there will be for cost savings and efficiencies to be delivered to DETI.

2.12. The costs outlined in Chapter 11 ‘Required Resources’ apply only to the scheme as set out in the draft regulations provided to Ofgem on 11 October 2011. A key assumption of this Feasibility Study is that the final resource requirements for any changes from these regulations will not be investigated until final policy detail is provided by DETI. The exception to this is ASHPs and Heavy Industrial sites where high level indicative figures have been provided where possible. The figures provided will need to be refined following the provision of DETI’s final policy position. However the timeframes for delivery outlined throughout this study are based on the scheme as set out in the draft regulations. If DETI wish to include additional technologies or the proposed approach to the Heavy Industrial Sector in
the final scheme policy, it may be possible to introduce these elements at a later point in a phased approach. However the details of funding and delivery timeframes will remain subject to further negotiation.

2.13. Any changes to this policy position will need to be examined in relation to how they will impact on the current approach and recommendations. Additional feasibility work may be necessary to define the resource requirements before IT systems development and development of guidance and business processes can commence.

**Fraud Risk**

2.14. We have undertaken an assessment of the feasibility of the NI RHI on the assumption that the level of fraud risk is the same as that for the GB RHI. This will be reassessed during the Development phase following an independent risk assessment to identify key areas of risk to the scheme including any local factors that may require a different approach to the GB RHI. As agreed with DETI, Ofgem deferred the independent risk assessment planned for the Feasibility Phase as the areas of highest risk (inclusion of new technologies, approach to the Heavy Industrial Sector) were not reflected in the draft regulations.

2.15. Any change to that risk assessment may have implications on existing fraud prevention measures and auditing. This is likely to require an extension to the scope of the deferred independent risk assessment and potentially additional cost to reflect any the additional local risks.

**Scale**

2.16. The expected volume of generators for the NI RHI scheme is difficult to predict and the uptake from generators will very much depend on the level of tariffs set, the administration systems for the scheme, the efficiency of the scheme and, of course, the desire for renewable technology.

2.17. The NI RHI represents up to £25 million of investment in the Northern Ireland renewable heating sector over the first four years of the scheme. DETI have estimated scheme uptake, broken down by technology and provided in the table below:
2.18. For the purposes of this study Ofgem have assumed the NI RHI will form 3% of GB RHI application/installation capacity and Operational workload. The table below sets out the expected cumulative uptake under the GB RHI scheme, followed by potential NI RHI uptake based on 3% of GB RHI installations.

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<td>14,580</td>
<td>19,080</td>
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3. Value for Money

Chapter Summary
This chapter sets out Ofgem’s commitment to providing a value for money solution for the NI RHI. Where possible we have substantiated the cost savings achieved by utilising existing systems and processes developed for the GB RHI or procuring an external or bespoke solution.

Ofgem E-Serve

3.1. Ofgem recently re-structured to better meet its duties and obligations for both today’s and also tomorrow’s consumer. A new Business Unit has been created – Ofgem E-Serve, as part of this re-structure. Ofgem E-Serve is responsible for Ofgem’s support and delivery functions. The “E” in Ofgem E-Serve stands for Environment, Energy and Efficiency. Ofgem E-Serve focuses on administering environmental programmes and the delivery of sustainability projects such as offshore electricity transmission.

Ofgem E-Serve Competencies

3.2. Ofgem E-Serve has a strong track record of successfully delivering 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 management of the NI RHI scheme. Exploiting these synergies, particularly with the GB RHI will assist in driving down the overall cost of administering the scheme whilst maintaining a high quality of service to generators.

3.3. The administration of the NI RHI scheme will present significant challenges that Ofgem E-Serve has identified and will look to overcome. Where there is no direct in-house experience or external bodies who can provide a more cost effective and higher quality service, including the use of compliance powers, Ofgem E-Serve will look to tender for the best solution. Ofgem E-Serve’s role will be to design and administer the NI RHI scheme effectively and it will actively look at outsourcing as a means to fulfil various functions that fall under its remit. As the scheme administrator Ofgem E-Serve will remain responsible for managing these contracts and ensure they deliver to legislative standards.

Value for Money

3.4. **Cost** - Our primary aim is to deliver the right scheme for DETI, industry and most importantly for consumers. We aim to deliver the scheme for the lowest possible cost to all stakeholders without endangering delivery or effectiveness. We would expect to use existing processes, systems and the RHI Operations team to achieve the lowest cost solution. We would supplement this with outsourcing of specific functions where most cost effective to do so.

3.5. **IT** - We have experience of specifying, delivering and operating IT systems, including the RHI Central Register, Renewables and CHP Register, CCL Levy Exemption Certificates (LEC), Renewable Electricity Guarantees of Origin (REGO) schemes and FITs. Here we have shown that we are flexible and responsive to reducing development time and cost to new schemes.
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3.6. **Legal issues** - The Ofgem legal team have vast experience of dealing with energy regulations and supply licence conditions. They are able to highlight potential problem areas with the legislation, but they can provide creative solutions to development and policy issues. They will also provide a useful quality assurance check throughout the project to ensure the processes and systems put in place for a new scheme meets proposed legislative requirements and are consistent with our powers.

**Performance**

3.7. **Key Performance Indicators (KPIs)** - Each year Ofgem publishes the performance targets for the Environmental Programmes team in its corporate plan and whether it achieved these targets in its annual report. In the past reporting year, we achieved our targets in every case. We will discuss and agree appropriate KPIs with DETI/NIAUR.

3.8. **People** - Ofgem E-Serve staff have experience of delivering government energy schemes whilst in central government departments, in delivery agents (including EST) and in the private sector. In particular this will provide continuity of experience from those currently administering CERT and CESP.

3.9. **Implementing Regulations** - Our organisational knowledge and experience of GB RHI, RO, NIRO, NI REGO, FITs and WHD make us ideally placed to ensure the NI RHI regulations are implemented effectively.

**Savings Achieved by Utilising GB RHI Systems and Processes**

3.10. There is much emphasis throughout this study on the economies of scale and opportunities for cost savings to be achieved by adopting the existing RHI systems and processes. To quantify these savings we have provided the figures below. These savings are based on a comparison between the costs of developing and implementing the scheme as proposed in this study, compared with the likely development and implementation costs of the scheme without the existing development work and infrastructure:

**Development Cost Savings:**

*By utilising the existing CRM software, the savings for Northern Ireland will be approximately £100,000 - £150,000 in IT systems development costs.*

*By utilising the RHI Central Register instead of commissioning the development of a bespoke IT system, the savings will be approximately £2 - £3 million.*

*By building on the policy development work that was performed by Ofgem in developing the RHI scheme including Guidance material, Fraud, Audit and Compliance Strategies and Standard Operating Procedures, as*
well as technology-specific policy development work, the savings will be approximately £1 - £1.5 million.

By utilising Ofgem’s SUN system to make generator payments instead of using a Payment Service Provider (PSP), preliminary research suggests that savings could range from £100,000 to £500,000 for set up and initial running costs.

3.11. The total development costs based on these figures could range from **£3.2 million – £5.15 million.** The estimated cost of utilising Ofgem’s existing systems, processes and staff for scheme development based on our assumptions is estimated to be £386,000 excluding contingency – around 10% of the possible scheme development cost.

**Operational Cost Savings:**

By utilising the RHI Operations team DETI will also benefit from considerable savings. If the NI RHI were to be administered independently of the GB scheme, the administrator would need to duplicate this team as well as passing on to DETI/NIAUR the cost of overheads in recruitment, procurement and finance. The staffing costs alone of the RHI Operations team are approximately £9 million over the next four years. DETI/NIAUR will benefit from the expertise of this team while only bearing the financial burden for Northern Ireland’s portion of the workload (estimated at approximately 3%).

**If we assume that the cost of running a bespoke NI RHI Operational Team (including staffing costs, legal, management, finance and overheads) was a quarter of the cost of the GB RHI scheme, this cost would be approximately £4.5 million for NI RHI operations over the first four years of the scheme. Based on our high-end estimates of NI RHI operational costs if scheme uptake is 5% of GB RHI uptake, the costs are estimated to be approximately £900,000. This represents one-fifth of the potential costs if NI RHI is administered independently of the NI RHI scheme.**

**The IT costs for ongoing support and maintenance are considerably reduced as a result of sharing these expenses with the GB scheme. There are also non-monetary gains achieved through shared knowledge and synergies with the GB scheme as well as other environmental programs administered by Ofgem to create a robust system and a wealth of experience to support it.**

**Other ongoing operational costs will also be shared where possible, including IT infrastructure and support, internal and external legal costs and reduced overheads.**

3.12. This demonstrates the extent to which DETI/NIAUR and the Northern Ireland taxpayer will benefit from the use of existing RHI development work, infrastructure and Operations Team to achieve a value for money solution while enabling Ofgem to deliver a rigorous and well-regulated NI RHI scheme.
4. Preliminary review of implementation options

Chapter Summary

This chapter summarises the exercise we undertook to review the administration options selected for the GB RHI and to assess whether they were applicable to the administration of the NI RHI. This chapter sets the scope for the options we will consider in detail in Chapter 5. Where appropriate we have quantified the savings that DETI could make if they were to select those options proposed.

Introduction

4.1. This chapter sets out the high level assumptions for Ofgem’s proposed administration of the NI RHI. It is based on the assumption that DETI will want to maximise the economies of scale to be gained by closely aligning the NI RHI with the GB RHI, adopting existing systems and processes wherever possible.

4.2. This chapter is intended as a precursor to the detailed review of business processes that will be provided in Chapter 5. The approach identified sets the scope for each of the areas requiring further examination in subsequent chapters to set out a realistic resource plan for the development phase and ongoing administration of the NI RHI. Based on preliminary discussions with DETI we have discarded options that are prohibitively expensive or which Ofgem is not well placed to implement.

Accreditation

4.3. Design of the accreditation process is where information on an installation and participant is first collected and analysed and is crucial to developing a robust system for scheme administration. The NI RHI Development Team will work closely with Ofgem IT and the GB RHI team, using the GB RHI systems as a starting point to build an accreditation process to fit the specific requirements of the NI RHI. This will benefit from Ofgem’s experience in administering environmental programmes including the RO, NIRO and FITs. This essential in-house knowledge and sharing of processes will help keep the cost of development down whilst ensuring DETI’s vision for the scheme is interpreted into a workable, cost effective scheme for all generators.

4.4. Table 4.1 below set out the high-level process for gaining accreditation. For details of the end-to-end process and the high-level accreditation process for heavy industrial sites refer to Appendix 3.
4.5. Potential options for accreditation include:

**Option 1**

**Outsource the design of a bespoke accreditation system for the NI RHI.**

This option should be dismissed as by outsourcing accreditation the NI RHI would lose the benefits gained from Ofgem in-house expertise and economies of scale achieved through adapting an existing system.

**Option 2**

**Ofgem design a bespoke accreditation system for the NI RHI.**

This option should be dismissed as it would not be cost-effective to develop a bespoke system given an existing system was designed by Ofgem specifically for the GB RHI that can be customised to meet the needs of the NI RHI at less expense.

**Option 3**

**Ofgem design and run the accreditation process in-house, on a system based on GB RHI.**

In-house experience and process modelling expertise is particularly relevant for accreditation. Whilst external technical advice may be sought for specific technology related issues it is necessary for Ofgem to design and run the accreditation process in-house.
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The GB RHI Central Register was customised to meet the needs of the RHI, adding to efficiencies by using knowledge gained from previous Renewables scheme systems development.

Significant expertise and resources have been invested in building a robust system with stable functionality specifically for the GB RHI. By adapting the existing system for the NI scheme Ofgem can provide a fit-for-purpose, value for money solution.

We propose to reuse core business process components from the existing GB RHI system where feasible, whilst also adapting components to address the specific needs to the NI scheme. This will provide a fit-for-purpose solution for Northern Ireland, while achieving considerable cost savings in IT systems development and policy development work.

While it is difficult to quantify the precise savings for each business process in the administration of the RHI, the overall costs will give an indication of the scale of savings to be achieved. For example by utilising the RHI Central Register instead of commissioning the development of a bespoke IT system, the savings will be approximately £2 - £3 million. Accreditation is one of the major functions of the RHI Central Register and as such the cost of developing a bespoke system would form a portion of this cost.

The other aspect of accreditation is the internal operating procedures and policy development work that aided in the development of the accreditation process. By building on the policy development work that was performed by Ofgem in developing the RHI scheme including the development of Guidance material, Fraud, Audit and Compliance Strategies and Standard Operating Procedures, as well as technology-specific policy development work, the savings will be approximately £1 - £1.5 million. Accreditation processes formed only a portion of this development work and when combined with the savings in IT systems development, this reflects considerable value for money for Northern Ireland.

4.6. **We propose to base our resource planning on Option 3 - Ofgem design and administer the accreditation process in-house, maximising existing resources by using the GB RHI accreditation system as a starting point and customising it to meet the specific needs of the NI RHI.**

**Payments Processing**

4.7. Payments processing involves making payments from Ofgem to generators. When exploring this aspect of the scheme risk, cost, reliability and competence were key criteria.

4.8. Options for Payments Processing include:
Option 1

Develop Ofgem IT payments processing system from scratch and integrate with a Bankers’ Automated Clearing Service (BACS)

This option has been discarded on the basis that it is undeliverable by the required deadline and prohibitively expensive.

Option 2

Bank account details held and payments made by a Payment Service Provider (PSP). The Central Register will calculate payments and issue instructions for the PSP to make a direct payment into the generator’s bank account.

This option has been discarded as it would not be cost effective, there are no existing models in operation, and the relative risks associated with this approach were assessed as being higher than other options available, particularly where relatively low numbers of participants are involved.

Preliminary research suggests that the cost of this approach could range from £100,000 to £500,000 for set up and initial running costs, and the procurement lead in time prior to first payment would be too tight, particularly if an OJEU process was required.

Option 3

Adapt the internal SUN payments processing system to meet the specific needs of the NI RHI.

This was the approach taken for the GB RHI as it was assessed as being the most cost effective solution given the scale and needs of the RHI scheme. Minimal IT systems development work is needed to match with the SUN system for use in the NI RHI given this work has already been done in preparation for the GB RHI. This option provides a cost effective, low risk solution adopting existing systems and processes to meet the needs of the NI RHI.

4.9. Assuming Ofgem is required to make NI RHI payments to generators we propose to base our resource planning on Option 3, utilising the existing SUN system, integrating with the RHI Central Register to minimise security and fraud risks, lower administrative costs and make use of the existing system put in place for the GB RHI to provide a value for money and fit for purpose solution to DETI.

Customer Relationship Management (CRM)

4.10. This function will deal with complaints, payment and registration queries for generators who wish to contact the scheme by phone, online and by letter. It will also ensure that there are processes for handing complaints against Ofgem, approved installers, and any other body involved in delivering the scheme. The CRM software procured for the GB RHI has been customised to suit the RHI requirements and is scalable to meet the volumes anticipated over the life of the scheme.
4.11. By utilising the CRM system already in place for the GB RHI the CRM function can be efficiently and cost-effectively provided in-house, with the option of being outsourced at a later date.

4.12. Ofgem E-Serve currently manages a CRM function for the RO, NIRO and the GB RHI. As the number of generators expected under the GB RHI is far higher than for the RO it is possible that outsourcing the CRM function may be considered to coincide with the commencement of a later phase of the GB RHI.

4.13. Whilst Ofgem can manage the CRM function for the GB RHI during the current phase, in the longer term this may be more expensive than outsourcing to a business service provider with extensive experience in handling large volumes of consumer contacts. If the CRM function is outsourced for the GB scheme, this will impact on the NI scheme function.

4.14. For the feasibility stage we propose to base our further work on in-house provision of CRM with management processes in place to monitor progress, allowing the flexibility for DETI to consider potential outsourcing options as the scheme develops. Options for further consideration by DETI are listed below.

**Option 1 – In-house for the duration of the scheme**

As with the GB scheme, the cost of the CRM would initially be minimised by remaining in-house. In the event that the GB RHI function is outsourced and DETI/NIAUR’s preference is for in-house provision at Ofgem to continue, further work will be necessary to determine the costs and conditions of this arrangement.

**Option 2 - Outsource CRM function independently of the GB RHI.**

If the CRM function for the GB RHI is out-sourced at a later point in the scheme consideration should be given to how the NI RHI CRM function would best be provided longer term with regard to quality of service provision, resourceing and consistency. It may be DETI/NIAUR’s preference to pursue options for CRM provision independently of the GB RHI function, potentially with a view to finding an appropriate local provider.

**Option 3 - Outsource CRM function in line with the GB RHI.**

If the GB RHI CRM function is outsourced the EU Procurement process will need to be undertaken. Should DETI prefer to maintain provision of the NI RHI CRM function in line the with GB scheme it would be necessary for DETI to undertake discussions with Ofgem and DECC around the inclusion of the NI RHI CRM function in this procurement process. Outsourcing does provide certain benefits around flexibility and scalability to deal with fluctuating call volumes, and when included as a bolt-on to the existing GB scheme could prove more cost effective than alternative solutions.
4.15. **We propose to base our resource planning on the NI RHI CRM function being initially provided in-house in line with the GB scheme.** As later phases of the NI RHI including the domestic sector are beyond the scope of this feasibility study, consideration by DETI should be given at a later stage to outsourcing the CRM function dependent on the development of the GB RHI scheme in 2012.

4.16. By utilising the existing CRM software, the savings for Northern Ireland will be approximately £100,000 - £150,000 in IT systems development costs. Staffing and management costs would apply in addition to this.

**Periodic Information**

4.17. An important element of the administration of the NI RHI will be in providing an accessible, user-friendly process for provision of periodic information to Ofgem. This includes the ongoing capture of annual declarations, metering and eligible heat data and sustainability reporting. This data is essential in ensuring ongoing compliance with scheme rules, calculation of support payments, auditing of installations and reporting on the scheme.

4.18. Table 4.2 below sets out the high-level process for periodic information capture and how this flows into assessment and review processes and payments. Refer to Appendix 3.

**Table 4.2**

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</tr>
<tr>
<td>Customer notified that information is supplied</td>
</tr>
<tr>
<td>Customer notified that further information is required</td>
</tr>
<tr>
<td>Contacts Ofgem to submit periodic data</td>
</tr>
<tr>
<td>Send payment instruction to Finance team</td>
</tr>
<tr>
<td>Yes</td>
</tr>
</tbody>
</table>

4.19. **We propose to proceed with the IT analysis based on the assumption that the NI RHI system will require similar capacity to receive and process periodic information in order to meet ongoing compliance, payment processing and reporting requirements.**

**Auditing**
4.20. Ofgem’s current audit arrangements involve a combination of desk-based audits and onsite audits. Ofgem’s current method of auditing installations onsite under the Renewables Obligation (RO), Northern Ireland Renewables Obligation (NIRO) and GB RHI schemes is based on outsourcing to technical audit specialists and managing this process. Providing site audits from an in-house team would require a large fixed auditing team, which wouldn’t be able to provide the flexibility to adapt to changing volumes while keeping costs to a minimum as the scheme may require. In-house provision of site audits could not be provided cost effectively by Ofgem and therefore we propose that we rule out establishing an in-house Ofgem auditing team and pursue appropriate outsourcing options.

4.21. Part of the development of an auditing process for the NI RHI will require Ofgem to determine the rate of audit for different areas of the scheme. For example under the GB RHI installations above 45kWth and below 1MWth are audited at a higher rate than other categories as this range was identified as posing higher risk and requiring a higher level of compliance checks and oversight.

4.22. Installations below 45kWth, with the exception of Anaerobic Digestion (AD), are covered by the Microgeneration Certification Scheme (MCS). The MCS has its own audit process which we would not want to duplicate. As such we propose to audit installations in this category at a lower rate.

4.23. Access to the RHI IT systems will streamline the auditing process and any necessary follow-up measures such as suspension of payments or removal from the scheme. The opportunity to share audit information and economies of scale with the RO, NIRO and RHI Operational teams will lead to further efficiencies.

4.24. **We propose to base our resource planning on the assumption that the auditing process needs to be managed by Ofgem to ensure a robust and consumer-friendly process that meets DETIs requirements for the NI RHI scheme. We will also assume that the direct auditing of installations will be outsourced with Ofgem managing the process as stated above.**

**Reporting**

4.25. DETI’s reporting requirements will need to be established for the NI RHI, particularly in relation to enforcement. One of the advantages of adopting the existing GB RHI systems and adapting them to the needs of the NI RHI is the ability to generate robust reports for DETI to track progress of the scheme, uptake and payment rates and breakdowns by technology. This approach would also have the advantage of being consistent with GB RHI reporting, making it easier to compare the relative progress of the schemes, and ensuring greater accessibility for industry and stakeholders.

4.26. Discussions with DETI to date have indicated that additional reporting should not be necessary beyond what is required for the GB RHI.

4.27. **We would propose to base our resource planning on the assumption that reporting processes should remain in line with the GB RHI systems,**
making use of existing systems and processes and ensuring consistency across the United Kingdom in reporting on the GB and NI RHI schemes.

Enforcement

4.28. Ofgem’s statutory role in Great Britain is not extended to Northern Ireland. This will impact Ofgem’s ability to enforce the NI RHI depending on the extent to which scheme functions are transferred from DETI/NIAUR to Ofgem. Should DETI/NIAUR wish to take an ongoing role in scheme administration such as enforcement then arrangements will have to be agreed around how the two agencies will work together. This could potentially increase administration costs for the scheme if significant additional staff time is required to meet reporting, information sharing and other requirements from DETI/NIAUR.

4.29. Please refer to Chapter 6 for further detail around establishing appropriate enforcement processes.

Conclusion

4.30. We propose to base our resource planning for the development and administration of the NI RHI on the assumption that Ofgem will make use of the core business processes and systems components put in place for the GB RHI. This approach will benefit from the development work for the GB RHI and provide a system that will ensure security of information, minimise fraud risks and human error and provide administrative efficiencies while providing the most cost effective solution to meet the specific needs of the NI RHI. This system will include:

RHI Central Register: Reusing core business process components from the existing GB RHI system where feasible, whilst also adapting components to address the specific needs to the NI scheme.

A Payment Services Provider: Utilising the existing SUN system, integrating with the RHI Central Register to minimise security and fraud risks, lower administrative costs and make use of the existing systems put in place for the GB RHI to provide a value for money and fit for purpose solution to DETI.

A Customer Relationship Management System: Making use of the CRM system solution procured for the GB RHI, which integrates fully with our existing environment and is recognised/accessible for external CRM providers.

4.31. For further details of the cost savings associated with this approach compared with the options that have been discarded please refer to Chapter 3 ‘Value for Money’.
5. Business Processes

Chapter Summary

This chapter sets out the detailed analysis of the business processes that will need to be adapted or established in order for Ofgem to take on the administration of the NI RHI. Required workstreams and resources are identified where applicable.

Accreditation

5.1. The accreditation process Ofgem designed for the GB RHI provides a robust and user-friendly system for scheme accreditation applications, identity verification, and procuring details of each installation including technology, capacity, date commissioned and location of the installation.

5.2. The system allows participants to apply for accreditation by creating a user account online and answering questions to determine their eligibility. Certain documents also need to be uploaded or sent by post to support the application. This user account can then be used to manage their activity in the scheme, add additional users, and meet their ongoing obligations by providing periodic information including meter readings and eligible heat data, annual declarations and sustainability reporting (further detail is provided under ‘Periodic Information’ below).

5.3. The RHI Operations team are then required to check all applications to ensure installations meet all criteria before accreditation is granted by a member of staff with delegated authority. Applications are sorted according to complexity and classed as either ‘standard’ (lower capacity with simple metering that are not biomethane or geothermal installations) or ‘intense’ (all other applications). More stringent checks are performed on applications assessed as 'intense'. The IT system assists in this process by conducting validation on certain information, such as capacity limits for some technologies or areas identified as being of potential concern. Successful participants are sent formal notice of approval, including any conditions, while unsuccessful participants are sent formal notice and the reasons for their application being rejected.

5.4. The accreditation process is where information is first provided about the participant and installation, and it is where the most significant changes will be needed to meet DETI’s requirements for the NI RHI including eligibility of additional technologies and case by case treatment of the Heavy Industrial Sector.

5.5. To meet the needs of the NI RHI and differentiate between the NI RHI and RHI schemes in the system some additional processes will have to be added to the existing RHI system.
5.6. Please refer to Appendix 2 for a detailed breakdown of the changes and resource requirements for the Accreditation system.

<table>
<thead>
<tr>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development:</strong></td>
</tr>
<tr>
<td>• Starter packs and training materials for new starters.</td>
</tr>
<tr>
<td>• Development of Guidance Material to make it clear that scheme participants with installations in both Great Britain and Northern Ireland can (and should) use a single user account to manage participation in both schemes. Guidance should also confirm that participants with multiple installations can only have payments made to a single bank account.</td>
</tr>
<tr>
<td>• Northern Ireland declarations will need to be developed based on NI RHI scheme needs, terms and conditions. Legal advice will need to be sought to ensure these declarations are suitable for use in the NI RHI scheme.</td>
</tr>
<tr>
<td>• Development of content for information screen for the online accreditation process to include NI information so it remains applicable to both schemes.</td>
</tr>
<tr>
<td>• During the development phase it will be necessary to confirm that the current ID checking contract for the RHI can also be used to accommodate the needs of the NI RHI. Early advice is that the existing contractor can take on the additional workload, however an additional agreement will need to be negotiated between Ofgem and the contractor. Additional costs may be involved depending on the ID checking requirements.</td>
</tr>
<tr>
<td><strong>Operations:</strong></td>
</tr>
<tr>
<td>• Training of new starters in the NI RHI scheme and how it differs from the GB RHI.</td>
</tr>
<tr>
<td>• Training for existing staff on the internal contact team and RHI Operational team.</td>
</tr>
<tr>
<td><strong>IT Systems:</strong></td>
</tr>
<tr>
<td>• Systems changes will be required to allow Northern Ireland applicants to apply for accreditation, directing the user to the appropriate scheme accreditation flow.</td>
</tr>
<tr>
<td>• Systems changes will be required to ensure there are separate accounts for payments made to NI RHI and GB RHI scheme participants. The payment processing systems will need to accommodate payments made from two separate accounts to a single participant bank account seamlessly.</td>
</tr>
<tr>
<td>• At the end of the accreditation process the existing business rule will need to be amended to select the appropriate declaration from a specific set of Northern Ireland declarations.</td>
</tr>
</tbody>
</table>

**Customer Relationship Management**

5.7. Customer Relationship Management (CRM) or enquiry handling under the GB RHI is provided in-house by Ofgem using CRM software procured specifically for the scheme. This internal contact team handles calls, emails and correspondence relating to the RHI from potential and existing participants.

5.8. By utilising the existing internal contact team and CRM software, significant economies of scale can be achieved, reducing the costs to DETI of providing
this function. For a detailed breakdown of the changes required please refer to the Table 1.4 in Appendix 2.

<table>
<thead>
<tr>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development:</strong></td>
</tr>
<tr>
<td>• Development of Guidance material, call scripts and business processes specific to the NI RHI to support the internal contact team in responding to and directing enquiries.</td>
</tr>
<tr>
<td><strong>Operations:</strong></td>
</tr>
<tr>
<td>• The internal contact team will require additional training specifically on the NI RHI and how it differs from the GB RHI.</td>
</tr>
<tr>
<td>• Training required for the internal contact team in directing calls appropriately based on scheme differences.</td>
</tr>
<tr>
<td>• The CRM system itself should not require any complex changes to meet the needs of the NI RHI. However it will be necessary to provide the additional resources to manage call volumes, development of support materials and training related to the NI RHI.</td>
</tr>
<tr>
<td>• Part of the current GB RHI process for managing enquiries involves complex enquiries being escalated to a member of the RHI Operations Team with specific expertise in the area to which the enquiry relates. Under the NI RHI it may be necessary to ensure the appropriate training and expertise exists within the RHI Operations team to handle NI RHI specific enquiries at this level. Refer to Chapter 9 for further detail on a NI RHI specialist.</td>
</tr>
</tbody>
</table>

**Periodic Information**

5.9. The system developed for the GB RHI enables an accessible, user-friendly process for collecting periodic information, including the ongoing capture of annual declarations, metering and eligible heat data and sustainability reporting. This data is essential in ensuring ongoing compliance with scheme rules, calculation of support payments, auditing of installations and reporting on the scheme.

5.10. Under the current GB RHI system scheme participants will be sent an email reminding them of their upcoming obligation to submit an annual declaration and/or periodic meter reading/sustainability data. The authorised signatory will then log into the online RHI system and submit their annual declaration and/or provide appropriate meter readings/sustainability reporting.

5.11. This information will then be processed and support payments made on the basis of this data. Submission of this information will also trigger a review process that will flag any inconsistencies or suspicious activity, such as where the meter reading is higher than possible heat generated by the technology or capacity of the system installed, or where meter readings are regularly round numbers.

5.12. The system developed for the GB RHI provides a robust and versatile process for both the calculation of support payments and monitoring of ongoing
compliance with scheme terms and conditions. The changes necessary to this system to provide a similarly high level of scheme administration and oversight would be minimal.

5.13. The process for prompting and submitting periodic data for the NI RHI will not need to change from the current RHI system. Under the current system, metering requirements vary depending on whether an installation’s metering arrangements are ‘simple’ or ‘complex’ (the criteria for each are detailed in the regulations), and similar requirements would be necessary under the NI RHI.

5.14. For details of the specific changes and resourcing requirements for Periodic Information Capture please refer to Table 1.3 in Appendix 2.

<table>
<thead>
<tr>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development:</strong></td>
</tr>
<tr>
<td>• Declarations will be developed as part of the accreditation process with appropriate legal advice sought.</td>
</tr>
<tr>
<td><strong>IT Systems:</strong></td>
</tr>
<tr>
<td>• Support payments under the NI RHI will be based on a scheme specific tariff look-up table. This will be a change to the back-end of the system and will not impact on the user-side. This change will have a resourcing impact in terms of IT systems development.</td>
</tr>
<tr>
<td>• Back-end change to the system so that all NI RHI support payments are calculated based on a different tariff look-up table.</td>
</tr>
<tr>
<td>• The system for prompting and generating declarations would require a change at the back end. At present the appropriate declaration is selected by a business rule that determines the appropriate declaration based on the technology of the installation. This business rule will need to be amended to select from a Northern Ireland set of declarations to meet the specific needs of the NI RHI. Amend the business rule that selects the appropriate declaration to select from a NI specific set.</td>
</tr>
<tr>
<td>• If there are additional sustainability reporting requirements requested by DETI either for specific technologies and/or the Heavy Industrial sector, these requirements will have to be assessed separately to determine the resourcing implications.</td>
</tr>
</tbody>
</table>

**Fraud and Compliance**

5.15. The GB RHI Fraud Prevention Strategy provides a comprehensive framework to prevent the opportunity for fraud and non-compliance, detect fraudulent or non-compliant activity and enforce sanctions where appropriate. Many of the assessment mechanisms for detecting suspicious activity are built into the existing RHI Register (IT system) or detected by the RHI Operations Team through Standard Operating Procedures and referred to the Fraud and Compliance Manager for assessment.
5.16. The GB RHI Fraud Prevention Strategy should require only minimal process changes to apply similar strict fraud prevention and detection frameworks to the NI RHI scheme.

5.17. As agreed with DETI, Ofgem deferred the independent risk assessment planned for the Feasibility Phase as the areas of highest risk (inclusion of new technologies, approach to the Heavy Industrial Sector) were not reflected in the draft regulations. It was agreed that the funding for the risk assessment would be better utilised by conducting this assessment once DETI had come to a final policy position. This independent risk assessment will be conducted during the Development phase, and will inform the development of a Fraud Prevention Strategy to address the risks specific to Northern Ireland.

5.18. It will be necessary to follow the existing framework put in place for the GB RHI, which includes identifying and taking measures to mitigate against the risk of fraud and non-compliance both internally (staff, consultants and contractors) and externally (participants, installers, members of the public, computer hackers, organised crime gangs and so on).

5.19. Security features built into the RHI systems (both IT and Standard Operating Procedure) are designed to prevent and detect many instances of this such as ID verification and documentary evidence of delegated authority, both of which are measures built in to the accreditation process.

5.20. The same strategic approach should be adopted for the NI RHI, utilising the existing system security features, investigation, review and sanction measures where possible.

5.21. There will also be economies of scale and reduced resource requirements achieved by utilising the existing RHI Operations Team. Additional resources will be required to manage the development and operations workload created by the NI RHI. However these costs will be significantly reduced by utilising the existing RHI strategic approach, infrastructure and human resources, building on it as necessary.

5.22. Refer to the section on ‘Enforcement’ below for further detail around how sanctions may be laid under the NI RHI.

<table>
<thead>
<tr>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development:</strong></td>
</tr>
<tr>
<td>• A Fraud and Compliance strategy will be developed based on the GB RHI strategy following a detailed risk assessment.</td>
</tr>
<tr>
<td>• Guidance material will be updated to incorporate the approach specific to the NI RHI.</td>
</tr>
<tr>
<td>• Standard Operating Procedures will be developed based on the Fraud and Compliance Strategy.</td>
</tr>
<tr>
<td><strong>Operations:</strong></td>
</tr>
<tr>
<td>• Human Resources in managing the additional workload created by the NI RHI, and training staff in the requirements for the NI RHI scheme.</td>
</tr>
</tbody>
</table>
5.23. Under the GB RHI auditing is managed by Ofgem through a combination of regular desk-based audits, and outsourced site-audits. The tender for site-audits is currently being prepared and we will need confirmation from DETI by the end of December at latest to ensure that the needs of the NI RHI can be included under this tender. The current tender can only be utilised for NI RHI site audits if DETI’s final policy position does not require any additional technologies or audit requirements. In the case that DETI’s audit requirements arising from final policy differs from the GB RHI audit requirements and arrangements available under the tender, it may be necessary to undertake a new tender process. As the costings provided in this feasibility study are based on the draft regulations shared with Ofgem on 11 October 2011, if there are additional/different audit requirements there may be additional costs involved.

5.24. The GB RHI audit strategy uses an audit sampling approach based on Monetary Unit Sampling. This means selection for auditing is based on the financial value of RHI payments rather than the number of installations, and the chance of selection is proportional to the value of the payment. A confidence level of 86% is adopted from sampling, which combined with other sources of assurance provides overall confidence of 95%.

5.25. The GB RHI audit strategy also takes a segmentation approach – dividing the scheme into small (<45kWth), medium (>45kWth and <1MWth) and large (>1MWth) installations. Segmentation could also be done by technology type, depending on the outcome of an assessment of the areas of highest risk. The advantage of this approach is that different sampling rates can be applied to each segment so that areas assessed as presenting a higher risk can be more effectively monitored, and those assessed as relatively lower risk can be monitored at a more cost-effective level.

5.26. To determine the approach most suited to the NI RHI it will be necessary to undertake a separate risk assessment during the development phase. However these same broad principles should be applied to the NI RHI audit strategy.

5.27. The audit processes themselves will remain in line with the GB RHI scheme, and be administered by the same team with internal desk-based audits and site audits outsourced accordingly. Where changes may be necessary to this process will be in the approach taken to sampling and how segmentation is determined. These factors will be decided following the outcome of the risk assessment and will impact on the method by which sites are selected for audit or investigation, but should not alter operating procedures.
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

### Resources Required

**Development:**
- An independent Risk Assessment to be conducted during the Development phase.
- Development of the Audit Strategy including sampling approach, Guidance materials and Standard Operating Procedures.
- Negotiation of contractual arrangements for out-sourced auditing will need to be undertaken during the development phase.
- If there are additional auditing requirements for new technologies there may be additional costs or the need for a new tender process to be undertaken.

**Operations:**
- Training for RHI Operations team and management of the additional workload in auditing NI RHI installations.

### Reporting

5.28. For the GB RHI scheme Ofgem developed systems for generating regular reports to DECC, enabling them to monitor the scheme. The current reports provided to DECC for the RHI are:

- **Accreditation Report** – Used internally to generate statistics around the accreditation process so the RHI Operations Team can identify adjustments needed in our systems, and track the applications submitted. It helps us to understand how our business processes and IT systems flows are working and if there is a need to make changes or updates.

- **DECC Extract Report** - A report to provide DECC with statistical data they wanted to be built in to the system for their own research and reporting purposes. In order to generate this report additional questions were built into the accreditation process. Removal of these additional questions will involve further systems development work not included in the scope of this Feasibility Study. However the Northern Ireland data generated can be provided to DETI for information.

- **KPI Management Report** - Internal reporting for the RHI Operations team to monitor how they’re performing in terms of meeting their targets for reviewing applications and granting approvals.

- **Payment Forecast Report** – Provides a forecast of upcoming support payments one month in advance. Under the GB RHI it is provided to Treasury to draw down funds to cover support payments for the coming month. The report uses a forecasting model to estimate the anticipated payment requirements for each of the fortnightly pay runs.

- **Public Report** – Provides publicly available data (that can be broken down by country) including general scheme information such as participation rates broken down by technology, tariff rate, approvals, installed capacity, heat generated and support payments made.
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

5.29. These reports could be provided for the NI RHI utilising the RHI Central Register at minimal cost to DETI. However if DETI requires any additional reporting, they will need to provide adequate resources to cover the IT system development costs.

5.30. Depending on the process developed with NIAUR for processing scheme enforcement activities it may be necessary to generate additional reports so that information relating to any installations that require sanctions can be easily generated and provided to NIAUR.

<table>
<thead>
<tr>
<th>Resources Required</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development:</strong></td>
</tr>
<tr>
<td>• During the development phase the development team will need to work with NIAUR in negotiating the ASA and determining the most efficient and cost-effective way of meeting NIAUR’s reporting or information requirements, and building this into business processes and Standard Operating Procedures.</td>
</tr>
<tr>
<td><strong>Operations:</strong></td>
</tr>
<tr>
<td>• Depending on the approach to enforcement agreed between Ofgem and DETI/NIAUR it may be necessary to train the RHI Operations team in the differences between the administration of the GB and NI RHI schemes, which could involve different or additional Standard Operating Procedures.</td>
</tr>
<tr>
<td><strong>IT Systems:</strong></td>
</tr>
<tr>
<td>• Following the completion of the ASA if NIAUR imposes reporting requirements beyond what the current system generates there will need to be further development work undertaken to create a report in line with NIAUR’s requirements.</td>
</tr>
</tbody>
</table>
6. Implementation

Chapter Summary
This chapter sets out key aspects of scheme implementation including governance structures, enforcement, cost recovery and communications.

Project Organisation & Governance

6.1. Ofgem’s project governance structure has been designed to meet the following objectives:

- To provide clear accountability for making decisions;
- To provide a regular mechanism for resolving any key issues which are impeding progress; and
- To provide an effective and constructive challenge of the project process and progress, drawing on the expertise of the Project Management Group.

A diagram illustrating the high-level internal governance structure is provided below:

![Goverance Diagram]

- **NI RHI Team meeting**: Monthly meetings to review project progress and take key delivery and operational decisions
- **RHI Implementation Board**: Project Board for both GB and NI RHI scheme implementation and operation
- **Management Committee**: Quarterly updates and Annual reports
- **Ofgem/DETI NI RHI Administration Board**: High level monthly reports, Annual reports, Ad-hoc reports on major issues
- **GEMA**: Weekly meetings to review progress & report on top risks and issues
Regular Contact between Ofgem and DETI

6.2. From our experience, regular, informal contact between the Ofgem and DETI teams is critical to ensure the delivery project is a success. A good flow of information between the two teams will help minimise surprises and misunderstandings which can hinder implementation. To this end we would recommend regular contact between the two teams via telephone and emails, and sharing of project plans and draft documents. At the very least the two teams should schedule weekly conference calls with core team members from both organisations. In the majority of cases Catherine McArthur and Jonah Anthony will be the main points of contacts for DETI officers.

Joint Ofgem/DETI NI RHI Administration Board

6.3. The purpose of the joint NI RHI Administration Board is to take decisions regarding development and delivery of the project, monitor key risks and issues and act as a change control mechanism for covering any items previously out of scope. We envisage that this Board will initially meet fortnightly throughout the development stage before moving to a monthly cycle once the scheme has become established. At this time we should aim to have a face-to-face meeting at least quarterly with the Senior Responsible Owners from both organisations. Refer to ‘Cost Control’ below for further details of ongoing quarterly meetings.

6.4. We recommend the following people are standing members of the Administration Board (with additional members called to attend as necessary).

a) Fiona Hepper, Senior Responsible Owner and Director of Energy - DETI (Joint Chair)
b) Joanne McCutcheon, Programme Director, Sustainable Energy - DETI
c) Peter Hutchinson, Project Manager, Sustainable Energy - DETI
d) Matthew Harnack, Senior Responsible Owner and Associate Director Commercial - Ofgem (Joint Chair)
e) David Fletcher, Project Manager and Senior Manager NI RHI - Ofgem
f) Ofgem Project Manager (TBC)
g) Representatives from the Northern Ireland Authority (NIAUR) depending on how the scheme will be administered formally.

RHI Implementation Board

6.5. This is a key internal Ofgem programme board which will be used to oversee both the development and ongoing implementation of the GB RHI scheme and the NI RHI scheme. We recommend that this board has oversight of both schemes alongside each other both schemes will share operational personnel and IT systems. There is also likely to be much overlap in future developments of both schemes. The Board comprises of representatives of the operational team, development team and IT colleagues, as well as Matthew Harnack and Bob Hull.
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

6.6. All key issues are to be escalated or passed on for information to the Management Committee and joint Ofgem/DETI Administration Board. At present the RHI Implementation Board meets fortnightly.

Management Committee

6.7. The Management Committee meets weekly and is used by senior managers to review all operational issues in Ofgem E-Serve. It meets weekly and is attended by Matthew Harnack and Bob Hull, who will represent the NI RHI scheme on the Committee. It is chaired by Stuart Cook, the Managing Director of Ofgem E-Serve.

GEMA

6.8. The Gas and Electricity Market Authority (referred to as “the Authority” or GEMA) is the ultimate decision making body in the organisation, from which all powers are derived. A sub-committee of GEMA is the Audit Committee, which provides a robust internal check on all the activities undertaken by Ofgem. This will include the NI RHI scheme if Ofgem is selected to administer it.

6.9. At present there are no mechanisms in place to control costs of the scheme in the event that uptake is considerably higher than anticipated.

Cost Control

6.10. DETI have expressed some concerns around the need for controls to be developed to ensure the costs of the NI RHI remain within budget.

6.11. Ofgem would propose that the joint DETI-Ofgem Administration Board be continued after the Development Phase has been completed into an ongoing operational board to monitor scheme operations, costs and uptake. The Board could meet on a quarterly basis and review scheme expenditure, uptake, technologies and capacities of installations. This board could give additional scrutiny to scheme functions and identify trends in uptake to proactively make adjustments to the scheme to control uptake steadily instead of taking a reactive approach should scheme costs grow beyond the proposed budget.

Enforcement

GB RHI enforcement framework

6.12. Under the current GB RHI system Ofgem is responsible for enforcement issues, and has enforcement powers under the relevant legislation. However this was based on the fact that Ofgem were the statutorily appointed administrators of the GB RHI scheme, and had been awarded particular enforcement powers.
6.13. The RHI operational team also has the powers to withhold payments and even adjust payments to counter any over or wrongful payments made.

6.14. It was also believed that Ofgem could demonstrate that it was an injured party should we need to recover debts from a generator who had been wrongly paid GB RHI tariff payments. This is important if Ofgem was to attempt to recover a debt through the civil courts.

6.15. However the manner in which the enforcement powers were drafted in the GB RHI regulations, it may prove not cost effective to follow through any attempted process to recover wrongful payments to a generator.

6.16. Table 6.1 below sets out the high-level internal assessment and review process for the GB RHI. Additional steps will need to be built into this process to accommodate the different statutory position of Ofgem as detailed below.

**Table 6.1**

<table>
<thead>
<tr>
<th>Ofgem Assessment &amp; Review Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofgem receives information from the Customer</td>
</tr>
<tr>
<td>Customer notifies</td>
</tr>
<tr>
<td>Customer contacts Ofgem</td>
</tr>
<tr>
<td>Assessment &amp; Review Process</td>
</tr>
<tr>
<td>Is installation compliant?</td>
</tr>
<tr>
<td>Are Fuel compliance audits?</td>
</tr>
<tr>
<td>Customer notified</td>
</tr>
<tr>
<td>Payment Ceased</td>
</tr>
<tr>
<td>Final Warning</td>
</tr>
<tr>
<td>Customer excluded/removed from scheme</td>
</tr>
<tr>
<td>Appeal?</td>
</tr>
<tr>
<td>Customer notified</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Customer not notified</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Assessment &amp; Review complete</td>
</tr>
<tr>
<td>Payments reinstated</td>
</tr>
<tr>
<td>Appeal?</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Assessment &amp; Review complete</td>
</tr>
<tr>
<td>Payments reinstated</td>
</tr>
<tr>
<td>Customer notified</td>
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<tr>
<td>Yes</td>
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6.18. As we are not the statutory administrators of the scheme it will be extremely hard to demonstrate that we are the injured party when recovering debts from generators. Therefore there is a risk that any enforcement action would fail at the first legal hurdle. DETI or NIAUR would however be able to demonstrate this much more clearly.

6.19. Given that we do not operate in Northern Ireland, and have very little, if any knowledge of their civil court system, we would need to contract expert legal advice before we could pursue a debt recover in Northern Ireland. This would make it extremely unlikely that recovering any such debt would be cost effective. Even to investigate how Ofgem could hold such enforcement powers under the NI RHI and develop a suitable business process, would add significant additional costs on top of the delivery costs already identified. We do not believe that this would provide value for money.

Proposed NI RHI enforcement process

Flowchart A

6.20. Although we are recommending that DETI/NIAUR retain the enforcement role within the NI RHI scheme, we would still use our administrator position to provide them with all the relevant information for them to make a decision on any particular generator or installation.

6.21. Ofgem should retain the ability to put on hold any application, accreditation or payment process if it has genuine concerns of the validity of the installation or the information provided. Ofgem should also be able to remedy directly any genuine administrative errors which may have occurred (example erroneous payments/overpayments). However any suspected fraudulent activity or
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

enforcement issues should be escalated to DETI/NIAUR. The operation team should gather and send all the relevant information, with our recommendations, to DETI/NIAUR for a decision.

6.22. DETI/NIAUR should then consider the information presented and make a decision. They should then provide instructions as to what action should be taken against the generator and/or installations.

6.23. If fraud has taken place then DETI/NIAUR should pursue the fraudulent parties through the available legal channels in Northern Ireland. If a debt needs to be recovered, then DETI/NIAUR should pursue this through the Civil Courts in Northern Ireland.

6.24. Given that this process relies upon Ofgem collating the relevant information (sometimes from external parties such as the generator themselves, MCS, etc) and then transferring that information to DETI/ NIAUR to enable them to assess the matter and make a determination – it may become a lengthy process. We therefore recommend that DETI/NIAUR remove the statutory timescale currently in the draft regulations. If a timescale is required, we would recommend that the phrase “as soon as is reasonably practical” or words to that effect are used instead.

**Recommendation**

6.25. That we insist DETI/NIAUR retain and formally exercise any enforcement powers under the NI RHI.

6.26. That the majority of the actions be carried out by Ofgem based on DETI/NIAUR’s decision, with the exception of those that required legal proceedings. We should also facilitate any information gathering of enforcement action in our role in administering the NI RHI scheme on DETI/NIAUR’s behalf.

6.27. That Ofgem retains the power to put on hold any generator or installation with which we have genuine concerns. This will permit us time before the next payment is made, to gather the necessary information and issue or escalate it to DETI/NIAUR for assessment.

6.28. That DETI remove the rigid time restrictions currently attached to the enforcement element of the draft regulations.

**Timeframes for Delivery**

6.29. This Feasibility Study has been undertaken with a view to working towards meeting DETI’s publicly stated launch date of 1 April 2012. We have outlined the conditions and key dependencies that will enable Ofgem to meet this
ambitious launch date. However in the event that the key dependencies for April 2012 cannot be met we have provided alternate delivery scenarios below.

6.30. The key dependencies of any delivery scenario are as follows:

- DETI will agree to release funding for the development phase following formal approval for Ofgem to undertake the project in order to allow Ofgem to fund and recruit the Development team. Ofgem will then require a minimum of two weeks to allocate resources to the project before the Development Phase can commence;

- DETI will confirm their final policy position on the NI RHI and provide the significantly finalised draft legal instruments (finalised from a policy perspective). If the final policy position differs considerably from the draft regulations on which this study is based, it may be necessary to identify the additional costs associated with further development work and re-negotiate delivery timeframes to accommodate this work;

- DETI will make regulations governing the scheme, allowing time for appropriate consultation with Ofgem Legal;

- DETI will gain State Aid Approval in time for scheme commencement;

- DETI/NIAUR will work with Ofgem to develop an Agency Services Agreement to govern the administration of the scheme to the satisfaction of all parties;

- DETI/NIAUR will retain enforcement powers for the NI RHI scheme;

- Ofgem can draw down adequate funds to cover all tariff payments on time by a date to be determined following DETI’s confirmation that Ofgem will administer the NI RHI;

- DETI will provide adequate contingency funding to cover uncertainty around the scheme should circumstances necessitate it;

- DETI will confirm their commitment to cover agreed administration costs for the scheme (separate to support payments);

- DETI will agree to allow a £1 million contingency per year once the scheme becomes operational to cover Ofgem’s internal legal costs in the event of a legal challenge; and

- DETI agrees to participate in scheme oversight through the joint Administration Board, to manage contingency funding and make key decisions around scheme development and operations.
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Delivery Options:

1. **Project Approvals Provided in January 2012:**

If DETI is unable to provide final policy, regulations, approvals and agreed funding until January 2012, an alternate delivery option would be to work towards a scheme launch in June or July 2012.

Ofgem will require at least two weeks following DETI issuing final approval to allocate the necessary resources and recruit staff for the development team before the Development Phase can commence. How soon resources can be committed will be dependent on other projects being undertaken across the organisation. Without the ability to plan for resource allocation there could be additional delays experienced.

2. **Project Approvals Provided in February 2012:**

If DETI is unable to provide final policy, regulations, approvals and agreed funding until February 2012, an alternate delivery option would be to work towards a scheme launch in July or August 2012.

As for the January 2012 option above, Ofgem would require a minimum of two weeks to put the necessary resources in place and recruit staff for the development team before the Development Phase can commence. Given the uncertainty around the project and when Development will be required to commence, a firm delivery date cannot be provided until resourcing issues are resolved.

Cost Recovery of Support Payments

**Precedents for Cost Recovery – GB RHI**

6.31. Unlike many other environmental schemes administered by Ofgem the NI RHI will involve direct cash payments to be made to generators/participants for all eligible heat generated. In order to make these payments it will be necessary for Ofgem to be provided with the funds by DETI/NIAUR in advance of each payment interval.

6.32. The GB RHI offers a model for a similar scheme involving cash payments and regular payment intervals. Under the current arrangements for the GB RHI, support payments are made to generators on a quarterly basis. However the payment dates are based on the date of scheme entry, not regular quarterly intervals. As such there are two payment rounds each month.

6.33. The current system for securing funds for support payments under the GB RHI involves the Payment Forecast Report, which is generated one month in
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

advance and calculates the support payments that will be likely in the coming month. This report is provided to DECC who then use this information to apply for the funds drawdown from HMT. Through this process the required funds are provided to the Ofgem bank account in advance of the payment dates.

6.34. In the event that excess funds are left in the GB RHI support payment bank account after the month’s payments have been made, these funds will be held and subtracted from the funding needed to cover the following month’s payments when requested from DECC. As such all funds provided are used for the purposes of support payments.

Proposed approach to recovering NI RHI Support Payments

6.35. In consultation with DETI Ofgem would propose the process in place for the GB RHI be replicated and amended as necessary to meet DETI’s needs. This would involve DETI being provided with a Payment Forecast Report for the NI RHI one month in advance of payments and providing the necessary funds to Ofgem in time to meet pay runs. By following this model for the NI RHI Ofgem will be able to gain access to adequate funds on a monthly basis to cover all support payments, ensuring the success of the NI RHI scheme.

Separation of GB and RHI Scheme Payments:

6.36. With two schemes being run in parallel utilising similar systems and processes, it is important that certain processes be quarantined from one another. Funding is one such area where concerns may arise.

6.37. Ofgem are proposing to amend the current RHI IT system to draw funds for support payments from separate bank accounts for the GB and NI RHI schemes.

6.38. This will provide certainty to DECC and DETI that support payments for the respective schemes will be administered separately, and all funds handled securely, while providing a seamless approach from a user perspective.

Communications

6.39. As part of the Development Phase, Ofgem will prepare a detailed Communications Strategy. This will involve close consultation with DETI/NIAUR around the communications needs in Northern Ireland and the suitability of materials to those needs.

6.40. The communications needs in Northern Ireland are likely to be different to the needs in Great Britain, and as such we would develop a series of stand-alone guides to various stages of scheme participation in addition to overarching scheme guidance document.
6.41. In line with the proposed scheme launch on 1 April 2012 we would also propose to release the NI RHI Guidance material for consultation. We would then conduct a series of Stakeholder Events to consult closely with key stakeholders and industry in Northern Ireland. All communications work will be done in close consultation with DETI/NIAUR to ensure local needs are met.
7. IT Options

Chapter Summary

The purpose of this chapter is to identify the requirements for an IT system to administer the NI RHI scheme. The requirements of the system will define a means by which to effectively, efficiently and economically administer the scheme. Our recommendations and costings are subject to change in line with any changes to key assumptions and system requirements. For the full IT Options paper and underlying assumptions refer to Appendix 4.

Scope of Analysis

7.1. The function of the IT system is to assist Ofgem’s administration of the NI RHI scheme. The main system objectives are to deliver a fully functional administration system for use by the following actors:

3. Ofgem’s RHI Operations and Internal Contacts Team;
4. Owners of eligible technologies who have registered with and been accredited to the NI RHI; and
5. Those who have been authorised to act on behalf of those owner participants.

7.2. This will be achieved by providing the means to:

- **Maintain a Central Register to administer the NI RHI scheme**
  The RHI Central Register will securely store and administer details of all registered and accredited participants of the scheme who will be receiving RHI tariff payments.

- **Manage Participant Registration**
  Provide the ability for participants with certified technologies to sign-up for a user account; manage their account details and the details of any additional agents of that account.

- **Manage Participant Accreditation**
  Provide the ability for all participants of the RHI scheme to be accredited (or registered for biomethane producers); acknowledging that the accreditation process for owners of small to medium or large-scale generation equipment will differ.

- **Provide the ability to manage tariff rates revised by DETI on a periodic basis**
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

- **Provide the ability to manage Tariff Payments to scheme participants by:**
  1. Automatically calculating the tariff payment based on the installation, size and heat generated, and where applicable, fuel source;
  2. Make payment to eligible participants;
  3. Offset payments where an overpayment has been made; and
  4. Suspend/reinstate payments where appropriate.

- **Manage Review and Assessment Process**
  In order to ensure that all participants in the NI RHI scheme have complied with the terms of the scheme a compliance process is required.

- **Securely manage the RHI Central Register**

- **Provide flexible RHI reporting**
  Predefined reports will be provided for internal use, external use and public consumption.

- **Auditing**
  Provide the ability to perform audits to ascertain the validity and reliability of information. Facilitate tracking of all data related transactions that have been performed by any user of the system, both manually and automatically to create an audit trail. Maintain a history of all data related transactions that have occurred on the system.

- **Manage Customer Relationships**
  Provide the ability to manage enquiries related to the scheme. Ensure that there are processes for handling complaints against Ofgem, or any other body involved in delivering the scheme.

7.3. For more detailed high level functional and non-functional system requirements necessary to deliver a comprehensive IT solution for the RHI scheme, refer to Appendix 4.

**IT Options**

7.4. By identifying the needs of the NI RHI scheme we have separated IT systems development work into either Basic options or Additional options. The basic option represents the minimum functionality required to implement the NI RHI scheme. Additional options represent scheme requirements that could be administered using IT functionality or through a manual process. We have included Heavy Industrial sites, ASHPs and Branding as Additional options.

7.5. The costings provided for ASHPs and Heavy Industrial sites are only for the IT systems development needs, and do not include policy development, legal or ongoing operational costs. These costings are also based on a set of assumptions and should be considered indicative figures until the final policy
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

position has been decided, and IT systems development needs assessed in line with this position.

7.6. Based on the key scheme features and requirements we have identified three main IT options:

1. Bespoke solution for the NI RHI scheme:
2. Amend the existing RHI system (Single release approach)
3. Amend the existing RHI system (Phased release approach)

7.7. In the table below we have identified the key advantages and disadvantages:

**Bespoke Solution**

7.8. This option would be a bespoke custom-built system, designed and developed internally by Ofgem IT to administer the NI RHI scheme. The advantages and disadvantages are set out in the table below:

<table>
<thead>
<tr>
<th>Option</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bespoke solution</td>
<td>A single stand-alone system to develop and maintain the NI RHI scheme</td>
<td>Integration between the new system and the existing GB RHI system will be necessary.</td>
</tr>
<tr>
<td>(Basic)</td>
<td>Increased flexibility to make changes to the process if the legislation for NI RHI scheme changes</td>
<td>RHI Operational team will have to access two different systems (GB and the NI system) to perform their day to day tasks.</td>
</tr>
<tr>
<td></td>
<td>Reusability: Would not have to duplicate tasks in 2 different systems. Less duplication means less maintenance.</td>
<td>Huge system developments to develop a bespoke system.</td>
</tr>
<tr>
<td></td>
<td>Lesser impact on existing systems.</td>
<td>Considering the similarities between the two schemes, each future enhancement to the system will be expensive as it needs to be done on two different systems.</td>
</tr>
<tr>
<td></td>
<td>Maintenance costs will be double the current costs, in order to support the two systems.</td>
<td>Training and administering staff to use two different systems.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The cost and complexity for this system are prohibitive for a 1st April 2012 deadline.</td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Recommendation

7.9. The costs and complexity of this system are prohibitive. We would recommend not developing this option for April 2012 given the availability of an existing system that can meet scheme needs with relatively limited changes.

7.10. The costs of a bespoke system based on our assumptions (Appendix 4) could range between £2-3 million, and such a cost cannot be justified given the size of the NI RHI scheme and the availability of a more cost-effective alternative.

7.11. This option can be re-evaluated at a later stage if there are substantial differences between the way GB and the NI RHI schemes work.

RHI-Amended Option

7.12. The RHI-Amended option involves altering the existing RHI IT system to meet the needs of the NI RHI. This offers the most cost effective solution while keeping costs manageable. This option has been considered in two forms – Basic Option 1A (combined release) and Basic Option 1B (single release).

7.13. The systems changes required to adapt the current RHI systems for NI RHI use are as follows:

- Amendment of Terms and Conditions template, Guidance template for user management and Declaration templates.
- Providing a Northern Ireland-specific tariff look-up table and amending the tariff assignment system to select the appropriate tariff rate for NI RHI installations.
- Enable NI installations to apply for accreditation. (Currently it will block installation addresses based in NI).
- Amendment of “Read before you proceed section” and Conditions template for accreditation.
- Providing an information screen confirming which scheme is being applied for (GB or NI) once a participant in the accreditation process has provided their installation address.
- Adding an identifier to NI RHI installations to enable NI RHI reporting, as well as enabling payment processing to occur separately for NI and GB schemes and payments made from separate bank accounts.
- Displaying scheme identifier when viewing the periodic information history.
- Amending the accreditation letter to cover both NI and GB schemes. (We estimated for a NI-specific accreditation letter and an amended letter for both schemes. The cheapest option (amended) is included in the basic option).
- Enable reporting for NI RHI.
Basic Option 1A

7.14. This option provides the minimum functionality required to implement the NI RHI scheme. This proposes to release the NI RHI scheme along with a GB RHI release. Combining releases will involve cost savings as systems testing costs will be reduced by combining with GB RHI testing.

Basic Option 1B

7.15. This option provides the same functionality as Option 1A to implement the NI RHI scheme. This option differs from Option 1A only in having a release for NI RHI scheme alone. This means that the opportunity for cost savings by testing systems changes at the same time as GB RHI systems changes is not utilised, which results in higher costs.

<table>
<thead>
<tr>
<th>Option</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1A RHI-Amended</td>
<td>Minimal changes required as processes to administer NI RHI legislative</td>
<td>If in future, NI legislative requirements change drastically, then there will be data migration costs to separate the two schemes.</td>
</tr>
<tr>
<td>Combined release (Basic)</td>
<td>requirements are aligned with the existing GB RHI administration</td>
<td></td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Recommendation

7.16. The RHI-Amended Option would be the most cost-effective approach while providing the functionality required to effectively administer the NI RHI scheme. Option 1A (releasing systems changes in line with GB RHI system changes) would allow system testing to occur for both scheme simultaneously resulting in cost-savings for both parties. It will be necessary for Ofgem to secure agreement between DETI and DECC of a common release date in order to make use of this opportunity to lower costs.

7.17. Where policy changes occur between the Feasibility phase and the scheme becoming operational, our strong recommendation would be to develop manual processes to manage such changes where possible. This will provide a more cost-effective solution, and additions to the IT system can be considered at a later point in line with other systems development to incorporate policy changes such as the domestic sector or bioliquids, if desirable.

Additional Scheme Requirements:

7.18. The following options are provided to give DETI indicative costs for the inclusion of new technologies and the approach to the Heavy Industrial Sector, as proposed in DETI’s consultation document.

Inclusion of Air source heat pump (ASHP) technology

7.19. As part of our investigation of implementation options we identified some of the potential costs around the inclusion of ASHPs as a NI RHI eligible technology. This option, if implemented, will allow eligible applicants with ASHP installations to participate in accreditation, periodic information and payment stages of the RHI lifecycle.

7.20. In order to identify potential costs of these systems changes we had to make some assumptions around the scheme requirements for ASHPs if implemented. These assumptions are:

1. That no more than 5 additional accreditation questions will be required for ASHPS; and
2. That there will be no additional requirements around periodic information capture for ASHPs beyond what is currently provided for in the RHI system.

7.21. Three different options for the inclusion of ASHP technology have been examined in this section:

Option 2A – Introduce ASHP technology online in initial phase of NI RHI
Option 2B – Align introduction of ASHP technology with GB RHI scheme
Option 2C – Administer ASHP installations OFFLINE
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

**Option 2B – Align introduction of ASHP technology with GB RHI scheme**

7.22. Under the assumption that introduction of ASHP technology will have exactly the same systems requirements for both NI and GB schemes, only 20% of the IT costs need to borne by the NI RHI.

**Option 2C – Administer ASHP installations OFFLINE**

7.23. If the costs of ASHP IT implementation are considered too high for initial scheme launch, we could investigate a manual alternative initially with a view to integrating the processes into the IT system at a later point. This would provide a more cost-effective solution while scheme uptake is uncertain, and would also allow the scheme to become operational within the proposed delivery timeframes.

<table>
<thead>
<tr>
<th>Option</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option 2A:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduce ASHP technology online in initial phase of NI RHI (Additional)</td>
<td>Provides full audit trail of ASHP technology installations.</td>
<td>System development costs will have to borne by NI RHI scheme alone, which is not entirely justified considering the relative size of the scheme compared with the GB RHI scheme.</td>
</tr>
<tr>
<td></td>
<td>Managing the ASHP technology installations will reduce the risk of human error during administration.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduced administration costs as GSHP and WSHP technology installations are currently managed within the system.</td>
<td></td>
</tr>
<tr>
<td><strong>Option 2B:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Align introduction of ASHP technology with GB RHI scheme (Additional)</td>
<td>Cost saving as the system development costs will be shared with the GB RHI system.</td>
<td>Will have IT maintenance overhead to migrate the offline ASHP technology installations at a later date.</td>
</tr>
<tr>
<td><strong>Option 2C:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administer ASHP installations</td>
<td>No new features, therefore no development costs.</td>
<td>Will have IT maintenance overhead to migrate the offline ASHP technology installations at a later date.</td>
</tr>
</tbody>
</table>
### Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>Option</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option 3A: Inclusion of Heavy Industrial Sector installations ONLINE</strong></td>
<td>Provides a full audit trail of heavy industrial sector installations</td>
<td>Additional administration costs for verifying the heavy industrial sector installations outside of the system.</td>
</tr>
<tr>
<td><em>(Additional)</em></td>
<td>Managing the heavy industrial sector installations will reduce the risk of human error.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reduced administration costs as large scale installations are currently managed within the system.</td>
<td></td>
</tr>
<tr>
<td><strong>Option 3B: Inclusion of Heavy Industrial Sector installations OFFLINE</strong></td>
<td>New features need not be developed.</td>
<td>Additional administration costs for verifying the heavy industrial sector installations outside of the system.</td>
</tr>
<tr>
<td><em>(Additional)</em></td>
<td>Can save on system development costs if the online introduction of heavy industrial sector installations is aligned with the GB RHI scheme.</td>
<td>Will have to rely on sharepoint / the central repository’s version control mechanisms for an audit trail.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Risk of human error</td>
</tr>
</tbody>
</table>

**Inclusion of heavy industrial sector installations in NI RHI scheme (Optional Addition)**

7.24. This proposed implementation option is the online introduction of heavy industrial sector installations in the NI RHI scheme. This will allow eligible applicants with heavy industrial sector installations to participate in accreditation, periodic information and payment stages of the RHI lifecycle.

7.25. Introduction of heavy industrial sector installations has been considered separately, as an addition to the basic option, so a separate cost can be provided in case a decision is made not to include it as part of the IT implementation.

7.26. Two different options for inclusion of heavy industrial sector installations have been proposed in this section.

Option 3A – Inclusion of heavy industrial sector installations ONLINE

Option 3B – Inclusion of heavy industrial sector installations OFFLINE
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

**Option 4 - Branding (Optional Addition)**

7.27. An additional option we have considered is the branding of the RHI system to change from RHI to "GB and NI RHI".

7.28. The “Branding” requirement has been considered separately, as an addition to the basic option, so a separate cost can be provided in case a decision is made not to include it as part of the IT implementation.

<table>
<thead>
<tr>
<th>Option</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option 4:</strong></td>
<td>Better clarity for the external users that the existing system now supports two schemes.</td>
<td>System wide change, therefore large IT costs involved.</td>
</tr>
<tr>
<td><strong>Branding</strong></td>
<td>Reduction in support calls during the initial launch of the NI scheme.</td>
<td></td>
</tr>
<tr>
<td>(Additional)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**IT estimates**

7.29. We have calculated the IT costs for each of the options set out in Table 7.2 over the page. Costing is based on a 5 day week, 8 hour day, and an hourly rate of £. Separate costing has been provided for the ongoing support costs.

7.30. We have also provided a breakdown by system feature in Table 7.1 of the estimated cost of systems development excluding project management overheads, contingency costs:
Table 7.1: Estimates broken down by requirement

<table>
<thead>
<tr>
<th>Features</th>
<th>Total estimated resource days</th>
<th>Total estimated cost in GBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>User management</td>
<td>11.05</td>
<td></td>
</tr>
<tr>
<td>Single account for GB and NI RHI scheme</td>
<td>6.405</td>
<td></td>
</tr>
<tr>
<td>Manage tariff rates</td>
<td>23.3</td>
<td></td>
</tr>
<tr>
<td>Manage accreditation</td>
<td>25.175</td>
<td></td>
</tr>
<tr>
<td>Fuel Measurement and Sampling information</td>
<td>4.375</td>
<td></td>
</tr>
<tr>
<td>Manage periodic information</td>
<td>22.95</td>
<td></td>
</tr>
<tr>
<td>Manage payments</td>
<td>28.405</td>
<td></td>
</tr>
<tr>
<td>Assessment and review</td>
<td>5.9</td>
<td></td>
</tr>
<tr>
<td>Declarations</td>
<td>14.2375</td>
<td></td>
</tr>
<tr>
<td>Generate letters and e-mail notifications</td>
<td>4.975</td>
<td></td>
</tr>
<tr>
<td>Upload documents</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>Reporting</td>
<td>20.41</td>
<td></td>
</tr>
<tr>
<td>CRM</td>
<td>9.025</td>
<td></td>
</tr>
<tr>
<td>Optional Addition: Inclusion of heavy industrial sector installations</td>
<td>28.525</td>
<td>Sensitive commercial information redacted by the RHI Inquiry</td>
</tr>
</tbody>
</table>

Please Note: The inclusion of Heavy Industrial is provided here to give an indicative cost. The IT costs of Heavy Industrial are not included in the proposed Development Budget Forecast. Budget and delivery timeframes are based on the draft regulations of 11 October 2011, which do not include the Heavy Industrial Sector.

7.31. Table 7.2 over the page provides a breakdown of the costs of combinations of options set out above:
Table 7.2: Estimated IT Costs

<table>
<thead>
<tr>
<th>Option 1: Basic Option</th>
<th>1A</th>
<th>1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A Basic Option (GB and NI release)</td>
<td>£47,405.65</td>
<td></td>
</tr>
<tr>
<td>1B Basic Option (NI release)</td>
<td>£178,565.57</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 2: Inclusion of ASHP Technology</th>
<th>1A±1A</th>
<th>1A±2B</th>
<th>1B±2A</th>
<th>1B±2B</th>
</tr>
</thead>
<tbody>
<tr>
<td>2A Inclusion of ASHP technology in NI scheme only</td>
<td>£155,690.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2B Inclusion of ASHP technology in NI and GB scheme</td>
<td>£246,474.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2C Inclusion of ASHP technology offline</td>
<td>£198,904.65</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 3: Inclusion of Heavy Industrial Sector Installations</th>
<th>1A±1A</th>
<th>1A±2A±3A</th>
<th>1A±3B±3A</th>
<th>1B±1A</th>
<th>1B±2A±3A</th>
<th>1B±3B±3A</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A Inclusion of heavy industrial sector installations in NI scheme only</td>
<td>£158,883.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3B Inclusion of ASHP technology offline</td>
<td>£246,474.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Option 4: Branding</th>
<th>1A±4</th>
<th>1A±2B±4</th>
<th>1A±3B±4</th>
<th>1A±2B±3A±4</th>
<th>1B±4</th>
<th>1B±2B±4</th>
<th>1B±3A±4</th>
<th>1B±2A±3A±4</th>
<th>1B±3B±3A±4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branding</td>
<td>£165,594.61</td>
<td>£177,104.69</td>
<td>£197,888.63</td>
<td>£202,927.67</td>
<td>£312,611.61</td>
<td>£202,927.67</td>
<td>£231,102.71</td>
<td>£228,521.67</td>
<td>£296,041.75</td>
</tr>
</tbody>
</table>
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**Expected IT Timeframe for Delivery**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Development</th>
<th>Testing</th>
<th>Go-Live Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 December 2011</td>
<td>February 2012</td>
<td>1 April 2012</td>
<td></td>
</tr>
</tbody>
</table>

**Ongoing Support costs**

7.32. The support costs have been estimated based on the size of the NI RHI scheme in comparison to the GB RHI scheme. In the event that the NI RHI scheme increases in size and/or complexity, the support costs will have to be re-assessed.

<table>
<thead>
<tr>
<th>YEARLY SUPPORT COSTS</th>
<th>YEAR 1</th>
<th>YEAR 2 - 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Application support costs</td>
<td>£27,000</td>
<td>£27,000</td>
</tr>
<tr>
<td>Infrastructure Costs</td>
<td>£23,000</td>
<td>£10,000</td>
</tr>
</tbody>
</table>

**Recommended IT Options**

7.33. The recommended IT implementation option is 1A or 1B. Ideally we would propose to utilise the opportunity for a combined release with the GB RHI scheme to achieve cost savings through combined testing. Whether we can deliver Option 1A (GB & NI Combined release) or Option 1B (NI release alone) will depend on whether a consensus can be reached between Ofgem, DECC and DETI on a single release date.

7.34. Based on the draft regulations shared with Ofgem on 11 October 2011, **Option 1A** would meet the requirements of the proposed scheme. This option will allow Ofgem to administer the scheme outlined in the draft regulations, but does not include any new technologies or the approach to the Heavy Industrial Sector.

7.35. If DETI decides to include the approach to Heavy Industrial sites are included based on the approach proposed in DETI’s consultation document, **Option 3A** would be recommended.

7.36. Option 1 (Basic option) can be delivered by 1 April 2012 provided IT can start requirements on 1 December 2011 and all requirements are signed off by January 2012.
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7.37. For inclusion of ASHPs, the most cost effective solution will be introducing ASHPs in the GB and the NI RHI schemes at the same time. Therefore, the recommendation is **Option 2B**.
8. Inclusion of New Technologies

Chapter Summary

This chapter sets out the additional costs involved in including those technologies currently not included in the GB RHI scheme. These include a dedicated tariff for deep geothermal, the inclusion of air source heat pumps and bioliquids.

Basic issues

8.1. In the NI RHI consultation document, DETI stated an intention to include additional technologies in the NI RHI scheme to those currently eligible under the GB RHI scheme. The primary issue around the inclusion of different technologies is the costs involved in incorporating these technologies into the current systems and processes.

8.2. Development work undertaken in preparation for the GB RHI scheme involved detailed work around each of the technologies to be included in the scheme to determine how Ofgem’s processes (accreditation, fraud, compliance and auditing in particular) will accommodate each technology. The development costs for the GB RHI are estimated to be between £1 million and £1.5 million. This is an indication of the economies of the scale that are achieved by making use of the preparatory work Ofgem undertook in the GB RHI scheme, as DETI will only be required to provide Ofgem with funding for any additional work that Ofgem will be required to perform specifically to meet the needs of the NI RHI.

8.3. The costs of adding new technologies for the NI RHI then are based on the fact that this development has not yet been done for the technologies that aren’t eligible under the GB RHI scheme.

8.4. Should DETI decide to defer inclusion of these new technologies in the NI RHI scheme to a later point, for example until these technologies are incorporated into the GB RHI scheme, the costs of development work as well as any changes to IT systems and business processes could be shared with DECC. Consequently the costs would be significantly lower.

Deep Geothermal

8.5. The consultation DETI conducted in the development of the NI RHI included a call for evidence specifically addressing deep geothermal and whether this technology should have a dedicated tariff rate.
8.6. Further work on deep geothermal for the NI RHI will need to be done pending the outcome of this consultation and confirmation from DETI on their final policy position for the scheme. However the changes necessary to accommodate a dedicated tariff for deep geothermal installations would likely be minimal given NI RHI tariff payments will already be based on a separate tariff look-up table. The costs of such changes would need to be investigated once DETI has provided Ofgem with the detail around this policy position and whether there will be any additional reporting or compliance requirements.

8.7. If there are additional accreditation questions for Deep Geothermal then the likely costs would be similar to the estimate provided in Chapter 7 for ASHPs. These should be considered indicative figures only until the specific requirements are provided.

### Air source heat pumps (ASHPs)

8.8. ASHPs are proposed for inclusion in the NI RHI. Further work will need to be done to determine whether the costs and risks of including ASHPs in the initial phase of the NI RHI will be significantly higher than waiting for the GB RHI scheme to undertake this work.

8.9. Some issues to be addressed when considering the inclusion of ASHPs include:

- Setting the appropriate tariff level. There is a risk of over-paying or under-paying the owners of these installations, which could lead to either over-incentivising this technology or setting a tariff that leads to little or no uptake.

- Metering ASHPs is complex and creates difficulties in measuring generation and use of ASHPs.

- Potential mis-use of ASHPs, such as running them in reverse and claiming for ineligible use.

8.10. Inclusion of ASHPs in the NI RHI will need to be assessed on the basis of how readily it can be integrated into existing processes and systems. This includes accreditation processes, satisfying technical requirements for metering, and providing adequate auditing and compliance mechanisms to mitigate risks specific to this technology.

8.11. While it should be clear how we can add ASHP to the list of eligible technologies on the IT system, and facilitate the need for periodic information (meter readings and declarations) assuming the requirements are in line with the GB scheme, the problem will be writing into regulations a robust regime for ASHPs that Ofgem can accredit against.
8.12. Currently there are no agreed means of measuring direct air heating in the UK. This was the reason DECC decided not to include Air-to-Air ASHPs in the GB RHI from scheme commencement. In fact no Ground-to-Air and Water-to-Air technologies were included. If DETI wishes to include Air-to-Air ASHPs from the launch of the NI RHI, it will need to develop and agree a method for measuring direct air heating and ensure this is a legal requirement for accreditation.

8.13. As there is currently no established means of metering ASHPs it may also be necessary for DETI to seek EU Clearance as any metering system they decided on would create a new technical standard. The process of gaining EU Clearance could be time consuming and result in delays to launching the scheme should the inclusion of ASHPs be a requirement from scheme commencement.

8.14. An alternative might be to commence work on ASHPs and pursue EU Clearance for a metering system or methodology for deeming, and phase this technology into the NI RHI scheme once the appropriate work and approval requirements have been met. This would likely be later in 2012 or early 2013.

8.15. Alternatively DETI could work with DECC to share this burden and look to delay including Air-to-Air ASHPs until this work has been completed.

8.16. DECC decided to delay the introduction of Air-to-Water ASHPs until more work has been done assessing the costs associated with the technology, which would allow them to set an appropriate tariff for these installations. If DETI are confident of the tariff set, and as long a sufficient metering framework is in place (which will be DETI’s responsibility to establish and will likely require them to engage consultants), then Ofgem should be able to accommodate the inclusion of Air-to-Water ASHP from the launch of the NI RHI.

8.17. Indicative costs are provided in Chapter 7 based on the assumption that approximately 5 additional questions will be required during the accreditation process to gather necessary eligibility information, and that there will be no further departure from scheme requirements. If there are additional requirements around compliance, periodic information capture or more detailed accreditation requirements then further work will be required to provide more accurate figures.

**Bioliquids**

8.18. DETI has also proposed to include bioliquids in the NI RHI from the outset of the scheme. As part of this study therefore Ofgem has carried out a high level assessment of the potential additional costs and resources Ofgem would need in order to introduce bioliquids from the launch of the NI RHI and ahead of its introduction in the GB RHI.
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8.19. As detailed there is significant development work to be done before bioliquids can be implemented. This work would be at an additional cost and would likely delay the introduction of the NI RHI. Issues to be considered and work to be performed in relation to the introduction of bioliquids are outlined below:

- **Development of sustainability requirements** including:
  - **Development of Land criteria**, potentially making use of development work performed by Ofgem in preparation for the RO.
  
  - **Greenhouse Gas savings**: a different fossil fuel comparator for heat to electricity would be required, as used in the RO. Options include an addition to the electricity Carbon Calculator, or a completely new calculator may be required depending on the detail of the final policy. The cost of resolving this issue and who would be responsible for its development would need to be agreed between DETI and Ofgem.
  
  - **Enforcement mechanisms**: We would need to determine the enforcement mechanisms that could be put in place to ensure compliance with scheme requirements. The RO relies on a declaration, followed by an independent report from the installation and the ‘revoking’ of ROCs if non-compliant. Implementing a similar system for NI RHI would involve additional IT and operating costs. Given that under the NI RHI cash support payments are made rather than certificates being issued, ‘revoking’ is more complex and could also require some additional funding to meet IT systems development and ongoing operating costs.

- **Would Fossil-derived bioliquids be included** (e.g. biodiesel when produced using fossil-derived methanol)? Ofgem have held various consultations on this issue for the RO and DECC have had to make explicit in Regulations that these are now eligible. But it is a decision would need to be made clear in the NI RHI Regulations. The current definition of biomass in the GB RHI Regulations (if copied over to NI) would exclude these but leave Ofgem (or NIAUR) open to legal challenge.

- **Use of bioliquids in a solid biomass or biogas plant**: If bioliquids are introduced and are A) allowed to be used in the same plant as solid biomass or biogas; and B) have different tariffs from those sources of energy, then the IT requirements would be high because we would need to develop our IT system to calculate support payments based on different tariffs for the proportions of the energy content of the different input fuels. The IT system would need to calculate ‘percentage bioliquids’ and ‘percentage solid biomass’ etc. A complex decision diagram may be required.

- **Updating/producing guidance material** supporting these elements would require some technical expertise or consultant support.
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- **IT systems development costs** of introducing new technologies to the accreditation list and fuel measurement and sampling questionnaire (the latter only if co-firing bioliquids and fossil oil is allowed).

- **Introducing new audit requirements** to verify bioliquid reporting data. For example if a participant tells us they have used 15% vegetable oil in a quarter and 85% fossil diesel, we will need rigorous audit systems in place to verify this data. This may also require a tender process to find an appropriate contractor as our current contractual arrangements may not be able to meet the very specific audit needs for these sites. This could be costly and time consuming.

8.20. The costs of this work cannot be substantiated until further detail is provided around the specific requirements for bioliquids in the NI RHI. However as an indication, previous bioliquids work commissioned for the RO involved consultancy costs of approximately £ and internal staffing costs of approximately £, including legal. While we don’t envisage that the costs of introducing bioliquids for the RHI would be as high as this, we would estimate it could be as much as two thirds of this cost.

8.21. Given the range of issues that require consideration, the potential costs involved in this work and the risk that this could delay the wider implementation of the NI RHI, DETI has agreed that the introduction of the bioliquids should be delayed until further development and preparatory work can be undertaken.

**Conclusion**

8.22. Additional work will be necessary to determine the likely costs of including additional technologies in the NI RHI scheme. However this is wholly reliant on DETI’s final policy position. We would request that DETI come to a policy position early on these aspects of the policy to enable Ofgem to proceed with necessary further feasibility work (should funding be secured) prior to the commencement of project development in January 2012. It should be noted that any delays in confirming these final policy decisions will put delivery timetables at risks.
Chapter Summary

This chapter sets out the options for including Heavy Industrial Sites in the NI RHI.

Introduction

9.1. The treatment of the Heavy Industrial Sector under the NI RHI represents a significant departure from the GB RHI scheme. The approach proposed by DETI in the consultation document involves case by case consideration of these sites, including a custom tariff rate, consideration of co-firing and additional eligibility requirements.

9.2. The draft regulations on which this Feasibility Study is based do not mention any specific treatment of the Heavy Industrial Sector because DETI has not yet finalised the policy on this aspect of the scheme. However Ofgem have agreed to provide some broad high level costings where possible to aid DETI in finalising policy. (Refer to 8.7 for further detail.)

9.3. In order to meet the administrative, systems and reporting requirements for this part of the scheme it may be necessary to develop a different approach to the 17 sites that have been identified as Heavy Industrial, which could be resource intensive. However given the likely scale of such renewable installations and potential to significantly impact demand on fossil fuels in this sector there is a strong rationale for finding a workable solution to including this sector in the NI RHI scheme.

9.4. The proposed approach to the Heavy Industrial Sector under the NI RHI will involve eligibility being determined by DETI on a case by case basis following assessment on the following criteria:

- Technical capability;
- Economic viability and the need for support;
- Availability of sustainable fuel supply; and
- Impact on the existing or future gas network.

9.5. In order to provide robust systems and processes to support this approach to the Heavy Industrial Sector a range of options will need to be examined. It should be noted that significant differences in the technologies considered for heavy industrial sites (such as co-firing) will impact Ofgem’s ability to administer this part of the scheme in a cost effective manner. The more bespoke the approach to the Heavy Industrial sector and the more this approach differs from the rest of the NI RHI and GB RHI schemes, the higher the cost will be in adapting existing systems and processes to meet the needs of this approach.
9.6. Advice from DETI suggests that final policy positions on areas of departure from the GB RHI scheme including Heavy Industrial are likely to be reached by the end of November 2011. It may be necessary for Ofgem to perform further preparatory work once final policy detail is provided. Ideally this preparatory work will take place in December 2011, pending the provision of any additional funding required. If such work is required and it is not possible to fund additional work in December 2011, it will be necessary to undertake this preparatory work at the beginning of the Development Phase commencing in January 2012. Should this work be deferred until January 2012, it is possible that scheme delivery timeframes may be compromised if the final policy requires significant additional IT systems scoping and development work or new business processes or contractual arrangements to be put in place by 1 June 2012.

9.7. Any figures provided in relation to potential scheme components beyond what was outlined in the draft regulations are provided as a guideline only, with the caveat that additional preparatory work will be necessary to hone these figures to more realistic estimates once the final policy has been provided.

Accreditation

9.8. The accreditation process will be more complex for the Heavy Industrial Sector as the eligibility criteria will be customised and technologies approved could be outside those allowed in the scheme more broadly (such as co-firing).

9.9. The most cost effective option for accreditation will be in-house provision by Ofgem. However much of this process is currently facilitated through the IT system, and a bespoke approach to accreditation for such a limited number of sites may not be cost-effective. The design of the accreditation process for Heavy Industrial will be heavily reliant on detailed information being provided by DETI for each site.

9.10. Creating a NI RHI specialist position on the RHI Operations team to case manage Heavy Industrial participants as detailed above would also allow us to provide a cost effective solution to the potential need for unique accreditation conditions for these sites.

9.11. If the unique conditions applied to Heavy Industrial sites only require additional data or documents to be provided to gain entry to the scheme then the current online accreditation system can still be utilised to ensure these participants are subjected to the existing monitoring, compliance and Identity Verification mechanisms built in to this system. By utilising the combination of the IT systems in place and a specialist member of the Operational team to case manage any site-specific requirements, Ofgem can provide a cost-effective solution to managing the Heavy Industrial Sector.

9.12. Further preparatory work may need to be performed by Ofgem once DETI has formed a detailed policy position to provide options for how this could be
administered including any need for further IT systems development, manual case-management or a combination of these approaches.

Customer Relationship Management

9.13. The Customer Relationship Management function for the Heavy Industrial Sector should not require significant departure from existing business processes. The Internal Contacts Team will need to be trained in handling any additional requirements for the Heavy Industrial Sector, and call scripts will need to be developed to respond to issues arising from the different treatment of these participants.

9.14. One area that may require further work is around gaining DETI’s support for accreditation. An appropriate contact from DETI should be provided so that enquiries from Heavy Industrial participants can be directed and provided with accurate information around DETI’s requirements for proposals and the criteria against which sites will be assessed. While the Ofgem internal contacts team could be provided with information and training to handle basic enquiries in relation to this process, it will be important to establish a suitable contact at DETI to provide more detailed guidance to these participants.

Periodic Information

9.15. DETI’s final policy position will determine the extent to which changes will be required to IT systems or business processes to meet the needs of this sector. However if the requirements are unique to each Heavy Industrial site it would be more cost effective to collect periodic information from these participants outside of the system. A specialist position on the RHI Operations team could case manage this process and ensure appropriate audit requirements are met. This position is detailed further below.

Auditing

9.16. As each site will be treated individually the same general eligibility and compliance criteria cannot necessarily be applied, which could make auditing and reporting more complex for these sites. However this case by case consideration will mean each site will work closely with DETI to gain approval to join the scheme, and in gaining accreditation from Ofgem. This high level of oversight warranted by individual assessment may mean that this sector is considered to pose a relatively lower risk, requiring a lower level of ongoing audits. A detailed risk assessment will need to be performed to better inform this process.

9.17. An appropriate auditing process will need to be designed specific to this sector once DETI has provided Ofgem with their final detailed policy position. Further input will also be needed from DETI around the level of involvement they are willing to have in the ongoing administration of this sector.
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**Reporting**

9.18. One of the primary issues presented to the Heavy Industrial Sector in relation to reporting is the current legislative requirements around reporting. Under the draft regulations (in line with the GB regulations) public reporting is required on a quarterly basis by technology type and tariff band.

9.19. In order to accommodate DETI’s intention to offer a custom tariff rate to each eligible Heavy Industrial site, Ofgem would design the tariff structure to include 17 additional tariff bands for each site with an empty tariff field that can be populated once DETI have made an offer to each site. The effect of this will be to create a tariff band for each site, and therefore require that the support payments for each site be publicly reported. This could create privacy concerns for the sites involved and act as a deterrent to participation in the scheme.

9.20. Further work should be done once a decision has been made on DETI’s final policy decision to ensure that the final regulations address this issue.

**IT Systems**

9.21. There are a range of possible options to providing an IT system that meets the needs of the Heavy Industrial Sector for the NI RHI, which are discussed below:

**Option 1**

Adapting existing RHI systems to accommodate the Heavy Industrial Sector, finding manual solutions where necessary.

Adapting the existing systems including the Central Register, Sun Payments System and CRM functions to suit the approach to Heavy Industrial Sites, which may include:

- Providing a filter such as post code to identify these sites and ensure they cannot commence the accreditation process without DETI’s approval.

- Provide a solution for accreditation, which may involve each site being manually input and case-managed, and these processes potentially being handled outside of existing systems.

- A custom set of eligibility criteria or manual override that can be applied following DETI’s assessment and approval of a particular site, given eligibility criteria could differ markedly from other scheme participants.

- Providing an internal field in the tariff structure to provide for a custom tariff rate to be applied to a single site (or build 17 new fields into the tariff structure, one for each Heavy Industrial site identified, each with an
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- empty tariff rate that can be populated following advice and approval from DETI).

- Additional reporting and auditing mechanisms to specifically address Heavy Industrial sites, monitoring compliance against a customised set of criteria for each site.

**Option 2**

**Develop a manual approach such as a spreadsheet to manage data and calculate tariff payments for each site on an individual basis.**

This approach has a high risk of human error, however given the small number of potential sites this is a relatively lower risk than if this option were to be considered for the scheme broadly. There are fraud, data security and reputational risks to Ofgem in taking this approach.

**Option 3**

**Build a new bespoke system to meet the specific needs of the Heavy Industrial Sector.**

Ofgem IT developing a separate system specifically designed to address the Heavy Industrial Sector, allowing for custom tariff rates to be allocated to a single site and addressing additional criteria provided by DETI in each case. This option has been discarded because it would be prohibitively expensive and we would need to work closely with IT to assess whether this approach is viable.

**Option 4**

**Taking a phased approach to the Heavy Industrial Sector including consultation to determine preliminary levels of interest and necessary investment.**

The Heavy Industrial Sector could be approached as a later phase of the NI RHI. Before this phase is introduced DETI could undertake an Expression of Interest (EOI) or consultation process to consult closely with the 17 heavy industrial sites identified by DETI and determine the level of interest in the RHI, assess the viability of sites under DETI criteria, and develop a registration process specific to those applicants who are both eligible and interested in accessing the scheme. With a better understanding of the level of interest from this sector DETI could determine the appropriate level of investment for this phase of the scheme.

**Option 5**

**Appointing a NI RHI Specialist to the RHI Operations Team to case manage Heavy Industrial Participants, handle complex NI RHI enquiries and manage additional workload created by the NI RHI.**
This option has been outlined above in relation to accreditation, auditing and other business processes that may need to be altered to accommodate DETI’s final policy position for the NI RHI. This would be a multi-functional role providing an efficient and cost effective solution to managing a range of issues that differentiate the NI RHI from the GB scheme as well as additional workload for the RHI Operations Team. It will provide necessary expertise specific to the NI RHI scheme to handle complex scheme components without requiring a more costly IT systems solution.

Conclusion

9.22. **We propose to base our resource planning on investigating Options 1 and 5 further once DETI has come to a final policy position. We should begin by assessing the viability and cost of adapting existing systems and processes.** Significant system changes could prove prohibitively expensive, so any work within the existing systems would need to align as closely as possible to the current approach to registration, auditing, accreditation and payment processing.

9.23. **Should adapting existing systems prove to not provide adequate value for money, Option 5 should also be explored** with a view to developing a NI RHI specialist position to manage the administration needs of the Heavy Industrial Sector, possibly in combination with use of the existing IT systems. By manually managing any unique criteria or requirements for the Heavy Industrial Sector we can maximise the value of the existing RHI Central Register while also meeting the specific needs of these participants and managing additional workload for the Operations Team.

9.24. The outcome of DETI’s final policy position will determine the need for additional assessment of IT Options to inform processes around auditing, accreditation and payment processing, and the extent to which these processes can be built into the existing systems or whether a manual approach to managing these processes will need to be adopted.

High Level Indicative Costs

9.25. As DETI has not yet finalised their policy position in relation to the Heavy Industrial Sector, we have provided some high level indicative costs to demonstrate what the costs may be associated with a range of approaches. We would emphasise that more bespoke the requirements for the Heavy Industrial sector the higher the costs are likely to be.

9.26. These costings are provided as a guide only, and do not represent the actual costs, which cannot be determined until DETI’s final policy position has been assessed during the Preparatory period. For the purposes of aiding DETI’s decision making we have offered the following options:
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- Low - a base case option where, should the Heavy Industrial Sector remain in line with the broader NI RHI scheme, the operational costs will be negligible.

- Medium – an option that provides balance between the specific needs of administering the scheme to the Heavy Industrial Sector and the most cost-effective use of resources by offering a manual solution.

- High – an option that shows the estimated costs of adapting the IT systems to accommodate the unique needs of each Heavy Industrial Participant.

9.27. **LOW**: If Heavy Industrial audit, accreditation, fraud and compliance, reporting and periodic information capture requirements (including technologies) are no different from the broader NI RHI scheme, the costs will be absorbed by general operational budget given the low number of sites expected to participate in the scheme. Current estimates of scheme operational costs assume NI RHI scheme volume representing 3% of overall RHI capacity.

9.28. **MEDIUM**: If there are additional unique accreditation, audit, fraud and compliance, periodic information capture or reporting requirements for each Heavy Industrial site that can be managed internally, the most cost-effective way of resourcing this need would be a dedicated member of the RHI Operations team with expertise specific to the NI RHI.

The additional workload for the RHI Operations team will likely require one or two additional staff members to be recruited to manage this volume. This solution would involve one such staff member being responsible for case managing Heavy Industrial Sites including any unique accreditation, reporting, periodic information capture and compliance requirements, provide expertise for responding to complex NI RHI enquiries escalated from the Internal Contacts Team and manage additional workload created by the NI RHI.

The expertise required for such a position would necessitate a Band C at the cost of approximately £[x] per annum including overheads.

9.29. **HIGH**: If DETI’s requirements for the Heavy Industrial sector include site-specific requirements and DETI’s preference is for these aspects to be integrated into the IT system the costs of such an approach could be considerable. Without the detail of specific requirements it would not be possible to provide a cost estimate. If there are custom audit requirements specific to each site, this will have implications for the contractual arrangements governing on-site audits. On-site audits are to be outsourced under the GB RHI scheme and the tender process is currently underway to select an appropriate contractor. If the on-site auditing needs of the Heavy Industrial Sector are more complex than the current audit requirements, involve new technologies not included under the current tender process or are site-specific, additional negotiations may be necessary with the successful tenderer or we may need to undertake a new tender process to meet these...
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needs. Until the specific audit needs are known it will not be possible to provide a costing. However the audit costs for the scheme form a significant proportion of the overall operational costs.

Ofgem would not recommend this approach as the costs would be difficult to justify given the number of participants in this sector.

9.30. It may be necessary, depending on DETI’s final policy position, to find an appropriate balance between the Medium and High end solutions, with some processes being manually case managed and some IT systems development.
10. Risks and Mitigants

Chapter Summary

This chapter sets out the risks identified with launching the NI RHI scheme in 2012 and recommended actions to be taken to mitigate against them. These will be further developed during the development stage.

Approach

10.1. During the feasibility study phase we identified risks associated with this project. We would normally submit this assessment and our proposed course of action to an independent risk assessment. However given that the key risk identified were linked to DETI’s final policy decision (in particular whether to allow Air Source Heat Pumps, bioliquids and Heavy Industry Sites in the scheme from the launch date), we agreed with DETI that we would defer such an independent assessment once the final policy decisions have been taken with respect to all key policy areas.

10.2. The identified risks were recorded and can be found in the risk register attached at Appendix 5.

10.3. In Table 10.1 below we have highlighted the key risks which relate specifically to Ofgem’s administration of the NI RHI on behalf of DETI and NIAUR. The risks are also identified as being a development phase risk (which would delay the launch of the scheme) or an ongoing operational risks.

10.4. We propose that we hold a risk workshop in the early stages of the Development phase to ensure we have identified, understood and assigned ownership for each of the risks. We will also need to work together to agree the correct mitigant and ensure appropriate action is taken.
Table 10.1

<table>
<thead>
<tr>
<th>Risk</th>
<th>Development or Operational Risk</th>
<th>Action</th>
<th>Risk Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delay in confirming delivery budget prevents project from commencing on time and staff being put in place</td>
<td>Development</td>
<td>Delivery of the feasibility study by Friday 25 November provides DETI with 3 weeks to sign off budget (Friday 23 December). This will allow us to get the project team in place for January</td>
<td>High</td>
</tr>
<tr>
<td>Inclusion of Air-to-Air ASHP lead to significant fraud risks as no metering framework in place to measure heat production.</td>
<td>Operational</td>
<td>Delay introduction of Air-to-Air ASHP until metering framework or deeming methodology agreed.</td>
<td>High</td>
</tr>
<tr>
<td>Failure to launch on 1st April 2012 due to challenging timeline</td>
<td>Development</td>
<td>Agree suitable &quot;launch&quot; activity for 1st April 2012, with scheme go live on 1st June 2012.</td>
<td>High</td>
</tr>
<tr>
<td>Specification changes mean additional funding required</td>
<td>Development</td>
<td>Have contingency fund – which can only be utilised following agreement by the Administration Board. DETI to hold fund until its needed and carry risk that sufficient funds are available.</td>
<td>Medium</td>
</tr>
<tr>
<td>Inclusion of ASHP and additional reporting requirements leads to significant changes to IT system specification</td>
<td>Development</td>
<td>May need additional resources and delay their inclusion in the scheme. Easier to restrict ASHP types, to those which do not need additional reporting/periodic information. This will minimise IT amendments.</td>
<td>Medium</td>
</tr>
<tr>
<td>Inclusions of Heavy Industry Sites leads to significant changes to IT system</td>
<td>Development</td>
<td>Where possible, use existing system supported by bespoke manual process.</td>
<td>Medium</td>
</tr>
<tr>
<td>Change in policies post feasibility study phase</td>
<td>Development</td>
<td>Given that IT requirements will be put together in January, any policy changes following made after the 23 December 2011 is likely to result in additional costs and delays to project timescales. Any policy changes post feasibility study will require a change control process to determine subsequent changes to the budget and timescales, and this would need to be agreed by the Administration Board.</td>
<td>Medium</td>
</tr>
<tr>
<td>Inadequate enforcement process in place</td>
<td>Operational</td>
<td>Need to agree process for enforcement which is both practical but takes into account Ofgem’s lack of statutory powers in Northern Ireland</td>
<td>Medium</td>
</tr>
<tr>
<td>Ofgem does not have funds to provide generators with tariff payments</td>
<td>Operational</td>
<td>Detailed process put in place for Ofgem to recover the monies required to pay generators RHI tariff support.</td>
<td>Medium</td>
</tr>
<tr>
<td>Ofgem unable to recover administration costs</td>
<td>Operational</td>
<td>Strict process and timetable as to how Ofgem’s administration costs will be invoiced and paid.</td>
<td>Medium</td>
</tr>
<tr>
<td>GB RHI launch delayed, preventing us developing</td>
<td>Development</td>
<td>Given that the NI RHI system will be based on the GB scheme, we need to the GB</td>
<td>Low</td>
</tr>
</tbody>
</table>
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| NI RHI | scheme to be completed and operational by the time we begin NI RHI development work. |
11. Required Resources

Chapter Summary

This chapter sets out the proposed direction of the NI RHI feasibility study with regards to resource requirements and costs. Much of the drafting is intended to be used in the feasibility study.

Development Team

11.1. As part of the Feasibility Study we have identified a number of discrete activities that need to be carried out. These have been mapped into different workstream areas. The following table indicates the workstreams for the RHI development team to go-live in spring 2012.

Table 11.1 NI RHI Development Workstreams

<table>
<thead>
<tr>
<th>Policy advice</th>
<th>IT Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Updating existing RHI operational processes,</td>
<td>Agreeing ASA and payment recovery process with DETI</td>
</tr>
<tr>
<td>manuals and strategies</td>
<td></td>
</tr>
<tr>
<td>Updating existing RHI communications and guidance</td>
<td>Recruiting additional resources</td>
</tr>
<tr>
<td>Establishing process for Heavy Industrial Sites</td>
<td>Training operational team</td>
</tr>
<tr>
<td>Establishing NI RHI enforcement process</td>
<td>Extending current audit and procurement contracts to include NI RHI</td>
</tr>
<tr>
<td>Stakeholder engagement</td>
<td>Risk assessment</td>
</tr>
</tbody>
</table>

11.2. Given the similarities between the proposed NI RHI scheme and GB RHI scheme, we have been able to make considerable savings in development costs. This has been reflected in the reduced workstream identified above, and the proposed resources required. The GB RHI development team consisted of approximately 16 full time equivalents. By contrast we propose the development team for the NI RHI in Table 11.2 below.

11.3. Greater detail on what these workstreams will entail can be found in Appendix 2.

11.4. This development team will be supported by Ofgem’s senior management, legal colleagues, finance colleagues and Ofgem’s Project Management Group. The NI RHI development team will also benefit from ongoing support from colleagues currently working in both the GB RHI development team, and RHI operational team.
11.5. We envisage that this development team will be formed in January 2012 and be required until 30 June 2012. However DETI may wish to consider if this team will need to be extended beyond June 2012, or their remit expanded before this time in order for it to undertake development work for subsequent phases of the NI RHI scheme. This may include extending the scheme to domestic installations, different technologies and/or include Heavy Industrial Sites.

**Operational Team**

11.6. This feasibility study has been based on the assumption that, where possible, we would look to utilise efficiencies from aligning the NI RHI development and administration with the GB RHI. Following discussions with the current Renewables Team which administers both the GB Renewables Obligation (RO) and NI Renewable Obligation (NIRO), and the RHI development and operational teams, we assess that it would be more efficient and less costly if we expanded the remit of the current RHI operational team to include the administration of NI RHI, rather than establish a duplicate team to deal solely with the NI RHI.

11.7. Based on the uptake information provided by DETI and our own experience with operating the NIRO, we are planning for the uptake of the NI RHI to be 3% of the GB RHI scheme. In terms of number of installations in the NI RHI, the table below shows the cumulative number of installations this could involve over the first 4 years of the scheme.
Table 11.3 Projected number of installations (cumulative) in the NI RHI

<table>
<thead>
<tr>
<th></th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non domestic installations</td>
<td>247</td>
<td>498</td>
<td>931</td>
<td>1,628</td>
</tr>
<tr>
<td>Domestic installations</td>
<td>390</td>
<td>915</td>
<td>1,890</td>
<td>3,795</td>
</tr>
<tr>
<td>Total NI RHI installations</td>
<td>637</td>
<td>1,413</td>
<td>2,821</td>
<td>5,423</td>
</tr>
</tbody>
</table>

11.8. This will entail adjusting resourcing across the RHI operational team to allow them to facilitate and complete NI RHI activities. Given the projected installations numbers we are not proposing that there is a dedicated NI RHI enquiry team, but that a team of RHI administrators are trained sufficiently so that they can handle the majority of NI RHI enquiries and applications directly. We also envisage appointing a lead administrator for the NI RHI, who will be able to provide initial advice on more complicated NI RHI issues to the rest of the team.

11.9. To support the enquiry team, and lead on NI RHI management issues we proposed that a NI RHI manager post be created within the existing team. This post could potentially cover all other schemes Ofgem currently administers on behalf of NIAUR (NIRO, LECS, REGOS). During the development phase we will further investigate how this dedicated post can best meet the needs of DETI and NIAUR, and whether there is an advantage in basing this post in Northern Ireland.

11.10. The current RHI operational team is detailed in Table 11.4 below, with the proposed NI RHI Manager post highlighted in red.

Table 11.4 RHI Operations Team:

11.11. Over the course of the NI RHI scheme, this team will need to be expanded to reflect the growing workload as the number of generators and installations in
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

the scheme grows. The costs outlined below details the expected increase in administration costs over the next 4 years.

11.12. As the RHI Operations team grows it is likely that some members of the team may be located in Ofgem’s offices in Glasgow.

11.13. Ofgem and DETI may also need to consider the impact on these operation costs should the Department of Energy and Climate Change (DECC) decide to end the GB RHI scheme or move the administration of the GB RHI scheme away from Ofgem. Without the efficiencies gained by administering the two schemes alongside each other, the cost of administering the NI RHI in isolation may be significantly more than forecasted here.

Proposed Budget

Development Costs Forecast

11.14. The following forecasts have been put together based on the available material and assumptions, including the draft regulations circulated 11 October 2011. The Development budget forecast is based on an April 2012 launch, and includes savings and efficiencies that have been achieved through planned resource allocation. It involves some further feasibility work being undertaken in December 2011 in preparation for the commencement of Development on 3 January 2012.

11.15. Should it not be possible to undertake this work development costs will increase, and delivery timeframes may be longer to allow for scheme set up and resource allocation, which cannot be planned in advance without a set date for final approval.

Table 11.5 Development Costs Forecast

<table>
<thead>
<tr>
<th>Delivery Component</th>
<th>Cost (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Scheme Development delivery team</td>
<td>£96,000</td>
</tr>
<tr>
<td>Internal Ofgem legal costs</td>
<td>£62,000</td>
</tr>
<tr>
<td>IT delivery costs</td>
<td>£143,000</td>
</tr>
<tr>
<td>Independent risk assessment</td>
<td>£10,000 (excluding £10,000 deferred from feasibility study)</td>
</tr>
<tr>
<td>Overheads</td>
<td>£75,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>£386,000</strong></td>
</tr>
</tbody>
</table>

Contingency

11.16. From previous experience we will require a contingency fund to be set aside to allow the delivery team to accommodate changes in circumstances or to deal with unforeseen hurdles. The contingency fund will be held by DETI and access to this fund will be strictly controlled, with any decisions being made and endorsed by the NI RHI Administration Board. Given our experience we
thought DETI would benefit from our suggested contingency levels. These are set out below. However, DETI will toned to ensure that these contingency funds are made available to Ofgem as and when needed.

11.17. For the IT element of the forecast we recommend a contingency of 100% or £133,000. This takes into account the uncertainty that exists in building the IT system without final policy decisions being made or regulations finalised. This will be reduced to 33% once the detailed requirements have been completed (expected by the end of January).

11.18. For legal contingency we recommend £200,000. Refer to the subsection below on legal costs and contingency for further detail. For the remaining budget forecast we recommend a contingency of 25% or £43,000.

11.19. Total contingency therefore comes to 100% of Development budget or £386,000. This reflects the uncertainty that remains around the final scheme policy, the need for further IT work to refine development costs and the potential legal needs of the scheme.

11.20. We would also require DETI’s agreement that Ofgem’s staff costs will be covered in the event that the scheme experiences prolonged delays. This is an important aspect of risk mitigation given Ofgem’s experiences in developing similar environmental schemes that suffered delays in gaining State Aid approval, making regulations or other external factors beyond Ofgem’s control.

11.21. Where staff have been put in place for a scheme and there is a suspension or delay exceeding four weeks, Ofgem will endeavour to re-allocate these staff to other projects where possible unless the Administration Board agrees otherwise. If staff cannot be utilised in other projects areas, DETI will continue to bear these staff costs until re-allocation is possible or the scheme becomes operational.

Legal Costs and Contingency

11.22. It is essential that any scheme undertaken by Ofgem involves appropriate legal assessment to identify and address any risks to GEMA. Where this involves a scheme that will operate in a different jurisdiction, such as Northern Ireland, it may be necessary to engage local external counsel to provide GEMA with advice around interaction with local law.

11.23. Following DETI’s final decisions around NI RHI scheme administration it will be necessary to undertake high level discussions between legal colleagues from Ofgem, DETI and NIAUR around how the review of legal aspects of the scheme should be taken forward. Legal contingency costs could be high if it becomes necessary for Ofgem to engage external legal counsel to advise Ofgem on local legal matters relating to Northern Ireland.
11.24. We have assessed the potential legal costs of the scheme and offered a low, medium and high cost option provided below. These levels reflect the potential for legal costs to increase considerably the further NI RHI regulations deviate from the GB RHI regulations.

**Low:**

The Low level option provides estimated legal costs based on the assumption that the NI RHI regulations remain in line with the GB RHI regulations. This includes not addressing the definition and legal issues raised in the preliminary review of the draft regulations.

*Cost: To be provided*

**Medium:**

In the preliminary review of draft regulations conducted by Ofgem Legal during the Feasibility Phase, a number of areas were identified where the regulations could be tightened or re-written. Should some of these changes be incorporated in the NI RHI regulations, this will impact on all scheme policy and operational work, and require additional legal review of this material. The Medium level option reflects the estimated legal costs should DETI choose to address these issues, but otherwise keep NI RHI policy consistent with the GB RHI scheme.

*Cost: To be provided*

**High:**

The High level option provides estimated legal costs based on the NI RHI differing considerably from the GB RHI, which may involve addressing the majority of the issues raised in the preliminary review of regulations such that eligibility is different to the GB RHI scheme, as well as including new technologies. The legal consultation required for this option would cover development of new guidance, policies and operational procedures. If DETI decide to take this approach the IT systems development and policy development costs will also be considerable as the savings achieved by adapting existing systems and policy materials will be lost.

*Cost: To be provided*

11.25. Ofgem would propose working with DETI and NIAUR to discuss options for minimising these costs as much as possible. In the meantime we will need to allow £200,000 for legal contingency in the Development Phase based on a April 2012 launch date. This may need to be reassessed following final approval and the provision of regulations finalised from a policy perspective.
Operational Costs Forecast

11.26. Using the 3% assumption set out above in paragraph 11.7 we are able to provide a forecast of the operational cost for the NI RHI over the next 4 years beginning in April 2012.

Table 11.6 Operational Cost Forecasts (based on 3% uptake rate)

<table>
<thead>
<tr>
<th>Operational Component (based on 3%)</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHI operational staffing</td>
<td>£78,927</td>
<td>£102,721</td>
<td>£143,135</td>
<td>£193,714</td>
</tr>
<tr>
<td>IT business application support costs*</td>
<td>£27,000</td>
<td>£27,000</td>
<td>£27,000</td>
<td>£27,000</td>
</tr>
<tr>
<td>IT infrastructure costs*</td>
<td>£23,000</td>
<td>£23,000</td>
<td>£23,000</td>
<td>£23,000</td>
</tr>
<tr>
<td>Internal legal costs</td>
<td>£6,732</td>
<td>£4,614</td>
<td>£4,799</td>
<td>£4,991</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>£135,660</td>
<td>£157,336</td>
<td>£197,935</td>
<td>£248,706</td>
</tr>
</tbody>
</table>

*IT costs are based on year 1 forecasts and may need to be reassessed pending final IT requirements

11.27. Over 4 years this equates to £739,637. This is just under 3% of the scheme’s £25 million funding envelope over the first 4 years.

11.28. However there is a potential for uptake of the NI RHI be greater than anticipated. We therefore recommend that we plan for and seek funding for a 5% uptake rate. The table below outlines potential operations costs:

Table 11.7 Operational Cost Forecasts (based on 5% uptake rate)

<table>
<thead>
<tr>
<th>Operational Component (based on 5%)</th>
<th>2012/13</th>
<th>2013/14</th>
<th>2014/15</th>
<th>2015/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHI operational staffing</td>
<td>£131,545</td>
<td>£171,201</td>
<td>£238,559</td>
<td>£322,856</td>
</tr>
<tr>
<td>IT business application support costs*</td>
<td>£27,000</td>
<td>£27,000</td>
<td>£27,000</td>
<td>£27,000</td>
</tr>
<tr>
<td>IT infrastructure costs*</td>
<td>£23,000</td>
<td>£23,000</td>
<td>£23,000</td>
<td>£23,000</td>
</tr>
<tr>
<td>Internal legal costs</td>
<td>£11,221</td>
<td>£7,690</td>
<td>£7,998</td>
<td>£8,318</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>£142,766</td>
<td>£178,891</td>
<td>£246,557</td>
<td>£331,174</td>
</tr>
</tbody>
</table>

*IT costs are based on year 1 forecasts and may need to be reassessed pending final IT requirements

11.29. Over 4 years this equates to £899,388. This is just under 3.6% of the scheme’s £25 million funding envelope over the first 4 years.

Administrative Costs

Precedents for Cost Recovery – NIRO/NI REGO

11.30. While Ofgem have provided estimated forecasts of the administrative costs of the scheme, Ofgem will only pass through actual costs to DETI/NIAUR.
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Consequently if scheme uptake is lower than anticipated, the costs will be lower than forecast. Likewise if uptake is higher or there is disproportionate use of a particular service (such as significantly higher call centre volumes for Northern Ireland) the actual costs of this will be passed through accordingly.

11.31. There are a number of environmental programmes currently being run by Ofgem under a range of different arrangements for the recovery of administrative costs. Under the NIRO and NI REGO schemes, also governed by an ASA between Ofgem and NIAUR, administrative costs are recovered from NIAUR under terms specified in the agreement. The administrative costs are revisited in the agreement on an annual basis.

11.32. Ofgem would propose that a similar approach be adopted in the preparation of the ASA for the NI RHI between DETI/NIAUR and Ofgem. The terms of this agreement should be negotiated during the development phase, however some general principles of cost recovery are detailed below.

**Principles of Cost Recovery**

11.33. The processes for recovering costs for the administration of the NI RHI should be negotiated between DETI/NIAUR and Ofgem and set out in the ASA. The development of the ASA will need to be negotiated during the development phase lead by the Policy Team in consultation with Ofgem Legal.

11.34. As administrative costs are recovered on the basis of actual costs, it will be possible to provide a budget forecast to inform this process. However given the nature of the scheme and the uncertainty around the level of uptake that can be anticipated, there should be adequate provision to ensure that funding for actual costs incurred can be recovered.

11.35. In principle, cost recovery processes should ensure adequate information is made available to each party within reasonable timeframes, that each party has recourse should there be any dispute over the required funds, and a dispute resolution process should be agreed and put in place where it is not possible for the two parties to come to agreement.

11.36. Importantly, there should be stipulated timeframes for the recovery of administrative costs that are enforceable to ensure that scheme operations can continue unaffected in the event of a dispute.
12. Recommendation Summary

Chapter Summary

This chapter summarises the key messages and recommendations from Ofgem’s feasibility work on the NI RHI. We have articulated key dependencies and assumptions around these recommendations to ensure all parties have a clear understanding of what we can deliver, when we can deliver, and what we need in order to meet this timeframe for delivery.

12.1. The proposed approach to implementation and the timeframes outlined throughout this study are wholly contingent on gaining:

i) Formal agreement on budgets and assumptions from DETI; and
ii) GEMA approval.

12.2. The recommendations, timeframes and costs within this feasibility study are based on working towards an April 2012 launch. However should it not be possible to meet the key dependencies to achieve such a launch alternate delivery options have been provided in this study. The key dependencies for agreeing a scheme launch and commencing scheme development are as follows:

• If DETI are unable to meet the key dependencies for an April 2012 launch, DETI will allow Ofgem a two week ‘mobilisation’ period to allocate resources, recruit a development team and confirm resource requirements following DETI’s approval of Ofgem as scheme administrator before the Development Phase can commence;

• This Feasibility Study will remain in draft form until formally endorsed by GEMA (expected January 2012);

• DETI will confirm their final policy position on the NI RHI and provide the significantly finalised draft legal instruments (finalised from a policy perspective) to Ofgem;

• DETI will agree to release funding and appropriate contingency for the development phase in order to allow Ofgem to fund the Development Team;

• DETI will make regulations governing the scheme, allowing time for appropriate consultation with Ofgem Legal;

• DETI will gain State Aid Approval in time for scheme commencement;
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- DETI/NIAUR will work with Ofgem to develop an Agency Services Agreement to govern the administration of the scheme to the satisfaction of all parties;
- DETI/NIAUR will retain enforcement powers for the NI RHI scheme;
- Ofgem can draw down adequate funds to cover all tariff payments in time for the first payment cycle. The date will be confirmed once a launch date has been agreed;
- DETI will confirm their commitment to cover agreed administration costs for the scheme (separate to support payments);
- DETI will agree to allow a £1 million contingency per year once the scheme becomes operational to cover Ofgem’s internal legal costs in the event of a legal challenge; and
- DETI agrees to participate in scheme oversight through the joint Administration Board, to manage contingency funding and make key decisions around scheme development and operations.

12.3. Once agreement has been reached on these points, Ofgem and DETI will be able to agree a delivery timetable and commence resource allocation and scheme development.
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Appendices

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<td>5</td>
<td>Risk Register</td>
<td>150</td>
</tr>
</tbody>
</table>
Appendix 1 – Legislative Basis

Section 113 and 114 of the Energy Act 2011

Northern Ireland: renewable heat incentives

113. Renewable heat incentives in Northern Ireland

(1) The Department of Enterprise, Trade and Investment may make regulations—

(a) establishing a scheme to facilitate and encourage renewable generation of heat in Northern Ireland, and

(b) about the administration and financing of the scheme.

(2) Regulations under this section may, in particular—

(a) make provision for the Department or NIAUR to make payments, or to require designated fossil fuel suppliers to make payments, in specified circumstances, to—

(i) the owner of plant used or intended to be used for the renewable generation of heat, whether or not the owner is also operating or intending to operate the plant;

(ii) a producer of biogas or biomethane;

(iii) a producer of biofuel for generating heat;

(b) make provision about the calculation of such payments;

(c) make provision about the circumstances in which such payments may be recovered;

(d) require designated fossil fuel suppliers to provide specified information to the Department or NIAUR;

(e) make provision for payments to fossil fuel suppliers in specified circumstances;

(f) make provision about the enforcement of obligations imposed by or by virtue of the regulations (which may include a power for the Department or NIAUR to impose financial penalties);

(g) confer functions on the Department or NIAUR, or both.
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(3) In this section—

“biofuel” means liquid or gaseous fuel which is produced wholly from biomass;

“biogas” means gas produced by the anaerobic or thermal conversion of biomass;

“biomass” means material, other than fossil fuel or peat, which is, or is derived directly or indirectly from, plant matter, animal matter, fungi or algae;

“biomethane” means biogas which is suitable for conveyance through pipes to premises in accordance with a licence under Article 8(1)(a) of the Gas (Northern Ireland) Order 1996 (S.I. 1996/275 (N.I. 2)) (licences to convey gas);

“the Department” means the Department of Enterprise, Trade and Investment;

“designated fossil fuel suppliers” means—

(a) if the regulations so provide, a specified class of fossil fuel suppliers, and
(b) in any other case, all fossil fuel suppliers;

“fossil fuel” means—

(a) coal;
(b) lignite;
(c) natural gas (within the meaning of the Energy Act 1976);
(d) crude liquid petroleum;
(e) petroleum products (within the meaning of that Act);
(f) any substance produced directly or indirectly from a substance mentioned in paragraphs (a) to (e);

“fossil fuel supplier” means a person who supplies fossil fuel to consumers for the purpose of generating heat;

“functions” includes powers and duties;

“modify” includes amend, add to or repeal;

“NIAUR” means the Northern Ireland Authority for Utility Regulation;
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“owner”, in relation to any plant which is the subject of a hire purchase agreement, a conditional sale agreement or any agreement of a similar nature, means the person in possession of the plant under that agreement;

“plant” includes any equipment, apparatus or appliance;

“renewable generation of heat” means the generation of heat by means of a source of energy or technology mentioned in subsection (4).

(4) The sources of energy and technologies are—

(a) biomass;
(b) biofuels;
(c) fuel cells;
(d) water (including waves and tides);
(e) solar power;
(f) geothermal sources;
(g) heat from air, water or the ground;
(h) combined heat and power systems (but only if the system’s source of energy is a renewable source within the meaning given by Article 55F of the Energy (Northern Ireland) Order 2003 (S.I. 2003/419 (N.I. 6)));
(i) biogas.

(5) The Department may by regulations—

(a) modify the list of sources of energy and technologies in subsection (4);
(b) modify the definition of “biofuel”, “biogas” or “biomass” in subsection (3).

(6) The Department may by regulations make provision, for the purposes of subsection (2)(a)(iii) and the definition of “fossil fuel supplier”, specifying that particular activities do or do not constitute generating heat.

(7) Any power to make regulations under this section is to be exercisable by statutory rule for the purposes of the Statutory Rules (Northern Ireland) Order 1979 (S.I. 1979/1573 (N.I. 12)).
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(8) Regulations under this section may not be made unless a draft of the regulations has been laid before, and approved by a resolution of, the Northern Ireland Assembly.

(9) Regulations under this section may—

(a) provide for a person to exercise a discretion in dealing with any matter;
(b) include incidental, supplementary and consequential provision;
(c) make transitory or transitional provisions or savings;
(d) make provision generally, only in relation to specified cases or subject to exceptions (including provision for a case to be excepted only so long as conditions specified in the regulations are satisfied);
(e) make different provision for different cases or circumstances or for different purposes.

114. Power for Gas and Electricity Markets Authority to act on behalf of Northern Ireland authority in connection with scheme under section 113

(1) GEMA and a Northern Ireland authority may enter into arrangements for GEMA to act on behalf of the Northern Ireland authority for, or in connection with, the carrying out of any functions that may be conferred on the Northern Ireland authority under, or for the purposes of, any scheme that may be established, under section 113.

(2) In this section—

“GEMA” means the Gas and Electricity Markets Authority;

“Northern Ireland authority” means—

(a) the Department of Enterprise, Trade and Investment, or
(b) the Northern Ireland Authority for Utility Regulation.
Appendix 2 – Detailed Resourcing Requirements

<table>
<thead>
<tr>
<th>Issue</th>
<th>IT Systems Changes</th>
<th>Development Changes</th>
<th>Operational Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The current accreditation system for the RHI does not allow accreditation for an installation at a Northern Ireland postcode. This mechanism was implemented to ensure only eligible installations could gain accreditation under the RHI scheme. This will need to be amended to allow accreditation from Northern Ireland postcodes once the NI RHI scheme commences.</td>
<td>Minor systems change required.</td>
<td>Development of starter packs and training materials for new starters.</td>
<td>Training of new starters in the NI RHI scheme and how it differs from the GB RHI. Includes Starter Packs for and guidance/training materials.</td>
</tr>
<tr>
<td>When applicants first select the option to apply for accreditation in the system they are shown an information screen with details of the GB RHI including eligible technologies. This information screen will either need amending to include NI specific information for applicants before they commence the accreditation process, or an additional step will have to be added to the process to identify whether applicants wish to apply for the RHI or NI RHI, with appropriate information provided based on the scheme chosen.</td>
<td>Minor systems changes will be required to update template 27 or build in an additional step in the accreditation process asking which scheme a user wishes to apply for, then directing the user to the appropriate scheme information screen and accreditation flow.</td>
<td>Development of new information screen content (Template 27) specific to NI RHI OR Amendment of existing content to include NI information so it remains applicable to both schemes.</td>
<td>N/A</td>
</tr>
</tbody>
</table>
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| A process for Identity Verification is built into the existing RHI accreditation process, and involves the extract of identity information for provision to an identity checking external body. The current system tolerances are based on the needs of the GB RHI scheme. However DETI may prefer different system tolerances to be applied, potentially following the outcome of the risk assessment during the development phase. | If different system tolerances are required for the NI RHI the IT system will need to enable either two extracts or add to the current extract a field to distinguish for which scheme a participant is applying so that the appropriate tolerances and checking processes can be applied. | During the development phase it will be necessary to confirm that the current ID checking contract for the RHI can also be used to accommodate the needs of the NI RHI. Additional costs may be involved depending on the ID checking requirements. | N/A |

| Participation in the RHI or NI RHI will be determined by the address provided for the installation. However the address of the authorised signatory may be at a different location. This could mean that a single company could have installations at a number of different sites, some of which are accredited under the RHI and some of which are eligible for the NI RHI. The system will allow these participants to have only one account through which to manage their scheme participation. Backend work will be necessary to ensure that while the RHI and NI RHI schemes are integrated and seamless from a user perspective, the payments are made from separate accounts to a single user bank | Systems changes will be required to ensure there are separate accounts for payments made to NI RHI and RHI scheme participants. The payment processing systems will need to accommodate payments made from two separate accounts to a single participant bank account seamlessly. Potentially may need to develop reporting systems for generating | Development of Guidance Material to make it clear that scheme participants with installations in both Great Britain and Northern Ireland can (and should) use a single user account to manage participation in both schemes. Guidance should also confirm that participants with multiple installations can only have payments made to a single bank account. | Training for internal contact team and RHI Operational team. |
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| Account. This will ensure scheme spending is clearly distinguishable between the GB and NI schemes, assisting in reporting and accountability for DECC and DETI. | separate payment reports for each of the schemes. | The existing business rule will need to be amended to select the appropriate declaration from a specific set of Northern Ireland declarations. | Northern Ireland declarations will need to be developed based on NI RHI scheme needs, terms and conditions. Legal advice will need to be sought to ensure these declarations are suitable for use in the NI RHI scheme. | N/A |

The final stage of the accreditation process requires the applicant to sign and submit a declaration, which is selected by the system based on the technology of the installation, and includes the terms and conditions of the scheme and agreement to any ongoing obligations. The NI scheme will require an amended set of declarations specifically addressing the needs and obligations of participants under the NI RHI. The system will need to be amended to select NI specific declarations based on the information provided during the accreditation application process.

**Inclusion of ASHPS:**
ASHPs are not an eligible technology under the current RHI scheme, however DETI have proposed to include them from the commencement of the NI RHI. This will involve not only adding them to the list of eligible technologies within the accreditation process, but also further development work to determine whether further information will be required about ASHP installations. If there is a requirement for further information, addition of ASHPs to eligible technologies list. It will be necessary to establish which scheme is being applied for (RHI/NI RHI probably based on installation address) and only allow the option of ASHPs for participants of the NI RHI.

Guidance material will need to be developed to address the specific needs and requirements of ASHPs. There will be further development work necessary to ensure the appropriate tariff rates and metering arrangements are in place.

It may be necessary to develop additional processes for checking ASHP accreditation applications, possibly classifying all ASHP installations as ‘intense’ applications so that closer scrutiny and more senior approvals are required.
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| additional questions will need to be added to the accreditation process to meet data requirements. It may also be necessary to develop a more rigorous assessment process with senior level approvals required. | place for ASHPs. |
### Table 1.3: Changes to be made to Periodic Information Capture:

<table>
<thead>
<tr>
<th>Issue</th>
<th>IT System Changes</th>
<th>Development Changes</th>
<th>Operational Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support payments under the NI RHI will be based on a scheme specific tariff look-up table. This will be a change to the back-end of the system and will not impact on the user-side. This change will have a resourcing impact in terms of IT system development.</td>
<td>Back-end change to the system so that all NI RHI support payments are calculated based on a different tariff look-up table.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>The system for prompting and generating declarations would require a change at the back end. At present the appropriate declaration is selected by a business rule that determines the appropriate declaration based on the technology of the installation. This business rule will need to be amended to select from a Northern Ireland set of declarations to meet the specific needs of the NI RHI.</td>
<td>Amend the business rule that selects the appropriate declaration to select from a NI specific set.</td>
<td>Declarations will be developed as part of the accreditation process with appropriate legal advice sought.</td>
<td>N/A</td>
</tr>
<tr>
<td>If there are additional sustainability reporting requirements requested by DETI either for specific technologies and/or the Heavy Industrial sector, these requirements will have to be assessed separately to determine</td>
<td>TBA – Pending provision of further detail from DETI</td>
<td>TBA – Pending provision of further detail from DETI</td>
<td>TBA – Pending provision of further detail from DETI</td>
</tr>
<tr>
<td>The resourcing implications.</td>
<td>TBA – Pending provision of further detail from DETI</td>
<td>Development work will be necessary to determine the most appropriate mechanism for monitoring ASHP metering and the reliability of this data. This potentially may include additional reporting requirements and a bespoke declaration for ASHPs.</td>
<td></td>
</tr>
<tr>
<td>The inclusion of ASHPs will require further development work to determine the most appropriate mechanisms for addressing the issues around metering and reliability of metering data. This may include additional reporting requirements for ASHPs and a bespoke declaration.</td>
<td>TBA – Pending provision of further detail from DETI</td>
<td>Development work will be necessary to determine the most appropriate mechanism for monitoring ASHP metering and the reliability of this data. This potentially may include additional reporting requirements and a bespoke declaration for ASHPs.</td>
<td></td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Table 1.4: Changes to be made to Enquiries Processes:

<table>
<thead>
<tr>
<th>Issue</th>
<th>IT System Changes</th>
<th>Development Changes</th>
<th>Operational Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>The internal contact team will require additional training specifically on the NI RHI and how it differs from the GB RHI.</td>
<td>N/A</td>
<td>Development of business processes for directing NI RHI enquiries.</td>
<td>Training required for internal contact team in directing calls appropriately based on scheme differences.</td>
</tr>
<tr>
<td>Call scripts and guidance material will need to be provided specific to the NI RHI so that this team can respond to enquiries from potential and existing scheme participants.</td>
<td>N/A</td>
<td>Development of Guidance material and call scripts specific to the NI RHI to support the internal contact team in responding to team enquiries.</td>
<td>Training required for internal contact team.</td>
</tr>
<tr>
<td>The CRM system itself should not require any complex changes to meet the needs of the NI RHI; however it will be necessary to provide the additional resources to manage call volumes, development of support materials and training related to the NI RHI.</td>
<td>N/A</td>
<td>Development of training and support materials.</td>
<td>Managing call volumes and monitoring resourcing needs.</td>
</tr>
<tr>
<td>Part of the current GB RHI process for managing enquiries involves complex enquiries being escalated to a member of the Operations Team with specific expertise in the area the enquiry relates to. Under the NI RHI it will be necessary to ensure the appropriate training and expertise exists within the Operations.</td>
<td>N/A</td>
<td>N/A</td>
<td>Potential recruitment of a NI RHI Specialist staff member for the RHI Operations team to respond to complex enquiries and manage any specific NI RHI requirements.</td>
</tr>
</tbody>
</table>
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Team to handle NI specific enquiries at this level.
Table 1.2: Changes to be made to Accreditation of Heavy Industrial Installations:

<table>
<thead>
<tr>
<th>Issue</th>
<th>IT System Changes</th>
<th>Development Changes</th>
<th>Operational Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>There will need to be a mechanism for flagging the 17 sites identified as Heavy Industrial as ineligible so that they can’t enter the scheme without DETI’s consent. The most robust solution would involve finding a simple solution within the system for invalidating an accreditation application from these sites, and supplementing this with manual checks. A potential option for a systems solution might be if each of the 17 sites nominated is a single factory or industrial entity large enough to be the sole occupant of a postcode, we can simply amend our system (which currently uses this mechanism to prevent any installations at Northern Ireland postcodes from entering the scheme) to flag sites at these 17 postcodes as ineligible for scheme entry. If these sites are not the sole occupants of a postcode, we may be able to use information such as business names or addresses to achieve a similar outcome. We will also require manual checks on all applications as part of the assessment process to ensure none of the 17 sites applies for</td>
<td>Changing the current settings so that the specific postcodes/addresses/business names of the 17 Heavy Industrial sites are flagged in the system and prevented from applying for accreditation. OR No change if this option does not prove viable/cost effective.</td>
<td>Guidance material will need to be developed for the 17 Heavy Industrial sites (possibly forming an Annex to the current Guidance Document) to explain the process for applying, why they cannot apply without DETI’s approval, and how they go about applying once they have received approval. AND/OR Development of declarations to include a list of the 17 sites and a clause confirming that scheme participants are not one of those sites.</td>
<td>A process for manual checks on all accreditation applications for the NI RHI will need to be implemented to ensure none of the 17 identified sites receives accreditation without DETI’s consent.</td>
</tr>
</tbody>
</table>
We would also prevent these sites from accreditation without DETI’s consent by including in the declarations for Northern Ireland participants a clause declaring that their installation is not at one of the 17 identified sites. As the declarations are a legal contract agreeing to the scheme’s terms and conditions, should any sites agree to this erroneously, their participation in the scheme would be fraudulent and appropriate sanctions can be laid. The appropriate mechanism for Heavy Industrial scheme entry will be detailed in guidance material that will need to be developed for the NI RHI, possibly forming an Annex to the existing RHI Guidance Document to address the specific needs of the NI Heavy Industrial Sector.

<table>
<thead>
<tr>
<th>Scheme entry.</th>
<th>Approval agreeing to adhere to the terms and conditions of the broader scheme and any additional conditions imposed by DETI in the letter of approval.</th>
</tr>
</thead>
</table>

Once approval has been granted by DETI it will be necessary to ensure that the Heavy Industrial Sites approved can then access the online accreditation application system. Once DETI has issued a letter approving the site’s eligibility the Ofgem RHI Operations team (having received a duplicate letter) will then be able to amend the system to allow this site to apply for accreditation, and populate the custom tariff rate specific to this site in the tariff look-up table in the back-end of the system.

- Ensure the Operations team/IT support has the ability to remove individual site data from being flagged as ineligible once this site has been granted approval.
- It may be necessary to include a clause in the Guidance material to notify these sites that they cannot apply using the online accreditation system until two business days after their letter of approval has been issued to allow for the appropriate changes to be made in the system.

- Manual process for amending the IT system to remove the details used to block these participants (postcode, address, business name) once a duplicate letter from DETI is received confirming that they have been approved for scheme participation. This will also involve
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

the system. Once this process has been completed, scheme entry can proceed as for any other application, being assessed by the Ofgem RHI Operations Team on any specific conditions and eligibility criteria DETI may set. This will require additional resources, and potentially the need to train a specific member/s of the team to manage NI applications, especially Heavy Industrial applications. It may also be necessary to require more senior level sign-off for all Heavy Industrial applications to ensure an appropriate level of oversight of these participants.

If they wish to apply sooner than this they can contact the enquiries team who can escalate the request, and make the appropriate systems changes once confirmation is received from DETI.

populating the custom tariff field to ensure support payments are correctly calculated.

All Heavy Industrial sites receiving accreditation will require a more senior level of approval before accreditation can be granted.
Resource Requirement Breakdown:

Development Phase

Development Resource Requirements

Additional staffing resources will be required to take responsibility for the following development needs:

- Development of new information screen content (Template 27) specific to NI RHI OR Amendment of existing content to include NI information so it remains applicable to both schemes.
- During the development phase it will be necessary to confirm that the current ID checking contract for the RHI can also be used to accommodate the needs of the NI RHI. Additional costs may be involved.
- Development of Guidance Material to make it clear that scheme participants with installations in both Great Britain and Northern Ireland can (and should) use a single user account to manage participation in both schemes. Guidance should also confirm that participants with multiple installations can only have payments made to a single bank account.
- Northern Ireland specific declarations will need to be developed based on NI RHI scheme needs, terms and conditions. Legal advice will need to be sought to ensure these declarations are suitable for use in the NI RHI scheme.
- Guidance material will need to be developed to address the specific needs and requirements of ASHPs.
- Development work will be necessary to determine the most appropriate mechanism for monitoring ASHP metering and the reliability of this data. This potentially may include additional reporting requirements and a bespoke declaration for ASHPs.
- There will be further development work necessary to ensure the appropriate tariff rates and metering arrangements are in place for ASHPs.
- Guidance material will need to be developed for the 17 Heavy Industrial sites (possibly forming an Annex to the current Guidance Document) to explain the process for applying, why they cannot apply without DETI’s approval, and how they go about applying once they have received approval. AND/OR Development of declarations to include a list of the 17 sites and a clause confirming that scheme participants are not one of those sites.
- Development of a Heavy Industrial specific declaration for sites that do receive DETI’s approval agreeing to adhere to the terms and conditions of the broader scheme and any additional conditions imposed by DETI in the letter of approval.
- It may be necessary to include a clause in the Guidance material to notify these sites that they cannot apply using the online accreditation system until two business days after their letter of approval has been issued to allow for the appropriate changes to be made in the system. If they wish to apply sooner than this they can contact the enquiries team who can escalate the request, and make the appropriate systems changes once confirmation is received from DETI.
- Development of business processes for directing NI RHI enquiries.
- Development of Guidance material and call scripts specific to the NI RHI to support the internal contact team in responding to team queries.
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Legal Resource Requirements

• Development of Agency Services Agreement, working with NIAUR; and
• Revision of existing contractual arrangements re: onsite auditing and ID verification.

Ongoing Operational Resources

Operational Human Resource Requirements

Additional Operational staffing resources will be required to meet the following operational needs:

• It may be necessary to develop additional processes for checking ASHP accreditation applications, possibly classifying all ASHP installations as ‘intense’ applications so that closer scrutiny and more senior approvals are required.
• A process for manual checks on all accreditation applications for the NI RHI will need to be implemented to ensure none of the 17 identified sites receives accreditation without DETI’s consent.
• Manual process/SOP for amending the IT system to remove the details used to block Heavy Industrial participants (postcode, address, business name) once a duplicate letter from DETI is received confirming that they have been approved for scheme participation. This will also involve populating the custom tariff field to ensure support payments are correctly calculated.
• SOP to address the needs of Heavy Industrial sites receiving accreditation to ensure that they will require a more senior level of approval before accreditation can be granted.
• Training required for internal contact team in directing calls appropriately based on scheme differences.
• Training required for internal contact team in NI RHI call scripts and guidance once these have been developed.
Appendix 3 – High Level Process Maps

The figure below details the process required to administer the NI RHI scheme:

RHI End to End Process

Customer

Energy Org offers Heat to Customer

Customer evaluates heat for site

Customer installs renewable heat system

Customer receives Payment

End

MCS or Biomass equivalent Installer/Supplier

Installation completed and installed

Customer receives Payment

MCS or Biomass equivalent or Installer/Supplier

Installation completed and installed

Fuel checked for Biomass content

End

MCS

Customer contacts Ofgem

Payment Process

Assessment & Review Process

Final Warning

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Appeal

Customer contacts Ofgem

Ofgem Assessment & Review Process

End

Payments ceased

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?

No

Yes

Payments reinstated

Customer contacted

Accreditation withdrawn

Customer excluded

Final Warning

Periodic data ok?

No

Yes

Periodic data ok?

No

Yes

No

Yes

Yes

No

Yes

Appeal successful?

No

Yes

Appeal successful?
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Accreditation (Excludes Heavy Industrial Sector installations)

Start

Customer

Contacts Ofgem to register for accreditation

Contacts Ofgem to supply additional information

Customer notified that further information is required

Customer notified that registration has failed

Submit Personal/Organisation Information

Provides Installation/Technology information

Ofgem

Provides Personal/Organisation Information

Has all information been supplied?

Yes

No

Assessment & Review

Has applicant met checks?

Yes

No

Accreditation complete

End

Continue with registration?

Yes

No

Customer notified that registration has failed

Customer notified that further information is required

End
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)
Appendix 4 – IT Options

Requirements

12.4.  This section includes the ‘Stakeholder Requests’, ‘Features’ and ‘Non-Functional Requirements’ of the system. ‘Stakeholder requests’, ‘features’ and ‘non-functional requirements’ are different types of requirements. They are derived from discussions held with the business to understand the business processes.

12.5.  The purpose of listing requirements: ‘Stakeholder requests’ are baseline requirements. ‘Features’ and ‘Non-functional requirements’ are system qualities which help meet the stakeholder requests. Each feature maps to one or more stakeholder request(s).

12.6.  A combination of features can be used to derive various IT implementation options to meet the business requirements.

12.7.  Each feature will have a resource and cost estimation against it, which will decide the total resource and cost estimate for every IT implementation option proposed.

Stakeholder Requests

12.8.  Stakeholder requests come directly from the stakeholder (user or customers) and describe the high level “needs” of the stakeholder. The list below only includes stakeholder requests that the stakeholders have deemed could potentially be met by an IT solution. The priority assigned to a stakeholder request reflects how important the requirement is to the stakeholder and not the priority of having a system solution in place.

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRQ1: Introduce the Northern Ireland Renewable Heat Incentive Scheme</td>
<td>High</td>
</tr>
</tbody>
</table>

In order to meet the Northern Ireland Executive agreed target of 10% renewable heat by 2020, compared to 1.7% today, DETI have recommend the introduction of a “Northern Ireland Renewable Heat incentive”. |
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<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STRQ2: Provide an incentive similar to the GB RHI Scheme</strong></td>
<td>High</td>
</tr>
<tr>
<td>In order to save on the administration and the development costs for the NI RHI scheme, DETI want the NI RHI scheme aligned to the RHI scheme as much as possible.</td>
<td></td>
</tr>
<tr>
<td><strong>STRQ3: Provide a custom incentive for heavy industrial sector installations</strong></td>
<td>High</td>
</tr>
<tr>
<td>In order for Northern Ireland to achieve the target set for renewable heat by 2020, there is significant potential for high industrial sector to support this achievement as they account for 22% of the overall heat demand in Northern Ireland. The specific nature of heavy industrial sites means that the costs of switching to renewable heat will vary on a site by site basis. Therefore subject to meeting eligibility requirements, the heavy industrial site will be allocated custom tariff proposed by DETI.</td>
<td></td>
</tr>
<tr>
<td><strong>STRQ4: Provide a central repository of the NI RHI Scheme</strong></td>
<td>High</td>
</tr>
<tr>
<td>Provide a central repository which stores information of all members and installations that participate in or receive payments from the RHI scheme. This will allow Ofgem to administer this scheme in an effective manner. The information collected will include but is not limited to: o number and type of installations; o cost of installation; o amount of heat generated; o source of heating that owners of heating equipment are switching from and to o demographic information - country, region, urban/rural, etc. o documentary evidence o details of payments made</td>
<td></td>
</tr>
<tr>
<td><strong>STRQ5: User Management</strong></td>
<td>High</td>
</tr>
<tr>
<td>Provide the ability for those who wish to participate to gain access to the RHI scheme website and ensure that internal staff and external stakeholders can only perform processes or access information that is appropriate to their role.</td>
<td></td>
</tr>
<tr>
<td><strong>STRQ6: Manage participant accreditation and registration</strong></td>
<td>High</td>
</tr>
<tr>
<td>Provide the ability for a participant and their installation to be accredited and registered to the RHI Scheme.</td>
<td></td>
</tr>
<tr>
<td><strong>STRQ7: Facilitate the Assessment &amp; Review process</strong></td>
<td>Medium</td>
</tr>
<tr>
<td>In order to detect fraud and non-compliance to the scheme, there is a need to check and authorise any information received from the Participant before any payments are made.</td>
<td></td>
</tr>
<tr>
<td><strong>STRQ8: Provide the ability to manage tariff rates</strong></td>
<td>High</td>
</tr>
<tr>
<td>Tariffs are updated on a regular basis by DETI to keep it in line with inflation and any other monetary factor. For this reason, there is a need to manage tariff rates received from DETI on a periodic basis.</td>
<td></td>
</tr>
</tbody>
</table>
**Requirements**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRQ9: Provide the facility to supply periodic information</td>
<td></td>
</tr>
<tr>
<td><em>Provide the ability for participants to submit information such as heat output, meter readings, fuel information and sustainability reports to Ofgem on a periodic basis. Some of this information is required to determine how much the Participant is paid.</em></td>
<td></td>
</tr>
<tr>
<td>STRQ10: Provide the ability to manage payments</td>
<td></td>
</tr>
<tr>
<td><em>For all accredited installations, Ofgem is required to make quarterly payments for the heat output generated. Therefore, there is a need to calculate, track, adjust and approve payments for the NI RHI scheme.</em></td>
<td></td>
</tr>
<tr>
<td>STRQ11: Provide RHI reporting</td>
<td></td>
</tr>
<tr>
<td><em>In order to meet the statutory reporting obligations and monitor the trend analysis over a period of time, there is a need to report on all aspects of the NI RHI scheme.</em></td>
<td></td>
</tr>
<tr>
<td>STRQ12: Customer Relationship management</td>
<td></td>
</tr>
<tr>
<td><em>In order to manage the customer interactions effectively and improve the customer service, we require account and installation specific data to be extracted on a regular basis.</em></td>
<td></td>
</tr>
</tbody>
</table>

**Features**

12.9. A ‘Feature’ describes an IT system feature that will fulfil one or more stakeholder needs / requests. Features are traced to one or more stakeholder requests. Full traceability of how a feature relates to the Stakeholder requests is shown in the ‘Traced-to’ column in the table listing features.

12.10. The table below lists all the system features identified:

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER MANAGEMENT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT2: User management</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ5</td>
</tr>
<tr>
<td><em>The solution should have all the user management functionalities currently in place for the GB RHI system.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>It should have the provision to create internal and external user accounts on the system. The system should manage usernames, password, access permissions and enforce secure authentication.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT2.1: Account creation</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ5</td>
</tr>
<tr>
<td><em>The solution should allow NI RHI interested parties to register as a participant and manage their account.</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT2.2: Login as proxy</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ5</td>
</tr>
<tr>
<td><em>The solution should allow internal user to login as an external user to carry out a task on behalf of a registered external user. In this case, the internal user will inherit the permissions of the external organisation user that they are logged in as.</em></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Requirements

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT3: Single account for GB and NI RHI scheme</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ5</td>
</tr>
<tr>
<td><strong>The solution should allow participants wishing to apply for NI RHI and GB RHI scheme to register using one RHI account.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACCREDITATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT4: Manage tariff rates</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ8</td>
</tr>
<tr>
<td><strong>The solution should assign tariff band to installations based on relevant business rules. Each tariff band will vary based on the technology, heat generation capacity and the date of accreditation.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Once a tariff banding is assigned to an installation it stays with it for the life of the installation as long as there are no changes to the installation, but the tariff rate could change. The system should store a historical record of tariff rates, recording the date for which they apply.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Within the RHI scheme, installations with the same technology, heat generation capacity and the date of accreditation registered under the GB and NI sub-scheme would potentially have two different tariff bands.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FEAT4.1: Two tier tariff</strong></td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ8</td>
</tr>
<tr>
<td>The solution should apply two tier tariff for small and medium scale biomass installations. For all heat generated up to a certain threshold within a year will receive a higher tariff, remaining heat generated in the year would only receive a lower tariff.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT5: Manage accreditation</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ6</td>
</tr>
<tr>
<td><strong>The solution should allow users to apply for full or preliminary accreditation of their installations. For this purpose, the system should collect the following information such as technology, installation details, energy efficiency details and meter details.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The system should allow users to make changes to the accreditation applications, apply for additional capacity subject to business rules.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FEAT5.1: Accreditation of installations of all scales</strong></td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ6</td>
</tr>
<tr>
<td>The majority of participants with a small or medium heat generating capacity will gain certification directly through MCS or an equivalent standard. The solution should allow the participant to update these details as part of the accreditation application.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In instances where an installation is certified by an MCS equivalent installer or where DETI wants to include technology that is not certified by MCS, the solution should be able to cater for the accreditation of small generators that fall into those categories.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For large scale installations, the solution should allow users to enter the relevant details such as technology, installation details, energy efficiency details and meter details as part of their accreditation application.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FEAT5.2: Accreditation of fuelled installations</strong></td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ6</td>
</tr>
<tr>
<td>The solution should allow users of fuelled installations to enter details onto the system relating to their fuel source, sustainability and usage.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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#### Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT5.3: Preliminary accreditation</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ4, STRQ6</td>
</tr>
<tr>
<td>The solution should allow installations over 1 MWth in capacity, but not planned for commissioning within the next two months to apply for preliminary accreditation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT10: Declarations</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ6</td>
</tr>
<tr>
<td>The solution should enforce participants to sign declarations at key stages of the processes to ensure that the information they have provided is correct and accurate, they remain eligible for the scheme and agree to meet their obligations. Two key declarations are the annual declaration and the declaration signed at the accreditation application stage.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT10.1: View declarations</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ6</td>
</tr>
<tr>
<td>The solution should allow users to view existing declarations that have been agreed by the participant.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PERIODIC INFORMATION

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT6: Fuel Measurement and Sampling information</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ6</td>
</tr>
<tr>
<td>The solution should allow participant to upload fuel measurement questionnaire for eligible installations once an accreditation application has been submitted for an installation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>These are primarily for Bio-energy installations, for which the participant would submit fuel mix details in the questionnaire. This is required whenever the participant changes the fuel mix for their installation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT7: Manage periodic information</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should provide a facility for all participants to submit periodic information related to heat generated, meter readings. It should allow fuelled installations to submit detailed information of all fuels used, their source and sustainability information.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT7.1: Changes to periodic information</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should allow users to make changes to the periodic information submitted for past periods, subject to business rules.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT7.2: View periodic information history</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should allow both internal and external users to view history of all the periodic information submitted by the participant for each installation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT7.3: Manage fuels</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should allow users to create fuels. Once created, periodic information on these fuels will be provided by the participants. Subject to business rules, the solution should allow participant to change or delete these fuels.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT7.4: Unique submission window</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should define the submission window for all installations depending on their date of accreditation. All installations will be required to submit their periodic data on a quarterly basis.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PAYMENTS

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

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Annotated by RHI Inquiry
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT8: Manage payments</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should calculate payments based on eligible heat generated by each installation and the associated tariff band of the installation. The eligible heat output generated by each installation is calculated based on periodic information provided by the participant. It should also allow internal users to maintain payment notes associated to each individual installation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT8.1: Extract account details</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should provide an extract of all the accounts registered on the system based on a pre-defined schedule. Currently such an extract is currently done for all the GB RHI accounts. This information will then be fed into the SUN system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT8.2: Extract payment details</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should provide an extract of all the approved payments of NI RHI installations on a pre-defined schedule. Currently such an extract is currently done for all the GB RHI installations. This information will then be fed into the SUN system.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT8.3: Ad-hoc payment</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ9</td>
</tr>
<tr>
<td>The solution should allow internal users to create new payment instructions in the event of any underpayment scenario.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ACCREDITATION / PERIODIC INFORMATION / PAYMENTS

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT9: Assessment and review</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
<tr>
<td>The solution should facilitate pre-defined checks and balances on the data in the central register to enforce compliance and fraud prevention.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT9.1: Tolerance checks</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
<tr>
<td>The solution should be able to enforce business rules to ensure compliance and provide the ability to perform assessment checks throughout each process, for example, at accreditation, when periodic information or declarations are provided and before payments are made.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For example, ensuring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- The address of the applicant / installation is unique</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Accreditation date is not before the installation date</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Valid Declarations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Meter compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Fuel compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Installation compliance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Participant not disqualified or suspended from RHI scheme</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Checks for internal fraud</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The solution should flag these failed tolerance checks during the review processes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT9.2: Review accreditation applications</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
<tr>
<td>The system should provide a facility to the internal users to review all new accreditation applications and changes to any existing accreditation applications.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FEAT9.3: Review periodic information</td>
<td>Medium</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
<tr>
<td>The system should provide a facility to the internal users to review all new and changes to any existing periodic information.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Requirements

<table>
<thead>
<tr>
<th>FEAT9.4: Review fuel measurement and sampling information</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system should provide a facility to the internal users to review all new and changes to any existing periodic information.</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT9.5: Review fuels</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system should provide a facility to the internal users to review all new and changes to fuels.</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT9.6: Review payments</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The system should provide a facility to the internal users to review all payments that need to be made to the participant.</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT9.7: Review workflow</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The solution should include workflow functionality to automate the assessment and review process. The following functionality is required:</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
<tr>
<td>- Ability to change the status of the account, installation, accreditation, periodic information or payment based on review outcomes</td>
<td>STRQ5, STRQ6, STRQ7, STRQ9, STRQ10</td>
</tr>
<tr>
<td>- Notifications</td>
<td>STRQ5, STRQ6, STRQ7, STRQ9, STRQ10</td>
</tr>
<tr>
<td>- Ability to assign cases to an individual / team</td>
<td>STRQ5, STRQ6, STRQ7, STRQ9, STRQ10</td>
</tr>
<tr>
<td>- Ability to add notes to the system relating to an account or installation</td>
<td>STRQ5, STRQ6, STRQ7, STRQ9, STRQ10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT9.8: Filtering installations by scheme</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The solution should allow internal users to filter installation by scheme when reviewing accreditation application, periodic information and payments.</td>
<td>STRQ1, STRQ2, STRQ4, STRQ7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT11: Generate letters and e-mail notifications</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The solution must generate letters and e-mail notifications at different stages of the RHI lifecycle of an installation. For example: the accreditation acceptance letter informing the participant that the installation is RHI accredited.</td>
<td>STRQ1, STRQ2, STRQ5, STRQ6, STRQ7, STRQ9, STRQ10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT12: Upload documents</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The solution must allow the internal and the external users to upload pdf documents to the system throughout the RHI lifecycle. For example: company authorisation letter during account creation, schematic diagram of the installation during accreditation application.</td>
<td>STRQ1, STRQ2, STRQ5, STRQ6, STRQ9, STRQ10</td>
</tr>
</tbody>
</table>

### GENERIC FUNCTIONALITIES

<table>
<thead>
<tr>
<th>FEAT13: Reporting</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>The solution should provide excel views on key RHI information to meet the statutory obligations and analysing trends.</td>
<td>STRQ1, STRQ2, STRQ11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT14: CRM</th>
<th>Critical</th>
</tr>
</thead>
<tbody>
<tr>
<td>In aid of the effective functioning of the CRM system (CRM system sits outside of the proposed solution), the solution should provide daily extract of the RHI accounts and the installations registered within the system.</td>
<td>STRQ1, STRQ2, STRQ12</td>
</tr>
</tbody>
</table>

Currently, this is extracted for the GB RHI scheme.
### Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Priority</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FEAT15: Inclusion of ASHP technology</strong>&lt;br&gt;The solution should allow participants having installations using ASHP technology to participate in the RHI Scheme. This includes managing accreditation, declarations, tariff assignment, periodic data submission and payments management.&lt;br&gt;This technology does not currently qualify for the GB RHI scheme.</td>
<td>Critical</td>
<td>STRQ1, STRQ2</td>
</tr>
<tr>
<td><strong>FEAT16: Inclusion of heavy industrial sector installations</strong>&lt;br&gt;The solution should allow heavy industrial sector installation to register account, apply and manage accreditation, accept declaration and manage periodic data throughout the life of the RHI scheme.</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ5, STRQ6, STRQ7, STRQ8, STRQ9, STRQ10, STRQ11, STRQ12</td>
</tr>
<tr>
<td><strong>FEAT16.1: Accreditation of heavy industrial sector installations</strong>&lt;br&gt;The solution should cater for the accreditation of heavy industrial sector installations, by requesting for additional information like the DETI approval letter during the accreditation application process.</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ5, STRQ6, STRQ7, STRQ8, STRQ9, STRQ10, STRQ11, STRQ12</td>
</tr>
<tr>
<td><strong>FEAT16.2: Custom tariff for heavy industrial sector installations</strong>&lt;br&gt;The solution should allow custom tariff to be set for heavy industrial sector installations. This tariff will be provided by DETI on a case by case basis.</td>
<td>Critical</td>
<td>STRQ1, STRQ2, STRQ3, STRQ5, STRQ6, STRQ7, STRQ8, STRQ9, STRQ10, STRQ11, STRQ12</td>
</tr>
<tr>
<td><strong>FEAT17: Branding</strong>&lt;br&gt;The solution should display NI and the GB scheme on all display pages and templates throughout the system.</td>
<td>Medium</td>
<td>STRQ1, STRQ2</td>
</tr>
</tbody>
</table>
Non-functional Requirements

12.11. Non-functional requirements include the "ilities": Functionality, Usability, Reliability, Performance and Support features for a system.

12.12. The table below lists the non-functional requirements (supplementary requirements):

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPL1: Security</td>
<td>Critical</td>
</tr>
<tr>
<td>The solution should provide a secure interface and storage solution to provide for the exchange and storage of sensitive data which includes identifying information such as household level names and addresses.</td>
<td></td>
</tr>
<tr>
<td>The solution must be password protected within the Ofgem security perimeter and accessible only to those with a secure login id.</td>
<td></td>
</tr>
<tr>
<td>User sessions must be protected.</td>
<td></td>
</tr>
<tr>
<td>Query strings in URL’s should be protected for the external site</td>
<td></td>
</tr>
<tr>
<td>Information specified as sensitive must be encrypted to protect against theft.</td>
<td></td>
</tr>
<tr>
<td>SSL certificates must be employed to protect data while it is being transferred to and from the site via user access and any web service access.</td>
<td></td>
</tr>
<tr>
<td>The security framework must comply with the government’s information classification level policy. The customer information held for the RHI scheme will be classed as ‘restricted’ due to the volume of customers expected to participate in the scheme. If the number of participants increases to around 2 million, the data classification level will need to go up to ‘confidential’.</td>
<td></td>
</tr>
<tr>
<td>SUPL2: Auditing</td>
<td>Critical</td>
</tr>
<tr>
<td>Ability to track and maintain a history of all data related changes that have been performed on the system.</td>
<td></td>
</tr>
<tr>
<td>SUPL3: Flexible</td>
<td>Critical</td>
</tr>
<tr>
<td>The application must be sufficiently flexible to provide for changes in regulation and relating to technologies covered, tariff and banding.</td>
<td></td>
</tr>
<tr>
<td>SUPL4: User access</td>
<td>Medium</td>
</tr>
<tr>
<td>The solution should provide a robust and secure user management facility to safely administer multi level access and permissions to both internal and external users of the system.</td>
<td></td>
</tr>
<tr>
<td>Access to the system administration functions must be strictly controlled.</td>
<td></td>
</tr>
<tr>
<td>The user must be uniquely identified and authenticated when using one of the Administrator accounts.</td>
<td></td>
</tr>
<tr>
<td>Access to system utilities and privileged functions must be restricted to the appropriate system administrator.</td>
<td></td>
</tr>
</tbody>
</table>
# Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

## Requirements

<table>
<thead>
<tr>
<th><strong>SUPL5: Backup and recovery</strong></th>
<th><strong>Priority</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The system is business critical and therefore should be categorised as Tier 1 within the IT Disaster Recovery Plan. All Tier 1 systems are recovered within 3 hours of 8 hour recovery period from the time of incident. This may increase by adding extra systems to the tier. Individual system recovery time will need to be confirmed at ISSG. All data must be backed up daily and transactional data must be backed up every hour so that no more than one hour’s worth of data can be lost in the event of a system error. Back up data needs to be stored for seven years for auditing purposes in line with standard backup procedure.</td>
<td>Critical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SUPL6: Accessibility</strong></th>
<th><strong>Priority</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ofgem should work towards making the RHI system W3C AA compliant as this is to be an externally facing application available to non-domestic organisations.</td>
<td>High</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SUPL7: Scalability</strong></th>
<th><strong>Priority</strong></th>
</tr>
</thead>
</table>
| The RHI scheme intends to increase the number of renewable heat installations over a period which has initially been set to 20 years. The system should cater for projected data volumes which by the end of the scheme, is estimated to be around 1.8 million users. The solution must scale to meet the proposed transaction growth for Non-domestic users as projected below:  
- 98 users in 2011  
- 265 users in 2012  
- 515 users in 2013  
- 874 users in 2014 etc  
and over the lifetime of the scheme. The solution must have the capacity for expansion to cater for additional numbers of households. | Critical |

<table>
<thead>
<tr>
<th><strong>SUPL8: Volumetrics</strong></th>
<th><strong>Priority</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal access to the NI RHI system is required for 1- 2 internal Scheme Administrators and 1 - 2 Customer Management Administrators. The solution must also be able to handle a high turnover of staff.</td>
<td>Critical</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>SUPL9: IT Strategy</strong></th>
<th><strong>Priority</strong></th>
</tr>
</thead>
</table>
| The solution must comply, where applicable, with the following Ofgem policies:  
- Ofgem IT Strategy  
- Ofgem IT Business Application Strategy  
### Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUPL10: Usability</strong></td>
<td>Critical</td>
</tr>
</tbody>
</table>
| The system must be intuitive and easy to use by users from different demographics.  
All screens including portal design, user interface and menu structure must adhere to the Systems Architecture Style Guide to ensure a consistent look and feel. |  |
| **SUPL10.1: Error messages** | Medium |
| User friendly custom error pages must be created and displayed for database errors and unhandled exceptions |  |
| **SUPL11: Online help** | High |
| It must be possible to hover over specific terms or areas of the screen and display a pop up box with help guidance. |  |
| **SUPL12: Availability** | Critical |
| The system should be available 24 hours a day for every day of the year except for planned system downtime. If the system needs to be taken down, notification will need to be provided to internal users 48 hours in advance except in cases of emergency. |  |
| Users must be able to access the system without disruption 99.95% of the time during production hours (8am till 8pm Monday - Saturday excluding bank holidays) |  |
| **SUPL13: Support** | Critical |
| IT support for the system will be required from 8am till 8pm Monday - Saturday except bank holidays. |  |
| **SUPL14: Data retention** | Critical |
| All data, documents, emails and audit histories must be retained throughout the lifetime of the scheme and for seven years after the completion of the scheme. |  |
| **SUPL15: E-mails** | High |
| The system must be able to identify any emails that have not been successfully sent due to an internal system failure and a technical support staff should attempt to resend the email or raise an incident for an IT administrator to resolve. |  |
| - All outgoing emails should be blind copied (BCC) to an internal Ofgem mail box for traceability and external query handling |  |
| **SUPL16: Data protection act** | Critical |
| The system must comply with Data Protection policy. |  |
| **SUPL17: Error messages** | Medium |
| Any occurrence of an error within the system must be logged in case Ofgem IT need to view a history of all the errors to analyse a system problem. |  |
| **SUPL18: Compatibility** | Critical |
| The RHI system must be compatible with the following browsers:  
- Firefox 3 or higher  
- Internet Explorer 7 or higher  
- Google Chrome 6 or higher  
- Opera  
- Safari |  |
<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUPL19: Session management</strong></td>
<td>Medium</td>
</tr>
<tr>
<td>Any system activity should time out if left idle for 20 minutes. The current state of the page at the point of time out will not be saved. For an accreditation application, data should be saved only if a user has clicked ‘save’ or ‘next’ before the session timed out.</td>
<td></td>
</tr>
<tr>
<td><strong>SUPL20: Site navigation</strong></td>
<td>Critical</td>
</tr>
<tr>
<td>Security Trimming - A page should not be accessible to a user if they do not have the required level of access. URL Access - users should not be able to navigate to a URL if they do not have the required level of access.</td>
<td></td>
</tr>
<tr>
<td><strong>SUPL21: Configurability</strong></td>
<td>Medium</td>
</tr>
<tr>
<td>Where appropriate, the system should be flexible and allow key parameters to be configurable. Site menu should be configurable to allow items to be turned off/on by IT service desk at the request of the business. Request for such changes from the business should follow change control procedure. (This should be included in SLA document)</td>
<td></td>
</tr>
<tr>
<td><strong>SUPL22: Performance</strong></td>
<td>Medium</td>
</tr>
<tr>
<td>Where appropriate, the RHI system should be flexible and allow key parameters to be configurable. Site menu should be configurable to allow items to be turned off/on by IT service desk at the request of the business. Request for such changes from the business should follow change control procedure. (This should be included in SLA document)</td>
<td></td>
</tr>
<tr>
<td><strong>SUPL23: Data integrity</strong></td>
<td>Critical</td>
</tr>
<tr>
<td>The system database should have well defined and consistent relationships. It should not be possible to have missing information or orphaned records and relationships.</td>
<td></td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

IT Assumptions

12.13. A few ‘assumptions’ were required to envisage some system features. The table below lists the assumptions on which the requirements have been based and the system features the assumptions trace to:

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASMP1: System</strong></td>
<td>ALL FEATURES</td>
</tr>
<tr>
<td>NI RHI system will be administered by the existing Ofgem administrators for the RHI scheme. All the NI scheme administrators will be based in Ofgem.</td>
<td>ALL FEATURES</td>
</tr>
<tr>
<td><strong>ASMP 2: Scope</strong></td>
<td>ALL FEATURES</td>
</tr>
<tr>
<td>All required functionalities are explicitly stated in the Features and the Gap analysis. If any new changes are identified at a later stage, then it will have to be assessed via change management procedure.</td>
<td>ALL FEATURES</td>
</tr>
<tr>
<td><strong>ASMP 3: Deferred functionalities in GB RHI system</strong></td>
<td>ALL FEATURES</td>
</tr>
<tr>
<td>All functionalities deferred/put on hold on the current GB RHI system will not be available for the NI RHI system.</td>
<td>ALL FEATURES</td>
</tr>
<tr>
<td><strong>ASMP 4: New user roles</strong></td>
<td>FEAT 2</td>
</tr>
<tr>
<td>For the administration and running of the NI RHI scheme, the roles and permissions should remain exactly the same as the current GB RHI system roles.</td>
<td>FEAT 2</td>
</tr>
<tr>
<td><strong>ASMP 5: Authorised signatory</strong></td>
<td>FEAT 2</td>
</tr>
<tr>
<td>Authorised signatory is one per account, not one per scheme within an account.</td>
<td>FEAT 2</td>
</tr>
<tr>
<td><strong>ASMP 6: Single system</strong></td>
<td>FEAT 2</td>
</tr>
<tr>
<td>There will be a single web site that handles both NI and GB installations of the RHI scheme.</td>
<td>FEAT 2</td>
</tr>
<tr>
<td><strong>ASMP 7: GB/NI scheme identifier</strong></td>
<td>FEAT 5, FEAT 8</td>
</tr>
<tr>
<td>GB/NI scheme identifier will be stored at the installation and payment level, but not at the account level.</td>
<td>FEAT 5, FEAT 8</td>
</tr>
<tr>
<td>It will be derived by the system based on the installation address – country submitted by the participant.</td>
<td>FEAT 5, FEAT 8</td>
</tr>
</tbody>
</table>
### Assumption

#### ASMP 8: Impact assessment
Where no changes are required explicitly for NI RHI scheme, the estimates are on the assumption that there is no impact on the existing system. In the event there is a change required in the existing system, then IT will re-estimate the work involved.

#### ASMP 9: Outline use cases
As there are no major functionality changes, there will be no work required on the outline use cases.

Any new functionality deemed by the BA to require a new outline UC will have to be estimated for separately.

#### ASMP 10: Changes required for FEAT 3
Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.

#### ASMP 11: Changes required for FEAT 4
Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.

#### ASMP 12: Changes required for FEAT 5
The changes to the templates will be plain text changes and the template size not expected to increase by more than 50% of the existing size. No inclusion of conditional text has been considered.

The new accreditation question is of complexity type “simple” with a dependency on installation address.

Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.

#### ASMP 13: Changes required for FEAT 6
Functionality should work exactly like it works for the GB RHI scheme; there will be no new requirements to cater specifically for the NI installations.

#### ASMP 14: Changes required for FEAT 7
Functionality should work exactly like it works for the GB RHI scheme; there will be no new requirements to cater specifically for the NI installations.

#### ASMP 15: Changes required for FEAT 8
Functionality should work exactly like it works for the GB RHI scheme; there will be no new requirements to cater specifically for the NI installations.
### Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ASMP 16: Changes required for FEAT 9</strong></td>
<td>FEAT 9</td>
</tr>
<tr>
<td>Functionality should work exactly like it works for the GB RHI scheme; there will be no new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
<tr>
<td>FEAT 9.8 Filtering installations by scheme is not included under the basic option.</td>
<td></td>
</tr>
<tr>
<td><strong>ASMP 17: Changes required for FEAT 10</strong></td>
<td>FEAT 10</td>
</tr>
<tr>
<td>Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
<tr>
<td>The changes to the declaration templates will be plain text changes. No inclusion of conditional text has been considered.</td>
<td></td>
</tr>
<tr>
<td><strong>ASMP 18: Changes required for FEAT 11</strong></td>
<td>FEAT 11</td>
</tr>
<tr>
<td>Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
<tr>
<td>The changes to the templates will be plain text changes. No inclusion of conditional text has been considered.</td>
<td></td>
</tr>
<tr>
<td><strong>ASMP 19: Changes required for FEAT 12</strong></td>
<td>FEAT 12</td>
</tr>
<tr>
<td>It should work exactly like the GB RHI scheme; there will be no new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
<tr>
<td><strong>ASMP 20: Changes required for FEAT 13</strong></td>
<td>FEAT 13</td>
</tr>
<tr>
<td>No new reports to cater specifically for the NI RHI scheme.</td>
<td></td>
</tr>
<tr>
<td>Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
<tr>
<td><strong>ASMP 21: Changes required for FEAT 14</strong></td>
<td>FEAT 14</td>
</tr>
<tr>
<td>Functionality should work exactly like it works for the GB RHI scheme; there will be no new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
<tr>
<td>No new extracts required specifically for the NI RHI scheme.</td>
<td></td>
</tr>
<tr>
<td><strong>ASMP 22: Changes required for FEAT 15</strong></td>
<td>FEAT 15</td>
</tr>
<tr>
<td>It is assumed that the questions and the validation will be of complexity type ‘simple’. This means it has no dependency with any of the existing questions or dependencies. These new questions are non-terminating questions.</td>
<td></td>
</tr>
<tr>
<td>Apart from the listed changes in the gap analysis, there are no new</td>
<td></td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>Assumption</th>
<th>Traced to</th>
</tr>
</thead>
<tbody>
<tr>
<td>requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

**ASMP 23: Changes required for FEAT 16**
Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.

The changes to the templates will be plain text changes and the template size not expected to increase by more than 50% of the existing size. No inclusion of conditional text has been considered.

**ASMP 24: Changes required for FEAT 17**
Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.

**ASMP 25: Changes required for FEAT 2**
The changes to the templates will be plain text changes and the template size not expected to increase by more than 50% of the existing size. No inclusion of conditional text has been considered.

Apart from the listed changes in the gap analysis, there are no new requirements to cater specifically for the NI installations.
12.14. This section documents the variance between the existing GB RHI system and the requirements for the NI RHI system and the key assumptions in this regard.

<table>
<thead>
<tr>
<th>FEAT 2: User management</th>
<th>Existing in GB RHI system</th>
<th>Missing Data/Functionality Required.</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Currently, all participants are register in the GB RHI system and access the system using one of the two roles – Authorised Signatory and the Additional user. These external users can manage their own accounts, while the internal users can login as proxy and manage the account status of external users.</td>
<td>All required functionality currently in place, except the change of templates. Following templates will be amended TPLT 7: Terms and conditions for user management TPLT11: Guidance for user management TPLT 17: Declaration for user management</td>
<td>No new roles need to be created for internal or external users.</td>
</tr>
</tbody>
</table>

| FEAT 2.1: Register NI RHI participant | The existing GB RHI system allows the registration of the GB participants. | It should work exactly like the GB RHI scheme. | No new requirements to cater specifically for the NI installations. |

| FEAT 2.2: Login as proxy | The existing GB system allows internal users to login as proxy to undertake a task on behalf of the external users. | It should work exactly like the GB RHI scheme. | No new requirements to cater specifically for the NI installations. |

| FEAT 3: Single account for GB and NI RHI scheme | The existing GB RHI system allows participant to register and apply for the GB scheme. | Participants should be allowed to apply for the GB and the NI scheme by registering one RHI account. | Apart from the listed changes, there are no new requirements to cater specifically for the NI installations. |

<p>| FEAT 4: Manage tariff rates | The existing GB RHI system assigns tariffs to installation registered for the GB scheme | Different tariff rates apply for installations registered for the NI scheme. The tariff assignment needs to be extended to cover the NI scheme. | Apart from the listed changes, there are no new requirements to cater specifically for the NI installations. |</p>
<table>
<thead>
<tr>
<th>FEAT 4.1: Two tier tariff</th>
<th>The existing GB RHI system applies two tier tariff to small and medium biomass installations.</th>
<th>It should work exactly like the GB RHI scheme.</th>
<th>No new requirements to cater specifically for the NI installations.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT 5: Manage accreditation</td>
<td>The existing GB RHI system allows participant to apply for full and preliminary accreditation, amend their accreditation application (pre and post approval), and apply for additional capacity.</td>
<td>There will be new accreditation questions specific to the ASHP technology in the NI RHI scheme that will be included as part of the accreditation application. <strong>Refer FEAT 15 Following templates require amendment</strong> TPLT27: Read information before you proceed section TPLT29: Conditions</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 5.1: Accreditation of installations of all scales</td>
<td>The existing GB RHI system requires small and medium scale installations to supply additional information related to the certification done by MCS or an equivalent installer.</td>
<td>There will be no change to the actual accreditation questions or validations, except to extend it to cover the NI RHI scheme. <strong>(Except for ASHP technology and heavy sector listed in FEAT 15 and FEAT 16)</strong> Display the scheme type – GB or NI, once participant has answered the installation address in the accreditation application.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 5.2: Accreditation of fuelled installations</td>
<td>The existing GB RHI system requires fuelled installations to supply additional information about the fuel, and its usage.</td>
<td>There will be no change to the actual accreditation questions or validations, It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 5.3: Preliminary accreditation</td>
<td>The existing GB RHI system allows installations of a certain size and commissioning date within a particular date range, to apply for preliminary accreditation.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Existing in GB RHI system</strong></td>
<td><strong>Missing Data/Functionality Required.</strong></td>
<td><strong>Assumptions</strong></td>
<td></td>
</tr>
<tr>
<td>FEAT 6: Fuel measurement and sampling information</td>
<td>The existing GB RHI system requires participant of certain fuelled installations to submit fuel measurement at the time of accreditation application and after that, whenever there is a change in fuel mix.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 7: Periodic information</td>
<td>The existing GB RHI system collects periodic information like heat output data, meter readings, fuel usage from participants.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 7.1: Changes to periodic information</td>
<td>The existing GB RHI system allows participant to make changes to earlier submitted periodic data (subject to certain business rules)</td>
<td></td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 7.2: View periodic information history</td>
<td>The existing GB RHI system allows users to view all the periodic information for each installation registered with a participant.</td>
<td>It should work exactly like the GB RHI scheme. An identifier to distinguish scheme – GB or NI is required.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 7.3: Manage fuels</td>
<td>The existing GB RHI system allows participants to manage fuels used in the heat generation. Once created, these fuels are referenced in the periodic submissions.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 7.4: Submission window</td>
<td>The existing GB RHI system generates a unique submission window for all installation depending on the date of accreditation.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
</tbody>
</table>
### Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th><strong>Fea</strong></th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT 8: Payments</td>
<td>The existing GB RHI system calculates payments based on the eligible heat output generated by the installation.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 8.1: Extract account details</td>
<td>The existing GB RHI system provides regular extracts of all accounts registered on the scheme.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 8.2: Extract payment details</td>
<td>The existing GB RHI system provides regular extracts of all the approved payments, in order for the SUN to pay the participant.</td>
<td>It should work exactly like the GB RHI scheme. A new identifier distinguishing GB and NI payments to be included. This is required as DECC pays for the GB installations and DETI pays for the NI installations.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations. The existing extract will be amended to include the new identifier.</td>
</tr>
<tr>
<td>FEAT 8.3: View payment history</td>
<td>The existing GB RHI system provides details of all payments that were made out to the participant.</td>
<td>This functionality should be extended to cover all the installations registered on the NI RHI scheme. An identifier to distinguish heavy sector installations, and another identifier to distinguish scheme – GB or NI is required.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 8.4: Ad-hoc payment</td>
<td>The existing GB RHI system allows internal users to create payment instructions for a particular period of an installation.</td>
<td>This functionality should be extended to cover all the installations registered on the NI RHI scheme.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 9: Assessment and review</td>
<td>The existing GB RHI system allows internal users to conduct a review on all information submitted by that participant during the accreditation and the periodic information stages.</td>
<td>See sub-features.</td>
<td></td>
</tr>
</tbody>
</table>

**Received from DFE on 02.05.2017**

Annotated by RHI Inquiry
# Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>FEAT 9.1: Tolerance checks</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system validates information provided by the participant based on business rules, and flags to the internal user if the submitted data has failed tolerance checks.</td>
<td>It should work exactly like the GB RHI scheme. No new tolerance checks are required for the NI installations.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT 9.2: Review accreditation application</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system allows internal users to review accreditation applications.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT 9.3: Review periodic information</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system allows internal users to review periodic information submitted by the participants.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT 9.4: Review fuel measurement and sampling information</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system allows internal users to review the fuel sampling questionnaire submitted by fuelled installations.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT 9.5: Review fuels</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system allows internal users to review details of new fuels submitted by fuelled installations.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT 9.6: Manage payments</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system allows internal users to review payment figures for periodic data submitted by the participant. It also allows internal users to apply adjustments to payments.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FEAT 9.7: Review workflow</th>
<th><strong>Existing in GB RHI system</strong></th>
<th><strong>Missing Data/Functionality Required.</strong></th>
<th><strong>Assumptions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>The existing GB RHI system has custom workflows in place for all the reviews conducted by the internal users.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
<td></td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Existing in GB RHI system</th>
<th>Missing Data/Functionality Required</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEAT 9.8: Filtering installations by scheme</td>
<td>This functionality does not exist as the existing system only supports one scheme.</td>
<td>A new filter required to filter installations belonging to specific scheme. This is required in the review accreditation, review periodic information and review payments screens.</td>
<td>This option has been estimated but not included under the basic option.</td>
</tr>
<tr>
<td>FEAT 10: Declarations</td>
<td>The existing GB RHI system allows participants to view and agree declarations.</td>
<td>It should work exactly like the GB RHI scheme. The existing declaration templates (3 templates) will be amended to cater for NI scheme.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 10.1: View declaration</td>
<td>The existing GB RHI system allows users to view previously signed declarations.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 11: Generate letters and e-mail notifications</td>
<td>The existing GB RHI system sends e-mails to users at different stages throughout the lifetime of the RHI scheme.</td>
<td>It should work exactly like the GB RHI scheme. Accreditation letter to be amended to include information regarding the NI scheme.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
<tr>
<td>FEAT 12: Upload documents</td>
<td>The existing GB RHI system allows user to upload documents at different stages throughout the lifetime of the RHI scheme.</td>
<td>It should work exactly like the GB RHI scheme.</td>
<td>No new requirements to cater specifically for the NI installations.</td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>Feat</th>
<th>Existing in GB RHI System</th>
<th>Missing Data/Functionality Required</th>
<th>Assumptions</th>
</tr>
</thead>
</table>
| **FEAT 13: Reporting** | The existing GB RHI system provides reporting facility for the internal and external users. | All existing reports should be adapted to include installations registered on the NI RHI scheme. These reports should include the new scheme identifier. Following is the list of the existing reports:  
- Accreditation report  
- Public report  
- KPI Management report  
- DECC report  
- RHI Audit report  
- Periodic information and payment data extract  
- Payment forecast report | No new reports are required, specifically for the NI RHI scheme. |
| **FEAT 14: CRM** | The existing GB RHI system provides two extracts with the account and the installations registered information on a regular basis, which is fed into the CRM system. | Two existing extracts to be adapted to include installations registered on the NI RHI scheme. These extracts should include the new scheme identifier and heavy industrial sector installations identifier. | No new requirements to cater specifically for the NI installations. No new extracts required specifically for the NI scheme. |
| **FEAT 15: Inclusion of ASHP technology** | The existing GB RHI system does not allow ASHP technology installations into the system, as they do not qualify under the GB RHI scheme. | For the inclusion of ASHP technology, it is assumed that we require 5 new questions, 5 validations in the accreditation module. | Apart from the listed changes, there are no new requirements to cater specifically for the NI installations. |
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>FEAT 16: Inclusion of heavy industrial sector installations</th>
<th>Existing in GB RHI system</th>
<th>Missing Data/Functionality Required</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The existing GB RHI system does not have any special functionality in place for heavy industrial sector installations.</td>
<td>A new accreditation question to identify if the installation is a heavy industrial sector installation. There is a requirement to set a unique tariff for each of these heavy sector installations. There are a total of 17 heavy industrial sector installations in Northern Ireland. An identifier to indicate heavy industrial sector installations in the view periodic and view payment screens.</td>
<td>Apart from the listed changes, there are no new requirements to cater specifically for the NI installations.</td>
</tr>
</tbody>
</table>

| FEAT 17: Branding | The existing GB RHI system is referred to as RHI system throughout the system. | The solution should display NI and the GB scheme on all display pages and templates throughout the system. |

**Options Analysis**

12.15. There are three main IT options:

4. Be-spoke solution for the NI RHI scheme  
5. Amend the existing RHI system (Single release approach)  
6. Amend the existing RHI system (Phased release approach)

**Be-spoke solution for the NI RHI scheme**

12.16. This option would be a bespoke custom-built system, designed and developed internally by Ofgem IT to administer the NI RHI scheme.

**Features included in the be-spoke solution**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Be-spoke solution</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-certification - Online</strong></td>
<td></td>
</tr>
<tr>
<td>2 User management</td>
<td>√</td>
</tr>
<tr>
<td>3 Single account for GB and NI RHI scheme</td>
<td>√</td>
</tr>
<tr>
<td>4 Manage tariff rates</td>
<td>√</td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Be-spoke solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Manage accreditation</td>
<td>✓</td>
</tr>
<tr>
<td>6 Fuel measurement and sampling information</td>
<td>✓</td>
</tr>
<tr>
<td>7 Manage periodic information</td>
<td>✓</td>
</tr>
<tr>
<td>8 Manage payments</td>
<td>✓</td>
</tr>
<tr>
<td>9 Assessment and review</td>
<td>✓</td>
</tr>
<tr>
<td>10 Declarations</td>
<td>✓</td>
</tr>
<tr>
<td>11 Generate letters and e-mail notifications</td>
<td>✓</td>
</tr>
<tr>
<td>12 Upload documents</td>
<td>✓</td>
</tr>
<tr>
<td>13 Reporting</td>
<td>✓</td>
</tr>
<tr>
<td>14 CRM</td>
<td>✓</td>
</tr>
<tr>
<td>15 Inclusion of ASHP technology</td>
<td>✓</td>
</tr>
<tr>
<td>16 Inclusion of heavy industrial sector installations</td>
<td>✓</td>
</tr>
<tr>
<td>17 Branding</td>
<td>✓</td>
</tr>
</tbody>
</table>

**Supplementary Requirements**

<table>
<thead>
<tr>
<th>SUPL1</th>
<th>Security</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPL2</td>
<td>Auditing</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL3</td>
<td>Flexible</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL4</td>
<td>User access</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL5</td>
<td>Backup and recovery</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL6</td>
<td>Accessibility</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL7</td>
<td>Scalability</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL8</td>
<td>Volumetrics</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL9</td>
<td>IT Strategy</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL10</td>
<td>Usability</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL11</td>
<td>Online help</td>
<td>✓</td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Be-spoke solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPL12 Availability</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL13 Support</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL14 Date retention</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL15 E-mails</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL16 Data protection act</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL17 Error messages</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL18 Compatibility</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL19 Session management</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL20 Site navigation</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL21 Configurability</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL22 Performance</td>
<td>✓</td>
</tr>
<tr>
<td>SUPL23 Data integrity</td>
<td>✓</td>
</tr>
</tbody>
</table>

Analysis of Be-spoke solution

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ A single stand-alone system to develop and maintain the NI RHI scheme</td>
<td>✓ Integration between the new system and the existing GB RHI system will be necessary.</td>
</tr>
<tr>
<td>✓ Increased flexibility to make changes to the process if the legislation for NI RHI scheme changes</td>
<td>✓ RHI Operational team will have to access two different systems (GB and the NI system) to perform their day to day tasks.</td>
</tr>
<tr>
<td>✓ Reusability: Would not have to duplicate tasks in 2 different systems. Less duplication means less maintenance.</td>
<td>✓ Huge system developments to develop a be-spoke system.</td>
</tr>
<tr>
<td>✓ Lesser impact on existing systems.</td>
<td>✓ Considering the similarities between the two schemes, each future enhancement to the system will be expensive as it needs to be done on two different systems.</td>
</tr>
<tr>
<td></td>
<td>✓ Maintenance costs will be double the current costs, in order to support the two systems.</td>
</tr>
<tr>
<td></td>
<td>✓ Training and administering staff to use two different systems</td>
</tr>
<tr>
<td></td>
<td>✓ The cost and complexity for this system are prohibitive for a 1st April 2012 deadline.</td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

**Recommendation**

12.17. The costs and complexity of this system are prohibitive. We would recommend not developing this option for April 2012 considering the limited changes specifically required for the NI scheme and the relative scale of the NI scheme compared to the GB scheme.

12.18. The costs of a bespoke system based on our assumptions (Appendix 4) could range between £2-3 million, and such a cost cannot be justified given the size of the NI RHI scheme and the availability of a more cost-effective alternative.

12.19. This option can be re-evaluated at a later stage if there are substantial differences between the way GB and the NI RHI schemes work.

**RHI-Amended Option**

12.20. This option details new features to be introduced to the existing GB RHI system. A number of different implementation options are proposed under this option, using different feature combinations.

12.21. The basic option represents the minimum functionality required to implement the NI RHI scheme. Each optional addition represents business requirements that could be undertaken using IT functionality or by a manual process – these optional additions include requirements for Heavy Industrial sites, ASHPs and Branding. Each addition amounts to a new implementation option.

12.22. Where policy changes occur between the Feasibility phase and the scheme becoming operational, our strong recommendation would be to develop manual processes to manage such changes where possible. This will provide a more cost-effective solution, and additions to the IT system can be considered at a later point in line with other systems development to incorporate policy changes such as the domestic sector or bioliquids, if desirable.

**Basic Option 1A**

12.23. This option provides the minimum functionality required to implement the NI RHI scheme. This proposes to release the NI RHI scheme along with a GB RHI release. Combining releases will involve cost savings as systems testing costs will be reduced by combining with GB RHI testing.

12.24. Features included in Basic Option:

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Extended option</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASIC OPTION</td>
<td>2 User management</td>
</tr>
</tbody>
</table>
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Extended option</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Single account for GB and NI RHI scheme</td>
</tr>
<tr>
<td>4</td>
<td>Manage tariff rates</td>
</tr>
<tr>
<td>5</td>
<td>Manage accreditation</td>
</tr>
<tr>
<td>6</td>
<td>Fuel measurement and sampling information</td>
</tr>
<tr>
<td>7</td>
<td>Manage periodic information</td>
</tr>
<tr>
<td>8</td>
<td>Manage payments</td>
</tr>
<tr>
<td>9</td>
<td>Assessment and review</td>
</tr>
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<td>10</td>
<td>Declarations</td>
</tr>
<tr>
<td>11</td>
<td>Generate letters and e-mail notifications</td>
</tr>
<tr>
<td>12</td>
<td>Upload documents</td>
</tr>
<tr>
<td>13</td>
<td>Reporting</td>
</tr>
<tr>
<td>14</td>
<td>CRM</td>
</tr>
</tbody>
</table>

**Supplementary Requirements**

| SUPL1  | Security                         | √               |
| SUPL2  | Auditing                         | √               |
| SUPL3  | Flexible                         | √               |
| SUPL4  | User access                      | √               |
| SUPL5  | Backup and recovery              | √               |
| SUPL6  | Accessibility                    | √               |
| SUPL7  | Scalability                      | √               |
| SUPL8  | Volumetrics                      | √               |
| SUPL9  | IT Strategy                      | √               |
| SUPL10 | Usability                        | √               |
| SUPL11 | Online help                      | √               |
| SUPL12 | Availability                     | √               |
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>Extended option</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPL13 Support</td>
<td>√</td>
</tr>
<tr>
<td>SUPL14 Date retention</td>
<td>√</td>
</tr>
<tr>
<td>SUPL15 E-mails</td>
<td>√</td>
</tr>
<tr>
<td>SUPL16 Data protection act</td>
<td>√</td>
</tr>
<tr>
<td>SUPL17 Error messages</td>
<td>√</td>
</tr>
<tr>
<td>SUPL18 Compatibility</td>
<td>√</td>
</tr>
<tr>
<td>SUPL19 Session management</td>
<td>√</td>
</tr>
<tr>
<td>SUPL20 Site navigation</td>
<td>√</td>
</tr>
<tr>
<td>SUPL21 Configurability</td>
<td>√</td>
</tr>
<tr>
<td>SUPL22 Performance</td>
<td>√</td>
</tr>
<tr>
<td>SUPL23 Data integrity</td>
<td>√</td>
</tr>
</tbody>
</table>

Analysis of Basic Option 1A

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Minimal changes required as processes to administer NI RHI</td>
<td>✓ If in future, NI legislative requirements change drastically, then</td>
</tr>
<tr>
<td>legislative requirements are aligned with the existing GB RHI</td>
<td>there will be data migration costs to separate the two schemes.</td>
</tr>
<tr>
<td>administration processes.</td>
<td></td>
</tr>
<tr>
<td>✓ Cost effective and efficient to extend the existing RHI system</td>
<td></td>
</tr>
<tr>
<td>to cover NI scheme</td>
<td></td>
</tr>
<tr>
<td>✓ Testing and security testing costs to be shared with the GB RHI</td>
<td></td>
</tr>
<tr>
<td>scheme.</td>
<td></td>
</tr>
<tr>
<td>✓ Minimal operational overhead to manage the two schemes as both</td>
<td></td>
</tr>
<tr>
<td>schemes are within the same system,</td>
<td></td>
</tr>
<tr>
<td>✓ Considering the similarities between the two schemes, each future</td>
<td></td>
</tr>
<tr>
<td>enhancement costs will significantly cheaper to implement.</td>
<td></td>
</tr>
<tr>
<td>✓ On going support costs will be low, as the costs will be shared</td>
<td></td>
</tr>
<tr>
<td>with the GB RHI scheme.</td>
<td></td>
</tr>
</tbody>
</table>

Basic Option 1B

12.25. This option provides the minimum functionality required (as listed in Option 1A above) to implement the NI RHI scheme.
12.26. This option proposes to plan a release for NI RHI scheme alone. This means that the opportunity for cost savings by testing systems changes at the same time as GB RHI systems changes is not utilised, which results in higher costs.

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Minimal changes required as processes to administer NI RHI legislative requirements are aligned with the existing GB RHI administration processes.</td>
<td>✓ If in future, NI legislative requirements change drastically, then there will be data migration costs to separate the two schemes.</td>
</tr>
<tr>
<td>✓ Cost effective and efficient to extend the existing RHI system to cover NI scheme</td>
<td>✓ Considering the relative size of the NI RHI scheme and the budget constraints, it is not cost effective to release NI scheme on its own.</td>
</tr>
</tbody>
</table>

**Inclusion of Air source heat pump (ASHP) technology (Optional Addition)**

12.27. This proposed implementation option identified some of the potential costs around the inclusion of ASHP technology as a NI RHI eligible technology. This will allow eligible applicants with ASHP installations to participate in accreditation, periodic information and payment stages of the RHI lifecycle.

12.28. Inclusion of ASHP technology has been considered separately, as an addition to the basic option, so a separate cost can be provided in case a decision is made not to include it as part of the IT implementation.

12.29. Three different options for the inclusion of ASHP technology have been proposed in this section:

- Option 2A – Introduce ASHP technology online in initial phase of NI RHI
- Option 2B – Align introduction of ASHP technology with GB RHI scheme
- Option 2C – Administer ASHP installations OFFLINE

**Option 2A - Introduce ASHP technology online in initial phase of NI RHI**

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Provides full audit trail of ASHP technology installations.</td>
<td>✓ System development costs will have to borne by NI RHI scheme alone, which is not entirely justified considering the relative size of the scheme compared with the GB RHI scheme.</td>
</tr>
<tr>
<td>✓ Managing the ASHP technology installations will reduce the risk of human error during administration.</td>
<td></td>
</tr>
<tr>
<td>✓ Reduced administration costs as GSHP and WSHP technology installations are currently managed within the system.</td>
<td></td>
</tr>
</tbody>
</table>
Option 2B – Align introduction of ASHP technology with GB RHI scheme

12.30. Under the assumption that introduction of ASHP technology will be exactly the same for GB and the RHI system, only 20% of the IT costs need to be borne by the NI RHI scheme.

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Cost saving as the system development costs will be shared with the GB RHI system.</td>
<td>✓ Will have IT maintenance overhead to migrate the offline ASHP technology installations at a later date.</td>
</tr>
</tbody>
</table>

Option 2C – Administer ASHP installations OFFLINE

12.31. If the costs of ASHP IT implementation are considered too high for initial scheme launch, we could investigate a manual alternative initially with a view to integrating the processes into the IT system at a later point. This would provide a more cost-effective solution while scheme uptake is uncertain, and would also allow the scheme to become operational within the proposed delivery timeframes.

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ No new features, therefore no development costs.</td>
<td>✓ Will have IT maintenance overhead to migrate the offline ASHP technology installations at a later date.</td>
</tr>
<tr>
<td></td>
<td>✓ Additional administration costs to administer these installations outside of the system.</td>
</tr>
<tr>
<td></td>
<td>✓ Manual processes increase the risk of human error</td>
</tr>
</tbody>
</table>

Inclusion of heavy industrial sector installations in NI RHI scheme (Optional Addition)

12.32. This proposed implementation option is the online introduction of heavy industrial sector installations in the NI RHI scheme. This will allow eligible applicants with heavy industrial sector installations to participate in accreditation, periodic information and payment stages of the RHI lifecycle.

12.33. Introduction of heavy industrial sector installations has been considered separately, as an addition to the basic option, so a separate cost can be provided in case a decision is made not to include it as part of the IT implementation.

12.34. Two different options for inclusion of heavy industrial sector installations have been proposed in this section.

Option 3A – Inclusion of heavy industrial sector installations ONLINE
Option 3B – Inclusion of heavy industrial sector installations OFFLINE
### Option 3A – Inclusion of Heavy Industrial Sector installations ONLINE

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Provides a full audit trail of heavy industrial sector installations</td>
<td>✓ Additional administration costs for verifying the heavy industrial sector installations outside of the system.</td>
</tr>
<tr>
<td>✓ Managing the heavy industrial sector installations will reduce the risk of human error.</td>
<td></td>
</tr>
<tr>
<td>✓ Reduced administration costs as large scale installations are currently managed within the system.</td>
<td></td>
</tr>
</tbody>
</table>

### Option 3B – Inclusion of Heavy Industrial Sector installations OFFLINE

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ New features need not be developed.</td>
<td>✓ Additional administration costs for verifying the heavy industrial sector installations outside of the system.</td>
</tr>
<tr>
<td>✓ Can save on system development costs if the online introduction of heavy industrial sector installations is aligned with the GB RHI scheme.</td>
<td>✓ Will have to rely on sharepoint / the central repository's version control mechanisms for an audit trail.</td>
</tr>
<tr>
<td></td>
<td>✓ Risk of human error</td>
</tr>
</tbody>
</table>

### Option 4 - Branding (Optional Addition)

12.35. An additional option we have considered is the branding of the RHI system to change from RHI to “GB and NI RHI”.

12.36. The “Branding” requirement has been considered separately, as an addition to the basic option, so a separate cost can be provided in case a decision is made not to include it as part of the IT implementation.

<table>
<thead>
<tr>
<th>Pros</th>
<th>Cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Better clarity for the external users that the existing system now supports two schemes.</td>
<td>✓ System wide change, therefore large IT costs involved.</td>
</tr>
<tr>
<td>✓ Reduction in support calls during the initial launch of the NI scheme.</td>
<td></td>
</tr>
</tbody>
</table>
### Risks

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Priority</th>
<th>Impact</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RISK1: Meeting 1 April 2012 release date</strong></td>
<td>High</td>
<td>5 (High)</td>
<td>3 (Medium)</td>
</tr>
<tr>
<td>IT Requirements analysis work should commence by start of December 2011 and signed off by end of January 2012, to achieve the 1 April 2012 release.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RISK2: Availability of key resources</strong></td>
<td>High</td>
<td>5 (High)</td>
<td>5 (High)</td>
</tr>
<tr>
<td>Due to the tight deadlines, it is imperative that IT team have access to key business users who can make operational decisions during the course of the IT project.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RISK3: Change in legislation or business processes</strong></td>
<td>High</td>
<td>5 (High)</td>
<td>4 (Medium High)</td>
</tr>
<tr>
<td>Between now and the IT change taking place, there could be changes to the GB system or the NI RHI processes making the features invalid and / or the estimates inaccurate.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If this happens, then we will have to re-evaluate the costs and timescales.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RISK4: Impact assessment</strong></td>
<td>High</td>
<td>5 (High)</td>
<td>3 (Medium)</td>
</tr>
<tr>
<td>Where no changes are required explicitly for NI RHI scheme, the estimates are on the assumption that there is a no impact on the existing system.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>During the detailed impact assessment, if IT team identify critical changes required on the system, then IT will re-estimate the work involved.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)**

**IT estimates**

12.37. Each requirement contains an estimated cost of systems development excluding project management overheads, contingency costs.

12.38. Costing is based on a 5 day week, 8 hour day, and an hourly rate of £53 and includes a 30% Team / Project Management overhead. Separate costing has been provided for the ongoing support costs.

12.39. Please refer to the table below for a breakdown of the estimates by requirement:

**Estimates broken down by requirement**

<table>
<thead>
<tr>
<th>Features</th>
<th>Total estimated resource days</th>
<th>Total estimated cost in GBP</th>
</tr>
</thead>
<tbody>
<tr>
<td>User management</td>
<td>11.05</td>
<td>£4,685</td>
</tr>
<tr>
<td>Single account for GB and NI RHI scheme</td>
<td>6.405</td>
<td>£2,716</td>
</tr>
<tr>
<td>Manage tariff rates</td>
<td>23.3</td>
<td>£9,879</td>
</tr>
<tr>
<td>Manage accreditation</td>
<td>25.175</td>
<td>£10,674</td>
</tr>
<tr>
<td>Fuel Measurement and Sampling information</td>
<td>4.375</td>
<td>£1,855</td>
</tr>
<tr>
<td>Manage periodic information</td>
<td>22.95</td>
<td>£9,731</td>
</tr>
<tr>
<td>Manage payments</td>
<td>28.405</td>
<td>£12,044</td>
</tr>
<tr>
<td>Assessment and review</td>
<td>5.9</td>
<td>£2,502</td>
</tr>
<tr>
<td>Declarations</td>
<td>14.2375</td>
<td>£6,037</td>
</tr>
<tr>
<td>Generate letters and e-mail notifications</td>
<td>4.975</td>
<td>£2,109</td>
</tr>
<tr>
<td>Upload documents</td>
<td>0.25</td>
<td>£106</td>
</tr>
<tr>
<td>Reporting</td>
<td>20.41</td>
<td>£8,654</td>
</tr>
<tr>
<td>CRM</td>
<td>9.025</td>
<td>£3,827</td>
</tr>
<tr>
<td>Inclusion of heavy industrial sector installations</td>
<td>28.525</td>
<td>£12,095</td>
</tr>
</tbody>
</table>

12.40. The table over the page provides a breakdown of the costs of combinations of options set out above:
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

## Estimated IT resources in single resource days

<table>
<thead>
<tr>
<th>OPTION 1: BASIC OPTION</th>
<th>1A</th>
<th>1B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A BASIC OPTION (GB and NI release)</td>
<td>335.86</td>
<td>411.14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OPTION 2: INCLUSION OF ASHP TECHNOLOGY</th>
<th>1A+2A</th>
<th>1A+2B</th>
<th>1B+2A</th>
<th>1B+2B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1A inclusion of ASHP technology in NI scheme ONLY</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2B inclusion of ASHP technology in NI and GB scheme</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2C inclusion of ASHP technology OFFLINE</td>
<td>367.19</td>
<td>345.46</td>
<td>419.11</td>
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<table>
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<th>OPTION 3: INCLUSION OF HEAVY INDUSTRIAL SECTOR INSTALLATIONS</th>
<th>1A+3A</th>
<th>1A+2A+3A</th>
<th>1A+2B+3A</th>
<th>1B+3A</th>
<th>1B+2A+3A</th>
<th>1B+2B+3A</th>
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<tbody>
<tr>
<td>5A inclusion of heavy industrial sector installations in NI scheme ONLY</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5B inclusion of ASHP technology OFFLINE</td>
<td>377.11</td>
<td>404.29</td>
<td>312.54</td>
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<th>OPTION 4: BRANDING</th>
<th>1A+4</th>
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Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

### Estimated IT costs

<table>
<thead>
<tr>
<th>Option 1: Basic Option</th>
<th>1A</th>
<th>1B</th>
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<tbody>
<tr>
<td>1A Basic Option (GB and NI release)</td>
<td></td>
<td>£142,470.65</td>
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<tr>
<td>1B Basic Option (NI release)</td>
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<td>£178,503.37</td>
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</table>

<table>
<thead>
<tr>
<th>Option 2: Inclusion of ASHP Technology</th>
<th>1A+2A</th>
<th>1A+2B</th>
<th>1B+2A</th>
<th>1B+2B</th>
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<tbody>
<tr>
<td>2A Inclusion of ASHP technology in NI scheme ONLY</td>
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<td>£146,474.41</td>
<td>£176,904.65</td>
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<td>2B Inclusion of ASHP technology in NI and GB scheme</td>
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<td>2C Inclusion of ASHP technology OFFLINE</td>
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<table>
<thead>
<tr>
<th>Option 3: Inclusion of Heavy Industrial Sector Installations</th>
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<td>3A Inclusion of heavy industrial sector installations in NI scheme ONLY</td>
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<table>
<thead>
<tr>
<th>Option 4: Branding</th>
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<th>1A+2B</th>
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<tr>
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<td>£167,888.63</td>
<td>£192,827.67</td>
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<td>£202,397.69</td>
<td>£220,318.77</td>
<td>£211,102.71</td>
<td>£224,521.67</td>
<td>£236,041.75</td>
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Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Recommended IT Options

12.41. The recommended IT implementation option is to utilise the opportunity for a combined release with the GB RHI scheme to achieve cost savings through combined testing. Whether we can deliver Option 1A (GB & NI Combined release) or Option 1B (NI release alone) will depend on whether a consensus can be reached between Ofgem, DECC and DETI on a single release date.

12.42. Based on the draft regulations shared with Ofgem on 11 October 2011, **Option 1A** would be the recommended option to meet the requirements of the proposed scheme. Option 1 (Basic option) can be delivered by 1 April 2012 provided IT can start requirements on 1 December 2011 and all requirements are signed off by end January 2012.

12.43. If Heavy Industrial sites are included based on the approach proposed in DETI’s consultation document, **Option 3A** would be recommended.

12.44. For inclusion of ASHPs, the most cost effective solution will be introducing ASHPs in the GB and the NI RHI schemes at the same time. Therefore, the recommendation is **Option 2B**.

Ongoing Support costs

12.45. The support costs have been estimated based on the size of the NI RHI scheme in comparison to the GB RHI scheme. In the event that the NI RHI scheme increases in size and/or complexity, the support costs will have to be re-assessed. These costs are estimated on the assumption that the scheme will be delivered in line with the draft regulations shared with Ofgem on 11 October 2011.

<table>
<thead>
<tr>
<th>YEARLY SUPPORT COSTS</th>
<th>YEAR 1</th>
<th>YEAR 2 - 5</th>
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<tr>
<td>Business Application support costs*</td>
<td>£27,000</td>
<td>£27,000</td>
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<tr>
<td>Infrastructure Costs*</td>
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</table>

*IT costs are based on year 1 forecasts and may need to be reassessed pending final IT requirements
Feasibility Study for the development and implementation of the Northern Ireland Renewable Heat Incentive (NI RHI)

Appendix 5 – Risk Register

This is attached separately.
Department of Enterprise, Trade and Investment – Energy Division

Risk Register – Northern Ireland Renewable Heat Incentive and Premium Payment Scheme
## Document Review History

<table>
<thead>
<tr>
<th>Date of Review</th>
<th>Change</th>
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<tbody>
<tr>
<td>1/3/2012</td>
<td>Risk Register opened – initial entries</td>
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Project Risks

This section outlines the key risks facing the introduction of the Renewable Heat Incentive (RHI) scheme and the Renewable Heat Premium Payments for domestic customers. These risks have been identified by the Renewable Heat Branch, Energy Division, during the planning and development of the scheme.

This register details the assessment of the key risk areas; the associated controls; and actions required to mitigate these risks. Each risk has been assessed for its severity to the business and for the effectiveness of the controls currently operating.

This risk assessment has been undertaken by considering:

- the impact that each risk would have on the project should it occur; and
- the likelihood of the risk materialising

Each risk has then been assessed against a risk assessment chart to show its relative significance to the project. Further analysis of each risk is detailed including:

- the controls currently in place to manage/mitigate the risk; and
- any additional actions considered necessary to fully manage the risk.

Finally, each risk is assigned a risk owner

The Register is a dynamic document. As the scheme progresses, any newly identified risks will be added to the Register and any initially placed on the Register, but no longer considered appropriate, will be removed. The Register will be held by the Project Manager who will be responsible for its upkeep.

The approach to assessment of the risks attaching to the project mirrors the DETI corporate approach to risk management.
Department of Enterprise, Trade and Investment – Renewable Heat Incentive Scheme

Risk

A. Incorrect tariff levels set (either too high or too low)

Risk owner

Fiona Hepper

Specific Objective

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

Risk Indicators

- Lack of interest/uptake amongst consumers (indicating tariffs are too low).
- Higher than expected uptake or overspending on profiled budget (indicating tariffs are over generous).

Potential root causes

- Incorrect assumptions made in tariff-setting methodology i.e. underestimating or overestimating the capital/operating/fuel costs of renewable technology or fossil fuel counterfactual.

Additional actions required to fully manage the risk

- Ongoing engagement with key industry stakeholders to assess uptake and monitor energy costs.
- Liaison with administrator to assess uptake levels and expected spend against profiled budget.
- Planned reviews of the scheme so tariffs can be revised depending on market conditions.

Risk rating

Impact

High Medium Low

Likelihood

High Medium Low

Potential business implications

- Low uptake of renewable heat incentive – renewable heat industry stalls and opportunities for ‘green jobs’ lost.
- Technologies are over-incentivised, forces a cut in tariffs at a later date and a loss of confidence in the incentive scheme.

How is this risk currently managed: partially managed to an acceptable level of risk

- Economic Appraisal consistent with NIGEAEA guidelines has supported the development of appropriate tariff levels.
- External consultants have advised on technology assumptions and appropriate methodology for determining tariff levels.
- Economic model developed to assess future potential uptake and expected costs.
- Tariff levels consulted on (July 2011) with stakeholders offering advice and evidence where changes were necessary.
- Additional economic analysis carried out and tariffs amended to ensure they are appropriate for the Northern Ireland market place.

Criticality (H,M,L) | Name | Target Date
--- | --- | ---
H | Joanne McCutcheon / Peter Hutchinson | Ongoing
H | J McC / PH | Ongoing - monthly
H | J McC / PH | 2014
**Specific Objective**

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

**Risk Indicators**

- Lack of uptake amongst consumers.
- Low number of applications to Ofgem or enquiries to DETI.
- Lack of awareness or awareness of scheme.
- Concern from stakeholders about success of incentive.

**Potential root causes**

- Incorrect assumptions made in tariff-setting methodology i.e. setting tariff levels too low.
- Not enough advertising or marketing to promote the scheme.
- Application process or the scheme itself being overly complicated.
- Renewable heat suppliers not providing opportunities for uptake.

**Additional actions required to fully manage the risk**

- Ongoing engagement with key industry stakeholders to assess uptake and monitor energy costs.
- Liaison with administrator to assess uptake levels and expected spend against profiled budget.
- Planned reviews of the scheme so tariffs can be revised depending on market conditions.
- Promotion and marketing initiatives carried out to raise awareness.
- Work with stakeholders to identify opportunities for ESCo’s.

**Risk rating**

<table>
<thead>
<tr>
<th>Impact</th>
<th>Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

**Potential business implications**

- Low uptake of renewable heat incentive – renewable heat industry stalls and opportunities for ‘green jobs’ lost.

**How is this risk currently managed: partially managed to an acceptable level of risk**

- Economic Appraisal consistent with NIGEAEA guidelines has supported the development of appropriate tariff levels.
- External consultants have advised on technology assumptions and appropriate methodology for determining tariff levels.
- Tariff levels consulted on (July 2011) with stakeholders offering advice and evidence where changes were necessary.
- Planned promotion and marketing, potentially through the Executive endorsed ‘Energywise’ campaign.
Specific Objective

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

Risk Indicators

- Widespread changing from existing gas installations to renewable heat technologies.
- Increased gas prices.

Potential root causes

- Renewable heat will, of course, displace existing fossil fuels, however if this displacement disproportionally impacted on the gas network the impact could be more significant. Tariffs incorrectly set against a lower cost base could cause this.

Additional actions required to fully manage the risk

- Ongoing engagement with key industry stakeholders to assess uptake and monitor energy costs.
- Liaison with administrator to assess uptake levels.
- Planned reviews of the scheme so tariffs can be revised depending on market conditions.

Key business risks

<table>
<thead>
<tr>
<th>Risk</th>
<th>Risk owner</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Harm to other sectors</td>
<td>Fiona Hepper</td>
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</table>

Risk rating

<table>
<thead>
<tr>
<th>Impact</th>
<th>Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
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</tr>
<tr>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

Potential business implications

- Increased gas/oil/coal prices.

How is this risk currently managed: partially managed to an acceptable level of risk

- Economic Appraisal consistent with NIGEAEA guidelines has supported the development of appropriate tariff levels.
- External consultants have advised on technology assumptions and appropriate methodology for determining tariff levels.
- Economic model developed to assess future potential uptake and expected costs.
- Tariff levels consulted on (July 2011) with stakeholders offering advice and evidence where changes were necessary.
- Additional economic analysis carried out and tariffs amended to ensure they are appropriate for the Northern Ireland market place.
- Establishment of a cross-departmental group to consider renewable heat.

<table>
<thead>
<tr>
<th>Criticality (H,M,L)</th>
<th>Name</th>
<th>Target Date</th>
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</tr>
<tr>
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<td>JMcC / PH</td>
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<tr>
<td>H</td>
<td>JMcC / PH</td>
<td>2014</td>
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</table>
Risk

D. Failure of renewable heat supply

Risk owner

Fiona Hepper

Specific Objective

● To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

Risk Indicators

● Lack of supply of renewable heating fuels or technologies.
● Lack of skills in terms of renewable heat installations.
● Demand for renewable heat technologies outstripping supply.

Potential root causes

● Presence of an immature renewable heat market.
● Lack of developed supply chains for key fuels.
● Businesses unable to meet increased demand associated with introduction of RHI.
● Lack of available training / awareness for potential installers.

Additional actions required to fully manage the risk

• Ongoing engagement with key industry stakeholders.
• Promotion of RHI opportunities.
• Liaison with relevant Departments and Agencies to develop skills in this sector.

Risk rating

Impact

High Medium Low

Likelihood

High Medium Low

Potential business implications

● Low uptake of renewable heat incentive – renewable heat industry stalls and opportunities for ‘green jobs’ lost.
● Confidence in renewable heat market drops due to lack of supply.

How is this risk currently managed: partially managed to an acceptable level of risk

• Work of the Cross-Departmental group on renewable heat, including representatives from DARDm DEL and Invest NI.
• Phased approach of RHI.
• Using MCS for <45kw installations to ensure standards.
### Risk

<table>
<thead>
<tr>
<th>Risk</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. Insufficient budget secured for the RHI payments or for the administration of the scheme.</td>
<td></td>
</tr>
</tbody>
</table>

### Risk owner

Fiona Hepper

### Specific Objective

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

### Risk Indicators

- Higher than expected uptake.
- Overspends in annual budget.
- Higher administration costs.

### Potential root causes

- Tariffs set at too high/generous a level leading to a higher than expected uptake.
- External circumstances making the tariffs more generous i.e. increase in oil costs, reduction in renewable heating costs.

### Additional actions required to fully manage the risk

- Ongoing engagement with key industry stakeholders to assess uptake and monitor energy costs.
- Liaison with administrator to assess uptake levels and expected spend against profiled budget.
- Planned reviews of the scheme so tariffs can be revised depending on market conditions.

### Risk rating

<table>
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<tr>
<th>Impact</th>
<th>Likelihood</th>
</tr>
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<td><img src="image" alt="High" /> <img src="image" alt="Medium" /> <img src="image" alt="Low" /></td>
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</tbody>
</table>

### Potential business implications

- A forced cut in tariffs or delays to payments creating a loss of confidence in the incentive scheme.

### How is this risk currently managed: partially managed to an acceptable level of risk

- Economic Appraisal consistent with NIGEAEA guidelines has supported the development of appropriate tariff levels.
- External consultants have advised on technology assumptions and appropriate methodology for determining tariff levels.
- Economic model developed to assess future potential uptake and expected costs.
- Tariff levels consulted on (July 2011) with stakeholders offering advice and evidence where changes were necessary.
- Additional economic analysis carried out and tariffs amended to ensure they are appropriate for the Northern Ireland market place.
- Liaison with DECC finance team regarding future financing and correspondence from HMT relating the budget for existing commitments.

### Criticality (H,M,L)

<table>
<thead>
<tr>
<th>Name</th>
<th>Target Date</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>JMCC / PH</td>
<td>Ongoing – monthly</td>
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<tr>
<td>JMCC / PH</td>
<td>2014</td>
</tr>
</tbody>
</table>
Department of Enterprise, Trade and Investment – Renewable Heat Branch – Renewable Heat Incentive Scheme

Risk

F. Failure to meet EU and Executive set targets.

Risk owner

Fiona Hepper

Specific Objective

To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

Risk Indicators

- Lack of uptake amongst consumers.
- Low levels of renewable heat delivered.
- Interim targets missed.

Potential root causes

- Tariffs set at too low a level to generate required uptake.
- Lack of qualified installers in renewable heat market.
- Lack of awareness or understanding in regards to renewable heating opportunities.

Additional actions required to fully manage the risk

- Ongoing engagement with key industry stakeholders to assess uptake and monitor energy costs.
- Planned reviews of the scheme so tariffs can be revised depending on market conditions.
- Promotion of RHI opportunities.
- Liaison with relevant Departments and Agencies to develop skills in this sector.

Potential business implications

- Opportunities for renewable heat market missed.

How is this risk currently managed: partially managed to an acceptable level of risk

- Economic Appraisal consistent with NIGEAEA guidelines has supported the development of appropriate tariff levels.
- External consultants have advised on technology assumptions and appropriate methodology for determining tariff levels.
- Economic model developed to assess future potential uptake and expected costs.
- Additional economic analysis carried out and tariffs amended to ensure they are appropriate for the Northern Ireland market place.
- Work of the Cross-Departmental group on renewable heat, including representatives from DEL and Invest NI.
**Specific Objective**

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

**Potential root causes**

- Lack of information provided to Commission.
- Inability to justify the need for, or the design of, the NI RHI scheme.
- Tariffs set at too high a level and amounting to over-incentivisation.

**Additional actions required to fully manage the risk**

- Commission kept informed of proposed changes to the Scheme.
- Lessons learned from the GB application.

**Risk owner**

Fiona Hepepr

**Risk Indicators**

- EU Commission refuse to approve the NI RHI scheme.

**Potential business implications**

- Scheme delayed or postponed.
- Creates uncertainty amongst renewable heat sector.

**How is this risk currently managed: partially managed to an acceptable level of risk**

- Detailed submission made in December 2011 outlining RHI proposals.
- Submission based on GB application that was approved in November 2011.
- Addendum to December application submitted in February 2012 advising on proposed changes.

**Risk rating**

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<thead>
<tr>
<th>Impact</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td>Likelihood</td>
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**Criticality (H,M,L)**

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<td>JMcC/PH</td>
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</tr>
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</table>
Department of Enterprise, Trade and Investment – Renewable Heat Branch – Renewable Heat Incentive Scheme

Risk

1. Inadequate resource to deliver project/separate key functions including staff

Risk owner

XXXXXXXXXXX

Specific Objective

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

Risk Indicators

- Small team.
- Complex and technical issues.
- Varied requirements i.e. policy development, legislation, resource management, programme management, liaison with Ofgem, liaison with stakeholders etc.

Potential root causes

- Lack of resources.

Potential business implications

- Inadequate monitoring and auditing of RHI and RHPP.
- Failure to fully implement scheme.
- Delays in launch date.
- Criticism from stakeholders.

How is this risk currently managed: partially managed to an acceptable level of risk

- Some additional resource secured (1/2 DP)
- Adequate separation of functions achieved within existing resource
- Phased approach of RHI.
- Development of realistic timescales.

Additional actions required to fully manage the risk

- Clear programme management structures.
- Monitoring of progress and reporting on slippage.
- Additional resource needed.

Risk rating

<table>
<thead>
<tr>
<th>Impact</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
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<table>
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<th>Criticality (H,M,L)</th>
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<td>Ongoing</td>
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<td>JMcC / PH</td>
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</tr>
<tr>
<td>H</td>
<td>JMcC / PH</td>
<td>Immediate</td>
</tr>
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</table>
Key business risks

Risk

J. Instances of fraud

Risk owner

Fiona Hepper

Specific Objective

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

Risk Indicators

- Duplicate applications
- Unusual meter readings (too high for expected output)
- Lack of information provided to administrator.
- Use of unregistered installers

Potential root causes

- Desire to de-fraud for financial gain.

Potential business implications

- Scheme is de-frauded.
- Target missed because of overpayments where no heat generated.
- Confidence in market affected.

How is this risk currently managed: partially managed to an acceptable level of risk

- Checks to applications.
- Physical verification of sites under RHPP scheme
- Random checks to sites and meters under RHI scheme
- Requirements of detailed information for each installation
- Use of MCS under 45kw installations
- Meter readings assessed against expected output
- Instances of suspected fraud investigated and payments stopped.

Additional actions required to fully manage the risk

- Assessment of applications and verification of installations and meter readings.
- Liaison with Ofgem on instances of suspected fraud.
- Suspension of RHI payments

<table>
<thead>
<tr>
<th>Criticality (H,M,L)</th>
<th>Name</th>
<th>Target Date</th>
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<tr>
<td>H</td>
<td>JMCC / PH</td>
<td>Where necessary</td>
</tr>
</tbody>
</table>
Department of Enterprise, Trade and Investment – Renewable Heat Branch – Renewable Heat Incentive Scheme

**Risk**

K. Failure in administration of RHI.

**Risk owner**

Fiona Hepper

**Specific Objective**

- To develop an appropriate incentive mechanism to increase the levels of renewable heat in Northern Ireland, to a level of 10% by 2020.

**Risk Indicators**

- Delays in dealing with applications, accreditations and payments.
- Stakeholders complaining about application process.
- System overly complicated.
- Lack of data being collected.

**Potential root causes**

- Lack of resources in Ofgem.
- Difficulties in IT systems.
- Lack of communication between Ofgem and DETI.

**Additional actions required to fully manage the risk**

- Joint project team with Ofgem / DETI as scheme is implemented.
- Identification and monitoring of risks specifically for the administration system.

**Risk rating**

**Impact**

- Low

**Likelihood**

- High

**Potential business implications**

- Lack of confidence in scheme.
- Potential applications lost.
- Target not achieved.

**How is this risk currently managed: partially managed to an acceptable level of risk**

- Lessons from GB implementation learned.
- Robust and detailed feasibility developed.
- Sufficient resources earmarked.
- IT systems well developed and tested (through GB scheme).
- Proposed management systems between DETI and Ofgem.

**Criticality (H,M,L)**

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assumptions which were a matter for Ofgem’s judgement, or were they things which were dictated to you by DETI, or was it a collaborative or joint approach to that?

Ms McArthur: I would say it was collaborative. We discussed how we could approach things without having a clear final policy position, particularly on key areas that would’ve affected development costs, so we had that discussion, and DETI instructed us to go ahead and make certain assumptions.

Just to pick up on something that you mentioned earlier, the assumptions were about placing conditionality to make sure that, if there were changes to the scheme, that it was understood that there would need to be an adjustment to the costs because we could only base this on what we knew to be the planned scheme. So, the intention was that, if any of that conditionality did not carry, then it would need to be revised.

Mr Scoffield QC: I want to talk to you about the issue of conditionality in a bit more detail in just a few moments and maybe take you to some of the parts in the feasibility study where that’s mentioned.

Just before we do that, I’m just trying to get a high-level feel for how the exercise was conducted and how successful it was. So, before we move on to some of the detail, the other thing that I want to talk to you about briefly is a report which was put together by Ofgem at the end of the development phase called the “lessons learnt report”. Now, I know you’ve seen a copy of that. I know you’ve made clear that you weren’t involved in the preparation of that, because that came at a stage when your involvement had ended, but it makes some comments about the feasibility study, and I want to just give you an opportunity to comment on some of those observations.

So, as the panel may know, at the end of the development phase of the RHI, some time after Ms McArthur had moved on, the Ofgem team at that stage put together a report looking at how the project had gone and setting out a fairly frank discussion of what had
to the Inquiry, and I just want to pick up on something that you’d mentioned in paragraph 6.

Just in the middle of that page — the first sentence — you say:

“To the best of my recollection at the point at which I was involved with the NI RHI Scheme, the major challenge was that final policy positions were not yet available on many details of scheme design.”

So, can you just explain what you mean by that and why that was a difficulty?

Ms McArthur: So, when I commenced work on the feasibility study in September 2011, DETI was still consulting on the scheme. We were expecting to have more certainty around what the final policy would be when we received the draft regulations to review, but, when we received them, they were the GB regs basically with the names changed, so identical in all other respects.

The consultation that I’d reviewed from DETI indicated that they were considering a number of different technologies that they might include in the scheme and that they were also looking at other ways that they may differ from what the GB scheme involved, so we were somewhat surprised when the draft regulations were identical to those of the GB scheme. And, because we did seek clarity around what the likely direction was and DETI were unable to indicate at that point, so we had to move ahead with the feasibility study on some basis. And so we agreed that we would assume that the draft regulations were a sound basis for determining how we would administer the scheme.

Mr Scoffield QC: I think you’ve touched on the next question that I wanted to ask you. You’ve gone on to say in that paragraph that, because there was some lack of detail about the ultimate scheme design, you had to progress the work by making assumptions. And, I wanted to ask you, when you made that comment, what significant assumptions did you have to make in putting the feasibility study together in light of the lack of final detail?

Ms McArthur: I would say that major assumptions would be that the draft regulations that we had seen, which was basically the GB regulations, would be the final regulations or
I then worked for the New South Wales Government from 2001 - 2007 on a range of initiatives aimed at helping to commercialise sustainable energy. This included developing new initiatives, and overseeing their ongoing operations;

From October 2007 – April 2014, I worked within Ofgem in various roles which I have explained in more detail in my response to question 2 below;

From June 2014 – June 2017, I was Head of Feed-in Tariffs at Good Energy (a British renewable electricity company). I led a department of 44 staff running one of the largest Feed-in Tariff (‘FIT’) operations in the UK. I oversaw operations, account management / customer support, business development, compliance and proposition management;

I have recently established a consultancy providing advice and interim management support to the energy and water sectors.

I graduated with a Bachelor of Mechanical Engineering in 1998 and completed a Master of Business Administration in 2004. I have been a Prince 2 Practitioner (an industry standard project management qualification) since May 2014.

2. I have summarised below my roles within Ofgem. I have indicated where I am not certain with respect to the exact date when my roles changed:

- I joined Ofgem as Head of Renewables and Combined Heat and Power (‘CHP’) in October 2007. I led department of 15 individuals operating the Renewables Obligation (‘RO’), Renewable Energy Guarantees of Origin (‘REGO’) and Levy Exemption Certificate (‘LEC’) schemes in Great Britain and, in some cases, Northern Ireland. I carried out specific functions relating to the Non Fossil Fuel Obligation scheme. The combined value of the schemes was approximately £1 billion per year. I was responsible for various functions including accreditation of generators, running the Renewables and CHP Register, issuing ROC, REGO and LEC certificates, running the RO buyout fund and ensuring suppliers complied with their obligation, including commissioning audits of suppliers’ activities.

- In about September 2009, I was appointed as Head of New Scheme Development in E-Serve to set up a new department responsible for developing and operating new sustainability schemes. I was promoted to Associate Director, New Scheme Development, in mid-2011 due to the increasing breadth of my responsibilities. I managed the growth of this department to about 110 individuals. During this period, I
Engagement with DETI

DETI Contacts:

Fiona Hepper (Director of Energy) has had involvement with the NI RHI. Matthew and Catherine met with her when they were in Belfast. She will be the Senior Responsible Owner going forward (Matthew is SRO at Ofgem), and joint chair of the DETI-Ofgem Administration Board.

Peter Hutchinson – has been the lead contact.

peter.hutchinson@detini.gov.uk 028 9052 9532 (Lead contact)

Joanne McCutcheon - Joanne has only joined DETI recently and often defers to Peter. Joanne works part time (Mon- Thurs).

joanne.mccutcheon@detini.gov.uk 028 9052 9425

Background:

We have had ongoing contact with Peter and Joanne throughout the Feasibility Phase. Catherine has been the primary contact for NI RHI at Ofgem and has had ongoing informal discussions on a fortnightly/as needs basis.

On 2nd November 2011 Catherine and Matthew went to DETI’s offices in Belfast for a face to face meeting with the DETI contacts. Matthew was present for the first two hours, which included a meeting with Fiona Hepper and some discussions around DETI’s needs from the Feasibility Study, enforcement and governance of the project going forward.

After Matthew left, Catherine undertook more detailed discussions around the proposed manner in which the NI RHI would be administered including a detailed run-through of key administrative functions and informal discussions around key dependencies and deliverables and likely directions for DETI’s final policy decision.

Information that arose from this meeting includes:

- Uncertainty around DETI’s ability to deliver a final decision to Ofgem by 16th December 2011 as previously proposed. The uncertainty relates to the time required to gain ministerial approval, which is beyond their control. They should be able to provide informal agreement (verbal) sooner than this. We have revised our deadline to 23rd December, which is a more reasonable timeframe for approval for DETI.

In an attempt to manage or mitigate against this uncertainty Catherine discussed the possibility of providing DETI with early draft chapters of key sections of the Feasibility Study to aid DETI in preparing their business case. An early draft was provided on 15 November (complete but with figures removed). The business case will need approval from the Minister followed by an internal committee (the Case Work Committee). Recent advice is that this committee will not meet until some time between 15th and 19th December. If all goes well there is a good chance that approval can be secured by the revised 23 December deadline.
• Failure to gain formal written approval by the 23 December deadline could create delays in confirming the Development Team and commencing work, which could impact delivery timetables.

• IT will particularly be impacted by this, and have proposed that requirements commence in December in order to meet a 1 April 2012 deadline. We will need to secure agreement from DETI to use a portion of the Feasibility Study under-spend in order for this work to commence. DETI has concerns that giving approval to use these funds to commence development work pre-empts the final decision.

• DETI outlined some local political issues that may impact on their final policy position – particularly an imperative to differentiate the Northern Ireland scheme from Great Britain’s. This was the rationale behind their desire to introduce ASHPs and Bioliquids from scheme commencement. They may find other ways to differentiate the schemes, and this will impact on administration. Their most recent advice is that ASHPs, their approach to the Heavy Industrial Sector and bioliquids will not form part of the final policy position for initial scheme launch. This is in line with our key assumptions and recommendations.

• Catherine has conducted informal discussions with DETI about their likely policy position, namely:
  o The proposed approach to the Heavy Industrial Sector is unlikely to go ahead as gaining State Aid will be problematic for a scheme that will not only distort the energy market through providing incentives to renewables, but also favours natural gas over other fossil fuels.
  o ASHPs will probably be deferred until the GB scheme undertakes development.
  o Bioliquids would also be deferred until the GB scheme is ready.
  o The major focus of their policy work at this stage is around the tariff rates and at what level they should commence. This was a major issue raised during the consultation, and they’re concerned that wherever they set the rates initially, industry will hold off on participating in the scheme on the expectation that they will increase them within the first few years.

Key Decisions in the Feasibility Phase

Draft Regulations and Broad Approach:

At the commencement of the Feasibility Phase our work was based on DETI’s NI RHI consultation document released in July 2011. This document set out DETI’s intentions for the scheme and the proposed approach.

On 11 October we were provided with draft regulations. These regulations were almost word for word identical to the GB RHI regulations and as such did not set out the scheme proposed in the consultation document. The key differences between the NI and GB regulations were in definitions, references to appropriate authorities or government bodies and local legislation, and in distinguishing the 'NI Authority', NIAUR, from the 'GB Authority', Ofgem). These regulations also included at every reference date, installation capacity reference and other key figures footnotes stating that the date/figure is based
on the GB regulations and policy position for each is yet to be confirmed for Northern Ireland.

In a phone conference on 13 October 2011 Catherine discussed the differences between the policy set out in the consultation document and the draft regulations and secured agreement from DETI that Ofgem’s feasibility work will proceed under the assumption that the scheme will be implemented in line with the draft regulations. However it was also agreed that Ofgem would provide some high-level analysis around the work, challenges and potential costs of implementing bioliquids, ASHPs and the proposed approach to the Heavy Industrial Sector. The rationale behind this was to provide DETI with a robust rationale for why inclusion of these technologies/sectors should be deferred until a later point in the scheme to respond to any local criticism that the scheme was falling in line with the GB RHI.

**Independent Risk Assessment:**

Another issue agreed between Catherine, Peter and Joanne during the phone conference on 13th October 2011 was that the Independent Risk Assessment originally to be undertaken during the Feasibility Phase would be deferred until the Development phase. The reason for this is that the key areas of risk in the NI RHI scheme were those areas where the approach differed from the GB RHI. Given agreement Ofgem’s feasibility work would be based on the draft regulations that did not include any detail around how these parts of the scheme would function, if included at all, deferring the assessment was the most practical approach.

**Challenges:**

There is considerable uncertainty around whether DETI will be able to meet any of the key deadlines that are essential if Ofgem is to meet a 1 April 2012 deadline. Particularly:

- Confirming that a portion of the Feasibility Study under-spend can be utilised to commence IT specification work in December 2011.
- Confirming decision for Ofgem to administer the NI RHI and agree funding by 23rd December. This will allow a week for Ofgem to make the necessary staffing arrangements to commence work on 3rd January 2012.
- Providing final policy and regulations finalised from a policy perspective by 23rd December so that legal review can commence and any key areas of policy difference can be identified along with additional work streams. If the changes from the previous set of draft regulations are significant, Ofgem may need to re-scope the IT requirements and reconsider delivery timeframes and cost.

We have taken steps to manage this uncertainty where possible, such as providing an early draft of the feasibility study to DETI to aid them in developing their business case for final approval. Much of the uncertainty is based on factors beyond our (and DETI’s) control such as securing Ministerial approval for Ofgem to administer the scheme.
Differences Between the Great Britain Renewable Heat Incentive and the proposed Northern Ireland Renewable Heat Incentive:

This is an initial document identifying the key differences between the Northern Ireland Renewable Heat Incentive (NI RHI) and the Great Britain RHI Scheme (GB RHI). Consideration of how the NI RHI will be developed and implemented will be detailed in the Initial Options Paper.

The Northern Ireland Renewable Heat Incentive (NI RHI) is proposed to broadly follow the Great Britain scheme in structure and approach. The key areas of difference are based on the differences between the Northern Ireland and Great Britain energy markets, particularly the natural gas market in Northern Ireland which is still developing. The differences between these schemes present a number of challenges in developing the NI scheme, namely:

- Ofgem does not have a statutory role in Northern Ireland as it does in Great Britain. Ofgem will need to work with DETI to determine the best division of responsibilities in relations to areas such as payments and enforcement of scheme rules. We will need to seek legal advice and consider the options and cost of Ofgem taking responsibility for these aspects.

- Technological differences between schemes may require changes to tariff structures. DETI have proposed the inclusion of ASHPs in the NI RHI. Ofgem will need to examine the potential risks around the inclusion of ASHPs such as the risk of people running them in reverse and claiming, setting appropriate tariff rates and metering challenges. More work will also need to be done with DETI around whether they will introduce a dedicated tariff for deep geothermal from scheme commencement.

- As agreed with DETI Ofgem will not investigate the inclusion of bioliquids.

- The NI RHPP and inclusion of the Domestic Sector in the NI RHI is beyond the scope of the Initial Feasibility Study, however it may be considered as a separate project at a later stage.

- Biogas combustion is limited to 200kWth capacity in the GB scheme, while according to the NICD no such limit is to be imposed for the NI RHI. This cap will need to be removed in the IT systems if this position is to go ahead.

- The Heavy Industrial Sector is to be treated on a case by case basis under the NI RHI. We will need to work with IT to resolve how applications and accreditation processes for these sites are caught in the system. Given there are only 17 such sites in NI and the relative size of these sites we may be able to apply a filter by postcode. Advice from IT suggests that if a manual input system is required to service this sector alone, the allocated budget could be exceeded. We will need to examine options to present to DETI to address the Heavy Industrial Sector if they wish to proceed with this approach.

- It is important to make DETI aware that any element of the NI scheme that moves beyond the GB scheme will attract a much higher cost, as the economies of scale gained by developing the NI scheme as an addition to an existing larger scheme are lost. This risk potentially applies to the domestic phase, the approach taken to Heavy Industrial, and potentially the addition of technologies not currently eligible under the GB RHI.

A detailed breakdown of the differences between the GB RHI and NI RHI is provided in the table below.
### GB RHI

**Customised GB systems developed for RHI including Central Register, PSP and CRM.**

**RHPP payments provided through EST.**

### NI RHI

**Advice from Andrew in preliminary discussions is that the GB RHI Systems can be adapted for the NI scheme. Requirements for IT can be based on the same main components of IT functionality/use cases. However the NI scheme introduces additional complexity, which will also present different reporting requirements.**

**DETI want OFGEM to provide the RHPP. (NICD 5.1)**

We have advised them this is out of scope of the FS. Existing gas customers cannot avail of the RHPP. (NICD 6.7)

### Technologies:

**Air Source Heat Pumps (ASHPs) are not currently an eligible technology for the GB RHI. ASHPs are under consideration for introduction from October 2012.**

**DETI proposes that deep geothermal may initially be included under GSHPs tariff, though may also look at developing a separate tariff. Awaiting outcome of call for evidence included in NI consultation document (Appendix 1). (NICD 3.33)**

**Biogas combustion for the direct production of heat will be eligible up to 200kWth under the tariff for biomethane injection.**

**Biogas combustion is not specifically dealt with in the NI Consultation Document. Biogas derived from waste materials for the purpose of heat generation broadly would be eligible for the NI RHI. No capacity limit is stated. (NICD 3.31)**

### Tariff Rates and Bands:

**Determination of tariffs is based on the counterfactual of natural gas, which is the more prevalent heating fuel used in GB.**

**Determination of tariffs is based on the counterfactual of oil, which is the main heating fuel in NI. Taking this position ensures that the tariff bridges the financial gap between the majority heat demand and the renewable alternative. The oil counterfactual also provides some protection for the natural gas market in NI. (NICD 3.38-3.39)**

### Heavy Industrial Sector:

(Defined as sufficiently large to be covered by the EUETS. NICD 3.7 FN13. There are 17 such sites in Northern Ireland. NICD 4.1)

**Heavy industrial users are not treated separately under the GB RHI.**

**Under the NI RHI access and eligibility for large industrial users will be determined on a site by site basis by DETI. Large industrial sites wishing to participate in the NI RHI will have to submit a proposal to DETI before pursuing accreditation through Ofgem. Eligibility will be judged based on technical capability, economic viability and level of support required, availability of sustainable fuel supply, and impact on the existing and future gas network. If successful a letter of support will be issued from DETI with an offer of a specific tariff.**
rate that will need to be agreed to if they wish to pursue accreditation. No application for accreditation under the NI RHI from the heavy industrial sector will be eligible without a letter of support from DETI. *(NICD 4.7-4.8)*

**Domestic Sector:** Beyond scope of initial Feasibility Study, however this sector will need to be considered long term as the project develops in 2012.

Domestic sector not currently in the GB RHI scheme for 2011. It is expected to be brought in later, but plans are currently not clear. Original proposals were that heat use would be ‘deemed’ for GB domestic installations based on an independent assessment (Energy Performance Certificates) of the heat requirements of the house, with payments made annually at a rate determined by the size and technology of installation multiplied by the deemed usage. But we do not yet know how domestics will be taken forwards in 2012.

NI consultation document states that tariffs will be for actual heat outputs, though this is in the context of the initial NI RHI scheme and not specifically the domestic market. It may be necessary to recommend deeming for NI scheme as a less costly and problematic option for small scale installations once this phase of the scheme is under development. *(NICD 3.6)* As stated above, if NI wish to proceed with this phase before the GB scheme the costs will be considerably higher.

RHI available to domestic sector until the RHI becomes available.

RHI will be available to the domestic sector until the RHI becomes available in October 2012. However customers currently using natural gas as their primary heating source will be ineligible for support under the RHPP. *(NICD 5.4)*

**Client:**

DECC – uncertainty around policy direction and changes to the scheme have resulted in continual setbacks and unrealistic timeframes for delivery.

DETI – have set out clear expectations in their consultation document. It is important that we gain early agreement with DETI on policy and emphasise the impact that any changes to policy or key assumptions will have to delivery.

OFGEM has a statutory role.

OFGEM does not have a statutory role in NI as in GB. This will mean in the implementation and enforcement of the scheme we may need to work with DETI as to whether OFGEM will take responsibility for relevant aspects of scheme administration.
Bibliography:
Key NI RHI Documents

- Ofgem’s Feasibility Study Proposal
- Letter confirming DETI’s request for Ofgem to conduct a Feasibility Study
- Northern Ireland Renewable Heat Incentive Consultation Document (July 2011)
- Northern Ireland RHI Draft regulations (shared with Ofgem 11 October 2011)
- Progress Report/High Level Options Paper (provided to DETI)
- Northern Ireland RHI Feasibility Study (early draft provided to DETI on 15 November 2011 – all figures were removed).

- Presentation giving background on GB RHI/RHI Operations:
  http://sharepoint/Ops/Environ/Renewable_Heat_Incentive_Lib/Forms/AllItems.aspx?RootFolder=Ops/Environ/Renewable%5fHeat%5fIncentive%5fLib/Operations/training/Induction%20Presentations
Dear Fiona and Joanne,

Please find attached a letter and the Administrative Arrangements for your signature; please also find attached a slightly updated version of the 2012/13 sections of the NIRHI feasibility study. Apologies once again for the delay in sending these through to you.

We trust that all information within these is satisfactory but as mentioned in Matthew’s earlier email he will be available tomorrow morning to discuss any queries that you have.

We look forward to celebrating the launch with you and continuing to work together on this scheme.

Kind regards

Keith Avis
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Overview:

This update is to be read in conjunction with the original Feasibility Study that was provided to DETI in December 2011. It identifies those areas that are either in addition or constitute a change to the original scope of that Feasibility Study. This paper sets out the proposed direction of the NIRHI with regards to resources, IT and Legal requirements and costs. It documents the changes in scope, assumptions, dependencies and timings for delivery and the change control process should there be any further changes.
Update to the 2012/13 parts of the NIRHI Feasibility Study

Context

The original feasibility study for the NIRHI was conducted in December 2011 anticipating an April 2012 launch. However, due to a combination of the delay in the launch of this scheme and more certainty as to how the scheme will be administered than when the original feasibility study was submitted to DETI, the scope and plan for delivery has been updated. This report aims to illustrate changes in scope, resourcing, delivery timings and cost.

The scope has changed since the original feasibility study and is now more in line with that seen on the GB RHI scheme. The inclusion of Air Source Heat Pumps (ASHPs) as an eligible technology has now been removed from the draft NI regulations as has the inclusion of the 17 heavy industrial sites in Northern Ireland.

The delivery deadline for the project (Figure 2) has now been changed to be no earlier than 1 November 2012 and our NIRHI development team have reassessed the costs for delivery, these are discussed in detail within this document.
Update to the 2012/13 parts of the NIRHI Feasibility Study

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Appendix 1 – Detailed Breakdown of Revised IT Costs 24
As a result of the delay in the original launch date for the NIRHI scheme and due to changes in scope, we have needed to review and update the original NIRHI Feasibility Study, submitted to DETI in December 2011.

The core of the deliverables and activities stated in the original Feasibility Study, submitted to DETI in December 2011, are still valid but with some changes. In reviewing these, we have also taken account of our improved knowledge of scheme operations and costs since the original study was completed.

Changes to the original study are listed in this document. This should be read in conjunction with the original feasibility study document. Changes include:

1. The scheme is planned to go-live on 1 November 2012;

2. DETI have confirmed that there will be no separate treatment of large industrial customers and that air source heat pumps will not yet be included in the RHI, but also that biomass installations above 1MW will be ineligible;

3. In order to contain IT costs, changes to the RHI Register (IT system) will still need to be done in conjunction with changes being made to the GB RHI. These changes are expected to take place in January-February 2013 and so in the interim period between ‘go-live’ and February 2013 we will be running a manual administration process. This is discussed in more detail in Chapter 4;

4. As forecast in the feasibility study, the IT cost forecast has decreased from £286,000 (£143,000 plus 100% contingency) down to £190,000 (including 33% contingency). This is because we have been able to scope the IT requirements in more detail, having received confirmation of policy from DETI. We will need to receive agreement to the full £190,000 in order to deliver IT changes for the end of January 2013.

5. Due to greater certainty regarding the regulations and their similarity to the GB scheme regulations we have been able to revise legal costs downward from £186,000 (£62,000 plus 200% contingency) to £67,000. This represents a £5,000 increase on the original forecast, but due to the greater level of certainty we have been able to eliminate any contingency requirement.

6. We have managed to reduce other development costs by £5,000, in effect meaning that contingency funding is not needed for any development costs other than IT development costs. In total we have therefore reduced the forecast funding required from £772,000 (£386,000 plus 100% contingency) down to £433,000;

7. We have included support to DETI to conduct stakeholder consultation sessions on the guidance document. This consists of a 4 week consultation period with two engagement sessions (Belfast and Western Northern Ireland).
8. 2012/13 operating costs are forecast at £140,000 (a £5,000 increase). As a result of the delay in starting the scheme, operating costs have been revised down by almost £15,000. However, this has been offset, partly by an increase in application processing time than was previously envisaged, but primarily due to the impacts of operating without an IT system. The net effect is a small increase of £4,340 to the 2012/13 operating costs against the original feasibility study.
1. Key working assumptions

Chapter Summary

This chapter sets out the changes to the key working assumptions that had previously formed the basis of the work we were to undertake for the development and implementation of the NIRHI and sets out the key assumptions on which costs are based. These assumptions should be read in conjunction with the original Feasibility Study.

Legal framework

NIRHI Regulations

1.1. A key working assumption of this update to the Feasibility Study is that DETI will finalise the regulations governing the NIRHI by scheme launch on 1 November 2012, detailing the scheme functions and which body will be responsible for administering the scheme as set out according to the Administrative Arrangement. It will be DETI’s responsibility to ensure that the regulations are in place in time for scheme launch on 1 November 2012.

1.2. The costs and delivery timeframes cited in this paper are provided on the basis of the draft regulations shared with us on 13 September 2012. If final scheme policy and regulations differ considerably from those draft regulations on which this update has been based, DETI and we will have to re-negotiate the costs and delivery timeframes possible based on the final detailed policy position.

1.3. We will make every effort to prevent any impacts on scheme cost and delivery in the event of issues arising in DETI finalising the regulations providing we have adequate time to review them. However should delays occur due to regulations not being in place by 1 November 2012, we may require funding to cover any consequent cost overruns.

Cost Assumptions

1.4. Proposed costs have been developed taking account of the following:

- our proposed internal performance measures (which will be consulted on as part of our corporate planning process) which are:
  - 90% of all enquiries answered within 10 working days.
  - Follow up with generators outstanding issues on their applications for accreditation, or forward application to the next level of internal review – 90% within 10 working days
  - 95% of payments paid within 30 working days of quarterly periodic data submission.
  - The on-line application system will be available for a minimum of 99% of the supported business hours (excluding planned down time). Supported business hours are 08:00-17:30 Monday to Friday excluding bank holidays.
Update to the 2012/13 parts of the NIRHI Feasibility Study

- the number of installations are as set out in paragraph 1.11 of this document;
- they are based on the draft regulations shared with us on 13 September 2012, as referenced in paragraph 1.2;
- Northern Ireland will have smaller installations compared to GB, so applications under the NI RHI Scheme relating to them are quicker to process;
- costs do not include development costs for other phases of the scheme, or any additional operational costs resulting from those;
- the NI RHI Scheme does not differ from the GB RHI Scheme in a significant number of respects;
- no provision has been made for resources to follow up any cases of fraud should any be found;
- no provision for legal costs associated with preparing for, or participating in a Judicial Review has been included;
- we will not be required to meet any other cross-Government or cross scheme requirements that we have not already made provision for; and
- there are no further issues within the Regulations that would impact on our IT or manual system, internal procedures or external guidance.

Changes in scope

1.5. The broad approach is consistent with the GB RHI scheme. However there are some key differences from that outlined in the Feasibility Study:

- we are no longer developing solutions to the inclusion of Air Source Heat Pumps (ASHPs) and the 17 Heavy Industrial Sites; and
- Technologies using biomass >1MW are excluded from the NIRHI scheme. Deep geothermal including CHP and heat pumps if >1MW are not excluded.

1.6. A key assumption of this update to the Feasibility Study is that the timeframes for delivery outlined throughout this update report are based on the current scope. Any changes to this scope will need to be examined in relation to how they will impact on the current approach and recommendations.

1.7. Additional feasibility work may be necessary to define the resource requirements before IT systems development and guidance and business processes can be finalised.
Update to the 2012/13 parts of the NIRHI Feasibility Study

Fraud Risk

1.8. We have undertaken an assessment of the feasibility of the NIRHI on the assumption that the level of fraud risk is the same as that for the GB RHI. This will be reassessed during this Development phase following an independent risk assessment to identify key areas of risk to the scheme including any local factors that may require a different approach to the GB RHI. As agreed with DETI, we deferred the independent risk assessment planned for the Feasibility Phase as the areas of highest risk were not reflected in the draft regulations.

1.9. Any change to that risk assessment may have implications on existing fraud prevention measures and auditing and associated costs.

Scale

1.10. The expected volume of generators for the NIRHI scheme is difficult to predict and the uptake from generators will very much depend on the level of tariffs set, the administration systems for the scheme, the efficiency of the scheme and, of course, the desire for renewable technology.

1.11. The NIRHI represents up to £25 million of investment in the Northern Ireland renewable heating sector over the first four years of the scheme.

1.12. For the purposes of this update we have been advised by DETI that the uptake figures provided in the original Feasibility Study are still consistent with those listed in Table 1 below. It must be noted that these figures used the GB projections at the time as a baseline, DECC have since projected down their forecast numbers. This should not impact on the cost apportionment for the NIRHI as costs will still be charged on a proportion of the GB scheme.

Table 1: Forecast NIRHI scheme uptake

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Non Domestic</td>
<td>0</td>
<td>103*</td>
<td>498</td>
<td>931</td>
<td>1,628</td>
<td>2,175</td>
<td>2,990</td>
<td>3,836</td>
<td>5,017</td>
<td>6,291</td>
</tr>
</tbody>
</table>

* this figure revised from 247 to reflect part year operation of the scheme in 2012-13 period (5 months)
2. Key Dependencies

Chapter Summary
This chapter sets out the key dependencies that form the basis on which we are progressing with the development of this scheme.

2.1. This update to the feasibility study has been drafted based on assumptions agreed with DETI and it has been prepared on the understanding that we will work towards a 1 November 2012 launch date provided the following conditions are met:

- DETI will affirm their NIRHI regulations in parliament and they will be brought into force by 1 November 2012;
- DETI will confirm, in writing, their agreement to the Administrative Arrangements between Ofgem and DETI before the launch of this scheme;
- we can draw down adequate funds from DETI to cover all tariff payments on time by 1 February 2013;
- DETI will confirm their commitment to cover the development costs of the scheme, £433,000, and the agreed administration costs for the ongoing administration of the scheme, £140,000 for 2012-13.

2.2. Should there be delays in gaining these approvals and key dependencies, this could result in a delay to the delivery of this project and ultimately impact on the ‘go-live’ date.
3. Development Team

Chapter Summary

This chapter discusses the additional resourcing requirements for the development of the NIRHI scheme compared to that seen in the Feasibility Study.

Resources

3.1. The update to that seen in the Feasibility Study is that the Senior Manager/Project Manager’s input to the development team has been increased from 50% to 100% (Figure 1) in order to ensure that the complex deliverables and tight deadlines are achieved.

3.2. When drafting the Feasibility Study the assumption was that the GB and NI schemes would be closely aligned and follow a similar trajectory going forward. However, there is a risk that the schemes could diverge and different technologies are included or excluded. The other key assumption was that the NI scheme IT release could be ‘piggy-backed’ onto the GB scheme amendments, however the delay of the NI scheme launch meant the earliest we can realign the IT release is January 2013.

Figure 1: Proposed NIRHI Development Team

Deliverables

3.3. The deliverables for the NIRHI have not changed significantly since those scoped out during the Feasibility Study, but a more exhaustive list is provided in Table 2 below. A delivery plan can be seen in Figure 2 below.
Update to the 2012/13 parts of the NIRHI Feasibility Study

### Table 2: NIRHI deliverables

<table>
<thead>
<tr>
<th><strong>Business and operational Development</strong></th>
<th><strong>IT Development</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Arrangement between Ofgem and DETI</td>
<td>Finalise Administrative Arrangement and payment recovery process with DETI</td>
</tr>
<tr>
<td>Revision of the Development Phase scope, resource requirements and costs.</td>
<td>Recruiting additional resources</td>
</tr>
<tr>
<td>Revise operational cost forecasts using current data</td>
<td>Extending current audit and procurement contracts to include NIRHI</td>
</tr>
<tr>
<td>Update existing internal RHI operational procedures, manuals and call lists to include the NIRHI processes</td>
<td>Risk assessment and assurance</td>
</tr>
<tr>
<td>Update all external user guides and additional information for NIRHI participants</td>
<td>IT system development, testing and release</td>
</tr>
<tr>
<td>Design, test and implement an interim manual solution for accreditation of NIRHI participants</td>
<td></td>
</tr>
<tr>
<td>Internal staff training on the interim manual solution and key differences between the NI and GB schemes</td>
<td></td>
</tr>
<tr>
<td>Extension of Ofgem administered external contracts to cover operation of the NIRHI</td>
<td></td>
</tr>
<tr>
<td>Staff recruitment</td>
<td></td>
</tr>
<tr>
<td>Regular contact meetings between Ofgem and DETI to direct project specific issues.</td>
<td></td>
</tr>
</tbody>
</table>

3.4. The development team was formed in July 2012 and will be required until November 2012. However it will be necessary to extend some of the team beyond this period, for instance, through to February 2013 for the IT release, or their remit expanded before this time if DETI commission Ofgem for the development work for subsequent phases of the NIRHI scheme.
Figure 2: NIRHI Delivery timetable

<table>
<thead>
<tr>
<th>Task Name</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Phase</td>
<td>02/05/13</td>
<td>25/01/13</td>
</tr>
<tr>
<td>Development Phase Agreement</td>
<td>05/07/12</td>
<td>05/10/12</td>
</tr>
<tr>
<td>Administration Agreement</td>
<td>25/08/12</td>
<td>01/11/12</td>
</tr>
<tr>
<td>IT Delivery Project Schedule</td>
<td>02/05/12</td>
<td>25/01/13</td>
</tr>
<tr>
<td>Manual Process</td>
<td>05/09/12</td>
<td>25/10/12</td>
</tr>
<tr>
<td>Recruitment Process - Band C Operations</td>
<td>23/07/12</td>
<td>26/10/12</td>
</tr>
<tr>
<td>Recruitment Process - Temp Operations Staff</td>
<td>07/09/12</td>
<td>16/10/12</td>
</tr>
<tr>
<td>External Contracts TBC pending Legal input on pre</td>
<td>18/09/12</td>
<td>04/12/12</td>
</tr>
<tr>
<td>User Guidance doc changes</td>
<td>20/07/12</td>
<td>10/08/12</td>
</tr>
<tr>
<td>Guidance Development</td>
<td>18/08/12</td>
<td>17/09/12</td>
</tr>
<tr>
<td>Guidance related docs</td>
<td>24/09/12</td>
<td>11/10/12</td>
</tr>
<tr>
<td>Stakeholder Consultation</td>
<td>14/09/12</td>
<td>31/10/12</td>
</tr>
<tr>
<td>Internal Processes &amp; Training</td>
<td>06/10/12</td>
<td>26/10/12</td>
</tr>
<tr>
<td>Internal Communications</td>
<td>13/09/12</td>
<td>26/10/12</td>
</tr>
<tr>
<td>GO LIVE</td>
<td>01/11/12</td>
<td>01/11/12</td>
</tr>
</tbody>
</table>
Recruitment Need

3.5. There is a requirement for a permanent full time Operations Manager recruited at Band C for once the NIRHI scheme is operational. This post will be located in our Glasgow Office. This staff resource was stated in the Feasibility Study. Although this is an operational position, the recruitment process will occur during this development phase and therefore the recruitment costs must be reflected here. The rest of the operational resource will be taken as a proportion of our GB RHI operational team. The additional costs of recruiting the Band C Operations Manager will be provided from within the Development Team Resource budget.
4. Manual Solution

Chapter Summary

This chapter maps out how we will administer the NIRHI scheme manually until an effective IT system can be implemented.

Context

4.1. DECC have announced that they will be making amendments to the GB RHI legislation in 2013 to primarily streamline the accreditation process for generators and will include significant extensions to the scheme, such as regarding air quality, biomass sustainability and substituting long term cost control provisions for the interim ones that come into force in July 2012.

4.2. In order to maintain NIRHI development costs close to the Feasibility Study forecast, we will need to administer the scheme manually until the existing GB RHI IT system can be amended to incorporate the changes listed above. By 'piggybacking' the NIRHI IT system changes on those being made by the GB scheme we are able to reduce standalone release costs by £35,000. It should be noted that it is possible that there could be legal issues surrounding DECC’s owned intellectual property and IT infrastructure, however as both sources of funding for the GB and NI RHI schemes originate from HM Treasury and that the likelihood of Government Departments bringing legal action against each other is minimal, the risk of there being a legal barrier is negligible.

The Manual Process

Accreditation

4.3. The manual application and preliminary application forms have both been developed previously for the GB scheme as contingency measures if the IT system failed or for applicants with no online access, they will be emailed or posted out to applicants when they contact us. We have adapted these forms to be appropriate to the NIRHI scheme.

4.4. NIRHI applicants will need to contact us in order to get an application form, this is so that we can track applicants with an interim NIRHI number until the IT system is operational. At the same time applicants will be sent a Fuel Measurement System Questionnaire (FMSQ) and a Guide to supporting information to provide. All of these forms must be completed and returned to us.

4.5. The completed application will be manually reviewed by us, using a newly developed review tracking database. We will then pick up on any noted queries and points of clarification with the applicant. We will assess the application against the eligibility criteria for a final decision from Senior Management.
Update to the 2012/13 parts of the NIRHI Feasibility Study

4.6. We will store all communications and documentation in a Customer Relationship Management (CRM) system.

4.7. We will fill in the internal tracking spreadsheet with the interim NIRHI number, date of submission and a link to where the application is stored on CRM;

4.8. NIRHI participant posts bank details and ID to the Fraud and Compliance team;

4.9. Our Generation team conduct their level 1, 2 and 3 reviews of the application form while communicating directly with the participant in order to solve outstanding issues;

4.10. Once Fraud and Compliance team have confirmation that all the bank details and ID are correct they will provide a sign off sheet to the operations manager with delegated authority for approval (Lindsay Goater);

4.11. Our Generation team will alert Lindsay Goater that all reviews of an application have been completed and Lindsay will complete the final review and sign off. At this point Lindsay Goater will mark a password protected checkbox in the internal spreadsheet;

4.12. Our Generation team will regularly check the internal spreadsheet and upon seeing the signed off application, will send out an email confirming that the participant is now an accredited NIRHI user. The email will also explain that they will need the interim NIRHI reference number for all future communications and will need to use the email address stated on the application form for all electronic communications. The NIRHI user will also be informed that the NIRHI reference number is only for an interim period and they will be asked to set up an online account once the IT system is functional – expected early 2013

Periodic Data Submission

4.13. All NIRHI Participants are required to make a Periodic Data Submission (PDS) to us, and some Participants must also submit information about Fuels and Sustainability.

4.14. NIRHI participants will need to email in all their periodic data in a spreadsheet, the template can be found on our website, 3 months after their official accreditation date.

4.15. PDSs will be tracked on a spreadsheet to support later review and upload to the IT system when that becomes available.

4.16. We will then calculate payments against NI tariff levels and complete the payment cycle.

4.17. We confirm that an IT system will be operational by 1 February 2013, based on current timings for DECC’s legislative amendments; as covered in paragraph 4.19 there is risk that legislative amendments are delayed which could impact on this date.
Update to the 2012/13 parts of the NIRHI Feasibility Study

Additional Operating Cost

4.18. Manually operating the accreditation and periodic data collection elements of the scheme increases the operational costs (estimated at an additional £4,750 per month on top of the forecast operational costs in the Feasibility Study). An IT system can automatically generate payments data, data downloads for Fraud and Compliance checks and regular reporting. All of these elements will need to be generated manually which incurs additional staff costs.

4.19. There is a risk that DECC’s legislative amendments are delayed and changes are not made in January 2013 to the GB scheme. This would result in either additional monthly operational costs continuing until such time as the IT system can be amended in conjunction with GB changes or a standalone IT release charge being incurred to bring the NI RHI IT system online.
5. Stakeholder Consultation

Chapter Summary

This chapter discusses the scope for stakeholder consultation, the logistics and finally the costs for delivery.

Consultation Strategy

5.1. DETI have led the stakeholder consultation, published and produced materials for the workshops and collated all responses and feedback. The consultation responses were passed on to us for analysis and to make amendments to the Guidance. A four week consultation was launched by DETI from 2nd September to 1st October and is on the Guidance Materials for NIRHI scheme users. Two stakeholder engagement sessions in Northern Ireland were held during that period, the DETI run sessions were planned for the 25th and 26th September 2012 and held in Belfast and Western Northern Ireland. The engagement sessions were an open forum for stakeholders to comment on the content of the draft guidance document, ask direct policy questions to DETI with us playing a supporting role to answer specific administrative questions.

5.2. For the sessions we travelled to NI in the morning, attended the two sessions alongside DETI over the two days and travelled back the following evening in order to reduce resource use and costs.

Costs

5.3. We didn’t anticipate requiring external technical consultants to assist in this stakeholder event and indeed none were required.

5.4. All printing and preparatory materials were produced by DETI in-house.

5.5. The additional costs of supporting DETI’s consultation were provided from within the Development Team Resource budget.
6. Legal Cost Increase

Chapter Summary
This chapter sets out the justification for the proposed increase in legal costs.

Feasibility Stage Costs

6.1. During the development of the Feasibility Study there were still some considerable uncertainties which are set out in the 3 scenarios of legal involvement (low, medium and high as set out on Page 84 of the Feasibility Study). The contingency levels of 200% for each scenario reflected the level of uncertainty and risk associated with that original estimate of £62,000.

Current Legal Cost Projection

6.2. We have now seen a near final version of the regulations and a detailed project plan has been developed which sets out the scope of legal involvement.

6.3. The costs for legal resource have increased by just over 8% to £67,000 due to factors including two full legal reviews of the guidance materials development and time spent to date on the NI regulations development in association with DETI.

6.4. An exacerbating factor for legal costs is that half of the NIRHI project team’s allocated legal resource was sourced externally at a higher unit cost than our internal legal staff. This is an unavoidable consequence of workload and changing project timescales.
7. Revised IT Amendments and Costs

Chapter Summary

This chapter sets out the justification for the proposed increase in IT costs.

IT System Amendments

7.1. The original cost forecast in the Feasibility Study was based on NIRHI amendments to the IT system being made at the same time as GB RHI changes to reduce costs. In order to remain in line with the Feasibility Study costs, we must avoid making standalone changes to the IT system for the NIRHI.

7.2. We have had to delay the release of the IT system changes so that they can be combined with changes that are being made to the GB RHI scheme to introduce air quality and sustainability requirements (these are currently planned for January 2013).

7.3. This allows us to avoid the significant additional costs of a separate IT release – around an extra £35,000. To do so however means that we will need to operate manual accreditation (and data collection) processes between scheme go-live and the IT release.

Feasibility Study Costs

7.4. The costs stated in the Feasibility Study for IT development amounted to £143,000 plus 100% contingency until the end of the Feasibility Study work, at which point it would decrease to 33% contingency to reflect greater scheme certainty. This was based on the scope denoted in the draft NI Regulations in 2011.

7.5. The estimate was based upon an April 2012 launch of the NIRHI scheme which would have tied in with changes being made to the GB RHI online register and additional services.

Current IT Cost Projection

7.6. As we are delaying the amendments to the RHI IT system until changes can be made in conjunction with the GB scheme, we have been able to remain in line with the forecast cost in the Feasibility Study of £143,000. As there is now more certainty regarding the detailed requirements of the NIRHI scheme, the contingency necessary has reduced from 100% to 33%; this 33% is no longer considered contingency but rather core funding needed to achieve this development work. This 33% equates to an additional £47,000 making the total projected for IT development £190,000. This is dependent upon there being no change in the scope of the detailed requirements compared to what we currently understand is required.

7.7. A detailed breakdown of the IT development requirements can be seen in Appendix 1.
8. Proposed Budget

Chapter Summary
This chapter summarises and breaks down the proposed budget for development of the NIRHI scheme and the estimated operational costs for 2012-13, 2013-14 - 2015-16.

Development Costs Forecast

8.1. The following forecasts have been put together based on the available material and assumptions, including the draft regulations circulated 21 September 2012. This revised budget forecast is based on a 1 November 2012 launch, and includes savings and efficiencies that have been achieved through planned resource allocation.

8.2. Our legal costs have increased by £5,000, however we have found cost savings of £5,000 through pooling our resources with the GB RHI scheme on an independent risk assessment that is to be carried out shortly.

8.3. The IT costs remain unchanged but we require from DETI an additional 33% (£47,000). We hope not to spend this additional funding but this is our current best estimate of IT costs. We will need the full £190,000 if we are to deliver on time.

8.4. Should the GB scheme changes be delayed beyond January 2013, DETI would incur additional costs if we are to progress with a standalone IT release to make the online NI scheme operational.

Operational Costs Forecast

8.5. We have also now revised our 2012/13 operating cost forecast to take into account the part year operations, as well as taking into account our experience on the GB scheme with administration processing time.

8.6. As a result we have been able to revise down the base operating costs by almost £15,000, although this is offset by a need to increase operating costs due to the impacts of operating without IT until January. The net effect is a small increase of £4,340 to the 2012/13 operating costs so that total operating costs for 2012/13 are now forecast at £140,000. There is no legal contingency included in these costs.

8.7. The part year costs can be broken down as follows:

- Original FS operating costs - £135,660
- Revised part year operating costs - £121,000
- Additional staff costs due to delayed IT launch - £19,000
Update to the 2012/13 parts of the NIRHI Feasibility Study

- Updated operational costs (i.e. part year operating costs plus additional staff costs due to delayed IT launch) - £140,000

**Table 3: Development Costs Forecast**

<table>
<thead>
<tr>
<th>Delivery Component</th>
<th>Cost (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Scheme Development delivery team (including:</td>
<td></td>
</tr>
<tr>
<td>Band C Operational Manager – recruitment process &amp; Stakeholder engagement costs)</td>
<td>£96,000</td>
</tr>
<tr>
<td>Internal Ofgem legal costs</td>
<td>£67,000</td>
</tr>
<tr>
<td>IT delivery costs</td>
<td>£190,000</td>
</tr>
<tr>
<td>Independent risk assessment</td>
<td>£5,000</td>
</tr>
<tr>
<td>Overheads</td>
<td>£75,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td><strong>£433,000</strong></td>
</tr>
</tbody>
</table>

**Operational Costs**

<table>
<thead>
<tr>
<th>Cost (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>£121,000</td>
</tr>
<tr>
<td>£19,000</td>
</tr>
<tr>
<td><strong>Total:</strong></td>
</tr>
<tr>
<td><strong>Total 2012-13 forecast costs:</strong></td>
</tr>
</tbody>
</table>

**Outyear Operational Cost Calculation**

8.8. The total costs for the financial years 2013/14-2015/16 are estimated at £759,844 in accordance with operational methodology provided separately. These projections include staff costs, consultancy, legal consultancy and recruitment. All costs also include overheads charged at 24%.

8.9. Any additional funding sought will be done via the Change Control process.

**Change Control Process**

8.10. The scope and timescales for the Scheme are as set out in the NIRHI Feasibility Study (published December 2011) and in this document. The estimated costs are as set out at paragraphs 8.7 and 8.8 and the assumptions on which these are based are set out in the key working assumptions sections of this document and the original Feasibility Study.

8.11. The change control process is designed to deal with any changes to the above scope, cost or timescales. The proposed process is outlined below; where any potential changes are identified, the Ofgem Project Manager (currently Keith Avis) will manage the process. Once agreed, the process may then be amended from time to time by written agreement between DETI and Ofgem.
Update to the 2012/13 parts of the NIRHI Feasibility Study

<table>
<thead>
<tr>
<th>Key Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Initiation</td>
<td>Capturing a basic definition of the scope to create a baseline of what is to be delivered. This phase has been completed for NIRHI and the scope was described in the NIRHI Feasibility Study (published December 2011) and in this document.</td>
</tr>
<tr>
<td>Change Identification</td>
<td>Identifying a change and initial identification of the potential outcomes.</td>
</tr>
<tr>
<td>Impact Assessment</td>
<td>Assessing the impact of implementing the suggested change to understand how the change will affect cost, quality and timescales.</td>
</tr>
<tr>
<td>Change Recording</td>
<td>Completing a Change Request Form (this will be provided separately) to capture a request for change. This should describe what the change is, why it is needed and what benefits it will bring. All raised Change Requests will be documented in the Change Request Log.</td>
</tr>
<tr>
<td>Ofgem/ DETI Approval</td>
<td>Reviewing the Change Request and impact assessment, assessing an appropriate course of action and approving or rejecting the change at the correct level of authority.</td>
</tr>
<tr>
<td>Change Implementation</td>
<td>Updating relevant documentation and communicating these changes to all stakeholders and impacted parties.</td>
</tr>
</tbody>
</table>

Payment of Operational Costs

8.12. The Parties agree that, during the term of the Arrangements GEMA will invoice DETI on a monthly basis in respect of the operational costs incurred by GEMA in the immediately preceding calendar month, and DETI will pay GEMA the amount of each invoice within 30 days of the date of the invoice.

8.13. If any dispute arises as to the amount of operational costs payable by DETI to GEMA in relation to a given month, the parties intend to comply with the following process –

(a) The dispute will first be discussed by the accounting officers from GEMA and DETI, with a view to resolving the dispute at that level;

(b) If the accounting officers are unable to resolve the dispute themselves within two weeks of being notified thereof, they will then each escalate the dispute to the Senior Civil Service or Director level of each of the organisations for final resolution.

Drawdown of Funds

8.14. The Parties agree that, during the term of the Arrangements GEMA will, on a monthly basis, notify DETI of the estimated amounts from which periodic support payments are to be made to participants during the calendar month for which the amount concerned is required, such notification to be provided by GEMA no later than five working days prior to the beginning of the calendar month in which the payments to the participants concerned are to be made.

8.15. On receipt of the notice referred to in paragraph 8.14, DETI will transfer to GEMA the sum specified in the notice as soon as reasonably practicable, and in
Update to the 2012/13 parts of the NIRHI Feasibility Study

any event by no later than the 27th of the calendar month in which that notice is provided to DETI.

8.16. Any monies transferred to GEMA pursuant to paragraph 8.15 will be held in a bank account established solely for the purpose of making periodic support payments.

8.17. Where the Arrangements are terminated, either in accordance with paragraph 6 of the Arrangements or otherwise, GEMA will arrange for any monies (including any interest that may have accrued thereon) held in the account referred to in paragraph 8.16 to be returned to DETI as soon as reasonably practicable.

8.18. For the avoidance of doubt, GEMA will not use funds transferred to it under this drawdown of funds section other than for the purpose of making periodic support payments.
Update to the 2012/13 parts of the NIRHI Feasibility Study

Appendix 1 – Detailed Breakdown of Revised IT Costs

<table>
<thead>
<tr>
<th>Task</th>
<th>Analyse</th>
<th>Design</th>
<th>Implement</th>
<th>Test</th>
<th>Infrastructure</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project / Phase Setup</td>
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<td>0</td>
<td>0</td>
<td>£0</td>
<td>£10,176</td>
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<tr>
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<td>5.55</td>
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<td>0.5</td>
<td>£212</td>
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<tr>
<td>Feature 3</td>
<td>2.855</td>
<td>£1,211</td>
<td>0.5</td>
<td>2</td>
<td>£948</td>
<td>£2,716</td>
</tr>
<tr>
<td>Feature 4</td>
<td>5.3</td>
<td>£2,247</td>
<td>4.5</td>
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<td>Feature 5</td>
<td>5.925</td>
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<tr>
<td>Feature 6</td>
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<td>1</td>
<td>2</td>
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<tr>
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<td>Feature 8</td>
<td>4.855</td>
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<td>Feature 11</td>
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Update to the 2012/13 parts of the NIRHI Feasibility Study

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Update to the 2012/13 parts of the NIRHI Feasibility Study
Chapter summary

This chapter outlines DETI’s and Ogem’s approach to ensuring compliance with conditions of the NIRHI scheme, including their enforcement powers and procedural approach to non-compliance.

Compliance with the scheme and enforcement

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

10.2 We (DETI) have provided resources to assist participants in complying with their obligations under the scheme. These include the publication of this Guidance, as well as the hosting of a series of stakeholder engagement activities. Ofgem will provide the NIRHI helpdesk facility, which will deal with queries relating to eligibility requirements, payments and Ofgem’s administration of the scheme.

10.3 As administrator of the NIRHI scheme on behalf of DETI, Ofgem has put in place an application process, together with a system of internal checks and review procedures, which aims to ensure that only installations and producers of biomethane that meet the eligibility criteria are accredited or registered, and that these participants receive the correct levels of support as set out in the Regulations. Ofgem has a responsibility to ensure compliance with the rules of the Northern Ireland Renewable Heat Incentive Scheme. A detailed Fraud Prevention Strategy will be developed which includes ongoing liaison with other NI Executive departments, including crime prevention agencies.

10.4 Where Ofgem suspect that participants may be failing to comply with ongoing obligations, they will take steps to determine the facts. In the first instance, they will generally contact a participant to request further information, clarification or relevant evidence. This should be sufficient, in the majority of cases, to establish whether a participant is in compliance. However, if Ofgem is not satisfied with the outcomes of their initial enquiries, they may undertake a site inspection (see Chapter 11) or, if they have reasonable grounds to suspect that a participant has failed or is failing to comply with his ongoing obligations under the scheme, instigate a formal investigation.

10.5 Once Ofgem is satisfied that they are in possession of the relevant facts of a case, they will decide what further action, if any, may be appropriate to deal with the matter. Ofgem’s approach may include confirming that a participant is in compliance, contacting the participant informally to advise them of any non-compliance and advising them of what they should do to rectify the situation, or exercising one or more of the range of enforcement actions that are available to them under the Regulations. In circumstances where Ofgem is satisfied that a participant has received a payment which exceeds the amount that the participant is entitled to, or that the participant is in failing to comply with its ongoing obligations, and the participant does not repay the overpayment and Ofgem does not offset the overpayment against future payments made to the participant, we (DETI) may seek to recover such overpayment as a civil debt.
channelled down into a combined GB and Northern Ireland risk assessment just hadn’t happened. And the particular — he deals with that across a number of pages — unless you want, we can open that up, but it runs from TRA-06270 through to 06276 — that’s the particular passage where Mr Scoffield is asking him about it and ends up with the conclusion that I’m explaining. What I want — I’ve given you the sources that are available that indicate this was the intention. I’ve looked at your statement, where you were saying, “This is what should happen”. DETI’s permanent secretary was saying the same thing, adding in — I know it’s something we talked about the last day that DETI have responsibility equally to say to you, “Make sure it’s done”, but what I want to ask you, in the context of the terms of reference that we looked at on the previous occasion, does Ofgem accept that an independent risk assessment of the Northern Ireland RHI scheme should’ve taken place?

**Mr Nolan:** Yes, it does.

**Mr Aiken:** Was not doing that something that, using the words of the terms of reference, Ofgem got wrong?

**Mr Nolan:** I find it hard to accept anything else. Yes, Ofgem did get it wrong.

**Mr Aiken:** And can you help the Inquiry with what that type of risk assessment might’ve covered, had it been carried out?

**Mr Nolan:** Yes. I assu — I don’t — I’ve reviewed the documentations on what myself — I find it difficult to explain why it didn’t happen. I think the — if a specialised — an inquiry specific to Northern Ireland, I think, would’ve looked at issues vis-à-vis, would, I think, — I would’ve hoped have brought back many of the issues identified by Ofgem at the start, which had wrongly sort of gotten lost into the adminis — when the scheme was being administered. So, presumably, it would’ve covered whether or not the issues that had been — problems that had been raised at the start — the lack of cost controls, issues about tiering, the lack of — it could well have identified many of those issues again, and that’s,
then that doesn’t happen, is that a systemic failing, when you stand back from it? So, if you’ve got a, say, 15 schemes that are going on, and you rightly carry out that type of risk assessment for each one of them, but you’ve got the fifteenth that you don’t do that for, is that a systems failure, then, that has happened within the organisation?

10:30 am

Mr Nolan: I find it hard to specify whether it’s a systems failure or not. It’s certainly a key failing, I think.

Mr Aiken: OK.

Dr MacLean: Can I just ask on system issues? The one we’ve got up here on screen is about £5,000. We’ve seen a number of other instances where, in particular, your legal department are very insistent: if they’ve not got a budget for something, then they’re not gonna do it. Is that an issue when the work really needs to be done, when it is key work? Should there be a system or a process in place to deal with issues where you haven’t got the money from another Department to do what is necessary to do a good job? Here it seems that the work is cut out. Do you need to have a different way of dealing with the costs of these schemes to allow you to do all the work that is necessary, that you do believe needs to be done?

Mr Nolan: I think that’s a very fair point. I just will give some sort of —. Broadly yes would be my answer. The difficulty is a sense that money is coming from the Department of Northern Ireland, and then money is coming from the Exchequer in Westminster. And technically, as accounting officer, that money should be used for separate purposes.

And legal advice, we have sought to —. Legally, in theory, we have to keep such money separately and try and account for it separately, which is what I do. In practice over the last couple of years — I hope I’m not breaching my responsibilities here — we have worked more intensively with Northern Ireland, and I would say have had work that needs to be
Please see attached submission for the Minister’s urgent consideration and approval.

D Sterling is content and has approved.

<<...>>

Many thanks

Janice

Janice Hill
Permanent Secretary’s Office
Department of Enterprise, Trade & Investment
Netherleigh
Massey Avenue
Belfast, BT4 2JP
Tel: 028 9052 9441 (ext: 29441)
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Web: www.detini.gov.uk

All e-mails and attachments issued by the Permanent Secretary’s Office must be filed appropriately by the responsible business area. The Permanent Secretary’s office does not keep official records of such correspondence.

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Please consider the environment - do you really need to print this e-mail?
BRAIN CASE FOR THE APPOINTMENT OF OFGEM, VIA AN AGENCY SERVICE AGREEMENT TO ADMINISTER THE NORTHERN IRELAND RENEWABLE HEAT INCENTIVE.

Issue: This submission seeks the mandatory internal approval to appoint The Office of Gas and Electricity Markets (Ofgem) to administer the Northern Ireland Renewable Heat Incentive (RHI) and to act as an External Delivery organisation on behalf of DETI.

Timing: Desk Immediate – Ofgem’s work must commence immediately if we are to minimise the delay in the start of the scheme.

Need for referral to the Executive: Not applicable

Presentational issues: The appointment of Ofgem may attract some comment from local stakeholders.

FOI implications: Some elements may be exempt under the Freedom of Information Act.

Financial Implications: The development of the administrative system is expected to cost £386K; the ongoing operational costs for the next four years are estimated to be £136K, £157K, £198K and £249K respectively

Legislation Implications: N/A

PSA/PFG Implications: None
Statutory Equality: None.

Obligations:

Recommendation:

That the Departmental Accounting Officer authorises the appointment of Ofgem, and approves the attached business case for the project.

That the Departmental Accounting Officer authorises the appointment of Ofgem as an External Delivery Organisation.

That the Minister notes the appointment of Ofgem to develop an administrative system for the NI RHI and approves the business case for the appointment at a cost of approximately £386k.

Background

A target of 10% renewable heat for NI by 2020 is included within the Strategic Energy Framework; this is a challenging target given that the current level is 1.7% but is necessary to meet an EU Renewable Energy Directive (RED) (2009/28/EC) on renewable energy. £860million has been made available from central Government funding to support the introduction of a Renewable Heat Incentive (RHI) in GB over the period 2011-2015; HMT has notified the Northern Ireland Executive that £25million of funding is available for a NI RHI over the same period. The GB RHI scheme commenced in November 2011. Energy Division engaged consultants to consider how the renewable heat market in Northern Ireland could best be developed; this has resulted in proposals for a specific NI RHI tailored to take account of the differences in the GB and NI existing heat markets. The proposed NI RHI represents a long term approach to developing the renewable heat market by providing consistent, secure, long term payments for renewable heat generation. The scheme involves payments to installers of renewable heat technologies, with tariffs dependent on the type and size of technology installed, and in the form of pence per kilo watt hour (p/kWh) for heat generated. Payments will be made quarterly over a 20 year period for all eligible installations (following accreditation).

Administrative System

2. The introduction of a NI RHI requires an administrative system capable of managing enquiries and applications, ensuring participants meet ongoing obligations throughout the life of the scheme, processing payments as outlined above, preventing fraud and providing management information.
3. The Office of Gas and Electricity Markets (Ofgem) is the Energy regulator for Great Britain and has a close working relationship with the Department of Energy and Climate Change (DECC). Over the last 2 years Ofgem and DECC have worked closely together to develop administration arrangements for the GB RHI; this has included developing processes, designing IT systems and developing the guidance documents that underpin the scheme.

4. It was considered that by contracting with Ofgem for the delivery of the NI RHI, DETI would benefit from all the work that has already been undertaken in developing the GB system. For this reason, you will recall, Ofgem was asked to conduct a feasibility study to advise on the technical and legal implications of administering the NI RHI, the feasibility of using the existing systems and to provide estimates of development and operational costs.

5. The study concluded that Ofgem had the operational structures in place to deliver an administrative system, tailored specifically for NI, following a development phase of approximately 4 months. The cost of the development work would be £386K. Forecasts of operating costs for the next four years are £136K, £157K, £198K and £249K, based on NI accounting for a 3% share of the workload. In any case, Ofgem has confirmed that it will only pass through actual costs to DETI.

6. Exploiting synergies with the GB RHI will drive down the costs of administering the scheme whilst maintaining a high quality service to generators. For example, using the existing Customer Relationship Management (CRM) Software will save NI an estimated £100-150K, while using the existing SUN system to make generator payments, instead of a payment service provider, could save in the range of £100 -500K. In addition, using the main existing RHI register instead of commissioning a bespoke IT system is expected to save between £2m and £3m. Overall, it is estimated that using Ofgem's existing systems could save somewhere between £3.2million and £5.15million with additional ongoing operational savings.

7. The question as to who should administer the NI RHI was asked within the public consultation on the scheme. Responses to the consultation were mixed; some consultees agreed that the use of Ofgem would be beneficial in terms of efficient delivery, consistency and reduced administrative costs. Others argued that the scheme should be administered locally with the possibility of creating new jobs and skills in NI. However, the completion of this feasibility study provides clear evidence that there are very substantial gains (both in terms of efficiency and cost) to be had from utilising the existing GB system. Looking forward, there is the additional advantage that we would only be required to pay our share of any future development or enhancement costs.

Central Procurement Directorate (CPD)

8. Energy Division has discussed the award of the contract to Ofgem with colleagues in CPD who in turn have consulted the Departmental Solicitor’s Office. DSO indicated that three tests should be applied to decide whether the proposed contract with Ofgem involved ‘public bodies sharing in such a manner that the procurement regulations do not apply’. Having received information on the status of Ofgem, its funding arrangements and procurement procedures, CPD is content
that the proposed agreement would pass all three tests. CPD have confirmed, in writing, that appointing Ofgem would be acceptable and that a formal arrangement with Ofgem through a Service Level Agreement is appropriate, without the need for a call for competition (pdf of signed form is attached).

9. The main reasons for awarding the contract to Ofgem are contained in the attached business case (Annex A) and can be summarised as follows:-

- Economies of scale due to Ofgem’s role as Administrator of the GB scheme; DETI will benefit from existing expertise and systems.

- Consistency of approach with GB; the GB RHI and NI RHI are largely similar and discrepancies in administration could cause confusion and prevent uptake.

- Ofgem has a sound track record in delivering large scale energy projects such as the roll out of smart metering, the Feed-in-Tariff and the Renewables Obligation (including the NI element).

- The adaptation of an existing system will be quicker and carry less risk; the NI RHI will be able to be introduced earlier and the risk of it not being fit for purpose is lessened

**Ofgem as an External Delivery Organisation**

10. At the Casework Committee meeting of 9th March 2012, which considered the wider proposals on the NI Renewable Heat Incentive, Energy Division was advised that if the administration of the RHI was awarded to Ofgem that they would be treated as a External Delivery Organisation and this would require approval from the Departmental Accounting Officer. This is in addition to the approval for the Agency Service Agreement.

11. In considering this proposal the following should be noted:

- Ofgem will be awarded the contract, via an Agency Service Agreement. CPD have been involved throughout this matter, offering procurement and legal advice, and are content with this proposal;

- Formal contractual arrangements with Ofgem and DETI will be via an approved Agency Services Agreement, again CPD are advising on this matter;

- The roles and responsibilities of Ofgem, as well as the expected costs, are set out in the attached business case and in the Ofgem feasibility study; and

- Energy Division will ensure DETI Internal Audit Branch have right of entry into Ofgem to make appropriate checks as required.
12. The **Departmental Accounting Officer** is asked to consider this proposal and give approval to the appointment of Ofgem as an External Delivery Organisation.

13. In addition, it should be noted that Finance Division have been alerted to the scale of the set up and ongoing costs as laid out in para 5 above and have undertaken to manage these internally via deminimus bids in the appropriate monitoring rounds. Energy Division will therefore keep in close contact with Finance Division and will make in year bids as required.

**Recommendations**

1. That the Departmental Accounting Officer authorises the appointment of Ofgem, via an Agency Service Agreement and approves (and signs) the attached business case for the project.

2. That the Departmental Accounting Officer authorises the appointment of Ofgem as an External Delivery Organisation.

3. That the Minister notes the appointment of Ofgem to develop an administrative system for the NI RHI and approves the business case for the appointment at a cost of approximately £386k.

(signed)

FIONA HEPPER
Energy Division
(Ext 29215)

cc: David Thomson
    Trevor Cooper
    Iain McFarlane
    Bernie Brankin
    Terry Coyne
    Joanne McCutcheon
    Peter Hutchinson
    Jill Hawthorne
    Glynis Aiken
    Sam Connolly
    Susan Stewart
    Sandra Thompson
DETI Economic Appraisal Pro Forma
(Expenditure between £250k and £1m)

(It is expected that the level of detail required is proportionate with the level of expenditure)

Division Energy Division
Branch Renewable Heat Branch

Project Title Administration of Renewable Heat Incentive
Date March 2012
1. Strategic Context

This section should refer to the underlying policy or strategy that the project ‘fits’ within. It should indicate how the project is expected to contribute to the relevant objectives of the strategies identified.

In September 2010, DETI published the Strategic Energy Framework (SEF) which had been agreed and endorsed by the Executive. The SEF included a target of 10% renewable heat by 2020; this is required to meet a EU Renewable Energy Directive (RED) (2009/28/EC) as well as to increase fuel security, reduce dependence on fossil fuels, support the drive for a cut in emissions and provide opportunities for green jobs. In the same month, the DETI Minister announced that DETI would seek to introduce a Renewable Heat Incentive (RHI) in Northern Ireland should one be economically viable (GB had already announced plans to introduce a GB RHI). The Programme for Government contains an interim target of 4% renewable heat by 2015.

In October 2010, Her Majesty’s Treasury allocated DETI £25m (2011-2015) for the introduction of a RHI. Following on from this, DETI appointed Cambridge Economic Policy Associates (CEPA) and AEA Technologies, following a competitive tender process, to carry out an economic appraisal of a RHI. The work by CEPA/AEA has shown that the introduction of a specific NI RHI is the best way to develop the renewable heat market in NI and achieve the targets outlined above.

The NI RHI represents a long term approach to developing the renewable heat market by providing consistent, secure, long term payments for renewable heat generation. The incentivisation involves payments to installers of renewable heat technologies, with tariffs dependent on the type and size of technology installed, and in the form of pence per kilo watt hour (p/kWh) for heat generated. Payments will be made quarterly over a 20 year period for all eligible installations (following accreditation).

The introduction of a NI RHI requires an administrative system capable of
managing enquiries and applications, accrediting installations, ensuring participants meet ongoing obligations throughout the life of the scheme, processing payments, preventing fraud and providing management information. The Office of Gas and Electricity Markets (Ofgem) has developed such a system for DECC and is already managing the administration of the GB RHI.

2. Assessment of Need
Establish the need for the expenditure on the project by identifying current deficiencies in provision and analysing future demand; the proposed level of service provision etc. should be quantified and justified. Where the project involves funding the non-government sector, the rationale for government intervention should be explained. Additionality should be addressed i.e. would the project go ahead without assistance (whether at a different time / location or on a different scale)? Displacement should be considered.

With a budget of £25m over the next four years and payments ‘grandfathered’ for 20 years, it is vital that the NI RHI scheme is properly administered. A sophisticated system, incorporating both IT systems and manual operations, and capable of managing the various stages of the scheme (managing applications; accreditation; payment processing; monitoring, forecasting and fraud detection) is required.

The resource to develop such a system, both in terms of number of personnel and expertise, is not available within Energy Division. Similarly there is insufficient resource to manage the system on an ongoing basis.

The NI RHI cannot proceed without an administrative system being put in place.
Objectives
Objectives must be set for the project and should be quantified through the use of targets, which should be monitored and ultimately evaluated. Targets should be SMART, i.e. Specific, Measurable, Agreed, Realistic and Time-dependent. The relative priority of individual objectives should be identified.

The objectives for the project are as follows:-

**To develop an administrative system for the NI RHI**
- Recruit and train staff
- Develop Guidance Material for scheme
- Develop Standard Operating Procedures for the scheme
- Develop Call scripts for contacts team
- Develop training materials for operations staff
- IT systems development
- Systems testing
- Communications strategy

**To manage the administration of the NI RHI on an ongoing basis (initially for 4 year period)**
- Processing applications
- Accreditation of Generators
- Customer relationship management including processing payments
- Maintenance of Central register
- Auditing and assurance
- Prevent fraud and manage compliance
- Provide management information
3. Identification and sifting of Options
Identify and describe a range of options to meet the projects stated aims and objectives. The options examined should include a base case, or status-quo option and an appropriate range of alternative options. If appropriate, options may be rejected before full appraisal but the reasons behind the rejection of particular options should be clearly detailed and evidenced where appropriate. A sufficient range of options to allow for meaningful comparison should be carried forward to full appraisal (at least a base case and 2 alternatives should be taken forward).

The options considered are as follows:

**Option 1 – Do nothing**
Doing nothing would result in the Northern Ireland RHI not going ahead due to a lack of administration. The scheme cannot run unless it is properly administered. Failure to deliver a RHI would result in the loss of allocated funding, criticism from stakeholders and failure to achieve Executive and EU targets (with potential for the UK, as Member State, passing on a share of any infraction costs to NI). **This is not a viable option.**

**Option 2 – Undertake the administration in-house**
The necessary resources and technical expertise do not exist in-house in Energy Division or in the wider Department. The team responsible for renewable heat (as well as other related and unrelated activities) consists of a PT Grade 7, 1.5 DP’s and 0.5 SO. As well as the introduction of Phase 1 of the RHI, this team will be managing and running the interim Renewable Heat Premium Payment scheme; as well as developing policy and making legislation for Phase 2 of the RHI (to commence 2013) as well as providing briefing, answering AQs and dealing with correspondence cases. They are also responsible for sustainable energy messaging. There is absolutely no spare capacity within the Division. As above, targets will be missed and **this is not a viable option.**
**Option 3 – Partial completion of assignment using in-house resources**

The necessary resources and technical expertise to administer the Northern Ireland RHI do not currently exist in-house. The option of obtaining additional staff resource and completing part of the work in house has been considered. However, following the feasibility study, it is clear that the system provided by Ofgem is a total solution and the work would not easily divide between Ofgem and DETI. Indeed, dividing the work would almost certainly increase the costs and would definitely increase the risk of incorrect or inappropriate payments. **For this reason this is not a viable option.**

**Option 4 – Short/Medium term secondment of industry experts**

The administration of the RHI requires a long term approach and therefore the short/medium term secondment of industry experts **is not a viable option.**

**Option 5 – Use of external body to manage the administration**

A body with appropriate resource and experience in developing and implementing this type of administrative system is **the only feasible option.** Ofgem, through its experience of working with DECC in designing and implementing the GB RHI, would be able to deliver the scheme in a timely and effective manner. DETI asked Ofgem to undertake a feasibility study to consider the viability and costs associated with adapting the GB RHI system to manage the NI RHI. **This is the only viable option.**

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4. Monetary Costs & Benefits

Clearly identify and quantify all the monetary costs that are associated with each of the options under consideration; both capital costs and recurrent costs should be disaggregated to an appropriate level. Recurrent costs and benefits should be provided on an annual basis, shown at current market prices. Opportunity costs and residual values for all assets employed should be included. In accordance with HM
Treasury guidance assumptions about costs, benefits and timing should be adjusted for optimism bias¹.

The study concluded that Ofgem had the operational structures in place to deliver an administrative system, tailored specifically for NI, following a development phase of approximately 4 months. The cost of the development work would be £386K. Forecasts of operating costs for the next four years are £136K, £157K, £198K and £249K based on NI accounting for a 3% share of the workload. In any case, Ofgem has confirmed that it will only pass through actual costs to DETI.

The economic appraisal for the RHI scheme, prepared by external consultants, considered that the likely cost of administering an RHI scheme could be 10% of total funding. With total funding of £25m over the 4 years, the estimates provided by Ofgem appear to be value for money.

The feasibility study also shows that exploiting synergies with the GB RHI will drive down the costs of administering the scheme whilst maintaining a high quality service to generators. For example, using the existing Customer Relationship Management (CRM) Software will save NI an estimated £100-150K, while using the existing SUN system to make generator payments, instead of a payment service provider, could save in the range of £100 -500K. In addition, using the main existing RHI register instead of commissioning a bespoke IT system is expected to save between £2m and £3m. Overall, it is estimated that using Ofgem's existing systems could save somewhere between £3.2million and £5.15million with additional ongoing operational savings.

5. Appraise risks associated with each option
Identify the main risks associated with the various options. Consider how risks compare under the different options identified.

¹ Optimism bias is the tendency for project appraisers to be overly optimistic i.e. by overstating benefits and understating timescales and costs, both capital and operational.
The main risk with this option is that the Ofgem will fail to deliver either at the development phase or at the operational stage. This risk is low given that it is currently delivering the GB scheme and has a good track record in delivering other schemes including the Northern Ireland Renewables Obligation.

The risk will also be managed through ongoing performance monitoring. An Administration Board will be setup with the DETI Director of Energy as the Senior Responsible Owner and Joint Chair. The board will initially meet on a fortnightly basis before moving to a monthly cycle once the scheme is established. This will be supplemented with regular contact between the DETI project team and the Ofgem project manager.

6. Calculate Net Present Values
Identify phasing of monetary costs and benefits. Calculate NPV of each option using correct discount rate (usually 3.5%). Include spreadsheets detailing the calculations as an annex.

n/a

7b. Sensitivity Analysis
Sensitivity analysis should be carried out to test variations in key assumptions; this will include the impact of price and volume changes. (Relevant spreadsheets should be included as annexes)

n/a

7. Non-Monetary Costs & Benefits
Identify relevant non-monetary benefits and costs. Describe how these costs and benefits compare under the different options being appraised and quantify when possible (If costs/benefits are quantified in monetary terms they
should not be included in this section but in section 5). Alternatively, use an appropriate technique such as an 'impact statement' or 'weighting and scoring' to assess how each option performs. Rank each option in relation to how it performs against the identified non-monetary costs and benefits.

As well as the significant cost benefit in using Ofgem, there is the additional benefit of getting a sophisticated bespoke system. By building on the existing GB system we are maximising the technical functionality we can purchase with our budget. Furthermore, the system is already tested and functioning so the risk is minimised. Ofgem has a good track record of delivering similar schemes both in GB and NI, for example, the roll out of smart metering, the Feed-in-Tariff and the Renewables Obligation (including the NI element).

With the similarities between the GB and NI schemes, consistency of approach may also be important thus minimising the potential for confusion among stakeholders or errors in administration.

Using Ofgem to adapt an existing system is also likely to be significantly quicker. This is important as the NI RHI cannot be introduced until the system is ready. We are already behind GB in the introduction of the scheme and any further delay must be minimised to avoid negative feedback from stakeholders.

9. Assess the balance between options and identify preferred option.
The following summary table should be completed detailing the results of the analysis of costs and benefits, non-monetary factors, the assessment of risk and uncertainty (taking into account optimism bias), viability, cost effectiveness and efficiency (DCF test to include optimism bias-adjusted NPV).

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Based on these summary results, a preferred option should be identified.

The only viable option is to appoint an external body to administer the RHI.

The preferred option is to appoint Ofgem as the administrator. Ofgem is already providing the administration for the GB RHI and the cost of tailoring that existing system to accommodate the NI RHI is considerably less than developing a new system. It also carries less risk than commissioning an entirely new system.

10. Financing, Monitoring & Post Implementation Evaluation and Management Considerations

The proposed sources of funding should be shown (The funding provision for a project should be sufficient to cover expenditure after adjustment for optimism bias). Consider the affordability of the preferred option and whether it represents value for money. Details of any conditions attached to the proposed support should also be documented.

Funding will be through Divisional budgets with in year monitoring bids as appropriate.

Arrangements for project monitoring and evaluation should be documented. Monitoring indicates how the proposed option will be monitored during and after implementation. Evaluation should check the extent to which project objectives, costs and benefits have been achieved as planned once the preferred option is running for a specified period. The arrangements for evaluation should indicate the factors to be evaluated, when any evaluation is to be carried out and who will be responsible for ensuring an evaluation is completed (The officials project sponsor or approver should not carry out the Post Project Evaluation).

There will be a signed agreement between Energy Division and Ofgem which will clearly state expected outputs, targets and costs for both the
development and operational phases. Arrangements for monitoring of the project against the targets are as laid out in para 6 above. Evaluation of the development and operation will be separate. The development evaluation will take place shortly after the system becomes operational. The evaluation of the operational part of the contract will be at the end of the first year of operation.

Please set out the management considerations that need to be taken into account if the anticipated benefits for this project / programme are to be realised including details of project personnel, procurement, timetable, staffing issues and highlight how risks will be managed. If support is to a TPO / TSO confirm that TPO guidance has been followed and highlight relevant monitoring and control issues.

n/a

10. Recommendations
DECLARATION

I am satisfied that all factors of all feasible options have been considered in this appraisal and that the recommended option is the optimum.

Signed……………………………………………………………………………………………………………………

Position…………………………………………………………………………………………………………………

Date………………………………………………………………………………………………………………..

APPROVAL

I am satisfied that all factors of all feasible options have been considered in this appraisal and that the recommended option represents best value for money.

Signed………………………………………………………………………………………………………………

Position……Permanent Secretary…………………………………………
Date… 18th April 2012…………………………………………………………
CENTRAL PROCUREMENT DIRECTORATE (CPD)

Request for Procurement Advice in respect of a Direct Award Contract (DAC)

Please complete this form with all relevant details and send to CPD.

### Section 1: Client Contact Details

<table>
<thead>
<tr>
<th>Name of Contact</th>
<th>Joanne McCutcheon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department</td>
<td>Department of Enterprise, Trade and Investment</td>
</tr>
<tr>
<td>Branch/Division</td>
<td>Renewable Heat Branch, Energy Division</td>
</tr>
<tr>
<td>Address</td>
<td>Netherleigh Massey Avenue Belfast</td>
</tr>
<tr>
<td>Postcode</td>
<td>BT4 2JP</td>
</tr>
<tr>
<td>e-mail address</td>
<td><a href="mailto:Joanne.mccutcheon@delini.gov.uk">Joanne.mccutcheon@delini.gov.uk</a></td>
</tr>
<tr>
<td>Office Telephone Number</td>
<td>028 9052 9425</td>
</tr>
<tr>
<td>Mobile Telephone Number</td>
<td>-----------</td>
</tr>
</tbody>
</table>

### Section 2: Direct Award Contract (DAC) Details

<table>
<thead>
<tr>
<th>Title of DAC</th>
<th>Administration of the Northern Ireland Renewable Heat Incentive (RHI) by the Office of Gas and Electricity Markets (Ofgem)</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the estimated value of this DAC?</td>
<td>£386K development costs plus ongoing operational costs estimated to be £136k, £157K, £198K and £249K in each of the next four years.</td>
</tr>
<tr>
<td>What is the proposed length of this DAC?</td>
<td>Development phase – 4 months. Operational costs ongoing subject to an Agency Services Agreement</td>
</tr>
</tbody>
</table>
### 3.1 Technical Reasons or Exclusive Rights

Is this DAC being justified for technical or artistic reasons or because the supplier has exclusive rights?

Ofgem is the Energy Regulator for Great Britain and has a close working relationship with the Department of Energy and Climate Change (DECC). Ofgem acts as the delivery body for a number of DECC led renewable energy schemes including the Renewable Obligation (and the Northern Ireland Renewables Obligation), the Feed-in-Tariff and the GB RHI.

Over the past 2-3 years, Ofgem and DECC have worked closely to develop administration arrangements for the GB RHI, this has included the development of a sophisticated IT system, development of application, accreditation, monitoring and fraud prevention processes, payments processing and management reporting tools. The system is now fully operational and has been managing the administration of the GB RHI since November 2011.

The proposed NI RHI is very similar to the GB RHI. By contracting with Ofgem for the delivery of the Northern Ireland RHI, DETI would be in position to avail of the systems already developed by Ofgem, at significant cost to DECC, in the design and delivery of the GB RHI. This presents significant economies of scale, ensures consistency in approach with GB in the delivery of the two similar incentive schemes and minimises the risk associated with the implementation of the scheme.

A feasibility study has already been undertaken by Ofgem. This study has shown that it is technically feasible to use the existing GB system and tailor it for the administration of the NI incentive.

Given Ofgem's role in the GB RHI and its expertise in delivering large scale renewable energy projects, it is the view of Energy Division that it is the only viable option for the administrator of the Northern Ireland RHI.
3.2 Legislative Requirements

Is this DAC in respect of a good or service which must meet specific legislative requirements e.g. Home Office Approval

If Yes, please provide details of the legislative justification.

The primary legislative powers which provide DECC with the authority to introduce the RHI in GB lie within Section 100 of the 2008 Energy Act. These powers specifically define Ofgem as “the Authority” and refer to them as having the power to make payments under the RHI, enforce the scheme, require information from applicants etc. Ofgem is, within the primary legislation, described as the administrators of the RHI in Great Britain. Subordinate legislation which sets out how the GB RHI will be administered, eligibility standards and regulations, prescribe in more detail the role of Ofgem as administrator.

Northern Ireland was not included under the 2008 Energy Act but the 2011 Energy Bill provides DETI with the powers conferred on DECC under the 2008 Energy Act. Secondary legislation is now being drafted.

### Section 4. Current/previous contract

<table>
<thead>
<tr>
<th>4.1 Was there a Contract which has / or is about to expire? NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please provide the name of the supplier</td>
</tr>
<tr>
<td>Please provide the start and end dates of the contract including extensions</td>
</tr>
<tr>
<td>If the contract has been extended beyond the original options to extend please provide details.</td>
</tr>
<tr>
<td>Was this contract awarded under Single Tender Action?</td>
</tr>
<tr>
<td>If No, was there an advertisement placed in the local papers and/or the OJEU, if so please provide dates</td>
</tr>
<tr>
<td>What was the actual value of the initial contract at the time of award?</td>
</tr>
<tr>
<td>What has been the actual spend to date form the commencement of this contract?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.2 Is this a new requirement? Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please provide the name of the proposed supplier</td>
</tr>
</tbody>
</table>
Please provide justification for the DAC to this supplier
This is a new requirement. DETI is proposing to introduce a Northern Ireland Renewable Heat Incentive (RHI) and is just finalising the design of the scheme. The scheme will incentivise the uptake of renewable heat technologies to support the achievement of targets set by the Executive and obligations set by the European Union. Further to this, the increase of renewable heat in Northern Ireland will assist in increasing fuel security, reduce carbon emissions and provide opportunities for 'green jobs'. Her Majesty's Treasury has provided £25m over the next 4 years for the introduction of a Northern Ireland RHI.

For the scheme to be successful, accessible and not subject to fraudulent activities, it is vital that an administrator is put in place to process applications, make payments, monitor the scheme, enforce standards and eligibility, ensure accessibility and provide audit and management information.

Ofgem has been appointed to administer the GB RHI and DETI wish to also appoint them to administer the Northern Ireland RHI. Ofgem is the energy regulator in GB and is governed by an Authority, consisting of non-executive and executive members and a non-executive chair. For funding, Ofgem recover costs from the licensed companies it regulates. Licensees are obliged to pay an annual licence fee which is set to cover Ofgem’s running costs. Ofgem is independent of the companies it regulates.

Ofgem has vast experience in administrating large scale energy programmes and has a dedicated team, known as E-Serve, which currently deals with a range of energy schemes including the Feed-in-tariff, Smart Metering, the Renewables Obligation and the GB RHI. E-Serve is also responsible for the administration of the Northern Ireland Renewables Obligation (NIRO).

Ofgem has considerable in house expertise and this team will be mainly used in delivery of the NI project. If additional legal or financial expertise is required by Ofgem this will be procured via the OGC Framework Agreement to engage external services. This would be work specifically required by Ofgem in delivery of its responsibilities to DETI. If any work is directly required by DETI (eg drafting of the regulations) this will be undertaken by Arthur Cox; a legal firm previously appointed through open procurement competition.

There are a number of reasons for appointing Ofgem to this role;

- Economies of scale due to Ofgem’s role as GB administrator, DETI would be benefiting from existing expertise, guidance documents, IT systems etc. The feasibility study showed savings on the development to be between £3m and £5m.

- Consistency of approach with GB, the GB RHI and Northern Ireland RHI are largely similar, discrepancies in administration could cause confusion and prevent uptake.

- Ofgem has a track record in delivering large scale energy projects
such as the roll out of smart metering, the Feed-in-Tariff and the Renewables Obligation (including the Northern Ireland element). Furthermore the administration of the GB RHI is already operational; the risks associated with the implementation of the NI scheme will therefore be significantly reduced.

**APPROVALS**

<table>
<thead>
<tr>
<th>Requestor</th>
<th>I hereby declare that <strong>I do not</strong> have an external personal or monetary interest in the company to which this DAC will be awarded.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print Name</td>
<td>Joanne McCutcheon</td>
</tr>
<tr>
<td>Signature</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td>26/3/12</td>
</tr>
</tbody>
</table>

**Recommended by Head of Branch**

<table>
<thead>
<tr>
<th>I hereby declare that <strong>I do not</strong> have an external personal or monetary interest in the company to which this DAC will be awarded.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print Name</td>
</tr>
<tr>
<td>Signature</td>
</tr>
<tr>
<td>Date</td>
</tr>
</tbody>
</table>

**CPD ADVICE – For CPD Use Only**

Based on the information provided CPD is satisfied that the conditions of Teckal can be met and an exemption can be applied in this case.

The authority therefore may make a formal arrangement with Ofgem through a Service Level Agreement for the services required without a call for competition.

Signed:  
Print Name: Tom Gilgunn  
Grade (Grade 6 and above only): 6  
Date: 17/4/12

Signed:  
Print Name: R Bell  
Grade (Grade 6 and above only): 5  
Date: 17/4/12

**ACCOUNTING OFFICER DECISION**

I hereby declare that **I do not** have an external personal or monetary interest in the company to which this DAC will be awarded. I have read CPD Policy Guidance Note 02/10 and the comments provided by CPD.

a) I request CPD to progress this DAC on behalf of the Contracting Authority with ____________________.

Name:  
David Sterling  
Signature:  
Date: 18/4/12
DEPARTMENT OF ENTERPRISE, TRADE AND INVESTMENT

Unclassified

From: Christine McLaughlin
Private Office
To: Hepper Fiona (Mrs)
Date: 24/04/2012

Action Copy: cc Energy
Hegarty Damien (Mr)
McLaughlin Christine (Mrs)

SUB/219/2012: BUSINESS CASE - THE APPOINTMENT OF OFGEM, VIA AN AGENCY SERVICE AGREEMENT TO ADMINISTER THE NI RENEWABLE HEAT INCENTIVE

The Minister has seen and read your submission of 18/04/2012 and is content.

Christine McLaughlin (Private Office)

Netherleigh House Tel: Ext 29222

OffName
From: Fiona Hepper
Energy Division

Date: 18th April 2012

To: 1. David Sterling [Content 18/4/12]
2. Andrew Crawford
3. Arlene Foster MLA

DETI SUB 219/2012

BUSINESS CASE FOR THE APPOINTMENT OF OFGEM, VIA AN AGENCY SERVICE AGREEMENT TO ADMINISTER THE NORTHERN IRELAND RENEWABLE HEAT INCENTIVE.

Issue: This submission seeks the mandatory internal approval to appoint The Office of Gas and Electricity Markets (Ofgem) to administer the Northern Ireland Renewable Heat Incentive (RHI) and to act as an External Delivery organisation on behalf of DETI.

Timing: Desk immediate – Ofgem’s work must commence immediately if we are to minimise the delay in the start of the scheme.

Need for referral to the Executive: Not applicable

Presentational issues: The appointment of Ofgem may attract some comment from local stakeholders.

FOI implications: Some elements may be exempt under of the Freedom of Information Act.

Financial Implications: The development of the administrative system is expected to cost £386K; the ongoing operational costs for the next four years are estimated to be £136K, £157K, £198K and £249K respectively

Legislation Implications: N/A

PSA/PFG Implications: None

Statutory Equality Obligations: None.
Recommendation:

That the Departmental Accounting Officer authorises the appointment of Ofgem, and approves the attached business case for the project.

That the Departmental Accounting Officer authorises the appointment of Ofgem as an External Delivery Organisation.

That the Minister notes the appointment of Ofgem to develop an administrative system for the NI RHI and approves the business case for the appointment at a cost of approximately £386k.

Background

A target of 10% renewable heat for NI by 2020 is included within the Strategic Energy Framework; this is a challenging target given that the current level is 1.7% but is necessary to meet an EU Renewable Energy Directive (RED) (2009/28/EC) on renewable energy. £860 million has been made available from central Government funding to support the introduction of a Renewable Heat Incentive (RHI) in GB over the period 2011-2015; HMT has notified the Northern Ireland Executive that £25 million of funding is available for a NI RHI over the same period. The GB RHI scheme commenced in November 2011. Energy Division engaged consultants to consider how the renewable heat market in Northern Ireland could best be developed; this has resulted in proposals for a specific NI RHI tailored to take account of the differences in the GB and NI existing heat markets. The proposed NI RHI represents a long term approach to developing the renewable heat market by providing consistent, secure, long term payments for renewable heat generation. The scheme involves payments to installers of renewable heat technologies, with tariffs dependent on the type and size of technology installed, and in the form of pence per kilo watt hour (p/kWh) for heat generated. Payments will be made quarterly over a 20 year period for all eligible installations (following accreditation).

Administrative System

2. The introduction of a NI RHI requires an administrative system capable of managing enquiries and applications, ensuring participants meet ongoing obligations throughout the life of the scheme, processing payments as outlined above, preventing fraud and providing management information.

3. The Office of Gas and Electricity Markets (Ofgem) is the Energy regulator for Great Britain and has a close working relationship with the Department of Energy and Climate Change (DECC). Over the last 2 years Ofgem and DECC have worked closely together to develop administration arrangements for the GB RHI; this has included developing processes, designing IT systems and developing the guidance documents that underpin the scheme.
4. It was considered that by contracting with Ofgem for the delivery of the NI RHI, DETI would benefit from all the work that has already been undertaken in developing the GB system. For this reason, you will recall, Ofgem was asked to conduct a feasibility study to advise on the technical and legal implications of administering the NI RHI, the feasibility of using the existing systems and to provide estimates of development and operational costs.

5. The study concluded that Ofgem had the operational structures in place to deliver an administrative system, tailored specifically for NI, following a development phase of approximately 4 months. The cost of the development work would be £386K. Forecasts of operating costs for the next four years are £136K, £157K, £198K and £249K, based on NI accounting for a 3% share of the workload. In any case, Ofgem has confirmed that it will only pass through actual costs to DETI.

6. Exploiting synergies with the GB RHI will drive down the costs of administering the scheme whilst maintaining a high quality service to generators. For example, using the existing Customer Relationship Management (CRM) Software will save NI an estimated £100-150K, while using the existing SUN system to make generator payments, instead of a payment service provider, could save in the range of £100 - 500K. In addition, using the main existing RHI register instead of commissioning a bespoke IT system is expected to save between £2m and £3m. Overall, it is estimated that using Ofgem's existing systems could save somewhere between £3.2million and £5.15million with additional ongoing operational savings.

7. The question as to who should administer the NI RHI was asked within the public consultation on the scheme. Responses to the consultation were mixed; some consultees agreed that the use of Ofgem would be beneficial in terms of efficient delivery, consistency and reduced administrative costs. Others argued that the scheme should be administered locally with the possibility of creating new jobs and skills in NI. However, the completion of this feasibility study provides clear evidence that there are very substantial gains (both in terms of efficiency and cost) to be had from utilising the existing GB system. Looking forward, there is the additional advantage that we would only be required to pay our share of any future development or enhancement costs.

Central Procurement Directorate (CPD)

8. Energy Division has discussed the award of the contract to Ofgem with colleagues in CPD who in turn have consulted the Departmental Solicitor's Office. DSO indicated that three tests should be applied to decide whether the proposed contract with Ofgem involved 'public bodies sharing in such a manner that the procurement regulations do not apply'. Having received information on the status of Ofgem, its funding arrangements and procurement procedures, CPD is content that the proposed agreement would pass all three tests. CPD have confirmed, in writing, that appointing Ofgem would be acceptable and that a formal arrangement with Ofgem through a Service Level Agreement is appropriate, without the need for a call for competition (pdf of signed form is attached).
9. The main reasons for awarding the contract to Ofgem are contained in the attached business case (Annex A) and can be summarised as follows:-

- Economies of scale due to Ofgem's role as Administrator of the GB scheme; DETI will benefit from existing expertise and systems.

- Consistency of approach with GB; the GB RHI and NI RHI are largely similar and discrepancies in administration could cause confusion and prevent uptake.

- Ofgem has a sound track record in delivering large scale energy projects such as the roll out of smart metering, the Feed-in-Tariff and the Renewables Obligation (including the NI element).

- The adaptation of an existing system will be quicker and carry less risk; the NI RHI will be able to be introduced earlier and the risk of it not being fit for purpose is lessened.

**Ofgem as an External Delivery Organisation**

10. At the Casework Committee meeting of 9th March 2012, which considered the wider proposals on the NI Renewable Heat Incentive, Energy Division was advised that if the administration of the RHI was awarded to Ofgem that they would be treated as a External Delivery Organisation and this would require approval from the **Departmental Accounting Officer**. This is in addition to the approval for the Agency Service Agreement.

11. In considering this proposal the following should be noted:

- Ofgem will be awarded the contract, via an Agency Service Agreement. CPD have been involved throughout this matter, offering procurement and legal advice, and are content with this proposal;

- Formal contractual arrangements with Ofgem and DETI will be via an approved Agency Services Agreement, again CPD are advising on this matter;

- The roles and responsibilities of Ofgem, as well as the expected costs, are set out in the attached business case and in the Ofgem feasibility study; and

- Energy Division will ensure DETI Internal Audit Branch have right of entry into Ofgem to make appropriate checks as required.

12. The **Departmental Accounting Officer** is asked to consider this proposal and give approval to the appointment of Ofgem as an External Delivery Organisation.

13. In addition, it should be noted that Finance Division have been alerted to the scale of the set up and ongoing costs as laid out in para 5 above.
and have undertaken to manage these internally via deminimus bids in the appropriate monitoring rounds. Energy Division will therefore keep in close contact with Finance Division and will make in year bids as required.

Recommendations

(1) That the Departmental Accounting Officer authorises the appointment of Ofgem, via an Agency Service Agreement and approves (and signs) the attached business case for the project.

(2) That the Departmental Accounting Officer authorises the appointment of Ofgem as an External Delivery Organisation.

(3) That the Minister notes the appointment of Ofgem to develop an administrative system for the NI RHI and approves the business case for the appointment at a cost of approximately £386k.

(signed)
FIONA HEPPER
Energy Division
(Ext 29215)

cc: David Thomson
Trevor Cooper
Iain McFarlane
Bernie Brankin
Terry Coyne
Joanne McCutcheon
Peter Hutchinson
Jill Hawthorne
Glynis Aiken
Sam Connolly
Susan Stewart
Sandra Thompson
Peter
As discussed
Bob

From: Matthew Harnack
Sent: 30 August 2012 18:13
To: Milton James; Andy Luckhurst; Keith Avis; Luis Castro; Rita Chohan; Paul Heigl; Richard Kayan
Cc: Robert Hull
Subject: NI RHNI budgetary position
Importance: High

Hi all,
I had to speak with Fiona Hepper of DETI this afternoon rather than Monday because she needed to discuss budgetary issues before they “make their return on budget lines” tomorrow (they advised that changes to budget would become even more difficult after tomorrow). Joanna McCutcheon also sat in on the call.

Key points:
- DETI were quite frankly furious to be told of such a significant increase in costs. DETI were also very unhappy about the long time taken to confirm costs (they asked us to confirm these back in May). As a result they feel that they are being put between a rock and a hard place on this, adding to their anger.
- It was difficult to get them to acknowledge the contingency point, particularly because they pointed to minuted meetings that they had with our staff around June and July where (according to them) we gave assurances that costs would not be above £386k. I put this down to a misunderstanding, in that our staff were no doubt indicating that costs were unlikely to be above that in the feasibility study (i.e. including contingency).
- I noted that at this stage the budget needed was looking like it was around £700k, though this had not been internally reviewed so could go up as well as down. I noted that this was within the 100% contingency that we had indicated. I noted the key areas where contingency was needed (IT and legal).
- DETI pushed me to give draft figures for IT and legal. They picked up that IT had increased by more than 100%, and pointed to page 7 of our feasibility study which said that an IT contingency of 100% was proposed, and noted that it also said that contingency would drop to 33% in December once feasibility work was completed.
- They noted that the Minister is adamant that the scheme must go live in October, and I had to give them an assurance that there is no risk to this happening (provided funding was agreed in time), albeit that it might be on the basis of manual accreditation forms initially.
- They also noted that it would be next to impossible to get additional budget (because amongst other things they managed to get the approval to avoid a procurement process and avoid giving the work to a local company solely because of the VFM that our £386k solution provided).
- They asked me to agree to review the level of IT contingency needed in light of the budget issue and in light of our commitment on page 7 of the feasibility study. Clearly we will now need to look at reducing contingency for both parts of the IT build (November accreditation part and January data/payments part).
- We discussed how costs might come down beyond just revisiting IT contingency (because that alone would not be enough to reduce it to £386k), and I suggested deferring the accreditation part of the IT build until next financial year could be a solution, and relying on manual forms and/or an offshore transmission type portal in the interim. I gave a commitment to look at the costs of these options.
- DETI also grilled me on the operating costs. I pointed out that unit costs for accreditation were a lot higher than forecast in the feasibility study, and that this would offset cost reductions from only operating for part of 2012/13. Again, Fiona was furious about not being told about this earlier.
- I have agreed to have a phone meeting with Fiona at 2pm next Thursday. I will need all costs to be confirmed and finalised before then, including IT contingency, manual accreditation options, and operating costs (including outyears).

Luis, in my absence can you please make sure that all of this is being put into action tomorrow, and can you please oversee it so that we have final figures presented to us in time for a review meeting (meeting to be held no later than Thursday morning – nb I am off Wednesday).

Others, please note these points and change your plans accordingly.

Thanks

Matthew

Matthew Harnack
Associate Director, Commercial
All
To see the Email from Matthew to DETI. Paul – grateful if your could update your DPA and covering letter accordingly. Can you also liaise with GB RHI about their risk assessment – suffice to say we will need to work with them on the ToR for this.
Peter – appreciate that you will need to build this into your finance sheets. Grateful if we could then go through these when you are ready.
Rgds
Keith

From: Matthew Harnack
Sent: 04 September 2012 13:08
To: 'Hepper, Fiona'; 'McCutcheon, Joanne'
Cc: Keith Avis; Luis Castro
Subject: Revised Ofgem Cost Forecasts for 2012/13 for NI RHI
Importance: High

Dear Fiona and Joanne,

Further to our discussion last Thursday evening, I am pleased to say that we have been able to revise downward our cost forecasts significantly compared to the draft figures that I mentioned on the phone. The final revised figures are provided in the table below. The headline is that total development costs are now forecast to be £433,000 in 2012/13, compared with the feasibility study estimate of £386,000 plus contingency. The difference of £47,000 is accounted for due to the 33% contingency needed for IT development costs.

We have worked hard to revise the figures as far downward as possible since Thursday. Our IT division has scrutinised IT delivery needs and are now able to confirm that we can move downward to a 33% IT contingency basis rather than the 100% previously assumed. To do this we have had to assume that there will be no change to the scope of IT requirements compared to what we currently understand is required.

We have also had to delay the release of the IT system changes so that they can be combined with changes that are being made to the GB RHI scheme to introduce air quality and sustainability requirements (these are currently planned for January 2013). This allows us to avoid the significant additional costs of a separate IT release. To do so however means that we will need to operate manual accreditation (and data collection) processes between scheme go-live and the IT release, which adds slightly to the operational costs. The small volumes expected in the first few months of operations will mean that manual accreditation processes should be manageable.

We have also reviewed the legal cost estimates and have been able to drive these down significantly so that they are now only £5k above the feasibility study estimate.

Finally on development costs, we have also identified that we should be able to combine the independent risk assessment which needs to be carried out with an assessment to be done on the changes to the GB scheme. We estimate that this will save a further £5,000, offsetting the slight increase in legal costs.

We have also now revised our 2012/13 operating cost forecast to take into account the part year operations, as well as taking into account our experience on the GB scheme with administration processing time. As a result we have been able to revise down the base operating costs by almost £15,000, although this is offset by a need to increase operating costs due to the impacts of operating without IT until January. The net effect is a small increase of £4,340 to the 2012/13 operating costs so that total operating costs for 2012/13 are now forecast at £140,000.

The combined development and operating cost forecast for 2012/13 is now expected to be £573,000, compared with a feasibility study figure of £521,660 excluding contingency. A breakdown of costs is provided below.

<table>
<thead>
<tr>
<th>Delivery Component</th>
<th>Feasibility Study Cost Forecast Excluding Contingency* - December 2011</th>
<th>Revised Cost Forecast – 4 September 2012</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Scheme Development delivery team</td>
<td>£96,000</td>
<td>£96,000</td>
<td>£0</td>
</tr>
<tr>
<td>Ofgem legal costs</td>
<td>£62,000</td>
<td>£67,000</td>
<td>£5,000</td>
</tr>
<tr>
<td>IT delivery costs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Independent risk assessment</td>
<td>£10,000</td>
<td>£5,000</td>
<td>-£5,000</td>
</tr>
<tr>
<td>Overheads</td>
<td>£75,000</td>
<td>£75,000</td>
<td>£0</td>
</tr>
<tr>
<td><strong>Total Development Costs</strong></td>
<td><strong>£386,000</strong></td>
<td><strong>£433,000</strong></td>
<td><strong>£47,000</strong></td>
</tr>
<tr>
<td>Revised 2012/13 operational costs (pre IT delay)</td>
<td>£135,660</td>
<td>£121,000</td>
<td>-£14,660</td>
</tr>
<tr>
<td>Additional 2012/13 operational costs due to delay to IT launch</td>
<td></td>
<td>£19,000</td>
<td>£19,000</td>
</tr>
<tr>
<td><strong>Total 2012/13 Operational Costs</strong></td>
<td><strong>£135,660</strong></td>
<td><strong>£140,000</strong></td>
<td><strong>£4,340</strong></td>
</tr>
<tr>
<td><strong>Total 2012/13 Cost Forecast (Development plus Operational Costs)</strong></td>
<td><strong>£521,660</strong></td>
<td><strong>£573,000</strong></td>
<td><strong>£51,340</strong></td>
</tr>
</tbody>
</table>

*Contingency of £386,000 was recommended in the feasibility study for development costs*

I’m sorry that the draft figures I mentioned on the phone to you were such a shock but I hope you appreciate that when I heard that you needed to submit budget figures on the Friday I thought it best to make you aware of the potential increase in the costs, even though they had not yet been through our internal scrutiny process.

I do hope that this revised cost forecast and revised delivery approach is acceptable and that you will be in a position soon to confirm the budget we need to deliver the scheme. We will shortly be forwarding a Development Phase Agreement which will include this revised cost forecast and delivery approach, which we then hope to agree in a timely way so that the scheme can go live as planned at the end of October. I look forward to discussing this soon.

Regards,
Matthew

**Matthew Harnack**
Associate Director, Commercial
New Scheme Development
9 Millbank
London
SW1P 3GE
Tel: 020 7901 7218
www.ofgem.gov.uk
On cross subsidisation, a couple of points to make.

- The majority of costs are opex which are charged directly to the sponsor each year, either DETI or DECC, on the basis of activities performed.
- The set up costs are £5m for a £860m subsidy scheme.
- The proportion of these set up costs attributable to RHINI is 25/860 = 0.03% and the set up costs that are potentially attributable to DETI are around £140k. However, DETI have paid us £100k to do a feasibility study which is a set up cost uniquely attributable to them, so the net cross subsidy is around £40k. However, the indemnification they have provided on legal costs probably outweighs this. I would argue that any cross-subsidy is minimal at best.

On strategy, a key value add which is not really mentioned is the benefit we provide in terms of fraud, error and gaming prevention and detection. This is of far greater value than any efficiency savings of us operating the scheme.

-----Original Message-----
From: Stuart Cook
Sent: 19 January 2012 09:08
To: Robert Hull
Subject: Re: Some gema tensions around NI RHI to manage ...

Cross subsidisation and strategy ...

Managing Director, E-Serve Mobile: (Sent from a handheld device; apologies for brevity and any typos)

----- Original Message -----  
From: Robert Hull
To: Stuart Cook
Sent: Thu Jan 19 08:58:58 2012
Subject: RE: Some gema tensions around NI RHI to manage ...

I look forward to it.... is this a trust, strategy, or vires issue? Dont forget that DECC can put this in legislation

-----Original Message-----
From: Stuart Cook
Sent: 19 January 2012 08:52
To: Robert Hull
Subject: Some gema tensions around NI RHI to manage ...

... Probably best to let me introduce this.

Please come for ride ...

Stuart
Managing Director, E-Serve Mobile: (Sent from a handheld device; apologies for brevity and any typos)
Catherine

Please find attached draft Regulations as requested.

Many thanks

Susan

Susan Stewart
Sustainable Energy
Department of Enterprise, Trade & Investment
Netherleigh
Massey Avenue
Belfast, BT4 2JP
Tel: 028 9052 9212 (ext: 29212)
Textphone: 028 9052 9304
Web: www.detini.gov.uk

Please consider the environment - do you really need to print this e-mail?

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From: Catherine McArthur [mailto:Catherine.McArthur@ofgem.gov.uk]
Sent: 10 October 2011 16:00
To: Stewart, Susan; McCutcheon, Joanne
Cc: Hutchinson, Peter; Jonah Anthony
Subject: RE: NI RHI project: Ofgem high level approach paper

Dear Susan/Joanne,

Will you be sending us the draft regulations today for the NI RHI as previously agreed?

Also following up from last week can you please let me know if you will be available this Wednesday to discuss the Progress Report, and what time would be convenient?

Kind regards,

Catherine McArthur
Policy Development Manager
New Scheme Development
9 Millbank
London
SW1P 3GE
Tel: 0207 901 7000
www.ofgem.gov.uk
From: Catherine McArthur  
Sent: 07 October 2011 16:35  
To: 'Stewart, Susan'; 'McCutcheon, Joanne'  
Cc: 'Hutchinson, Peter'; Jonah Anthony  
Subject: NI RHI project: Ofgem high level approach paper

Dear Susan/Joanne,

As promised in Jonah’s email of Wednesday 5th October please find attached the high level assumptions paper that sets out the approach we’re taking in preparing the feasibility study (bearing in mind the necessary legal considerations Jonah mentioned). The purpose of this document is to confirm our approach to the next stage of the project and ensure this is in line with your expectations. It confirms our intention to use the GB RHI systems and processes where we can. However by reviewing this approach on a module by module basis we have made sure we haven’t missed anything or any opportunities to cut implementation costs further for Northern Ireland.

It would be great if we could discuss this, perhaps on Wednesday 12th October by telephone conference? Please let me know what time would be convenient for you, and don’t hesitate to contact me in the meantime should you have any questions.

Kind regards,

Catherine McArthur  
Policy Development Manager  
New Scheme Development  
9 Millbank  
London  
SW1P 3GE  
Tel: 0207 901 7278  
www.ofgem.gov.uk

From: Jonah Anthony  
Sent: 05 October 2011 16:46  
To: 'Stewart, Susan'; 'McCutcheon, Joanne'  
Cc: 'Hutchinson, Peter'; Catherine McArthur  
Subject: RE: NI RHI project: Ofgem high level options paper (draft) and revised project timeline (draft)

Susan/Joanne

Slight change of plan. We have been advised by our legal team that given that the primary legislation is not in place yet we need to ensure all the work we do on this project is specifically
related to considering resourcing requirements if Ofgem is to take on the role of NI RHI administrator.

This does not affect the feasibility study or project overall – but we do need to re-write the options document to reflect our status while the Energy Bill works its way through the parliamentary process. We should have a new version ready by the end of the week. It will be more of an assumptions paper which won’t need to be formally agreed – but if you do have any concerns about the direction we propose to take the feasibility study, it would be a good time raise and discuss those.

On that note, do you have any indication as to when DECC hope the Bill will pass? We are presuming you will not be able to finalise the regulations until the primary legislation is in place. This of course may impact on delivery timetables.

Regards

Jonah Anthony  
Senior Policy Development Manager  
New Scheme Development  
9 Millbank  
London  
SW1P 3GE  
Tel: 020 7901 0524  
www.ofgem.gov.uk

I hope you are both well.

1. Please find attached our draft paper on what we consider to be the high level options for implementing the NI RHI system. This is still a draft, awaiting senior management sign off, but we wanted to give you a flavour of what’s coming your way.

The purpose of this paper is to help you ensure we are investigating the right things in the feasibility study. We do not want to get to the end of the process before you get to see anything and realise we are on the wrong track.

We aim to send the finalised paper on **Wednesday 5th October** and you will have a week to consider the recommendations. I suggest that we then set up a conference call on **Wednesday 12th October** to discuss and agree the recommendations (unless you find yourself over here for other meetings).
2. Also attached is a revised timetable. The main difference from the version provided in the proposal is that it push back the delivery of the final report to accommodate the later start date (Monday 19 September rather than Thursday 1 September). Please let me know if you have any queries or concerns with the timeline. We have also revised the timeline based on the regs being ready on Monday 10th October. If they are to be provided later, grateful if you can let me know sooner rather than later so I can stand down the lawyers.

3. I understand in previous discussions with Matthew he highlighted that Energy Saving Trust operate the GB Renewable Heat Premium Payment and that they would probably offer better value in operating a similar scheme in Northern Ireland. However if you do want us to do any work on this please let me know asap and we can work on a proposal (the RHPP is currently out of scope for the feasibility study).

4. We have undertaken an analysis of the difference between the NI RHI and GB RHI, and have started to look closely at how we deal with the 17 Heavy Industrial Sites. To aid our thinking we would appreciate it if you could answer questions below (first question more urgent the then rest). Once we have a better idea of how you are planning to deal with this group, we can be more precise about how it can be administered.

Q1 How can we identify these sites? Is there any document/list which provides their details sufficiently for an IT system/business process to identify them. Specifically we presume we would need to know the following for each site:

- Company Name;
- Address of the large industrial site;
- Postcode of the site and whether they are the sole occupant of this postcode (or postcodes if there are more than one) so that we can identify the simplest way to flag these sites in the IT systems and through the online accreditation process to ensure they don’t inadvertently gain access to the scheme without DETI’s approval; and
- Any other information that may help us to identify these sites as requiring a separate process for scheme entry.

Other information that would be useful (though it may be too early for you to answer):

Q2. If possible could you provide us with any further detail about the likely assessment process at your end so that we can think about how we might fit in. For example do you plan to provide us with any information beyond the letter of approval and the tariff rate offered, such as a report detailing their decision and any specific eligibility or compliance criteria that we will need to monitor.

Q3 Do you envisage working with these sites on an ongoing basis in a case management capacity or just through the initial assessment process?

Q4 Do you intend to have an ongoing role in dealing with this sector – for example did they want enquiries from this sector directed to them for information on the proposal and assessment process, or do they want such enquiries handled by the general Customer Relationship
Management System?

Again, please don’t hesitate to contact us if you have any questions or queries. I work Mondays, Wednesdays and Friday, but Catherine McArthur is here full time.

Have a lovely weekend,

Jonah Anthony
Senior Policy Development Manager
New Scheme Development
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The Department of Enterprise, Trade and Investment makes the following Regulations in exercise of the powers conferred on it by section [●] of the Energy Act 2011 for the purposes of establishing in Northern Ireland an incentive scheme to facilitate and encourage the renewable generation of heat and the production and injection of biomethane and making provision regarding its administration.\(^1\)

PART 1

INTRODUCTORY

Citation and commencement

1. These Regulations may be cited as the Renewable Heat Incentive Regulations (Northern Ireland) 2011 and shall come into operation on [●] 2011.

Interpretation

2. In these Regulations—

\(^1\) NOTE TO DETI - Wording to be confirmed.
“accreditation” means accreditation of an eligible installation by the NI Authority following an application under regulation 22;

“accredited RHI installation” means an eligible installation which has been given accreditation;

“anaerobic digestion” means the bacterial fermentation of biomass in the absence of oxygen;

“biogas production plant” means a plant which produces biogas by anaerobic digestion, gasification or pyrolysis;

“building” means any permanent or long-lasting building or structure of whatever kind and whether fixed or moveable which, except for doors and windows, is wholly enclosed on all sides with a roof or ceiling and walls;

“CHP” means combined heat and power;

“class 2 heat meter” means a heat meter which—

(a) complies with the relevant requirements set out in Annex 1 to the Measuring Instruments Directive;

(b) complies with the specific requirements listed in Annex MI-004 to that Directive; and

(c) falls within accuracy class 2 as defined in Annex MI-004 to that Directive;

“coefficient of performance” means the ratio of the amount of heating or cooling in kilowatts provided by a heat pump to the kilowatts of power consumed by the heat pump;

“commissioned” means, in relation to an eligible installation, the completion of such procedures and tests as constitute, at the time they are undertaken, the usual industry standards and practices for commissioning that type of eligible installation in order to demonstrate that it is capable of operating and delivering heat to the premises or process for which it was installed;

“date of accreditation”, in relation to an accredited RHI installation, means the later of—

(a) the first day falling on or after the date of receipt by the NI Authority of the application for accreditation on which the NI Authority is satisfied both that the application was properly made and that the plant meets the eligibility criteria; or

(b) the day on which the plant was first commissioned;

“date of registration”, in relation to a producer of biomethane for injection, means the first day falling on or after the date of receipt by the NI Authority of the application for registration on which the NI Authority is satisfied that the application was properly made;

“the Department” means the Department of Enterprise, Trade and Investment;

“eligibility criteria” have the meaning given in regulation 4;

“eligible installation” means a plant which meets the eligibility criteria;
“eligible purpose” means a purpose specified in regulation 3(2);

“EN 45011” means British Standard EN 45011 which prescribes certain requirements for bodies operating product certification systems;  

“gasification” means the substoichiometric oxidation or steam reformation of a substance to produce a gaseous mixture containing two or all of the following: oxides of carbon, methane and hydrogen;

“gas conveyor” means the holder of a licence to convey gas from one place to another in an area authorised by a licence granted under Article 8(1)(a) of the Gas Order;

“the Gas Order” means the Gas (Northern Ireland) Order 1996;

“the GB Authority” means the Gas and Electricity Markets Authority;

“heat meter” has the same meaning as that given in Annex MI-004 of the Measuring Instruments Directive;

“ineligible purpose” means a purpose which is not an eligible purpose;

“injection” means the introduction of gas into a pipe-line system operated by a gas conveyor;

“installation capacity”, in relation to a plant, means the total installed peak heat output capacity of the plant;

“kWh” means kilowatt hours;

“kWhth” means kilowatt hours thermal;

“kWth” means kilowatt thermal;

“MCS” means the Microgeneration Certification Scheme or an equivalent scheme accredited under EN 45011 which certifies microgeneration products and installers in accordance with consistent standards;


“municipal waste” has the same meaning as in section 21 of the Waste and Emissions Trading Act 2003;

“MWhth” means megawatt hours thermal;

“MWh” means megawatt thermal;


3 Replaces “Gas Transporter” to accord with the terminology used in the Gas (Northern Ireland) 1996 (1996 No.275) (NOTE TO DETI – this provisions of the equivalent section 7 of the Gas Act 1996 (as amended), are more prescriptive than the Gas (Northern Ireland) Order 1996, however, the effect on the definition is much the same).

4 Details of which are available at www.microgenerationcertification.org.


6 2003 c.33 (NOTE TO DETI – CONFIRMED – term applicable in NI)
“NI” means Northern Ireland;

“the NI Authority” means the Northern Ireland Authority for Utility Regulation;

“ongoing obligations” means the obligations specified in Part 4;

“participant” means—

(a) the owner of an accredited RHI installation or, where there is more than one such owner, the owner with authority to act on behalf of all owners in accordance with regulation 22(3); or

(b) a producer of biomethane who has been registered under regulation 25;

“periodic support payments” have the meaning given in regulation 3;

“pipe-line system” means a system of pipes (together with any apparatus and works associated therewith) for the conveyance of gas, not being—

(a) a system of pipes constituting or comprised in apparatus for heating or cooling or for domestic purposes;

(b) a system of pipes wholly situated—

(i) within the site of any apparatus or works to which certain provisions of the Factories Act (Northern Ireland) 1965 apply by virtue of section 125(1) of that Act (building operations and works of engineering construction);

(ii) within the boundaries of any land occupied as a unit for purposes of agriculture (within the meaning of the Agriculture Act (Northern Ireland) 1949, where the system of pipes is designed for use for purposes of agriculture; or

(iii) in premises used for the purposes of education or research;¹⁰

“process” means any process other than the generation of electricity;

“pyrolysis” means the thermal degradation of a substance in the absence of an oxidising agent (other than that which forms part of the substance itself) to produce char and one or both of gas and liquid;

“quarterly period” means, except where otherwise specified, the first, second, third or fourth quarter of any year commencing with, or with the anniversary of, a participant’s tariff start date;

“retail prices index” means—

⁷ NOTE TO DETI - This definition has been taken from the Gas Order
⁸ 1965 Chapter 20
⁹ 1949 Chapter 2
¹⁰ As extracted from the Gas (Northern Ireland) Order 1996
(a) the general index of retail prices (for all items) published by the Office of National Statistics; or

(b) where the index is not published for a year, any substituted index or figures published by that Office;

“scheme” (except in this regulation) means the incentive scheme established by these Regulations;

“solar collector” means a liquid filled flat plate or evacuated tube solar collector;

“statement of eligibility” has the meaning given by regulation 22(6)(f);

“steam measuring equipment” means all the equipment needed to measure to the NI Authority’s satisfaction the mass flow rate and energy of steam, including at least the following components —

(a) a flow meter;

(b) a pressure sensor;

(c) a temperature sensor; and

(d) a digital integrator or calculator able to determine the cumulative energy in MWhth which has passed a specific point;

“tariff” means the payment rate per kWhth in respect of an accredited RHI installation and per kWh in respect of biomethane injection;

“tariff end date” means the last day of the tariff lifetime;

“tariff lifetime” means—

(a) in relation to an accredited RHI installation, the period for which periodic support payments are payable for that installation; or

(b) in relation to a participant who is a producer of biomethane, the period for which that person is eligible to receive periodic support payments; and

“tariff start date” means the date of accreditation of an eligible installation or, in relation to a producer of biomethane, the date of registration.

Renewable heat incentive scheme

3.—(1) These Regulations establish an incentive scheme to facilitate and encourage the renewable generation of heat and make provision regarding its administration.

(2) Subject to Part 7 and regulation 24, the GB Authority must pay participants who are owners of accredited RHI installations payments, referred to in these Regulations as “periodic support payments”, for generating heat that is used in a building for any of the following purposes—

DETI to confirm whether the definition of “building” is to be clarified to avoid excluding chemical plants under Regulation 3(2) on the basis that these plants use heat in distillation columns which could be deemed to be open vessels.
(a) heating a space;
(b) heating water; or
(c) for carrying out a process.

(3) Subject to Part 7, the GB Authority must pay participants who are producers of biomethane for injection periodic support payments.

PART 2

ELIGIBILITY AND MATTERS RELATING TO ELIGIBILITY

Eligible installations

4.—(1) A plant meets the criteria for being an eligible installation (the “eligibility criteria”) if—

(a) regulation 5, 6, 7, 8, 9, 10 or 11 applies;
(b) the plant satisfies the requirements set out in regulation 12(1);
(c) regulation 15 does not apply; and
(d) the plant satisfies the requirements set out in regulations 16 to 21.

(2) But this regulation is subject to regulation 14.

Eligibility criteria for technologies

Eligible installations generating heat from solid biomass

5. — This regulation applies if the plant complies with all of the following requirements—

(a) it generates heat from solid biomass;
(b) the heat from the solid biomass is generated using equipment specifically designed and installed to use solid biomass as its only primary fuel source; and
(c) in the case of a plant with an installation capacity of [45k Wth or less]¹², regulation 13 applies.

Eligible installations generating heat from solid biomass contained in municipal waste

¹² Value relates to draft GB RHI Regulations – position to be confirmed for NI
6. — This regulation applies if the plant generates heat from solid biomass contained in municipal waste.

**Eligible installations generating heat using solar collectors**

7. — This regulation applies if the plant complies with all of the following requirements—

   (a) it generates heat using a solar collector;

   (b) it has an installation capacity of [less than 200k Wth]\(^{13}\); and

   (c) in the case of a plant with an installation capacity of [45k Wth or less]\(^{14}\), regulation 13 applies.

**Eligible installations generating heat using heat pumps**

8. — This regulation applies if the plant is a heat pump and complies with all of the following requirements—

   (a) it generates heat using naturally occurring energy stored in the form of heat from one of the following sources of energy—

      (i) the ground, other than naturally occurring energy, located and extracted from [at least 500 metres]\(^{15}\) below the surface of solid earth; or

      (ii) surface water;

   (b) in the case of a heat pump with an installation capacity of [45k Wth or less]\(^{16}\), regulation 13 applies; and

   (c) it has a coefficient of performance of [at least 2.9]\(^{17}\).

**Eligible installations which are CHP systems**

9.—(1) Subject to paragraph (2), this regulation applies if the plant is a CHP system which complies with one of the following requirements—

   (a) it generates heat and electricity from solid biomass and either regulation 6 applies or the plant complies with the requirement in regulation 5(b);

   (b) it generates heat and electricity from biogas and complies with regulation 11(b) and (c); or

   (c) it generates heat and electricity utilising naturally occurring energy located and extracted from [at least 500 metres]\(^{18}\) beneath the surface of solid earth.

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\(^{13}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^{14}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^{15}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^{16}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^{17}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^{18}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
(2) This regulation does not apply if the plant—

(a) uses solid biomass to generate heat and electricity;

(b) is accredited under the Renewables Obligation Order (Northern Ireland) 2009; or

(c) is, or at any time since it was accredited in accordance with sub-paragraph (b), has been a qualifying CHP generating station within the meaning of Article 2 of that Order.

**Eligible installations generating heat using geothermal sources**

10.— This regulation applies if the plant generates heat using naturally occurring energy located and extracted from [at least 500 metres] beneath the surface of solid earth.

**Eligible installations generating heat using biogas**

11.— This regulation applies if the plant complies with all of the following requirements—

(a) it generates heat from biogas;

(b) it has an installation capacity of [less than 200kWt]; and

(c) it does not generate heat from solid biomass.

**Other eligibility requirements for technologies**

12.—(1) The requirements referred to in regulation 4(b) are—

(a) installation of the plant was completed and the plant was first commissioned on or after [15th July 2009];

(b) the plant was new at the time of installation;

(c) the plant uses liquid or steam as a medium for delivering heat to the space, water or process; and

(d) heat generated by the plant is used for an eligible purpose.

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19 S.R. 2009 No.154 as amended by the Renewables Obligation (Amendment) Order (Northern Ireland) 2010

20 DETI to confirm whether this should refer to the digester that produces biogas rather than simply the plant generating heat as the majority of the capital costs which the relevant tariff under the GB scheme was designed to compensate for are incurred in designing and building the digester.

21 Value relates to draft GB RHI Regulations – position to be confirmed for NI

22 Value relates to draft GB RHI Regulations – position to be confirmed for NI

23 Incentive retrospective start date from draft GB Regulations - position to be confirmed for NI

24 DETI to confirm whether the reference to “water” should be revised to “liquid” in order that plants using thermal oils as the medium for transmitting heat would be eligible.
(2) The requirements of paragraph (1)(a) and (b) are deemed to be satisfied where the plant was previously generating electricity only, using solid biomass or biogas, and was first commissioned as a CHP system on or after [15th July 2009].

(3) But the requirements of paragraph (1)(a) and (b) are not satisfied where the plant was previously generating heat only and was first commissioned as a CHP system on or after [15th July 2009].

**MCS certification for microgeneration heating equipment**

13. —This regulation applies where the plant for which accreditation is being sought is certified under the MCS and its installer was certified under the MCS at the time of installation.

**Plants comprised of more than one plant**

14.—(1) Subject to paragraph (2), and without prejudice to regulation 43(5)(b), the eligibility criteria are not met if the plant is comprised of more than one plant.

(2) Where two or more plants—

(a) use the same source of energy and technology;

(b) form part of the same heating system; and

(c) are not accredited RHI installations;

those plants (the “component plants”) are to be regarded as a single plant for the purposes of paragraph (1) provided that paragraph (3) applies.

(3) This paragraph applies where each component plant meets the eligibility criteria; and for that purpose a component plant can be taken to meet the eligibility criteria notwithstanding that regulation 13 does not apply.

**Excluded plants**

15.—(1) This regulation applies where the plant—

(a) is generating heat solely for the use of one domestic premises;

(b) is, in the NI Authority’s opinion, generating heat solely for an ineligible purpose; or

(c) is a plant which—

(i) is additional RHI capacity within the meaning of regulation 43(2) and was first commissioned [more than 12 months] after the original installation was first commissioned;

25 Incentive retrospective start date from draft GB Regulations - position to be confirmed for NI
26 Incentive retrospective start date from draft GB Regulations - position to be confirmed for NI
27 NOTE TO DETI – Confirmed applicable in NI
28 Time period from draft GB Regulations – position to be confirmed for NI
(ii) generates heat from biogas or using a solar collector; and

(iii) has an installation capacity which, together with the installation capacities of all related plants, is [200k Wth or above] 29.

(2) For the purposes of this regulation—

“domestic premises” means single, self contained premises used wholly or mainly as a private residential dwelling where the fabric of the building has not been significantly adapted for non-residential use;

“related plant” means any plant for which an application for accreditation has been made (whether or not it has been accredited) which uses the same source of energy and technology and forms part of the same heating system as the plant referred to in paragraph (1)(c).

Eligibility criteria in relation to metering and steam measuring

Metering of plants in simple systems

16.—(1) This regulation applies where—

(a) the plant is generating and supplying heat solely for one or more eligible purposes within one building;

(b) no heat generated by the plant is delivered by steam; and

(c) the plant is not a CHP system.

(2) Where this regulation applies, a class 2 heat meter must be installed to measure the heat in kWhth generated by the plant.

Metering of plants in complex systems

17.—(1) This regulation applies where regulation 16(1) does not apply.

(2) Subject to regulation 19—

(a) where heat generated by the plant is delivered by liquid, class 2 heat meters must be installed to measure both the kWhth of heat generated by that plant and the kWhth of heat used for eligible purposes by the heating system of which that plant forms part; and

(b) where heat generated by the plant is delivered by steam, the following must be installed—

(i) steam measuring equipment to measure both the heat generated in the form of steam by the plant and the heat in the form of steam used for eligible purposes; and

29 Value relates to draft GB RHI Regulations – position to be confirmed for NI
(ii) a class 2 heat meter or steam measuring equipment to measure any condensate or steam which returns to the plant.

(3) Where this regulation applies, and more than one plant is supplying heat to the heating system supplied by the plant, steam measuring equipment or class 2 heat meters must be installed, as appropriate, to measure the heat generated in kWhth by all plants supplying heat to that heating system.

Shared meters

18.—(1) Subject to paragraph (2), the heat generated by the plant must be individually metered.30

(2) Subject to regulation 43(8), the heat generated by two or more plants may be metered using one meter provided that—

(a) the plants use the same source of energy and technology;

(b) the plants will, once given accreditation, be eligible to receive the same tariff;

(c) the plants will then share the same tariff start date and tariff end date; and

(d) it is the NI Authority’s opinion that a single meter is capable of metering the heat generated by all of those plants.

Metering of CHP systems generating electricity only before [15th July 2009]31

19.—(1) This regulation applies where the plant is a CHP system and the requirements of regulation 12(1)(a) and (b) are deemed to be satisfied in accordance with regulation 12(2).

(2) Where this regulation applies, any existing heat meter or steam measuring equipment installed before the date of commencement of these Regulations may continue to be used by a participant to measure the heat generated by the CHP system and used for eligible purposes, provided that the CHP system was registered under the CHPQA before that date.

(3) For the purpose of this regulation, “the CHPQA” means the Combined Heat and Power Quality Assurance Standard, Issue 3, January 2009, as prepared by the Department Environment, Food and Rural Affairs and published by the Department of Energy and Climate Change.32

Matters relating to all heat meters and steam measuring equipment

20.—(1) All heat meters installed or used in accordance with these Regulations must, where applicable—

(a) be calibrated prior to use;

30 DETI to confirm whether this should be amended to allow a single renewable heat plant (no fossil fuel back up) providing heat to more than one building (i.e. a complex system) to measure the heat used via a single heat meter - this would remove a potentially costly monitoring requirement for complex systems.

31 Incentive retrospective start date from draft GB Regulations - position to be confirmed for NI

32 NOTE TO DETI - CONFIRMED – applicable in NI.
(b) be calibrated correctly for any water/ethylene glycol mixture; and
(c) be (or have been) properly installed in accordance with manufacturer’s instructions.

(2) All steam measuring equipment installed or used in accordance with these Regulations must be—

(a) calibrated prior to use;
(b) capable of displaying measured steam pressure and temperature;
(c) capable of displaying the current steam mass flow rate and the cumulative mass of steam which has passed through it since it was installed; and
(d) properly installed in accordance with manufacturer’s instructions.

Additional metering requirements for plants generating heat from biogas

21.—(1) This regulation sets out additional requirements in relation to metering where a plant is generating heat from biogas.

(2) In that case—

(a) a class 2 heat meter must be installed to meter any heat directed from the plant combusting the biogas to the biogas production plant; and
(b) a class 2 heat meter must be installed to meter any heat supplied to the biogas production plant from any source other than—
   (i) the plant combusting the biogas; and
   (ii) where the biogas has been produced by anaerobic digestion, the feedstock from which it was produced.

PART 3
ACCREDITATION AND REGISTRATION

Applications for accreditation

22.—(1) An owner of an eligible installation may apply for that installation to be accredited.

(2) All applications for accreditation must be made in writing to the NI Authority and must be supported by—

(a) such of the information specified in Schedule 1 as the NI Authority may require;
(b) a declaration that the information provided by the applicant is accurate to the best of the applicant’s knowledge and belief; and
(3) The NI Authority may, where an eligible installation is owned by more than one person, require that—

(a) an application submitted under this regulation is made by only one of those owners;

(b) the applicant has the authority from all other owners to be the participant for the purposes of the scheme; and

(c) the applicant provides to the NI Authority, in such manner and form as the NI Authority may request, evidence of that authority.

(4) Before accrediting an eligible installation, the NI Authority may arrange for a site inspection to be carried out in order to satisfy itself that a plant should be accredited.

(5) The NI Authority may, in granting accreditation, attach such conditions as it considers to be appropriate.

(6) Where an application for accreditation has, in the NI Authority’s opinion, been properly made in accordance with paragraphs (2) and (3) and the NI Authority is satisfied that the plant is an eligible installation the NI Authority must (subject to regulation 23 and regulation 47(3))—

(a) accredit the eligible installation;

(b) notify the applicant in writing that the application has been successful;

(c) enter on a central register maintained by the NI Authority the applicant’s name and such other information as the NI Authority considers necessary for the proper administration of the scheme;

(d) notify the applicant of any conditions attached to the accreditation;

(e) in relation to an applicant who is or will be generating heat from solid biomass, having regard to the information provided by the applicant, specify by notice to the applicant which of regulation 28, 29 or 30 applies; and

(f) provide the applicant with a written statement (“statement of eligibility”) including the following information—

(i) the date of accreditation;

(ii) the applicable tariff;

(iii) the process and timing for providing meter readings;

(iv) details of the frequency and timetable for payments; and

(v) the tariff lifetime and tariff end date.
(7) Where the NI Authority does not accredit a plant it must notify the applicant in writing that the application for accreditation has been rejected, giving reasons.

(8) Once a specification made in accordance with paragraph (6)(c) has been notified to an applicant, it cannot be changed except where the NI Authority considers that an error has been made or on the receipt of new information by the NI Authority which demonstrates that the specification should be changed.

Exceptions to duty to accredit

23.—(1) The NI Authority must not accredit an eligible installation unless the applicant has given notice (which the NI Authority has no reason to believe is incorrect) that, as applicable—

(a) no grant from public funds has been paid or will be paid in respect of any of the costs of purchasing or installing the eligible installation; or

(b) such a grant was paid in respect of an eligible installation which was completed and first commissioned between [15th July 2009] and the date on which these Regulations come into force, and has been repaid to the person or authority who made it.

(2) In this regulation, “grant from public funds” means a grant made by a public authority or by any person distributing funds on behalf of a public authority.

(3) The Authority must not accredit an eligible installation if it has not been commissioned.

(4) The Authority may refuse to accredit an eligible installation if its owner has indicated that one of the applicable ongoing obligations will not be complied with.

(5) The Authority may refuse to accredit a plant which is a component plant within the meaning of regulation 14(2).

Changes in ownership

24.—(1) This regulation applies where ownership of all or part of an accredited RHI installation is transferred to another person.

(2) No periodic support payment may be made to a new owner until—

(a) that owner has notified the Authority of the change in ownership; and

(b) the steps set out in paragraph (3) have been completed.

(3) On receipt of a notification under paragraph (2), the Authority—

(a) may require the new owner to provide such of the information specified in Schedule 1 as the Authority considers necessary for the proper administration of the scheme; and

33 Incentive retrospective start date from draft GB Regulations - position to be confirmed for NI
(b) may review the accreditation of the accredited RHI installation to ensure that it continues to meet the eligibility criteria and should remain an accredited RHI installation.

(4) Where the Authority has received the information required under paragraph (3)(a) and is satisfied as to the matters specified in paragraph (3)(b) it must—

(a) update the central register referred to in regulation 22(6)(c);

(b) where the new owner is the participant, send the new owner a statement of eligibility setting out the information specified in regulation 22(6)(f); and

(c) where applicable, send the new owner (if the new owner is the participant) a notice in accordance with regulation 22(6)(e).

(5) If, within a period of 12 months from the transfer of ownership of the accredited RHI installation, no notification is made in accordance with paragraph (2) or paragraph (4) does not apply, the installation will on the expiry of that period cease to be accredited and accordingly no further periodic support payments will be paid in respect of the heat it generates.

(6) The period specified in paragraph (5) may be extended by the Authority where the Authority considers it is just and equitable to do so.

(7) Subject to paragraph (8), following the successful completion of the steps required under paragraphs (3) and (4), the new owner of an accredited RHI installation will receive periodic support payments calculated from the date of completion of those steps for the remainder of the tariff lifetime of that accredited RHI installation.

(8) Where a transfer of ownership of all or part of an accredited RHI installation takes place and results in that accredited RHI installation being owned by more than one person, the Authority may require that only one of those owners is the participant for the purposes of the scheme and require that owner to comply with sub-paragraphs (b) and (c) of regulation 22(3).

Producers of biomethane

25.—(1) A producer of biomethane for injection may apply to the Authority to be registered as a participant.

(2) Applications for registration must be in writing and supported by—

(a) such of the information specified in Schedule 1 as the Authority may require;

(b) a declaration that the information provided by the applicant is accurate to the best of the applicant’s knowledge and belief;

(c) details of the process by which the applicant proposes to produce biomethane and arrange for its injection; and

(d) a notice given in accordance with paragraph (6).

(3) The Authority may in registering an applicant attach such conditions as it considers appropriate.
(4) Where the application for registration is properly made in accordance with paragraph (2), the Authority must (subject to paragraphs (5), (6) and (7))—

(a) notify the applicant in writing that registration has been successfully completed and the applicant is a participant;

(b) enter on a central register maintained by the Authority the date of registration and the applicant’s name;

(c) notify the applicant of any conditions attached to their registration as a participant; and

(d) send the applicant a statement of eligibility including such of the information specified in regulation 22(6)(f) as the Authority considers applicable.

(5) The Authority may refuse to register an applicant if the applicant has indicated that one or more of the applicable ongoing obligations will not be complied with.

(6) The Authority must not register an applicant unless that applicant has given notice (which the Authority has no reason to believe is incorrect) that no grant from public funds has been paid or will be paid in respect of any of the equipment used to produce the biomethane for which the applicant is intending to claim periodic support payments.

(7) The Authority must not register an applicant if it would result in periodic support payments being made to more than one participant for the same biomethane.

Preliminary accreditation

26.—(1) The Authority may, upon the application by a person who proposes to construct or operate an eligible installation which has not yet been commissioned, grant preliminary accreditation in respect of that eligible installation provided—

(a) any necessary planning permission has been granted; or

(b) such planning permission is not required and appropriate evidence of this is provided to the Authority from the relevant planning authority.

(2) The NI Authority must not grant preliminary accreditation to any plant under this regulation if, in its opinion, that plant is unlikely to generate heat for which periodic support payments may be paid.

(3) An application for preliminary accreditation must be in writing and supported by such of the information specified in Schedule 1 as the NI Authority may require.

(4) The NI Authority may attach such conditions as it considers appropriate in granting preliminary accreditation under this regulation.

(5) Where a plant has been granted preliminary accreditation (and such preliminary accreditation has not been withdrawn) and an application for accreditation is made under this Part, the NI Authority must, subject to regulation 23, grant that application unless it is satisfied that—
(a) there has been a material change in circumstances since the preliminary accreditation was granted such that, had the application for preliminary accreditation been made after the change, it would have been refused;

(b) any condition attached to the preliminary accreditation has not been complied with;

(c) the information on which the decision to grant the preliminary accreditation was based was incorrect in a material particular such that, had the NI Authority known the true position when the application for preliminary accreditation was made, it would have been refused; or

(d) there has been a change in applicable legislation since the preliminary accreditation was granted such that, had the application for preliminary accreditation been made after the change, it would have been refused.

(6) Where any of the circumstances mentioned in paragraph (7) apply in relation to a preliminary accreditation which the NI Authority has granted and having regard to those circumstances the NI Authority considers it appropriate to do so, the NI Authority may—

(a) withdraw the preliminary accreditation;

(b) amend the conditions attached to the preliminary accreditation; or

(c) attach conditions to the preliminary accreditation.

(7) The circumstances referred to in paragraph (6) are as follows—

(a) in the NI Authority’s view there has been a material change in circumstances since the preliminary accreditation was granted;

(b) any condition attached to the preliminary accreditation has not been complied with;

(c) the NI Authority considers that the information on which the decision to grant the preliminary accreditation was based was incorrect in a material particular; or

(d) there has been change in the applicable legislation since the preliminary accreditation was granted such that, had the application for preliminary accreditation been made after the change, it would have been refused.

(8) The NI Authority must send the applicant a notice setting out—

(a) its decision on an application for preliminary accreditation of a plant or on the withdrawal of any preliminary accreditation; and

(b) any condition attached to the preliminary accreditation or any amendment to those conditions.

(9) The notice sent pursuant to paragraph (8) must specify the date on which the grant or withdrawal of preliminary accreditation is to take effect and, where applicable, the date on which any conditions (or amendments to those conditions) attached to the preliminary accreditation are to take effect.
(10) In paragraph (1), the reference to the person who proposes to construct an eligible installation includes a person who arranges for the construction of the eligible installation.

(11) This regulation does not apply to a plant which will generate heat using—

(a) a solar collector;

(b) a heat pump which complies with the requirements of regulation 8(a); or

(c) solid biomass, provided that the plant will have an installation capacity [below 200kWth] 34.

PART 4

ONGOING OBLIGATIONS FOR PARTICIPANTS

Ongoing obligations relating to the use of solid biomass to generate heat

Interpretation

27. — In this Part—

“allocating authority” has the same meaning as in section 24 of the Waste and Emissions Trading Act 2003; 35

“district council” shall have the same meaning as in section 44 of the Interpretation Act (Northern Ireland) 1954;

“energy content” means the energy contained within a substance (whether measured by a calorimeter or determined in some other way) expressed in terms of the substance’s gross calorific value within the meaning of British Standard BS 7420:1991 (Guide for determination of calorific values of solid, liquid and gaseous fuels (including definitions) published by the British Standards Institute on 28th June 1991)); 36

“landfill gas” means gas formed by the digestion of material in a landfill;

“standby generation” means the generation of electricity by equipment which is not used frequently or regularly to generate electricity and where all the electricity generated by that equipment is used by the accredited RHI installation;

“waste” has the same meaning as in Article 2(2) of the Waste and Contaminated Land (Northern Ireland) Order 1997; and

“waste disposal authority” has the same meaning as in Article 2(2) of the Waste and Contaminated Land (Northern Ireland) Order 1997.

34 Value relates to draft GB RHI Regulations – position to be confirmed for NI
35 NOTE TO DETI – CONFIRMED – applicable in NI
Participants using solid biomass contained in municipal waste

28.—(1) This regulation applies to participants generating heat in an accredited RHI installation from solid biomass contained in municipal waste.

(2) The proportion of solid biomass contained in the municipal waste must be a minimum of [50 per cent]\(^{37}\).

(3) For the purposes of paragraph (2)—

(a) the proportion of solid biomass contained in the municipal waste is to be determined by the NI Authority for every quarterly period;

(b) it is for the participant to provide, in such form as the NI Authority may require, evidence to demonstrate to the NI Authority’s satisfaction the proportion of the energy content of the municipal waste used in any quarterly period which is composed of fossil fuel, to enable the Authority to determine the proportion of solid biomass in accordance with subparagraph (c); and

(c) the proportion of solid biomass is the energy content of the municipal waste used in any quarterly period to generate heat less the energy content of any fossil fuel of which that municipal waste is in part composed, expressed as a percentage of the energy content of that municipal waste.

(4) The participant may use fossil fuel (other than fossil fuel mentioned in paragraph (3)(c)) in an accredited RHI installation for the following permitted ancillary purposes only—

(a) cleansing other fuels from the accredited RHI installation’s combustion system prior to using fossil fuel to heat the combustion system to its normal temperature;

(b) the heating of the accredited RHI installation’s combustion system to its normal operating temperature or the maintenance of that temperature;

(c) the ignition of fuels of low or variable calorific value;

(d) emission control; or

(e) in relation to accredited RHI installations which are CHP systems, standby generation or the testing of standby generation capacity.

(5) The energy content of the fossil fuel used during any quarterly period for the permitted ancillary purposes specified in paragraph (4) must not [exceed 10 per cent]\(^{38}\) of the energy content of all the fuel used by that accredited RHI installation to generate heat during that quarterly period.

(6) Without prejudice to paragraph (3)(b), when determining the proportion of solid biomass contained in municipal waste, the NI Authority may have regard to any information (whether or not produced to it by the participant) if, in its opinion, that information indicates what proportion of the energy content of the municipal waste is composed of fossil fuel.

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\(^{37}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI

\(^{38}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
(7) Subject to paragraph (8), where the participant produces to the NI Authority—

(a) data published by an allocating authority, a waste disposal authority or a district council, demonstrating that the proportion of municipal waste used by that participant which is composed of fossil fuel is unlikely to [exceed 50 per cent]\(^39\); and

(b) evidence that the municipal waste used has not been subject to any process before being used that is likely to have materially increased that proportion;

the NI Authority may accept this as sufficient evidence for the purposes of paragraph (3)(b) of the fact that the proportion of the municipal waste used which is composed of fossil fuel is [no more than 50 per cent]\(^40\).

(8) Where the NI Authority so requests, the participant must arrange for samples of the municipal waste used (or to be used) in the accredited RHI installation, or of any gas or other substance produced as the result of the use of such municipal waste, to be taken by a person (and analysed in a manner) specified by the NI Authority, and for the results of that analysis to be made available to the NI Authority in such form as the NI Authority may require.

(9) The participant may not generate heat using solid biomass contained in any waste other than municipal waste.

**Participants using solid biomass in accredited RHI installations with an installation capacity of [1 MWth or above]\(^41\)**

29. —(1) This regulation applies to participants generating heat from solid biomass, not being solid biomass contained in municipal waste, in an accredited RHI installation with an installation capacity of [1 MWth or above]\(^42\).

(2) The participant may use solid biomass contaminated with fossil fuel only where the proportion of fossil fuel contamination does not [exceed 10 per cent]\(^43\).

(3) Such contaminated biomass may not be used unless the fossil fuel is present because—

(a) the solid biomass has been subject to a process, the undertaking of which has caused the fossil fuel to be present in, on or with the biomass even though that was not the object of the process; or

(b) the fossil fuel is waste and was not added to the solid biomass with a view to its being used as a fuel.

(4) For the purposes of paragraph (2)—

(a) the proportion of fossil fuel contamination is to be determined by the NI Authority for every quarterly period;

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\(^39\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^40\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^41\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^42\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
\(^43\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
(b) it is for the participant to provide, in such form as the NI Authority may require, evidence to demonstrate to the Authority’s satisfaction the proportion of fossil fuel contamination; and

(c) the proportion of fossil fuel contamination is the energy content of the fossil fuel with which the solid biomass used in any quarterly period is contaminated expressed as a percentage of the energy content of all solid biomass (contaminated or otherwise) used in that quarterly period to generate heat other than fossil fuel used in accordance with paragraphs (5) and (6).

(5) The participant may use fossil fuel (other than fossil fuel mentioned in paragraph (2) in an accredited RHI installation for the following permitted ancillary purposes only—

(a) cleansing other fuels from the accredited RHI installation’s combustion system prior to using fossil fuel to heat the combustion system to its normal temperature;

(b) the heating of the accredited RHI installation’s combustion system to its normal operating temperature or the maintenance of that temperature;

(c) the ignition of fuels of low or variable calorific value;

(d) emission control; or

(e) in relation to accredited RHI installations which are CHP systems, standby generation or the testing of standby generation capacity.

(6) The energy content of the fossil fuel used during a quarterly period for the permitted ancillary purposes specified in paragraph (5) must not [exceed 10 per cent] of the energy content of all the fuel used by that accredited RHI installation to generate heat during that quarterly period.

(7) Without prejudice to paragraph (4)(b), in determining the proportion of solid biomass composed of fossil fuel the NI Authority may have regard to any information (whether or not produced to it by the participant) if, in its opinion, that information indicates what proportion of the contaminated solid biomass is composed of fossil fuel.

(8) Where the NI Authority so requests, the participant must arrange for samples of the fuel used (or to be used) in the accredited RHI installation, or of any gas or other substance produced as the result of the use of such fuel, to be taken by a person (and analysed in a manner) specified by the NI Authority, and for the results of that analysis to be made available to the NI Authority in such form as the NI Authority may require.

(9) The participant must provide sustainability information in accordance with Schedule 2.

Participants using solid biomass in accredited RHI installations with an installation capacity of between [45 kWth] and [1 MWth]

44 Value relates to draft GB RHI Regulations – position to be confirmed for NI
45 Value relates to draft GB RHI Regulations – position to be confirmed for NI
46 Value relates to draft GB RHI Regulations – position to be confirmed for NI
30.—(1) This regulation applies to participants generating heat from solid biomass, not being solid biomass contained in municipal waste, in an accredited RHI installation with an installation capacity of between [45 kWth]\(^47\) and [1 MWth]\(^48\).

(2) The participant may use solid biomass contaminated with fossil fuel provided the participant complies with paragraphs (2), (3) (5) and (6) of regulation 29 as well as the requirements of this regulation.

(3) Where solid biomass contaminated with fossil fuel is used in an accredited RHI installation, the participant must keep and provide upon request written evidence including invoices, receipts and such other documentation as the NI Authority may specify relating to fuel use and fossil fuel used for the permitted ancillary purposes specified in regulation 29(5) and provide this information upon request to the NI Authority, in such form as the NI Authority may require, to demonstrate compliance with this regulation.

(4) Without prejudice to paragraph (3), the NI Authority may have regard to any information (whether or not produced to it by the participant) if, in its opinion, that information indicates what proportion of the contaminated solid biomass is composed of fossil fuel.

(5) Where—

(a) the NI Authority is not satisfied that the proportion of fossil fuel contamination (within the meaning of regulation 29(4)(c)) does not exceed [10 per cent]\(^49\); or

(b) the NI Authority is not satisfied as to the matters specified in paragraphs (5) and (6) of regulation 29, the NI Authority may require the participant to arrange for samples of the fuel used (or to be used) in the accredited RHI installation, or of any gas or other substance produced as the result of the use of such fuel, to be taken by a person (and analysed in a manner) specified by the NI Authority, and for the results of that analysis to be made available to the NI Authority in such form as the NI Authority may require.

Ongoing obligations relating to the use of biogas to generate heat and the production of biomethane for injection

Biogas produced from gasification or pyrolysis

31.—(1) This regulation applies to participants producing biogas using gasification or pyrolysis and generating heat from that biogas in an accredited RHI installation.

(2) The participant may only use solid biomass or municipal waste as feedstock to produce the biogas.

(3) Where the participant uses municipal waste as feedstock—

(a) paragraphs (2), (3), (6) and (7) of regulation 28 apply to the proportion of solid biomass contained in the municipal waste used for feedstock in the

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\(^{47}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI

\(^{48}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI

\(^{49}\) Value relates to draft GB RHI Regulations – position to be confirmed for NI
same way as for the proportion of solid biomass contained in municipal waste used to generate heat; and

(b) paragraphs (4) and (5) of regulation 28 apply.

(4) Where the participant uses solid biomass (not being solid biomass contained in municipal waste) as feedstock—

(a) paragraphs (2), (3), (4) and (7) of regulation 29 apply to the contamination of solid biomass used for feedstock in the same way as for solid biomass contaminated with fossil fuel used to generate heat; and

(b) paragraphs (5) and (6) of regulation 29 apply.

(5) Where the NI Authority so requests, the participant must arrange for samples of the municipal waste or solid biomass used (or to be used) as feedstock in the biogas production plant, or of any gas or other substance produced as a result of the use of such municipal waste or solid biomass, to be taken by a person (and analysed in a manner) specified by the NI Authority, and for the results of that analysis to be made available to the NI Authority in such form as the NI Authority may require.

Participants generating heat from biogas

32.—(1) This regulation applies to participants generating heat from biogas in an accredited RHI installation where regulation 31 does not apply.

(2) A participant using biogas produced by anaerobic digestion may only use biogas which—

(a) was produced from one or more of the following feedstocks—

(i) solid biomass;

(ii) solid waste; or

(iii) liquid waste; and

(b) is not landfill gas.

(3) The participant may use fossil fuel in the accredited RHI installation only in accordance with paragraphs (5) and (6) of regulation 29.

Biomethane producers

33.—(1) This regulation applies to participants producing biomethane for injection.

(2) A participant producing biomethane for injection from biogas made by gasification or pyrolysis may only use biogas made using solid biomass or municipal waste as feedstock.

(3) Where municipal waste is used as feedstock, paragraphs (2) and (3)(c) of regulation 28 apply to the proportion of solid biomass contained in municipal waste used as feedstock in the same way as for the proportion of solid biomass contained in municipal waste used to generate heat.
(4) Where solid biomass is used as feedstock, paragraphs (2), (3), and (4)(c) of regulation 29 apply to the contamination of solid biomass used for feedstock in the same way as for solid biomass contaminated with fossil fuel used by participants to generate heat.

(5) A participant producing biomethane for injection from biogas made by anaerobic digestion must comply with regulation 32(2).

(6) The participant must provide measurements in such format as the NI Authority may request which satisfies the NI Authority of all of the following—

(a) the gross calorific value and volume of biomethane injected;

(b) the gross calorific value and volume of any propane contained in the biomethane;

(c) the kWh of biomethane injected together with supporting meter readings and calculations;

(d) the kWhth of heat supplied to the biogas production plant (other than heat contained in feedstock to produce biogas by anaerobic digestion) which made the biogas used in any quarterly period to produce biomethane for injection; and

(e) any heat supplied to the biomethane production process.

(7) The participant must keep and provide upon request copies or details of agreements with third parties with whom the participant contracts to carry out any of the processes undertaken to turn the biogas into biomethane and to arrange for its injection.

(8) The participant must keep and provide upon request written evidence including invoices, receipts, contracts and such other information as the NI Authority may specify in relation to biogas purchased and feedstock used in the production of the biogas used to produce biomethane.

(9) The participant must provide sustainability information in accordance with Schedule 2.

Ongoing obligations relating to other matters

Ongoing obligations: general

34. — Participants must comply with the following ongoing obligations, as applicable—

(a) they must keep and provide upon request by the NI Authority records of type of fuel used and fuel purchased for the duration of their participation in the scheme;

(b) they must keep and provide upon request by the NI Authority written records of fossil fuel used for the permitted ancillary purposes specified in regulations 27 to 33;

(c) they must submit an annual declaration as requested by the NI Authority confirming, as appropriate, that they are using their accredited RHI

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installations in accordance with the eligibility criteria and are complying with the relevant ongoing obligations;

(d) they must notify the NI Authority if any of the information provided in support of their application for accreditation or registration was incorrect;

(e) they must ensure that their accredited RHI installation continues to meet the eligibility criteria;

(f) they must comply with any condition attached to their accreditation or registration;

(g) they must keep their accredited RHI installation maintained to the NI Authority’s satisfaction and keep evidence of this including service and maintenance documents;

(h) participants combusting biogas must not deliver heat by air from their accredited RHI installation to the biogas production plant producing the biogas used for combustion;

(i) they must allow the NI Authority or its authorised agent reasonable access in accordance with Part 9;

(j) participants generating heat from solid biomass must comply with the regulation specified by the NI Authority in accordance with regulation 22(6)(e);

(k) they must notify the NI Authority within [28 days]50 where they have ceased to comply with an ongoing obligation or have become aware that they will not be able so to comply, or where there has been any change in circumstances which may affect their eligibility to receive periodic support payments;

(l) they must notify the NI Authority within [28 days]51 of the addition or removal of a plant supplying heat to a heating system of which their accredited RHI installation forms part;

(m) they must notify the NI Authority within [28 days]52 of a change in ownership of all or part of their accredited RHI installation;

(n) they must repay any overpayment in accordance with any notice served under regulation 48;

(o) they must, if requested, provide evidence that the heat for which periodic support payments are made is used for an eligible purpose;

(p) they must not generate heat for the predominant purpose of increasing their periodic support payments; and

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51 Date from draft GB RHI Regulations – position to be confirmed for NI
52 Date from draft GB RHI Regulations – position to be confirmed for NI
(q) they must comply with such other administrative requirements that the NI Authority may specify in relation to the effective administration of the scheme.

Ongoing obligations in relation to metering

35.—(1) Participants must keep all meters and steam measuring equipment required to be used in accordance with these Regulations—

(a) continuously operating;

(b) properly maintained and periodically checked for errors; and

(c) re-calibrated every [10 years]53 or within such period of time as may be specified in accordance with manufacturers’ instructions where available;

whichever is the sooner, and must retain evidence of this, including service and maintenance invoices, receipts or certificates for the duration of their participation in the scheme.

(2) The NI Authority may, by the date (if any) specified by it, or at such regular intervals as it may require to enable it to carry out its functions under these Regulations, require participants to provide the following information—

(a) meter readings and other data collected in accordance with these Regulations from all steam measuring equipment, class 2 heat meters and other heat meters used in accordance with these Regulations in such format as the NI Authority may reasonably require;

(b) in relation to participants using steam measuring equipment, a kWhth figure of both the heat generated and the heat used for eligible purposes together with supporting data and calculations; and

(c) the evidence and service and maintenance documentation specified in paragraph (1).

(3) Participants using heat pumps to provide both heating and cooling must ensure that their meters for those pumps enable them to—

(a) measure heat used for eligible purposes only; and

(b) where appropriate, measure (in order to discount) any cooling generated by the reverse operation of the heat pump, and must provide upon request an explanation of how their metering arrangements have enabled the cooling in sub-paragraph (b) to be discounted.

(4) The data referred to in paragraph (2)(a) and (b) may be estimated in exceptional circumstances if the NI Authority has agreed in writing to an estimate being provided and to the way in which those estimates are to be calculated.

(5) Nothing in this regulation prevents the NI Authority from accepting further data from a participant, if the NI Authority considers it appropriate to do so.

53 Time period taken from draft GB RHI Regulations – position to be confirmed for NI
Ongoing obligations in relation to the provision of information

36.—(1) A participant must provide to the NI Authority on request any information which the participant holds and which the NI Authority requires in order to discharge its functions under these Regulations.

(2) Participants must retain the information referred to in Schedule 1, including such information as may reasonably be required by the NI Authority under paragraph 1(2)(e), (f), (h), (k), (n), (v) or (w) and whether or not copies of that documentation have been supplied to the NI Authority, for the duration of their participation in the scheme.

(3) Information requested under paragraph (1) must be provided within [7 days]54 of the request or such later date as the NI Authority may specify.

(4) Information provided to the NI Authority under these Regulations must be accurate to the best of the participant’s knowledge and belief.

(5) Sub-paragraphs (3) and (4) of paragraph 1 of Schedule 1 have effect.

PART 5
PERIODIC SUPPORT PAYMENTS

Payment of periodic support payments to participants

37.—(1) Periodic support payments shall accrue from the tariff start date and shall be payable for [20 years]55.

(2) Periodic support payments shall be calculated and paid by the GB Authority.

(3) Subject to regulation 43(5) and paragraphs (7) and (9) of this regulation, the tariff for an accredited RHI installation shall be fixed when that installation is accredited.

(4) Subject to paragraph (7), the tariff for a participant who is a producer of biomethane is the biomethane and biogas combustion tariff set out in Schedule 3.

(5) Subject to paragraphs (6), (7) and (9), the tariff for an accredited RHI installation is the tariff set out in Schedule 3 in relation to its source of energy or technology and installation capacity.

(6) For the purposes of paragraph (5), where the accredited RHI installation is one of a number of plants forming part of the same heating system its installation capacity is to be taken to be the sum of the installation capacities of that accredited RHI installation and all plants for which an application for accreditation has been made (whether or not they have been accredited) which—

(a) use the same source of energy and technology as that accredited RHI installation; and

54 Time period from draft GB RHI Regulations – position to be confirmed for NI
55 Time period from draft GB RHI Regulations – position to be confirmed for NI
(b) form part of the same heating system as that accredited RHI installation.

(7) The tariffs—

(a) for the period beginning with the commencement of these Regulations and ending with [31st March 2012]56, are the tariffs set out in Schedule 3; and

(b) for each subsequent year commencing with [1st April and ending with 31st March]57, are the tariffs applicable on the immediately preceding [31st March]58 adjusted by the percentage increase or decrease in the retail prices index for the previous calendar year (the resulting figure being rounded to the nearest tenth of a penny, with any twentieth of a penny being rounded upwards).

(8) The GB Authority must calculate the tariff rates each year in accordance with paragraph (7) and publish on [or before 1st April]59 of each year a table of tariffs for the period commencing with [1st April]60 of that year and ending with [31st March]61 of the following year.

(9) Where an accredited RHI installation receives the small commercial biomass tariff or the medium commercial biomass tariff as set out in Schedule 3—

(a) the tariff for the initial heat generated by the installation in any [12 month]62 period commencing with, or with the anniversary of, the date of accreditation is the relevant tier 1 tariff specified in Schedule 3; and

(b) the tariff for all further heat generated in that same [12 month]63 period is the relevant tier 2 tariff.

(10) For the purposes of paragraph (9), “the initial heat” means the heat in kWhth generated by an accredited RHI installation running at its installation capacity for [1,314 hours]64.

**Periodic support payments for accredited RHI installations in simple systems**

38.—(1) This regulation applies to participants who own an accredited RHI installation (“the installation”) which—

(a) is generating and supplying heat solely for one or more eligible purposes used in one building;

(b) does not deliver heat by steam; and

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56 Time period from draft GB RHI Regulations – position to be confirmed for NI
57 Time period from draft GB RHI Regulations – position to be confirmed for NI
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62 Time period from draft GB RHI Regulations – position to be confirmed for NI
63 Time period from draft GB RHI Regulations – position to be confirmed for NI
64 Time period from draft GB RHI Regulations – position to be confirmed for NI
(c) is not a CHP system.

(2) Subject to regulations 40 and 41, participants shall be paid a periodic support payment for the installation in respect of each quarterly period calculated in accordance with one of the following formulae, as applicable—

(a) $A \times B$; or

(b) where the installation is generating heat from the combustion of biogas, $A \times (B - C)$, where—

$A$ is the tariff for the installation determined in accordance with regulation 37;

$B$ is the heat in kWhth generated by the installation during the relevant quarterly period; and

$C$ is the heat in kWhth directed from the installation or delivered by any other source to the biogas production plant which produced the biogas combusted in the relevant quarterly period (other than heat contained in feedstock used to produce biogas by anaerobic digestion).

**Periodic support payments accredited RHI installations for complex systems**

39.—(1) This regulation applies to participants who own an accredited RHI installation (“the installation”) which does not fall within regulation 38.

(2) Subject to regulations 40 and 41, participants shall be paid a periodic support payment for the installation in respect of each quarterly period calculated in accordance with one of the following formulae, as applicable—

(a) $A \times B \times DE$; or

(b) where the accredited RHI installation is generating heat from the combustion of biogas, $A \times (B - C) \times DE$ where—

$A$ is the tariff for the installation determined in accordance with regulation 37;

$B$ is the heat in kWhth used by the heating system of which the installation forms part during the relevant quarterly period for eligible purposes;

$C$ is the heat in kWhth directed from the installation or delivered from any other source to the biogas production plant which produced the biogas combusted in the relevant quarterly period (other than heat contained in feedstock used to produce biogas by anaerobic digestion) or, where there is no such heat, zero;

$D$ is the heat in kWhth generated by the installation during the relevant quarterly period; and

$E$ is the heat in kWhth generated by all plants supplying heat to the same heating system of which the installation forms part in the relevant quarterly period.

**Fossil fuel contamination of solid biomass and fossil fuel used for permitted ancillary purposes**
40.—(1) This regulation applies to participants generating heat in an accredited RHI installation—

(a) where the heat is generated from solid biomass contained in municipal waste ("Case A"); or

(b) where the heat is generated from solid biomass, not being solid biomass contained in municipal waste, and the capacity of the installation is [1 MWth or above]65 ("Case B").

(2) In Case A, the periodic support payment calculated in accordance with regulation 38 or 39 shall be reduced pro rata to reflect the proportion of the energy content of the municipal waste used in the relevant quarterly period which was composed of fossil fuel and, where fossil fuel has been used for permitted ancillary purposes in accordance with regulation 28, to reflect the proportion of fossil fuel so used which resulted in the generation of heat.

(3) In Case B, the periodic support payment calculated in accordance with regulation 38 or 39 shall be reduced pro rata to reflect the proportion of fossil fuel contamination in the relevant quarterly period determined in accordance with regulation 29 and, where fossil fuel has been used for permitted ancillary purposes during the relevant quarterly period in accordance with regulation 29, to reflect the proportion of fossil fuel so used which resulted in the generation of heat.

Fossil fuel contamination adjustment to periodic support payments for producers and combusters of biogas produced from gasification and pyrolysis

41.—(1) This regulation applies to participants producing biogas from gasification or pyrolysis and generating heat from that biogas in an accredited RHI installation.

(2) Where, in accordance with regulation 31, a participant uses feedstock contaminated with fossil fuel, the periodic support payment calculated in accordance with regulation 38 or 39 shall be reduced pro rata to reflect the proportion of fossil fuel contamination in the feedstock used by the participant in the relevant quarterly period.

Periodic support payments to producers of biomethane

42. Participants producing biomethane for injection shall be paid a periodic support payment in respect of each quarterly period calculated in accordance with the following formula—

\[ A \times (B - (C + D + E)) \times F \]

where—

\( A \) is the biomethane and biogas combustion tariff determined in accordance with regulation 37;

\( B \) is the kWh of biomethane injected in any quarterly period;

\( C \) is the kWh of propane contained in B;

\( D \) is the kWhth of heat supplied to the biogas production plant (other than heat contained in feedstock to produce biogas by anaerobic digestion) which produced the biogas from which

65 Value relates to draft GB RHI Regulations – position to be confirmed for NI
the biomethane was made, from any heat source other than heat generated from the combustion of that biogas;

E is the kWhth of heat supplied to the biomethane production process; and

F applies only in relation to biomethane made using biogas produced from gasification or pyrolysis, and is the proportion of biomass contained in the feedstock used in the relevant quarterly period to produce the biogas.

PART 6
ADDITIONAL RHI CAPACITY

Treatment of additional RHI capacity

43.—(1) This regulation applies where a participant installs additional RHI capacity.

(2) In this regulation “additional RHI capacity” means a plant which is—

(a) first commissioned after the date on which an accredited RHI installation (“the original installation”) was first commissioned;

(b) uses the same source of energy and technology as the original installation; and

(c) supplies heat to the same heating system as that of which the original installation forms part.

(3) A participant must inform the Authority within [28 days] of the additional RHI capacity being first commissioned.

(4) Paragraph (5) applies where the additional RHI capacity is first commissioned within [12 months] of the date on which the original installation was first commissioned.

(5) Where this paragraph applies—

(a) the NI Authority may review the accreditation of any accredited RHI installation using the same source of energy and technology and supplying heat to the same heating system as the additional RHI capacity;

(b) upon an application for accreditation of the additional RHI capacity, the NI Authority must—

(i) treat the additional RHI capacity as if it were part of the original installation; and

(ii) decide whether or not to accredit the additional RHI capacity and original installation as one eligible installation in accordance with Part 3;

66 Time period from draft GB RHI Regulations – position to be confirmed for NI
67 Time period from draft GB RHI Regulations – position to be confirmed for NI
subject to sub-paragraph (d), a refusal of accreditation under sub-paragraph (b)(ii) does not affect the accreditation of the original installation;

if a review undertaken in accordance with sub-paragraph (a) results in a finding that a relevant ongoing obligation is no longer being complied with, the NI Authority may take appropriate action under Part 7; and

where the NI Authority grants accreditation in accordance with sub-paragraph (b), from the date of that accreditation a participant’s periodic support payments in respect of the original installation will be replaced by periodic support payments calculated using the applicable tariff determined in accordance with paragraphs (7) and (9) of regulation 37 in relation to the source of energy and technology concerned based on the sum of the installation capacities of the additional RHI capacity and the original installation, and will terminate with the tariff end date of the original accredited RHI installation.

(6) Paragraph (7) applies where the additional RHI capacity is first commissioned more than [12 months]\(^{68}\) after the original installation was first commissioned.

(7) Where this paragraph applies, the NI Authority may review the accreditation of any accredited RHI installation using the same source of energy and technology and supplying heat to the same heating system as the additional RHI capacity; and if a review results in a finding that a relevant ongoing obligation is no longer being complied with, the NI Authority may take appropriate action under Part 7.

(8) All additional RHI capacity must be individually metered.

**PART 7**

**ENFORCEMENT**

**Power to temporarily withhold periodic support payments to investigate alleged noncompliance**

44.—(1) Where the NI Authority has reasonable grounds to suspect that a participant has failed or is failing to comply with an ongoing obligation and the NI Authority requires time to investigate, it may temporarily withhold all or part of that participant’s periodic support payments.

(2) Within [21 days]\(^{69}\) of a decision to withhold periodic support payments, the NI Authority must send a notice to the participant specifying—

(a) the respect in which the NI Authority suspects the participant has failed or is failing so to comply;

(b) the reason why periodic support payments are being withheld;

(c) the date from which periodic support payments will be withheld;

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\(^{68}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{69}\) Time period from draft GB RHI Regulations – position to be confirmed for NI
(d) the next steps in the investigation; and

(e) details of the participant’s right of review including any relevant time-limits.

(3) The NI Authority’s investigation must be commenced and completed as soon as is reasonably practicable.

(4) The NI Authority may withhold a participant’s periodic support payments for a maximum period of [6 months]\(^70\) commencing with the date specified in accordance with the notice required by paragraph (2)(c).

(5) The NI Authority must review its decision to withhold a participant’s periodic support payments every [30 days]\(^71\) commencing [30 days]\(^72\) after the date of the notice required by paragraph (2).

(6) Following a review pursuant to paragraph (5), the NI Authority must send a notice to the participant providing an update on—

(a) the progress of any investigation to date; and

(b) whether the NI Authority intends to continue to withhold periodic support payments.

(7) For the purposes of calculating the time-limit specified in paragraph (4), no account is to be taken of any period attributable to the participant’s delay in providing any information reasonably requested by the NI Authority.

(8) For the purposes of paragraph (7), a participant is not to be deemed to have delayed in providing information if that participant responds within [2 weeks]\(^73\) of a request from the NI Authority.

(9) On expiry of the period referred to in paragraph (4) or, if earlier, the conclusion of the investigation, the NI Authority must—

(a) send the participant a notice specifying the outcome of the investigation or, where the investigation is not concluded, inform the participant accordingly; and

(b) pay within [28 days]\(^74\) of the date of that notice all periodic support payments temporarily withheld under this regulation, subject to any permanent withholding or reduction of any such payments under regulation 46.

(10) If, on conclusion of the investigation, the NI Authority is satisfied that a participant is failing or has failed to comply with an ongoing obligation it may impose one or more of the other sanctions set out in this Part.

**Power to suspend periodic support payments where ongoing failure to comply**

\(^{70}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{71}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{72}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{73}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{74}\) Time period from draft GB RHI Regulations – position to be confirmed for NI
45.—(1) Where the NI Authority is satisfied that a participant is failing to comply with an ongoing obligation it may suspend that participant’s periodic support payments.

(2) Within [21 days]\(^{75}\) of a decision to suspend periodic support payments the NI Authority must send a notice to the participant specifying—

(a) the respect in which the NI Authority is satisfied that the participant is failing so to comply;

(b) the reason why periodic support payments are being suspended;

(c) the date from which the suspension is effective;

(d) the steps that the participant must take to satisfy the NI Authority that it is complying with the ongoing obligation;

(e) the consequences of the participant failing to take the steps required pursuant to sub-paragraph (d) including potential sanctions; and

(f) details of the participant’s right of review including any relevant time-limits.

(3) Within [21 days]\(^{76}\) of being satisfied that the participant is complying with the ongoing obligation the NI Authority must remove the suspension.

(4) If, within [6 months]\(^{77}\), the NI Authority is satisfied that the participant has taken the steps specified by notice under paragraph (2), the GB Authority may pay within [28 days] of being so satisfied all periodic support payments withheld under this regulation.

(5) The maximum period for which the NI Authority may suspend a participant’s periodic support payments is [1 year]\(^{78}\).

(6) Subject to paragraph (4), a participant may not recover any periodic support payments suspended in accordance with this regulation.

**Power to permanently withhold or reduce a participant’s periodic support payments**

46.—(1) Where the NI Authority is satisfied that there has been a material or repeated failure by a participant to comply with an ongoing obligation during any quarterly period and the periodic support payment for that quarterly period has not been paid, the NI Authority may request that the GB Authority take one or more of the following actions—

(a) permanently withhold a proportion of the participant’s periodic support payment which corresponds to the proportion of that quarterly period during which the participant failed so to comply; or

(b) reduce a participant’s periodic support payment for that quarterly period or for the quarterly period immediately following.

\(^{75}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{76}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{77}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{78}\) Time period from draft GB RHI Regulations – position to be confirmed for NI
(2) Within [21 days]\(^79\) of a decision to permanently withhold or to reduce a periodic support payment, the NI Authority must send a notice to the participant specifying, as applicable—

(a) the respect in which the participant has failed so to comply;

(b) the reason why a periodic support payment is being withheld or reduced;

(c) the period in respect of which any periodic support payment is to be withheld or reduced;

(d) the level of any reduction; and

(e) details of the participant’s right of review including any relevant time-limits.

(3) Where reducing a periodic support payment in accordance with paragraph (1)(b), the NI Authority may determine the level of the reduction (taking into consideration all factors which it considers relevant) up to a maximum reduction of [10 per cent]\(^80\) of the periodic support payment in question.

Revocation of accreditation or registration

47.—(1) Where the NI Authority is satisfied that there has been a material or repeated failure by a participant to comply with an ongoing obligation it may take one or more of the following actions—

(a) revoke accreditation for the accredited RHI installation in respect of which there has been a material or repeated failure;

(b) revoke accreditation for any other accredited RHI installations owned by that participant; or

(c) in relation to a participant who is a producer of biomethane for injection, revoke that participant’s registration.

(2) Within [21 days]\(^81\) of a decision to revoke accreditation or registration the NI Authority must send a notice to the participant specifying—

(a) the reason for the revocation of accreditation or registration including, where applicable, details of the respect in which the participant has failed so to comply;

(b) an explanation of the effect of the revocation; and

(c) details of the participant’s right of review including any relevant time limits.

(3) Where accreditation of an accredited RHI installation has been revoked, or a participant’s registration has been revoked, the NI Authority may refuse to accredit any eligible installations owned by the same person or refuse to register that person as a producer of biomethane for injection at any future date.

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\(^79\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^80\) Value relates to draft GB RHI Regulations – position to be confirmed for NI

\(^81\) Time period from draft GB RHI Regulations – position to be confirmed for NI
Overpayment notices and offsetting

48.—(1) Where the NI Authority is satisfied that a participant has received a periodic support payment which exceeds that participant’s entitlement or has received a periodic support payment whilst failing to comply with an ongoing obligation it may—

(a) require the participant to repay the periodic support payment as a civil debt owed to the GB Authority; or

(b) offset the periodic support payment against any future periodic support payments.

(2) Within [21 days]\(^{82}\) of a decision to offset or require the participant to repay any periodic support payment the NI Authority must send the participant a notice specifying—

(a) the periodic support payment which the NI Authority believes has been overpaid and the sum which it is seeking to recover from the participant;

(b) whether the sum specified in sub-paragraph (a) will be recovered in accordance with paragraph (1)(a) or (1)(b);

(c) where applicable, a date by which the sum specified in sub-paragraph (a) must be repaid;

(d) the consequences of failing to make any repayments requested including potential sanctions or civil action; and

(e) details of the participant’s right of review including any relevant time limits.

PART 8

REVOCATION OF SANCTIONS

Revocation of Part 7 sanctions

49.—(1) The NI Authority may at any time revoke a sanction imposed in accordance with Part 7 if it is satisfied that—

(a) there was an error involved in the original imposition of the sanction; or

(b) it is just and equitable in the particular circumstances of the case to do so.

(2) Within [21 days]\(^{83}\) of a decision to revoke a sanction, the NI Authority must send a notice to the participant specifying—

(a) the sanction which has been revoked;

(b) the reason for the revocation;

\(^{82}\) Time period from draft GB RHI Regulations – position to be confirmed for NI

\(^{83}\) Time period from draft GB RHI Regulations – position to be confirmed for NI
(c) what action if any the NI Authority proposes to take in relation to any loss incurred by the participant as a result of the imposition of the sanction including the time within which any action will be taken; and

(d) details of someone within the NI Authority whom the participant may contact if they are not satisfied with the proposals made by the NI Authority under sub-paragraph (c).
PART 9

INSPECTION

Power to inspect accredited RHI installations

50.—(1) The NI Authority or its authorised agent may request entry at any reasonable hour to inspect an accredited RHI installation and its associated infrastructure84 to undertake any one or more of the following—

(a) verify that the participant is complying with all applicable ongoing obligations;
(b) verify meter readings;
(c) take samples and remove them from the premises for analysis;
(d) take photographs, measurements or video or audio recordings; or
(e) ensure that there is no other contravention of these Regulations.

(2) Within [21 days]85 of a request made under paragraph (1) being (in its opinion) unreasonably refused the NI Authority must send a notice to the participant specifying—

(a) the reason why the NI Authority considers the refusal to be unreasonable;
(b) the consequences of the refusal, including potential sanctions for failing to comply with the ongoing obligation imposed by regulation 34(i); and
(c) details of the participant’s right of review including any relevant time-limits.

PART 10

REVIEWS

Right of review

51.—(1) Any prospective, current or former participant affected by a decision made by the NI Authority in exercise of its functions under these Regulations (other than a decision made in accordance with this regulation) may have that decision reviewed by the NI Authority.

(2) An application for review must be made by notice in such format as the NI Authority may require and must—

(a) be received by the NI Authority within [28 days]86 of the date of receipt of notification of the decision being reviewed;

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84 DETI to confirm whether this should explicitly state that the right of inspection to verify that heat is used for eligible purposes extends to non-domestic buildings where heat is used on-site.
85 Time period from draft GB RHI Regulations – position to be confirmed for NI
86 Time period from draft GB RHI Regulations – position to be confirmed for NI
(b) specify the decision which that person wishes to be reviewed;

(c) specify the grounds upon which the application is made; and

(d) be signed by or on behalf of the person making the application.

(3) A person who has made an application in accordance with paragraph (2) must provide the NI Authority with such information and such declarations as the NI Authority may reasonably request in order to discharge its functions under this regulation, provided any information requested is in that person’s possession.

(4) On review the NI Authority may—

(a) revoke or vary its decision;

(b) confirm its decision;

(c) vary any sanction or condition it has imposed; or

(d) replace any sanction or condition it has imposed with one or more alternative sanctions or conditions.

(5) Within [21 days] of the NI Authority’s decision on a review, it must send the applicant and any other person who is in the NI Authority’s opinion affected by its decision a notice setting out its decision with reasons.

PART 11

ADMINISTRATIVE FUNCTIONS OF THE AUTHORITY AND NOTICES

Publication of guidance and tariffs

52. The NI Authority must publish procedural guidance to participants and prospective participants in connection with the administration of the scheme.

Reporting obligations

53.—(1) The NI Authority must provide to the Department monthly reports in such manner and form as the Department may request containing the following information, as applicable—

(a) in respect of each accredited RHI installation accredited during the period covered by the report—

   (i) such of the information specified in Schedule 1 as the NI Authority may hold and the Department may require regarding the accredited RHI installation;

   (ii) details of the plant it has replaced, if any;

87 Time period from draft GB RHI Regulations – position to be confirmed for NI
(iii) the total amount of periodic support payments made in respect of the accredited RHI installation during the period covered by the report;

(iv) the total amount of heat in kWhth for which periodic support payments were made and the eligible purposes and the industry sector for which it was used; and

(v) sustainability information provided in accordance with Schedule 2;

(b) in respect of each participant registered as a producer of biomethane during the period covered by the report—

(i) the total amount of periodic support payments made to each participant;

(ii) the volume of biomethane produced for injection by each participant; and

(iii) sustainability information provided in accordance with Schedule 2; and

(c) such other information as the NI Authority may hold in relation to its functions under these Regulations as the Department may require.

(2) The first monthly report must cover the period from the commencement of these Regulations and ending with [31st October 2011]88 and each subsequent monthly report must cover each subsequent month and must be sent to the Department within [10 working days]89 of the end of that month.

(3) The NI Authority must provide to the Department quarterly and annual reports in such manner and form as the Department may request containing the information specified in paragraph (1) in aggregate form both for the period covered by the report and since the date of commencement of the scheme.

(4) The first annual report must be published by [31st July 2012]90 and must cover the period from the commencement of these Regulations and ending with [31st March 2012]91, and in each subsequent year the annual report must be published by [31st July]92 in respect of the [12 month]93 period ending with [31st March]94 of that year.

(5) The first quarterly report must be published by [31st January 2012]95 and must cover the period from the commencement of these Regulations and ending with [31st December 2011]96, and each subsequent quarterly report must cover each quarterly period and must be published within one month of the end of the relevant quarterly period.

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88 Time period from draft GB RHI Regulations – position to be confirmed for NI
89 Time period from draft GB RHI Regulations – position to be confirmed for NI
90 Date from draft GB RHI Regulations – position to be confirmed for NI
91 Date from draft GB RHI Regulations – position to be confirmed for NI
92 Date from draft GB RHI Regulations – position to be confirmed for NI
93 Time period from draft GB RHI Regulations – position to be confirmed for NI
94 Date from draft GB RHI Regulations – position to be confirmed for NI
95 Date from draft GB RHI Regulations – position to be confirmed for NI
96 Date from draft GB RHI Regulations – position to be confirmed for NI
(6) The NI Authority must publish the following information on its website—

(a) the quarterly and annual reports provided in accordance with this regulation;

(b) current information in aggregate form as to—

(i) the number of accredited RHI installations;

(ii) their technology and installation capacity;

(iii) the amount of heat they have generated; and

(iv) the total amount of periodic support payments made under each tariff; and

(c) current information in aggregate form as to—

(i) the number of participants who are producers of biomethane;

(ii) the volume of biomethane produced for injection by those participants; and

(iii) the total amount of periodic support payments made in respect of that biomethane.

(7) For the purposes of this regulation “quarterly period” means the first, second, third or fourth quarter of any year commencing on [1st January]97.

(8) For the purposes of this regulation “current information” means information which is no more than five days out of date.

Additional information

54. On request from the Department, the NI Authority must provide to the Department in such manner and form and by such date as the Department may request such additional information as the NI Authority may hold in relation to the performance of its functions under these Regulations.

Notices

55. A notice under these Regulations—

(a) must be in writing; and

(b) may be transmitted by electronic means.

97 Date from draft GB RHI Regulations – position to be confirmed for NI
SCHEDULES

SCHEDULE 1

Regulations 22, 24, 25, 26 and 36

Information required for accreditation and registration

1.—(1) This Schedule specifies the information that may be required of a prospective participant in the scheme.

(2) The information is, as applicable to the prospective participant—

(a) name, home address, e-mail address and telephone number;

(b) any company registration number and registered office;

(c) any trading or other name by which the prospective participant is commonly known;

(d) details of a bank account in the prospective participant’s name which accepts pound sterling deposits in the United Kingdom;

(e) information to enable the NI Authority to satisfy itself as to the identity of the individual completing the application;

(f) where an individual is making an application on behalf of a company, evidence which satisfies the NI Authority, that the individual has authority from the company to make the application on its behalf;

(g) details of the eligible installation owned by the prospective participant including its cost;

(h) evidence, which satisfies the NI Authority, as to the ownership of the eligible installation;

(i) evidence that the eligible installation was new at the time of installation;

(j) where an eligible installation has replaced a plant, details of the plant replaced;

(k) evidence which demonstrates to the NI Authority’s satisfaction the installation capacity of the eligible installation;

(l) details of the fuel which the prospective participant is proposing to use;

(m) in relation to prospective participants generating heat from biomass, notification as to whether the prospective participant is proposing to use solid biomass contained in municipal waste and, if so, whether or not the prospective participant is regulated under the Pollution Prevention and Control Regulations (Northern Ireland) 2003;
(n) where the plant is a heat pump, evidence which demonstrates to the NI Authority’s satisfaction, that the heat pump meets a coefficient of performance of at least [2.9]98;

(o) in respect of a producer of biogas or biomethane, details of the feedstock which the producer is proposing to use;

(p) details of what the heat generated will be used for and an estimate of how much heat will be used;

(q) details of the building in which the heat will be used;

(r) the industry sector for which the heat will be used;

(s) details of the size and annual turnover of the prospective participant’s organisation;

(t) details of other plants generating heat which form part of the same heating system as the eligible installation to which the application relates;

(u) where regulation 13 applies, evidence from the installer that the requirements specified in that regulation are met;

(v) such information as the NI Authority may specify to enable it to satisfy itself that the requirements of regulations 16 to 21 have been met including—

(i) evidence that a class 2 heat meter, other heat meter or steam measuring equipment has been installed;

(ii) evidence that the class 2 heat meter, other heat meter or steam measuring equipment was calibrated prior to use;

(iii) in relation to all heat meters, details of the meter’s manufacturer, model, meter serial number;

(iv) a schematic diagram showing details of the heating system of which the eligible installation forms part, including all plants generating and supplying heat to that heating system, all purposes for which heat supplied by that heating system is used, the location of meters and associated components and such other details as may be specified by the NI Authority; and

(v) where—

(aa) an eligible installation has an installation capacity of [1 MWth or above]99; or

(bb) regulation 17 applies;

if so requested by the NI Authority, an independent report by a competent person verifying that such of those requirements as the NI Authority may specify have been met; and

98 Value relates to draft GB RHI Regulations – position to be confirmed for NI

99 Value relates to draft GB RHI Regulations – position to be confirmed for NI
(w) such other information as the NI Authority may require to enable it to consider the prospective participant’s application for accreditation or registration.

(3) Information specified in this Schedule must be provided in such manner and form as the NI Authority may reasonably request.

(4) The costs of providing the information specified in this Schedule are to be borne by the applicant.
SCHEDULE 2  Regulations 29 and 33

Provision of information in relation to the use of biomass in certain circumstances

Information to be provided to the NI Authority where biomass is used for combustion or production of biomethane

1. This Schedule specifies the information that a participant is required to provide under regulation 29(9) and 33(9).

2. The information is information identifying to the best of the participant’s knowledge and belief, in such manner and form as the NI Authority may require—

   (a) the material from which the solid biomass was composed;
   (b) the form of the solid biomass;
   (c) its mass;
   (d) whether the solid biomass was a by-product of a process;
   (e) whether the solid biomass was derived from waste;
   (f) where the solid biomass was plant matter or derived from plant matter, the country where the plant matter was grown;
   (g) where the information specified in paragraph (f) is not known or the solid biomass was not plant matter or derived from plant matter, the country from which the operator obtained the solid biomass;
   (h) whether any of the solid biomass used was an energy crop or derived from an energy crop and if so—
      (i) the proportion of the consignment which was or was derived from the energy crop; and
      (ii) the type of energy crop in question;
   (i) whether the solid biomass or any matter from which it was derived was certified under an environmental quality assurance scheme and, if so, the name of the scheme; and
   (j) where the solid biomass was plant matter or derived from plant matter, the use to which the land on which the plant matter was grown has been put since [30th November 2005].

3. The information specified in paragraph 2 must be collated by reference to the following places of origin—

   Date from draft GB RHI Regulations – position to be confirmed for NI
(a) United States of America or Canada;

(b) the European Union; or

(c) other.

4. The information specified in paragraph 2 must be provided for every quarterly period.

5. For the purpose of this Schedule—

“energy crop” means a plant crop planted after [31st December 1989]\(^{101}\) which is grown primarily for the purpose of being used as fuel or which is one of the following—

(a) miscanthus giganteus (a perennial grass);

(b) salix (also known as short rotation coppice willow); or

(c) populus (also known as short rotation coppice poplar); and

“environmental quality assurance scheme” means a voluntary scheme which establishes environmental or social standards in relation to the production of biomass or matter from which a biomass is derived.

\(^{101}\) Date from draft GB RHI Regulations – position to be confirmed for NI
SCHEDULE 3

Regulation 37

Tariffs102

Table 1

<table>
<thead>
<tr>
<th>Tariff name</th>
<th>Sources of energy or Technology</th>
<th>Installation capacity</th>
<th>Tariff Pence/kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Small commercial Biomass]</td>
<td>[Solid biomass including solid biomass contained in municipal solid waste and CHP]</td>
<td>[Less than 200kWth]</td>
<td>[Tier 1:7.9]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Tier 2:2.0]</td>
</tr>
<tr>
<td>[Medium commercial Biomass]</td>
<td>[As above]</td>
<td>[200kWth and above up to but not including 1MWth]</td>
<td>[Tier 1:4.9]</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>[Tier 2:2.0]</td>
</tr>
<tr>
<td>[Large commercial Biomass]</td>
<td>[As above]</td>
<td>[1 MWth and above]</td>
<td>[2.7]</td>
</tr>
<tr>
<td>[Small commercial heat pumps]</td>
<td>[Ground source heat pump, water source heat pump, deep geothermal]</td>
<td>[Less than 100kWth]</td>
<td>[4.5]</td>
</tr>
<tr>
<td>[Large commercial heat pumps]</td>
<td>[As above]</td>
<td>[100kWth]</td>
<td>[3.2]</td>
</tr>
<tr>
<td>[All Solar collectors]</td>
<td>[Solar collectors]</td>
<td>[Below 200 Wth]</td>
<td>[8.5]</td>
</tr>
<tr>
<td>[Biomethane and biogas Combustion]</td>
<td>[Biomethane injection and biogas combustion]</td>
<td>[All biomethane injection and biogas combustion below 200 Wth]</td>
<td>[6.8]</td>
</tr>
</tbody>
</table>

102 All values in Schedule 3 relate to the draft GB RHI Regulations – the position for NI is to be confirmed.
These Regulations, which apply to Northern Ireland, establish a renewable heat incentive scheme (“the scheme”) under which owners of plants which generate heat from specified renewable sources and meet specified criteria may receive payments at prescribed tariffs for the heat used for eligible purposes. Payments may also be made to biomethane producers who produce biomethane for injection. [The Regulations confer functions on the Northern Ireland Authority for Utility Regulation (the “NI Authority”) in connection with matters in connection with the general administration of the scheme, except for the administration of periodic support payments under the scheme, which is undertaken by the Gas and Electricity Markets Authority (the “GB Authority”).]103

Regulation 3 confers on the GB Authority the function of making payments to participants in the scheme and specifies the eligible purposes for which heat will receive payment.

Part 2 (Regulations 4 to 21) sets out eligibility criteria and matters relating to eligibility. Regulation 4 defines criteria (“eligibility criteria”) that must be satisfied for a plant to be eligible to participate in the scheme.

Regulations 5 to 15 specify the eligibility criteria other than those in relation to metering.

Regulations 16 to 21 specify the eligibility criteria in relation to metering, setting out the types of meters which may be used, the requirements with which they must comply and what must be measured.

Part 3 (regulations 22 to 26) sets out the procedures for accreditation, registration, change of ownership and preliminary accreditation. Regulation 22 confers on the NI Authority the function of accrediting eligible installations (which upon accreditation are known as accredited RHI installations) and specifies the process by which applicants apply to the NI Authority for accreditation.

Regulation 23 specifies the circumstances in which the NI Authority may not accredit a plant. These include matters relating to the receipt of grants from public funds; where a plant has not been commissioned; where an applicant has indicated that applicable ongoing obligations will not be complied with and where the plant is one of a number of plants which would together form one eligible installation in accordance with Part 2.

Regulation 24 specifies the procedure for notifying the NI Authority where there has been a transfer in ownership of all or part of an accredited RHI installation and sets out the process by which the new owner may receive payments under the scheme.

Regulation 25 confers on the NI Authority the function of registering producers of biomethane who are producing biomethane for injection. It specifies the process by which applicants apply to the NI Authority for registration and specifies the circumstances in which an application for registration can be refused.

Regulation 26 sets out the process by which a person may apply for and the NI Authority may grant preliminary accreditation in respect of a plant.

103 NOTE TO DETI - please confirm
Part 4 (Regulations 27 to 36) sets out ongoing obligations for participants in the scheme. Regulations 27 to 30 set out ongoing obligations with which participants generating heat from biomass must comply.

Regulation 28 applies to participants generating heat from solid biomass contained in municipal waste. It specifies the minimum proportion of solid biomass which must be contained in the municipal waste used, sets out how the proportion of solid biomass is determined and specifies the permitted uses of fossil fuel in accredited RHI installations.

Regulations 29 and 30 apply to participants generating heat from solid biomass, not being solid biomass contained in municipal waste. They specify the permitted levels of and reasons for fossil fuel contamination, set out how the proportion of fossil fuel contamination is determined and specify the permitted uses of fossil fuel in accredited RHI installations. Regulation 29 also imposes a sustainability reporting requirements for participants generating heat using accredited RHI installations with an installation capacity of \([10^4\text{MWth}]\) or above.

Regulations 31 to 33 set out ongoing obligations for participants who are generating heat from biogas and producing biomethane for injection.

Regulation 31 applies to participants producing biogas using gasification and pyrolysis and generating heat from that biogas. It stipulates composition requirements for the feedstock used by participants and specifies the permitted uses of fossil fuel in accredited RHI installations.

Regulation 32 applies to participants generating heat from biogas to whom regulation 31 does not apply. It stipulates feedstock requirements for participants using biogas produced from anaerobic digestion and specifies permitted uses of fossil fuel in accredited RHI installations.

Regulation 33 applies to biomethane producers who produce biomethane for injection. It specifies composition requirements for feedstocks used to produce the biogas from which the biomethane is made and sets out the ongoing obligations relating to administration with which participants must comply. It also imposes a sustainability reporting requirement.

Regulations 34 to 36 set out the ongoing obligations for participants which are not specific to those participants generating heat from biomass or biogas or producing biomethane for injection.

Regulation 34 specifies general ongoing obligations relating to administrative and other matters with which participants must comply.

Regulation 35 specifies the ongoing obligations in relation to metering. It imposes requirements on participants in relation to their heat meters and steam measuring equipment; requires participants to provide data when requested by the NI Authority; and specifies the metering arrangements for participants using heat pumps for both heating and cooling. This regulation also permits the data to be estimated in exceptional circumstances.

Regulation 36 specifies ongoing obligations in relation to the provision of information and gives effect to Schedule 1.

Part 5 (regulations 37 to 42) confers on the GB Authority the function of calculating and paying periodic support payments to participants. These regulations specify the method by which tariffs are assigned; confer a function on the NI Authority to calculate and publish a table of tariffs each year based on the tariffs set out in Schedule 3 adjusted in line with the

104 Value relates to draft GB RHI Regulations – position to be confirmed for NI
retail price index and specifies the method by which periodic support payments are calculated.

Part 6 (regulation 43) specifies how a plant using the same source of energy and technology as an accredited RHI installations and supplying heat to the same heating system (known as additional RHI capacity) is to be treated under the scheme.

Part 7 (regulations 44 to 48) sets out the provisions in relation to enforcement.

Regulations 44 to 47 confer on the NI Authority a wide range of powers to temporarily or permanently withhold a participant’s periodic support payments or reduce a periodic support payment.

Regulation 47 confers a power on the NI Authority to revoke accreditation or registration in certain circumstances.

Regulation 48 confers a power on the GB Authority to recover overpayments.

Part 8 (regulation 49) confers on the NI Authority a power to revoke any sanction imposed under Part 7 and specifies the circumstances and manner in which the NI Authority may exercise this power.

Part 9 (regulation 50) confers on the NI Authority or its authorised agent the power to inspect an accredited RHI installation and its associated infrastructure and specifies the manner and circumstances in which this power may be exercised and the consequences of refusal.

Part 10 (regulation 51) confers a right of review on any prospective, current or former participant affected by a decision made by the NI Authority under these Regulations, sets out the process by which a person may request a review of such decisions and specifies the NI Authority’s powers on review.

Part 11 (regulations 52 to 55) confers additional administrative functions on the NI Authority. Under regulation 52 the NI Authority must publish procedural guidance in connection with the administration of the scheme.

Regulation 53 requires the NI Authority to provide information to the Department including annual, quarterly and monthly reports and to publish certain information on its website.

Regulation 54 requires the NI Authority to provide certain additional information as the Department may request.

Regulation 55 describes the form of notices under these Regulations.


A full impact assessment of the effect that this instrument will have on the costs of business and the voluntary sector is available from the Department of Enterprise, Trade and Investment at Netherleigh, Massey Avenue, Belfast BT4 2JP and is published with the Explanatory Memorandum alongside the instrument on www.legislation.gov.uk.
## Appendix 1

### Issues relevant to both the GB RHI Regulations and the draft NI RHI Regulations

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue</th>
<th>Overview</th>
<th>Suggested solution</th>
<th>Priority level (H/M/L)</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Biomethane duration</td>
<td>Policy is to stop payments after 20 years but regulations don’t have a mechanism to do that.</td>
<td></td>
<td></td>
<td>AM</td>
</tr>
<tr>
<td>1c</td>
<td>Biomethane provenance</td>
<td>Biogas from outside GB shouldn’t be allowed. Added by FN: There is no specific provision in the RHI Regulations which deals with the geographical location of facilities used to produce the biogas or biomethane for injection. We believe this means that: a) Biogas that is produced in one location can then be tankered (or piped?) to a different location for upgrading to biomethane and injecting into the grid b) Biogas from Biogas Production which is undertaken outside GB could potentially be used as an input to Biomethane Processing which occurs in GB; and/or c) Biomethane Processing may occur outside GB, with the end product being delivered for Biomethane Injection in GB.</td>
<td>Added by FN: In meeting of 15.8.11, DECC stated that they were comfortable with biogas being tankered within GB as in 9 a). However it was not DECC’s original policy intent to allow biogas from outside of GB. Ofgem noted that there was a risk of non-GB biogas or biomethane being used for injection in GB. DECC noted that they were unsure whether it would actually be possible for biogas produced outside the GB to be used as an input in GB, however DECC recognised that without specific reference disallowing non-GB biogas/biomethane in the regulations, such biogas/biomethane would have to be allowed. Ofgem legal commented that restricting the ability of other EU member states to produce biogas or biomethane for combustion/ biomethane injection in the UK could restrict trade between member states but that DECC should raise this with DECC legal, as state aid provisions may permit this kind of restriction. Either way, amending regulations would be required to impose such a restriction.</td>
<td></td>
<td>AM/FN</td>
</tr>
<tr>
<td>1e</td>
<td>Heat pump immersion heaters</td>
<td>Difficult to follow DECC’s policy of ignoring built in immersion heaters given the way the Regs are drafted.</td>
<td>DETI should expressly state whether or not (or to what extent) such systems are eligible. This will be of particular importance for the NIAUR, who must only pay for heat generated</td>
<td></td>
<td>AM</td>
</tr>
</tbody>
</table>
### 1g Double counting

There is no general provision excluding heat use for parasitic loads from double counting for PSPs. Include parasitic loads as ineligible use, add general avoidance provision, add in any new specific loads identified (least good option)

RZ/AM

### 1h Moving equipment rendering it ineligible

Uprooting an already-accredited installation and moving it to a new site, would render it ineligible – as it would constitute a different application with a now “old” installation. This issue has come up a few times in guidance consultation events, because of concerns that finance companies would want to take back equipment in the event of a default, install it at a new location and still be able to claim RHI. DECC agreed (15.08.11) that moving a plant to a new site would render a plant ineligible. DECC did acknowledge the issue that has been raised about finance companies wanting to be able to take stranded equipment and would be concerned if this was a big blocker to RHI take-up, but they agreed this was something that would need to be taken forward in separate regulations (e.g. 2012). DETI to consider its position in light of these comments.

H FN/AM

### 1i Gasification/pyrolysis

Further clarity on gasification/pyrolysis. DETI should clarify what they're actually incentivising.

OM

## 2 Ambiguities (i.e. regulations unclear and sufficient risk of legal challenge)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>2a</td>
<td>&quot;Natural&quot; loss systems</td>
<td>Clarity on heat eligibility and metering requirements for &quot;natural&quot; system losses – particularly in pipes between buildings.</td>
<td>Ofgem is currently working on a methodology for calculating heat loss across systems. Consider whether or not to include such a methodology directly in the NI RHI Regulations (or the insertion of a provision providing NIAUR with the discretion to set a methodology to determine heat loss.</td>
<td>H</td>
<td>AM/FN</td>
</tr>
<tr>
<td>2b</td>
<td>Installation definition</td>
<td>What counts as an installation for purposes of what must be 'new' and which plant may not receive grants – currently relying on Ofgem guidance, but open to legal challenge where our interpretation doesn't suit applicant.</td>
<td>Ofgem requires clear direction from DETI in relation to exactly what plant forms each type of eligible installation/ biomethane production plant. This information should be gathered in the course of DETI's research into the costs of purchasing and installing heat generation plant (from which it will calculate the appropriate tariff levels). It may be that a lack of such detailed information prolonged the time which the European Commission needed in order to assess overcompensation for the purposes of awarding state aid approval for the GB RHI Regulations.</td>
<td>H</td>
<td>AM</td>
</tr>
<tr>
<td>2c</td>
<td>Building definition</td>
<td>Requires greater clarity, particularly what is meant by &quot;permanent and long lasting&quot;, as there is no useful legal precedent for this term, which is opaque</td>
<td>Issue raised with DECC 15.8.11 – DECC did not have a strong policy intent in this area. The two year minimum period approach taken</td>
<td>H</td>
<td>AM/FN</td>
</tr>
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</tr>
<tr>
<td>2d</td>
<td>Process definition</td>
<td>Wide definition of &quot;process&quot;: DETI may wish to narrow this definition down, to specifically exclude certain processes.</td>
<td>More relevant to DETI for the purposes of cost control than an issue which creates administrative issues.</td>
<td>L</td>
<td>FN</td>
</tr>
<tr>
<td>2e</td>
<td>Biogas production plant</td>
<td>Explicit in the Regulations that the biogas production plant does not form part of i) an eligible installation generating heat from solid biomass; or ii) the equipment used to produce biomethane. See email to OM from FN 27.7.11. This means that participants may receive (and do not need to repay) grants for the biogas production plant that forms part of their facility.</td>
<td>As biogas production plant generally forms the most expensive part of biomethane production facilities/ biogas combustion facilities, this will affect the tariff levels that DETI wish to set/ may mean that DETI expressly states that biomethane production plant forms: i) part of the equipment used to produce biomethane and ii) part of the an eligible installation generating heat using biogas.</td>
<td>M</td>
<td>FN/OM</td>
</tr>
<tr>
<td>2f</td>
<td>Heat pumps – ground water source</td>
<td>Lack of clarity in Regulations that ground water is an eligible source of heat (versus DECC internal view that it should be)</td>
<td>Amend Regulations to give clarity on this (amendment to 8(1) to include ground water)</td>
<td>EW/PLF</td>
<td></td>
</tr>
<tr>
<td>2g</td>
<td>Regulation 14</td>
<td>Ofgem has required detailed legal input in order to interpret Regulation 14 and the provision is not clear. If possible, it would be re-drafted to make the policy intent more clear.</td>
<td>Legal re-draft</td>
<td>AV</td>
<td></td>
</tr>
<tr>
<td>2h</td>
<td>Regulation 14 (3) specifically</td>
<td>On first reading this regulation, it appears to exempt plants comprised of more than one plant from any MCS requirements. However, this is not the case since 5(c), 7(c) and 8(b) take precedence. However, Re-drafting could make this clearer.</td>
<td>Legal re-draft</td>
<td>AV</td>
<td></td>
</tr>
<tr>
<td>2i</td>
<td>Reg. 17 (2) (a) Complex metering</td>
<td>Ofgem’s approach is that we will not pay on heat lost between buildings, but this will allow for certain complex systems to only meter at the point of generation. Placement of meters also affects ability to participate.</td>
<td>Legal re-draft required. This ties in with the point on &quot;Natural&quot; heat loss, above. Ofgem is currently working on a methodology for calculating heat loss across systems. Consider whether or not to include such a methodology directly in the NI RHI Regulations (or the insertion of a provision providing NIAUR with the discretion to set a methodology to</td>
<td>H</td>
<td>AV</td>
</tr>
</tbody>
</table>
## Review of draft NI RHI Regulations

### Memo

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue</th>
<th>Overview</th>
<th>Suggested solution</th>
<th>Priority level (H/M/L)</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>2j</td>
<td>Reg. 15(c)</td>
<td>Suggest moving this section to the additional capacity section (Reg. 43/44) to ensure Regulations are not spread out (Reg. 15(c) was a last minute addition and could be missed if AC section read in isolation)</td>
<td>Re-position of Reg. 15(c) to additional capacity section (Reg. 43/44).</td>
<td>AV</td>
<td></td>
</tr>
<tr>
<td>2k</td>
<td>Definition “naturally occurring”</td>
<td>Defining this could help clear up the eligibility of heating systems that use interseasonal heat transfer methods (DECC policy intent).</td>
<td>Definition allowing for interseasonal heat transfer technology, within the naturally occurring Reg. 8 &amp; Reg. 10 sections.</td>
<td>AV</td>
<td></td>
</tr>
</tbody>
</table>

### 3 Administrative difficulties resulting from the regulations

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue</th>
<th>Overview</th>
<th>Suggested solution</th>
<th>Priority level (H/M/L)</th>
<th>Contact</th>
</tr>
</thead>
</table>
| 3a  | Access rights | Lack of clear right to require access to heat distribution system to check for eligible uses (in non-domestic properties). Accreditation condition is a second best. This represents a clear fraud risk. | i) Insert an ongoing obligation in Reg. 34 to the effect that participants must procure access to non-domestic properties in/ on/ over which an installation and/or its associated infrastructure is located; and  
ii) Consider clarifying/ revising the term “associated infrastructure” in Regulation 50; and  
iii) Add a further subparagraph to Reg. 50(1) to “verify eligible heat use”. | H | AM |
| 3b  | Biomethane production | Lack of right in Regs. to inspect any aspect of biomethane production. May have been expectation that gas conveyor would be verifying but they won’t be verifying that it came from renewable sources. Added by FN: I’m worried that if we don’t audit then the figures will be open to fraud. We would like to be able to audit:  
  - Whether the kWh figures they have been providing to us match the measurement readings from the facility itself (e.g. they will have volume and GCV readings at the site, resulting in kWh figures, which we need to be able to check).  
  - Whether kWh figures from propane they’re providing us are correct.  
There is no power for NIAUR to inspect the biogas plant used to supply the biogas for the biomethane | Formalise biomethane inspection powers including pre-registration inspections and third party access (added by FN). | H | AM |
production process. This means that NIAUR will not have the ability to verify or audit compliance with Reg. 33 feedstock/ biomass composition requirements, use of external heat in biogas plant, integrity of supply chain up to injection, sustainability reporting requirements etc. relation to the exclusion on inspections of biomethane production plat at Regs. 34(i) and 50) which means that biogas plant is not considered to be part of the biogas combustion installation/ biomethane production plant. The other related issues need to be addressed in order to be able to insert provisions dealing with the issue highlighted here.

| 3c | Sanctions | Currently only downside of applying for something wholly ineligible is that we won’t give them the money they’re not eligible to receive, plus perceived risk of a successful fraud prosecution. | AM |
| 3d | Metering | DoRegs. have the right balance of allowing pragmatic approach whilst giving us enough backup to impose requirements?: We are keen to revisit this in light of (i) the heat loss approach we adopt; (ii) any approach we can formalise on a mixture of eligible/ineligible uses within buildings; and (iii) any changes to the building definition noted above | EW |
| 3e | Data accuracy | A condition is to be applied stating that participants will submit accurate data. There is not an explicit power under the regulations to require this, which means that in circumstances where inaccurate data is submitted (either knowingly or unknowingly) there is no clear enforcement action that can be taken. Make the accurate submission of data an ongoing obligation. | H LM |

### 4 Potential Perverse Outcomes

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue</th>
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<th>Priority level (H/M/L)</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4a</td>
<td>Lack of regulation of biomethane producers.</td>
<td>The Regs impose few obligations on producers of biomethane in relation to those placed on owners of accredited RHI installations.</td>
<td>We would suggest that a full review of the draft Regs, as they are intended to apply to biomethane producers, be carried out to ensure that DETI’s policy objectives are met.</td>
<td>H FN</td>
<td></td>
</tr>
<tr>
<td>4b</td>
<td>Biogas and biomethane boundary</td>
<td>This could encourage (wasteful) quenching of gas just to claim RHI biogas tariff. What type of biogas production does DETI want to encourage?</td>
<td></td>
<td></td>
<td>AM</td>
</tr>
<tr>
<td>4c</td>
<td>Brand new equipment</td>
<td>Requirement that all relevant equipment must be brand new could lead to wasteful throwing away of acceptable ancillary equipment, but permitting it may create extra complications in working out which piece of equipment is accredited and tracking its movement.</td>
<td>Further consideration to be given to eligibility of older/ refurbished plant. Is this possible without making administration difficult?</td>
<td>L AM</td>
<td></td>
</tr>
<tr>
<td>4d</td>
<td>Separate heating circuits/systems</td>
<td>Some participants may install additional pipework</td>
<td>Could consider imposing a requirement that</td>
<td>M EW</td>
<td></td>
</tr>
</tbody>
</table>
and multiple smaller (and potentially less efficient) units in order to meet eligibility or higher-tariff thresholds

where separate heating systems serve the same end heat use purpose, they are considered to be part of the same heating system – amounts to a tightening (statement) of the definition of a heating system

### 5 Gaming opportunities

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue</th>
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<th>Priority level (H/M/L)</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>5a</td>
<td>Useful heat</td>
<td>Currently minimal restrictions on what counts as eligible heat use and our powers are quite limited here. Please see legal comments below.</td>
<td></td>
<td>H</td>
<td>AM</td>
</tr>
<tr>
<td>5b</td>
<td>Industrial heat use</td>
<td>Industrial heat use outside of a building is not allowed but inefficient space heating is.</td>
<td></td>
<td>H</td>
<td>AM</td>
</tr>
</tbody>
</table>

### 6 Stakeholder requests (common requests that may merit consideration)

<table>
<thead>
<tr>
<th>No.</th>
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</tr>
</thead>
<tbody>
<tr>
<td>6a</td>
<td>Biomass from waste</td>
<td>At present, only municipal waste may be used and this is narrowly defined and excludes many would-be participants.</td>
<td>DETI should consider the possibility of opening up the biomass from waste category beyond municipal waste – or at least allowing non-municipal waste to be counted as legitimate contamination that is not paid for. Also, is there good reason to prohibit supplementing municipal waste with other biomass (e.g. wood) if source is temporarily unavailable for example? In all cases, any opening up of this category must be capable of proper administration.</td>
<td>L</td>
<td>AM</td>
</tr>
<tr>
<td>6b</td>
<td>Energy efficiency</td>
<td>Shouldn’t there be a minimum energy efficiency requirement before participation in the RHI?</td>
<td>This also concerns the definition of building, above. DETI should consider whether or not any existing standards of energy efficiency in building legislation may assist in setting such a minimum level.</td>
<td>H</td>
<td>JB</td>
</tr>
<tr>
<td>6c</td>
<td>Extend scope of Preliminary Accreditation</td>
<td>As per 8a below - there are a number of smaller businesses that would like to install but feel constrained by uncertainty of eligibility and not willing to commit large sums of money on basis of uncertainty.</td>
<td>As per 8a below</td>
<td>L</td>
<td>EW/DS</td>
</tr>
<tr>
<td>No.</td>
<td>Issue</td>
<td>Overview</td>
<td>Suggested solution</td>
<td>Priority level (H/M/L)</td>
<td>Contact</td>
</tr>
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<tr>
<td>7a</td>
<td>Publication of information</td>
<td>There is no ability for NIAUR to restrict publication of (aggregated) RHI info where this may reveal commercially sensitive information relating to a participant.</td>
<td>Express provision required giving NIAUR the power to restrict publication of information in these circumstances?</td>
<td>M</td>
<td>FN</td>
</tr>
<tr>
<td>7b</td>
<td>Repayment of grant monies in relation to biomethane production plant.</td>
<td>Insert equivalent of r 23(1)(b) into r.25.</td>
<td></td>
<td>H</td>
<td>FN</td>
</tr>
<tr>
<td>7c</td>
<td>Power for the NIAUR to inspect participants' premises for eligible heat use</td>
<td>As the regulations are currently drafted, NIAUR has the power to inspect a participant's installation (providing this is not on third party premises) but does not have the power to inspect the participant's premises for eligible heat use.</td>
<td>According to Counsel's opinion (see email from Morag Drummond dated 2 Aug 2011 at 18:00), incidental to the performance of NIAUR's accreditation/registration duty under Reg. 22 is a power to ensure that the eligibility criteria truly have been met. But it's not clear that this extends to inspection of the participant’s premises. The regulations should be amended to incorporate a power to inspect eligible heat use.</td>
<td>H</td>
<td>FN</td>
</tr>
<tr>
<td>7d</td>
<td>How is the 10% ancillary energy content amount determined?</td>
<td>Reg. 28 provides for NIAUR to determine the proportion of solid biomass that is contained in municipal waste but does not have a similar provision in relation to the 10% energy content. Reg. 29 provides for NIAUR to determine the proportion of fossil fuel contamination that is contained in solid biomass but does not have a similar provision in relation to the 10% energy content limit for ancillary purposes.</td>
<td></td>
<td>M</td>
<td>FN</td>
</tr>
<tr>
<td>7f</td>
<td>Biomethane producer definition</td>
<td>DECC’s intention is that the party who injects biomethane on to the grid should be regarded as the “producer of biomethane” for the purposes of the Regs. We consider that the Regulations do not make this clear. Where &quot;producer&quot; is not defined, there is a risk that several parties in the biomethane production process may claim to be a &quot;producer&quot; under the Regs, including one or more of: i) The person who produces the biogas ii) The person who processes biogas inputs into biomethane e.g. by removing inert compounds such as CO2 and nitrogen iii) The person who adds propane etc. to</td>
<td>At present, Ofgem has stated, in its Guidance, that it will consider the person who pays for the biomethane to be produced to be the &quot;producer of biomethane&quot;. Although this reflects the policy position, it is an unsatisfactory and risky approach, which is not clearly supported by the Regs. If the present drafting is adopted by DETI, this places NIAUR under risk of challenge, if the same approach is to be taken. The regulations should clearly state that/define a ‘producer of biomethane’ to be the person who pays for biomethane to be processed so that it is suitable for injection.</td>
<td>H</td>
<td>FN</td>
</tr>
<tr>
<td>7g</td>
<td>Retrospective application of new eligibility criteria and ongoing obligations: Has DETI considered if and how existing participants will be affected?</td>
<td>E.g. where subsequent changes to the regulations alter the eligibility criteria and ongoing obligations, is an existing participant obliged to comply with eligibility criteria and ongoing obligations from time to time or do they only have to comply with the requirements that were set at the time the accreditation date for the duration of the tariff lifetime?</td>
<td>This also relates to point 7h below. DETI should also consider this issue in relation to regulation 22(8) regarding changes to accreditation and cf. regulation 26 in relation to preliminary accreditation.</td>
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<tr>
<td>7h</td>
<td>Power to amend conditions of accreditation once participation has commenced.</td>
<td>The regulations do not enable NIAUR to amend, revoke or add conditions, once an installation is accredited/ producer registered. Over the twenty year tariff lifetime, it’s highly likely that this power will be required and without correction, NIAUR’s administration will be fettered and could lead to perverse outcomes.</td>
<td>Express provision needs to be added to the Regulations.</td>
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<tr>
<td>7i</td>
<td>Regulations 23 and 25</td>
<td>Because Regs 23 and 25 are not ongoing obligations, it appears that participants will not be required to not receive/ pay back grants once they’re participating in the scheme; NIAUR does not have the power to use the part 7 enforcement powers in this case. Attaching a condition of</td>
<td>Clarification of Regs. 23 and 25 (add non-receipt of grant monies to the ongoing obligations for all participants) and possible exception to use Part 7 sanctions to remedy examples of double-funding.</td>
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<td></td>
<td>Review of draft NI RHI Regulations</td>
<td>Memo</td>
<td></td>
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<td>7)</td>
<td>Change of ownership</td>
<td>Clarification needed in Reg. 24(5) that a fresh application in relation to the same installation will not be permitted.</td>
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<tr>
<td>7k</td>
<td>Revoking accreditation</td>
<td>As the revocation power is framed in terms of ongoing obligations there is a concern that we do not have a clear, unambiguous ability to revoke someone’s accreditation if they applied for accreditation with incorrect information, we accredit on that basis and then subsequently find out about the incorrect information and consider we would have not accredited them if we’d have known.</td>
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<td>7l</td>
<td>Applicability of Part 7 to previous participants</td>
<td>Enforcement provisions need to be amended to enable NIAUR to take enforcement action against those who have participated in the scheme but are no longer participants.</td>
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<td></td>
<td>Reporting requirements for installations between 45kW and 1MW</td>
<td>DETI should consider how it wants to reduce the risk of fraud arising from this issue. Conditions cannot be relied on: express obligations should be imposed.</td>
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<td></td>
<td>Reg. 2</td>
<td>DETI to consider whether or not it wants to be able to backdate payments from the date of submission of an application or leave the Regulations as they are.</td>
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<td></td>
<td>Reg. 2</td>
<td>As a general comment, Ofgem has a considerable number of concerns, noted in these comments in relation to the definitions used in the GB Regulations, or the omission of such definitions. It is critical that these concerns are addressed by DETI as, without clear definitions, the Authority will not be able to advise NIAUR appropriately and NIAUR will be unable to administer the scheme without serious risk of legal challenge.</td>
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<td></td>
<td>In addition to the shortcomings of existing definitions addressed in these comments, we also suggest that the following terms may require clarification.</td>
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</table>
| Reg. 2 | "Process" is defined in the Regs as “any process other than the generation of electricity”. DECC has advised that, in their initial view, the dictionary definition of process should otherwise apply to that term (responses to Ofgem comments on 21 Feb draft RHI Regs). Process is there defined as "a continuous and regular action or succession of actions taking place or carried on in a definite manner; a continuous (natural or artificial) operation or series of operations" (as cited in *R v AI Industrial Products Plc [1987] IRLR 296* a case pertaining to the meaning of process under the Factories Act 1961 where a one-off demolition of a kiln was not a “process”).

"Process" or "process heating" does not appear to be explicitly defined in any existing UK legislation. Process heating is referred to in Annex I of the Detailed guidelines for the implementation and application of Annex II to Directive 2004/8/EC (Cogeneration Directive, 11 Feb 2004), s.5.6, which provides guidance on useful heat but process heating is not itself defined. The US Department of Energy defines process heating as "the direct process end use in which energy is used to raise the temperature of substances involved in the manufacturing process". The Carbon Trust produces a Technology Overview (CTVO31) for process heating which describes process heating as "a diverse area". The Overview lists the following "more common" processes covered by the term: cooking, baking, drying, evaporation, laundering, sterilisation, forced air drying, distillation, heat treatment, annealing, chemical processing, catalytic and steam cracking, firing ceramics, smelting, glass melting and arc furnaces.

The definition of the term "process" in the Regs does not currently seek to limit the meaning of the term "process", other than to exclude electricity generation. Therefore, based on the above analysis, the current definition of “process” should be replaced with an alternative defined term of “qualifying process” which should be used at r. 3(2)(c) and r.12 (1)(c) (although note comments below on streamlining the drafting of r. 12(1)(c). The definition of “qualifying process” could be then be developed as necessary without affecting other occurrences of the term “process” in the Regs. | M | FN |
process/process heating is likely to lend itself to wide interpretation. DETI should consider from a policy perspective if there are any process to which heat might be supplied which the government does not consider suitable for RHI support so that the definition can be drafted more narrowly in order to cover these off and ensure that NIAUR can administer in line with clear policy.

In addition, we note that “process” is used in other contexts in the draft RHI Regs (e.g. r. 22(6)(f); 25(2)(c); 28(7)(b); 29(3)(a); 33(7) and Sch. 2, para 2(d). These occurrences would also attract the definition given in r. 2.

<table>
<thead>
<tr>
<th>Reg. 2</th>
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<tr>
<td>The definition of MCS as presently drafted (…or equivalent scheme accredited under EN45011 which certify microgeneration products and installers in accordance with consistent standards” creates the risk that NIAUR would be obliged to evaluate whether an EN45011 accredited scheme for the certification of microgeneration products and installers is &quot;equivalent&quot; for the purposes of the NI RHI. This is not workable in practice bearing in mind the range of schemes which participants may claim meet the equivalency test and could cause unacceptable delays in the accreditation process. It should be a policy matter for DETI to agree those schemes which it deems equivalent. Therefore, the drafting should be amended to read “means the Microgeneration Certification Scheme or other scheme accredited under EN45011 which certifies microgeneration products and installers in accordance with consistent standards and which has been recognised as equivalent to the Microgeneration Certification Scheme by the Department.” We note in this regard that a similar issue arose in connection with the use of schemes equivalent to the Carbon Trust Standard for early action metrics under the CRC Energy Efficiency Scheme. In the Scheme Order, Schedule 8 para 5 (6) (b) the drafting used was “such other rules concerning the certification of emissions which the administrator and the participant agree.” This drafting led to uncertainty for the Environment Agency and</td>
</tr>
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</table>
participants and resulted in the need to issue a DECC guidance document on the issue (see: http://www.decc.gov.uk/assets/decc/what%20we%20do/a%20low%20carbon%20uk/crc/1_20100219140648_e_@@_ctsequivalentsguidance.pdf.)

Reg. 2

The term "premises" appears in the definition of "commissioned" and "domestic premises" and in Regulation 50 regarding inspection.

"Premises" is defined in varying ways in other legislation. The Electricity Act 1989 states that "premises" "includes any land, building or structure" and The Rights of Entry (Gas and Electricity Boards) Act 1954 defines "premises" as "a building or part of a building" (s.3). The Health & Safety at Work Act 1974, Part 1. S.53, reads "premises includes any place and, in particular, includes—(a) any vehicle, vessel, aircraft or hovercraft, (b) any installation on land (including the foreshore and other land intermittently covered by water), any offshore installation, and any other installation (whether floating, or resting on the seabed or the subsoil thereof, or resting on other land covered with water or the subsoil thereof), and (c) any tent or movable structure". A similar approach is taken in public sector guidance on interpreting this term, for example, HMRC guidance manuals state that "premises include any building or structure, any land and any means of transport". This suggests that "premises" is wider in scope than the phrase used in the draft regulation’s definition of eligible purpose ("building or other enclosed structure") (see later comment on this phrase) and introduces uncertainty in relation to the meaning of "commissioned".

Therefore, the definition of "commissioned" requires clarification. Could the phrase “delivering heat to the premises or process for which it was installed” be replaced by “delivering heat for eligible purposes”? This approach has already been used at r. 17 (2) (a). See also our comments on “process” at r. 3 (2).

Reg. 2

In definition of "participant" suggest changing "a producer" to "the producer" to ensure that only one (or one representative of multiple owners) producer of biomethane may apply.

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DETI to consider this definition in relation to existing legislation which has effect in Northern Ireland.
<table>
<thead>
<tr>
<th>Reg. 2</th>
<th>The definition of “participant” states that “where there is more than one... owner”, the participant is “the owner with authority to act on behalf of all owners in accordance with Regulation 22(3)”. Ofgem considers that this person should be defined as the “representative owner” in the Regulations. Ofgem considers that similar provision needs to be made in relation to multiple producers of biomethane.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reg. 2</td>
<td>A definition of “solid biomass” is required in order to provide clarity on ineligible forms of biomass. E.g. is tallow eligible – this is solid at ambient temperatures, but is likely to be a liquid when combusted.</td>
</tr>
<tr>
<td>Reg. 2</td>
<td>The definition of “steam measuring equipment” includes the phrase “means all the equipment needed to measure to the NI Authority’s satisfaction the mass flow rate and energy of steam...”. This places the onus on NIAUR to determine a satisfactory degree of accuracy for steam measurement. It is not yet practicable to introduce a minimum standard (e.g. the 2% accuracy level which has been discussed) or for NIAUR to issue detailed guidance on satisfactory levels of accuracy, there will not be a transparent benchmark for steam measurement which applicants need to meet to gain accreditation. Therefore, if NIAUR sought to reject an application on the basis that the measurement accuracy delivered by steam measurement equipment was not satisfactory, there is a potential risk of challenge to such a decision on grounds of fairness, due process etc. There will also be practical difficulties in achieving a consistent approach to assessing satisfactory levels of measurement accuracy without setting a “de facto” minimum standard internally within NIAUR. The phrase “to the NI Authority’s satisfaction” should be removed. If it is DETI’s intention to introduce a minimum standard, this should be dealt with by introducing an additional sub-clause at r.20 (2).</td>
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</table>
| Reg. 5(b) and schedule 1, para (2)(I) | We note that the section of the Energy Act 2011 which refers to eligible technologies for the RHI (s. 113 (4)) refers to sources of energy rather than fuels (presumably as fuel is not relevant to particular technologies such as heat pumps, solar etc.). In addition, “fuel” is not defined either in the Energy Act 2011 or the Regs. Therefore, it would be preferable to use this wording from the primary legislation in describing eligible installations. We suggest amending Reg. 5(b) to read “…installed to
<table>
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<tr>
<th>Regulation</th>
<th>Memo</th>
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<tr>
<td>Reg. 12(1)(c)</td>
<td>We note that paras (c) and (d) could be combined to read: “the plant generates heat used for an eligible purpose and uses water or steam as a medium for delivering such heat”.</td>
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<tr>
<td>Reg. 14</td>
<td>There is no equivalent of this regulation which applies to biomethane producers. The effect of not requiring specific detail in relation to biomethane production plant is that specifics do not form part of a biomethane producer’s eligibility criteria for the RHI scheme. Therefore, for the purposes of audit, the Authority will have no knowledge of the capacity of such plant at registration and therefore no way of verifying the authenticity or accuracy of the figure provided at element “D” of Reg. 42.</td>
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<tr>
<td>Reg. 14</td>
<td>“Heating system” should be defined as this concept is a key determinant of whether multiple plants should be treated as a single installation, the treatment of additional capacity and the calculation of payments. The term “heating system” appears at: Regs 14(2)(b); 15; 17(2)(a); 17(3); 34(1); 37(6); 39(2); 43(1); 43(5); 43(7); Sch. 1(2)(v)(iv) and Explanatory note (Part 6). DETI should add a defined term to ensure clarity. It is not acceptable for this to be clarified in guidance.</td>
</tr>
<tr>
<td>Reg. 15</td>
<td>There is no equivalent of this regulation which applies to biomethane producers. The effect of this is to make all biomethane production plant eligible for the scheme, regardless of its capacity or composition. DETI may wish to reconsider this matter.</td>
</tr>
<tr>
<td>Reg. 15(2)</td>
<td>If it is DETI’s policy that previously adapted premises which are now used wholly as a private residential dwelling (e.g. a former guest-house now in use as a purely residential property) should be treated as domestic, the drafting could be amended to read “…not been adapted for a non-residential use which is continuing.” DETI to consider. Ofgem’s approach to determining whether or not premises are domestic is based on the treatment of such premises by the Valuation Office for rating purposes. Is this a consistent approach that can be used in Northern Ireland? If not, further provisions may need to be included in the Regulations.</td>
</tr>
<tr>
<td>Regs. 16-21 (metering)</td>
<td>There is no equivalent of these regulations which applies to biomethane producers. The effect of this is that there is no obligation on a biomethane producer to install meters of any particular standard. It is our understanding that this is because DECC and Ofgem are satisfied that appropriate</td>
</tr>
<tr>
<td>Reg. 22</td>
<td>It is DECC policy that only owners, not agents, can participate in the scheme. The Regulations do not effect this policy because the Regs don’t prevent the owners giving a nominal share to an agent to enable it to administer the scheme as an owner.</td>
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<tr>
<td>Reg. 22(a)</td>
<td>Before the words “as the Authority may require” please insert “in such manner and form”</td>
</tr>
<tr>
<td>Regs. 23 and 25</td>
<td>The terms “grant” and “public authority” must be defined</td>
</tr>
<tr>
<td>Regs. 23 and 25</td>
<td>Not clear whether or not any other form of existing environmental incentive constitutes a grant.</td>
</tr>
<tr>
<td>Reg.24</td>
<td>Subpar. (1) makes each of the provisions of Reg. 24 apply to new owners who may have only acquired part ownership. The effect of subpara. (2) is that NIAUR may not pay the new owner until the provisions of Reg. 24 have been satisfied. The effect of this provision means that NIAUR would have to cease payments to the other owners of the installation (via the representative owner), which is not satisfactory. The provision also places a significant administrative burden on new owners who have only acquired part ownership and increases the administrative burden for NIAUR too.</td>
</tr>
<tr>
<td>Reg. 24(2)</td>
<td>Where multiple ownership exists, paragraph (2) implies that NIAUR will split payments between owners</td>
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<tr>
<td>Reg. 24</td>
<td>Fails to acknowledge that ownership of an</td>
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<tr>
<td>Reg. 24</td>
<td>Fails to acknowledge that the transfer of ownership of biomethane production plant may occur and that such transfers may also mean that ownership changes from being 100% ownership by one person to multiple ownership.</td>
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<tr>
<td>Reg. 25</td>
<td>Producers of biomethane may be in the position of producing biomethane at different locations for injection into the grid at different metered points. It is not clear whether, in these circumstances, a biomethane producer might seek to register as a participant under one single accreditation or as multiple “participants”. This may also affect how new biomethane capacity at one location is dealt with e.g. could such additional production be accredited as a new participant, thus restarting the tariff lifetime?</td>
</tr>
<tr>
<td>Reg. 25</td>
<td>There is no concept of multiple owners of biomethane production plant.</td>
</tr>
<tr>
<td>Reg. 33</td>
<td>Should the title be “Producers of biomethane” for consistency with the definition of “participant” and the rest of the Regs.?</td>
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<tr>
<td>Reg. 34</td>
<td>It is not desirable that multiple owners can interact at will with NIAUR, not only for administrative simplicity but also because interaction with multiple owners, on a day to day basis, could present unmanageable risks for the Authority, such as duplication of, and disputes in relation to, the submission/validity of data and receipt of payments, not to mention the increased risk of fraud. Ofgem considers that this may apply equally to in respect of multiple producers of biomethane.</td>
</tr>
<tr>
<td>Reg. 34(m)</td>
<td>Regulation 34(m) does not oblige owners who have relinquished ownership of an installation to notify the NIAUR of the change in ownership, as this provision only applies to ‘participants’. Participants Easiest fix is for Reg. 34(m) to be amended to read &quot;they must notify the Authority within [28] days prior to a change in ownership of all or part of their accredited RHI&quot;</td>
</tr>
<tr>
<td>Reg. 34(m)</td>
<td>At present representative owners (see comments on definition of &quot;participant&quot; above) only need to acquire the consent of all other owners to act on their behalf when making their application. Over twenty years, it is possible that ownership of parts of the accredited RHI Installation will change ownership, but there is no ongoing obligation on the representative owner to have new part owners’ consent. This means that it may be possible for NIAUR to pay a representative owner (see comments at Reg. 2 in relation to the definition of &quot;participant&quot; above) who does not have the consent from other owners to act on their behalf.</td>
</tr>
<tr>
<td>Reg. 34(p)</td>
<td>Useful heat: DECC’s RHI policy document sets out the intention that heat which is to be eligible for RHI must be supplied to meet (i) an economically justifiable heating requirement and (ii) a new or existing heat load which is &quot;not created artificially, purely to claim the RHI&quot; (page 25). This requirement is referred to in this clause in the wording. In a broader context, we note that the draft RHI Regs do not appear to fully address DECC’s policy objectives in terms of useful heat.</td>
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<tr>
<td>Reg. 35</td>
<td>Ofgem considers that the issues arising in relation to notification of a partial change of ownership of an accredited RHI Installation (see Reg. 34(m) above) should apply equally to producers of biomethane, in order to mitigate against the possibility of paying the same producer twice, or paying a representative producer (see comments at Reg. 2 in relation to the definition of &quot;participant&quot; above) who does not have the consent from other biomethane production plant owners to act on their behalf.</td>
</tr>
<tr>
<td>Part 7</td>
<td>Ofgem considers the timeframes placed on NIAUR in the Regulations to be inappropriate and unworkable. In our view they present a material risk to the enforcement of the NI RHI scheme. NIAUR is already bound by statute to carry out its functions with regard to: (i) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent, targeted only in cases in which action is needed; and (ii) in accordance with those principles that appear to it to represent the best regulatory practice. Such obligations establish a prerequisite that NIAUR must perform its functions within reasonable timescales. Consequently, the timescales set by the Regs. are superfluous to requirements. More importantly, if they remain, they will constrain NIAUR's ability to discharge its functions in the most appropriate manner.</td>
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<tr>
<td>Reg. 44(7)</td>
<td>To make sense of Reg. 44(8) the word &quot;no&quot; should be removed from Reg. 44(7).</td>
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<td>Reg. 44(4), and (10)</td>
<td>The six month timeframe could be a problematic restriction for NIAUR and was inserted into the GB Regulations against Ofgem's wishes. It means that, at the end of the 6 month period, NIAUR must repay withheld monies or apply another sanction, when an extension of this sanction may be the most proportionate approach (the wording of paragraph (10) means that the Reg. 44 sanction cannot be re-applied). What happens if the investigation requires further time?</td>
</tr>
<tr>
<td>Reg. 44(8)</td>
<td>Repayment within 28 days may be problematic for Ofgem’s payment systems and may lead to increased risk of challenge to the NIAUR and/or failure to pursue enforcement action due to a breach by NIAUR of this requirement.</td>
</tr>
<tr>
<td>Reg. 44(9)(b)</td>
<td>Repayment should also be subject to any overpayment or offsetting measure deemed to be appropriate by NIAUR.</td>
</tr>
<tr>
<td>Reg. 45(4)</td>
<td>Repayment should also be subject to any overpayment or offsetting measure deemed to be appropriate by NIAUR.</td>
</tr>
<tr>
<td>Reg. 46(1)(b)</td>
<td>The period immediately following what?</td>
</tr>
<tr>
<td>Reg. 46(3)</td>
<td>10% limit on penalty: Ofgem is concerned that limiting the level of reduction to 10% of a single payment may not be an adequate penalty and therefore not actually “deter further abuse” (the objective stated in DECC’s policy document),</td>
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</table>
Review of draft NI RHI Regulations

Memo

| Reg. 47 | There is no equivalent of Reg. 47(1)(b) for biomethane producers | It’s not clear why biomethane producers do not face the same sanction as owners of installations. DETI to consider imposing an equivalent provision. | M  | FN |

| Reg. 48 | Where there are multiple owners of an accredited RHI installation, it is not clear what, if any, ability NIAUR has to enforce this provision against owners who are not the representative owner. | DETI to consider adding an express provision (perhaps at Reg. 22(3)) that, where there are multiple owners of an accredited RHI Installation/ producers of biomenthan, each owner is jointly and severally liable to comply with the eligibility criteria and ongoing obligations and enforcement provisions. |  |  |

| Reg. 48(2)(a) | This implies that a separate notice will need to be issued in relation to each PSP where an overpayment has been made. | DETI to consider whether this Reg. should refer to “payment or payments” to address this administrative issue. |  |  |

| Reg. 48(2)(b) | Present drafting suggests that NIAUR must decide on either repayment or offsetting, but does not allow for a mixture of both. | The word “whether” should be replaced by the words “to what extent” | M | FN |

| Reg. 50 | Where heat is exported from an accredited installation to a third party user, NIAUR’s powers of inspection, as currently drafted, arguably do not allow it to inspect such third party premises, where output heat from the installation might be used, in order to verify that heat is being used for an eligible purpose. It is critical to the calculation of RHI payments and the enforcement of the scheme that participants have a legal obligation to ensure rights of access for the purposes of inspection by the Authority e.g. by means of the contractual arrangements for the supply of heat from the RHI installation to the end user. | Express provision to be added to the Regulations. | H | FN |

| Reg. 51 | Reviews. The provision does not fulfil DECC’s | DETI is strongly advised to remove this | H | FN |
### 8 Other

<table>
<thead>
<tr>
<th>No.</th>
<th>Issue</th>
<th>Overview</th>
<th>Suggested solution</th>
<th>Priority level (H/M/L)</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>9a</td>
<td>Extend scope of Preliminary Accreditation</td>
<td>At present limited access to use PA. Particularly an issue for smaller biomass installations &lt;200kw. There are a number of smaller businesses that would like to install but feel constrained by uncertainty of eligibility and not willing to commit large sums of money on basis of uncertainty.</td>
<td>By extending scope we would also be potentially cutting work on enquiry handling – at present they are asking a lot of questions that take up our time, and it may be quicker/more efficient to allow PA instead. I would suggest extending to all non MCS installations.</td>
<td>M</td>
<td>DS</td>
</tr>
<tr>
<td>8b</td>
<td>Participant restrictions</td>
<td>Possibility of restricting participants to those 18 years and over. At the moment there’s no restriction on the age of a participant.</td>
<td>DETI may wish to consider restricting the NI RHI Regulations to allow participation for only those over the age of 18.</td>
<td>M</td>
<td>AA</td>
</tr>
<tr>
<td>8c</td>
<td>Fraud prevention</td>
<td>At present, there is no requirement for medium-sized installations to provide an independent metering report. This has clear fraud risks.</td>
<td>DETI to consider adding this requirement.</td>
<td>H</td>
<td>AO</td>
</tr>
<tr>
<td>8d</td>
<td>'Records to be retained' requirement</td>
<td>NIAUR may want to require biogas/biomass participants to produce planning permission documents upon request as a condition (part of the ‘records to be retained’ requirement). There is however no explicit power for this in the regulations.</td>
<td>Add this requirement to the regulations.</td>
<td>L</td>
<td>LM</td>
</tr>
<tr>
<td>8e</td>
<td>Biomethane producers ongoing obligations</td>
<td>Reg. 34, subparas. (c), (g), (i), and (m) do not apply to biomethane producers.</td>
<td>In light of this deficiency, Ofgem has, for example, imposed a condition that biomethane producers must notify Ofgem within 28 days of any changes to their registered biomethane plant which may affect their eligibility. Because there is not an explicit provision in the Regulations to require this, imposing a condition is not satisfactory and places NIAUR at risk if the same approach were adopted. The ongoing obligations should be reviewed in consideration of the fact that many do not apply to producers of biomethane, so that</td>
<td>H</td>
<td>LM</td>
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<tr>
<td><strong>Review of draft NI RHI Regulations</strong></td>
<td><strong>Memo</strong></td>
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<td><strong>suitable obligations are imposed on them and behaviour can be monitored - and, where appropriate, enforcement action can be taken.</strong></td>
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<td><strong>8f</strong></td>
<td><strong>Class 2 meters</strong></td>
<td>While the draft NI RHI Regulations currently state that a 'class 2 meter' must be installed the guidance has been updated and now states that 'class 2 meters or better' are sufficient.</td>
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<td></td>
<td>DETI to consider clarifying the Regulations. But not the administrative burden on NIAUR of deciding what may or may not be 'better' than a class 2 meter.</td>
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<td></td>
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<td>M</td>
<td>LM</td>
<td></td>
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<td><strong>8g</strong></td>
<td><strong>Steam meters</strong></td>
<td>Regulation 20 (2) (c) states that 'All steam measuring equipment...must be capable of displaying the current steam mass flow rate and the cumulative mass of steam which has passed through it since it was installed...'. The guidance has been updated and now states 'since it was installed or calibrated...'</td>
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<td></td>
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<td>Update the regulations to reflect this change</td>
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<td>LM</td>
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<tr>
<td><strong>Biomethane producers’ requirement to comply with eligibility criteria</strong></td>
<td>Due to the drafting of the Regulations (registration of biomethane producers falls under Part 3 (which is outside the 'eligibility criteria’ provisions of Part 2), 34(e) does not apply to biomethane producers. DECC’s reasoning is that the requirements already imposed on such persons in order to inject onto the grid would in themselves provide evidence of suitable quality and health and safety practices.</td>
<td>DETI may wish to consider whether or not the DECC approach is sufficient or whether additional eligibility criteria should be set.</td>
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<td></td>
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<td>L</td>
<td>FN/OM</td>
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</table>
Appendix 2

Issues specific to the draft NI RHI Regulations

<table>
<thead>
<tr>
<th>No.</th>
<th>Provision</th>
<th>Issue</th>
<th>Suggested solution</th>
<th>Priority level</th>
<th>DETI response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>headnotes</td>
<td>Does NI drafting procedure require headnotes stating briefly the nature of the instrument, the statutory provision prescribing the procedure which it must follow and the form of that procedure?</td>
<td>DETI to clarify</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Heading</td>
<td>Should the word ‘draft’ be inserted before the words “Statutory Rules of Northern Ireland”? Should references to 2011 be to 2012?</td>
<td>DETI to clarify</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Title</td>
<td>The title of the GB RHI Regulations has been revised. Should the title of the NI Regulations be: “The Renewable Heat Incentive Scheme Regulations (Northern Ireland) 2012”?</td>
<td>DETI to clarify</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Preamble and words of enactment</td>
<td>Should the section numbers missing (marked by square brackets) be 113 and 121? Should a footnote provide the year and chapter number of the Energy Act 2011 (2011 c. 16)?</td>
<td>DETI to clarify</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Citation and commencement</td>
<td>Does modern drafting practice for Northern Ireland follow the same principles as that for GB? If so should references to “shall” be “will”? Please also clarify any rules or procedures which will affect the commencement date.</td>
<td>DETI to clarify</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Reg. 2</td>
<td>Definition of “the Department” already appears in the enabling Act: is this definition superfluous?</td>
<td>DETI to clarify</td>
<td>L</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Reg. 2</td>
<td>Definition conflicts with the definition in The Energy Act 2011 (the “enabling Act”). Three issues arise here: 1. Definition of the Gas and Electricity Markets Authority already exists in the enabling Act (“GEMA”), which makes</td>
<td>Suggest removal of definition and all references to the Gas and Electricity Markets Authority in the draft NI RHI Regulations. In relation to point 3, The Renewables Obligation Order (Northern Ireland) 2009</td>
<td>H</td>
<td></td>
</tr>
</tbody>
</table>
2. If a definition of the Gas and Electricity Markets Authority is considered necessary, should this be “GEMA”, so as not to conflict with the enabling Act?: and, most importantly

3. We do not consider that GEMA should be referred to at all in the NI RHI Regulations, as the enabling Act confers powers on DETI (pursuant to s.113 (2)) to make regulations providing for the Northern Ireland authority (either DETI or the NIAUR) to administer an NI RHI scheme. The arrangements whereby GEMA may carry out these administrative should not form part of the Regulations. Therefore, any provision in the NI RHI Regulations which purports to confer powers or functions on GEMA will, in our opinion, be *ultra vires*.

("NIRO") may provide a useful precedent: references to the Authority relate to NIAUR (as defined by The Energy (Northern Ireland) Order 2003) and there is no reference to GEMA acting as agent for NIAUR in relation to the performance of the NIAUR’s functions. Instead, a separate and subsequent agreement, between NIAUR and GEMA, exists and provides for the carrying out by GEMA of certain of NIAUR’s functions under the NIRO. We suggest that a similar arrangement is made between GEMA and NIAUR in relation to the administration of the NI RHI scheme and that this approach accords with the intention of ss. 113 and 114 of the enabling Act.

<table>
<thead>
<tr>
<th>Reg.</th>
<th>Definition</th>
<th>DETI to clarify</th>
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<tbody>
<tr>
<td>8.</td>
<td>Reg. 2</td>
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<td>9.</td>
<td>Reg. 2</td>
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<td>10.</td>
<td>Reg. 2</td>
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<td>11.</td>
<td>Reg. 2</td>
<td></td>
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<tr>
<td>12.</td>
<td>Regs. 3(2) and (3); 37(2); 37(8); 45(4); 46(1); 46(1)(a); and explanatory note references at para. 1, Reg. 3, Part 5,</td>
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<tr>
<td>Reg.</td>
<td>Memo</td>
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<tr>
<td>13.</td>
<td>Regs. 5(c); 7(c); 8(b); 19;  Applicability of MCS requirements</td>
<td>Comment “a” at Reg. 13 appears to confirm applicability, but DETI to confirm position</td>
</tr>
<tr>
<td>14.</td>
<td>Regs. 7(b);11(b); 15(1)(c)(iii); 26(11)(c);  Applicability of 200kWth threshold</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>15.</td>
<td>Regs. 8(a)(i); 9(c); 10; 500M figure</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>16.</td>
<td>Reg. 8(c)  Co-efficient of performance</td>
<td>DETI to confirm position – is the decision subject to purely policy or legal issues?</td>
</tr>
<tr>
<td>17.</td>
<td>Reg. 10  Reference to digester or plant</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>18.</td>
<td>Regs. 12(1)(a), (2) and (3); 23(1)(b);  Retrospective start date</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>19.</td>
<td>15(1)(c)(i)  12 month commissioning period</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>20.</td>
<td>28(2)  50% minimum solid biomass content</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>21.</td>
<td>28(5); 29(2) 10% maximum fossil fuel content</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>22.</td>
<td>28(7)(a) and (b) 50% maximum fossil fuel content</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>23.</td>
<td>29(1) 1MWth installation capacity</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>24.</td>
<td>29(6) 10% maximum fossil fuel content for ancillary purposes</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>25.</td>
<td>30  Installation capacity thresholds</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>26.</td>
<td>30(4)(a) 10% maximum fossil fuel contamination</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>27.</td>
<td>34(k),(l),(m) 28 day time limit</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>28.</td>
<td>35(1)(b) 10 year re-calibration requirement</td>
<td>DETI to confirm position</td>
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<tr>
<td>29.</td>
<td>36(3) 7 day time-limit</td>
<td>DETI to confirm position</td>
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<tr>
<td>30.</td>
<td>37(1) 20 year tariff lifetime</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>31.</td>
<td>37(7)(a) and (b) and (8) Tariff rate review date</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>32.</td>
<td>37(9)(a) 12 month tariff period</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>33.</td>
<td>37(10) Hourly figure for “initial heat” definition</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>34.</td>
<td>39(2)(a) Formula</td>
<td>DETI to clarify how this revision changes the formula calculation.</td>
</tr>
<tr>
<td>35.</td>
<td>40(1)(b) 1MWth capacity</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>36.</td>
<td>43(3) 28 day time limit in relation to informing NIAUR of commissioning of additional RHI capacity</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>37.</td>
<td>43(4) 12 month time limit on additional capacity</td>
<td>DETI to confirm position</td>
</tr>
<tr>
<td>38.</td>
<td>43(6) Treatment of post-12 month additional capacity</td>
<td>DETI to confirm position – see comments on GB Regs. above</td>
</tr>
<tr>
<td>39.</td>
<td>44(2) Imposition on NIAUR to notify participant within 21 days of a decision to withhold periodic support payments</td>
<td>DETI to confirm position – see comments on GB Regs. above</td>
</tr>
<tr>
<td>Line</td>
<td>Section</td>
<td>Description</td>
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<tr>
<td>40.</td>
<td>44(4)</td>
<td>6 month maximum withholding period</td>
</tr>
<tr>
<td>41.</td>
<td>44(5)</td>
<td>30 day mandatory review period</td>
</tr>
<tr>
<td>42.</td>
<td>44(7)</td>
<td>2 week delay period</td>
</tr>
<tr>
<td>43.</td>
<td>44(8)(b)</td>
<td>28 repayment deadline</td>
</tr>
<tr>
<td>44.</td>
<td>45(2)(c)</td>
<td>Requirement to send notice within 21 days of decision</td>
</tr>
<tr>
<td>45.</td>
<td>45(3)</td>
<td>Requirement to lift suspension within 21 days of satisfaction</td>
</tr>
<tr>
<td>46.</td>
<td>45(4)</td>
<td>6 month and 28 day requirements</td>
</tr>
<tr>
<td>47.</td>
<td>45(5)</td>
<td>1 year maximum suspension period</td>
</tr>
<tr>
<td>48.</td>
<td>46(2)</td>
<td>21 day notice period</td>
</tr>
<tr>
<td>49.</td>
<td>46(3)</td>
<td>10% penalty threshold</td>
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<tr>
<td>50.</td>
<td>47(2)</td>
<td>21 day notice period</td>
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<tr>
<td>51.</td>
<td>48(2)</td>
<td>21 day notice period</td>
</tr>
<tr>
<td>52.</td>
<td>49(2)</td>
<td>21 day notice period</td>
</tr>
<tr>
<td>53.</td>
<td>50(1)</td>
<td>Extent of inspection powers</td>
</tr>
<tr>
<td>54.</td>
<td>50(2)</td>
<td>21 day notice period</td>
</tr>
<tr>
<td>55.</td>
<td>51(2)(a)</td>
<td>28 day time limit for request for statutory review</td>
</tr>
<tr>
<td>56.</td>
<td>51(5)</td>
<td>21 day notice period</td>
</tr>
<tr>
<td>57.</td>
<td>53(2)</td>
<td>First monthly reporting period</td>
</tr>
<tr>
<td>58.</td>
<td>53(4)</td>
<td>First annual report dates</td>
</tr>
<tr>
<td>59.</td>
<td>53(5)</td>
<td>First quarterly report date</td>
</tr>
<tr>
<td>60.</td>
<td>53(7)</td>
<td>Quarterly period definition</td>
</tr>
<tr>
<td>61.</td>
<td>Sch. 1(2)(n)</td>
<td>Coefficient of performance to be decided</td>
</tr>
<tr>
<td>62.</td>
<td>Sch. 1(2)(v)</td>
<td>1MWth capacity threshold</td>
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</table>
### Review of draft NI RHI Regulations

#### Memo

<table>
<thead>
<tr>
<th></th>
<th>Sch. 2(2)(j)</th>
<th>Date relating to land use</th>
<th>DETI to confirm position – is the decision subject to purely policy or legal issues?</th>
</tr>
</thead>
<tbody>
<tr>
<td>63</td>
<td>Sch. 2(5)</td>
<td>Date relating to planting of energy crop</td>
<td>DETI to confirm position – is the decision subject to purely policy or legal issues?</td>
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<tr>
<td>64</td>
<td>Sch. 3</td>
<td>Tariff levels to be confirmed</td>
<td>DETI to confirm position and share data with Ofgem so that it understands what plant has been included in the calculations.</td>
</tr>
<tr>
<td>65</td>
<td>Explanatory note</td>
<td>Regs 29 and 30 – 1MWth threshold to be confirmed</td>
<td>DETI to confirm position</td>
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</tbody>
</table>

**ENDS**
Hi Peter and Joanne,

Please find attached the legal review of the draft regulations. This document includes (at Appendix 1) a number of issues that were raised with DECC in our review of their final regulations. As these weren’t addressed by DECC at the time they still apply to the current regulation on which your draft is based.

In addressing the issues there are a couple of possible approaches from your end, and if you could advise us of your preferred approach we can build recommendations into the Feasibility Study as to how these changes could be handled:

1. Delay the changes to the regulations until DECC reviews their own regs. This has the advantage of keeping the two schemes aligned, but the disadvantage of having to be reactionary and change your regulations based on DECC’s changes, and potentially when the scheme has not been operational for long.

2. Be proactive in addressing the issues raised in DETI’s first set of regulations for the scheme, with DECC addressing the issue at a later point. This has the advantage of addressing the issues and having a more robust scheme from commencement. The disadvantage might be that DECC may take different decisions in addressing some of these issues when they do amend their regulations, which will set the two schemes further apart. You could also consult with DECC in making any changes if you wanted to ensure that your policy positions would remain fairly consistent.

If DETI decided to take the latter approach one of the major areas that would be impacted would be accreditation. Our recommendation would be to implement processes for manual checks during the accreditation process instead of making late changes to the IT systems. This would be a more cost-effective option for enforcing the new eligibility obligations, with the option of incorporating the changes into the IT system for accreditation at a later date either in line with DECC making similar changes, or in line with later IT systems development to accommodate policy changes that will involve further systems development (such as inclusion of ASHPs or Bioliquids).

If DETI decides to address any or all of these issues in their revision of the regs we would look at setting the scope for development work necessary once we have had a chance to review the revised regs. By implementing manual processes where possible we would aim to minimise or avoid any additional costs during development and operations.

When you’ve had a chance to consider your preferred approach please let me know.

Kind regards,

Catherine McArthur
Policy Development Manager
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would only be paying out on useful heat. That would be monitored, and if on the ground
there was evidence to the contrary, then action would be taken to make sure that we
tightened that up and only useful heat was incentivised.

Dr MacLean: But if you tightened it up, that would be a retrospective action for people
coming afterwards, not from people who had gone forward on that basis.

Ms Hepper: Well, all I can say is we were content, at that time and in that context, with
the DECC approach, and we followed that through on the basis that this would be a moving
feast, and we would be changing regulations and the approach to the scheme on an ongoing
basis. But it is the case that those who came in under changed regulations would be treated
slightly differently.

Mr Scoffield QC: So what I’m taking from that as a summary — and you can tell me if this
is inaccurate or needs to be added to — but that really the overwhelming motivation at that
stage was to stick with the DECC position and shadow the DECC scheme.

Ms Hepper: It was, because, if you recall, they had teams of people working on very
specific aspects of the scheme and were devoting time and research and effort to parting
out some of these issues. We didn’t have that in terms of the number of people we had
working on the scheme, so I think it was right and proper that we learnt from the experience
that they had and the work that they were doing and that we kept in line.

Mr Scoffield QC: I accept that point. Of course, Ofgem also had a wealth of staff and
teams of people working on these issues, and, as we’ve seen, one of the reasons that Ofgem
was engaged was to be able to draw on their expertise. I just wonder if the picture which is
emerging from your evidence is that, when it comes to Ofgem, really, maybe a greater
motivation to engage Ofgem was the cost savings on administration rather than benefiting
from their expertise, which you could get through DECC in any event.

Ms Hepper: No. They had a different range of expertise, and particularly on the
Ms Hepper: I think that they would’ve been — they were content that the two schemes worked as much in parallel as possible and that there wasn’t significant divergence, and I think both when you think of it in terms of this document and then, more specifically, in terms of June 2012, both of the senior people that I would’ve been dealing with, Bob Hull and Matthew Harnack, in their statements, their witness statements to the Inquiry, are unconcerned about that. They knew that we would be following the DECC track and they knew we would be consulting on specific changes and amendments and were comfortable — or appears were comfortable — at the time and in writing their witness statements with that.

Dr Keith MacLean (Technical Assessor to the Inquiry): Sorry, can I just check? So, what that means, basically, is that Mr Hull and Mr Harnack were not agreeing with their legal department and were happy for both DECC and DETI to go ahead and ignore the warnings that their legal department were giving?

Ms Hepper: Well, I don’t know: you’d have to ask them how comfortable they were, but certainly that was the message we were getting that, you know, DECC went ahead with their regulations. Ofgem were obviously — must’ve been — content with that. They knew that we would be following on in the slipstream; we would pick up on the changes as they happened, and they were obviously content for us to continue.

Dr MacLean: So could their contentment have been that, flawed as they thought the DECC scheme were, it was better for you to be doing the same as DECC even if it was wrong rather than to do something different?

Ms Hepper: Well, I don’t know that I would go as far as to say that what we were doing was wrong. What we were doing was going through a process where there would be amendments and changements [sic] and refinements and improvements, and, from that perspective, um, um, I presume that they were content because we all did go ahead.
“Heating system’ should be defined as this concept is a key determinant of whether multiple plants should be a single installation”.

And we see that the term “heating system” is used in a number of places in the draft. And if we move across to the right, we see that:

“DETI should add a defined term to ensure clarity.”

And then Ofgem say:

“It is not acceptable for this to be clarified in guidance.”

And the priority given to this issue, we see in the next column, is “H” for high.

I just want to ask you: do you accept that, when the scheme was rolled out and became operational, this issue did become a major problem with the scheme?

**Ms Hepper:** I do accept that, and this is one of the issues that was covered in discussions with DECC, and the issue of separate heating circuits, we felt collectively it was covered in the issues around additional capacity in the regulations and also in the detail in the guidance. So, at that stage, we felt collectively it was covered, and Ofgem were content that was the case at that time. But obviously, all of these things would be things that, as the scheme hit the ground, would’ve been open for further refinement as needed and maybe changes to the regulations. But, at that stage, DECC did not make that change, as you can see from the document, and we did have a discussion around that and it was highlighted in the guidance.

**Mr Scoffield QC:** But when Ofgem said that it wasn’t acceptable for this to be clarified in guidance, are you saying that DETI and DECC disagreed with that view?

**Ms Hepper:** Well, certainly the approach that we took was that DECC had covered it in their guidance, it was in our guidance and the agreement must’ve been with Ofgem that that was sufficient at that time. I appreciate what it says in this document that was written by the legal people but, in dealing with those who were working on the guidance and finalising the
**Mr Sterling**: I’m not sure I would have ever read this particular document.

**Mr Scoffield QC**: OK. At the time, what DETI was asked —. Maybe if we could just go two pages back, to DFE-314497. This is the covering email, and I’m not going to take you through it in any detail, but essentially DETI was said there are these difficulties with the DECC regulations, and really there are two choices, or two routes, which DETI might choose to pursue. The first is to go ahead with the Northern Ireland scheme, incorporating the difficulties which had been identified with the DECC regulations, and those were things like not defining what “useful heat” was, not defining what a “heating system” was to clarify the issue about multiple boilers — so some of those technical-type things.

So DETI could either go ahead and incorporate those difficulties and rectify them at some later stage, or they could — you could see it at number 2 there:

— *Be proactive in addressing* them. Now, I think I can take from the answers that you’ve already given, this issue, this choice, this fork in the road wasn’t something that was discussed with you at the time, as far as you can recall.

**Mr Sterling**: No. I’ve no recollection of it being discussed at the time.

**Mr Scoffield QC**: Now, this was at feasibility stage, so we’re not yet at the stage where a decision’s been taken to proceed with the scheme. Once that happens, there’s then the June 2012 exchange that we’ll come on to in a moment. But, at this stage, where Ofgem are saying, “If this is the type of scheme that you’re pursuing, you need to be aware that there’s two ways of going about it: you fix the problems now, or you wait until DECC does it and then you follow suit” — is that the type of issue that you think should’ve been put to the Minister, or was that something which was for energy division itself to manage at that time?

**Mr Sterling**: This is the type of judgement that senior civil servants will be exercising quite regularly. And I think, if they take a balanced view that there’s a risk which can be reasonably
managed, then there’s a case that you perhaps don’t need to advise the Minister. And I
suppose what I would say in this particular case is I wouldn’t have considered on the basis of
my experience of Fiona Hepper and energy division that they were excessive risk-takers: that
they would normally have been reasonably prudent and cautious in their approach to
dealing with risk. So that would’ve been my view of the way risk was normally managed.

Mr Scoffield QC: Um —.

The Chairman: But in this case, where we’re getting a detailed paper on a number of
deficiencies that are said to apply to the English regulations and involve a risk if they are not
fixed in the Northern Ireland regulations, should that at least not have gone as far as you?

Mr Sterling: I think certainly as a minimum it should’ve gone to David Thomson, as the
next in line.

The Chairman: Could he have — would he have had the authority to make a decision on
that?

Mr Sterling: Oh, yes. David would clearly have had the ability to say, “Well, actually, I
don’t think in this particular case that we’re managing this risk satisfactorily”, and, you know,
suggest that we need to think again and perhaps accept the DECC/Ofgem advice.

The Chairman: But it should’ve gone to him at a minimum?

Mr Sterling: I think it should’ve been discussed with him. I don’t know whether it was,
now; I can’t quite recall whether he mentioned it in his evidence. But it’s the sort of thing
that I think should have been discussed at that level, yes.

The Chairman: Thank you.

Mr Scoffield QC: I wonder if we can move on then to the later exchange with Ofgem in
June 2012. Now, this is a different context because, at that stage, as we know, we’ve had the
casework committee, we’ve had the Minister’s decision to proceed, which we were just
talking about a few moments ago. So it was full steam ahead, as it were, with the scheme.
in the GB RHI regulations. And, as you may know, the Northern Ireland RHI regulations were,
in the first instance, a copy —

Mr Thomson: They were based on —.

Mr Lunny: — of the GB ones. And Ofgem provided this document where they set out
what all of the perceived deficiencies were, in tabular form. And one, for example — an
example that has been raised with other witnesses — was the absence of a definition of a
“heating system”. And Ofgem raised that and they raised potential concerns in relation to it.
And we know that ultimately, had some of those concerns been addressed, it may well be
that an issue that arose in relation to multiple boilers in single addresses or single buildings,
that that issue might have been prevented from occurring.

And both Mr Hutchinson and Mrs Hepper have given evidence about that legal review,
which in terms was that they had a choice at that point. They could either remain consistent
with DECC and keep their regulations as close as they could to the DECC regulations or they
could move ahead — become inconsistent with DECC — and that that might lead to them
incurring additional costs — for example, in relation to the administration of the scheme.
And they ultimately decided to remain consistent with DECC and — I think in Mr
Hutchinson’s evidence — to keep an eye on whether DECC then was making these changes.

Now, Mrs Hepper gave evidence that she had kept you up to date in meetings that she
had with you about that choice and about the decision to remain consistent with the DECC
regulations. Do you have any recollection of that?

Mr Thomson: No. I do recall the general statement you’ve just made that the approach
was that we’d remain consistent with DECC. I’ve said before, Fiona kept me advised and if
she was having meetings with people she would let me know, “I met with DECC”, or “I met
with” whatever. I don’t recall, but that’s not to say it didn’t happen. I don’t recall any
significant choice about direction until we get to June ’12 I think is when we —.
Mr Lunny: Would you recall if she had spoken to you at any of those meetings about something detailed like the draft regulations and definitions in the draft regulations? Is that the sort of detail she would’ve gone into?

Mr Thomson: No, I would not normally have gone into detail like that. I would’ve perhaps talked about, “We are staying with DECC” or, “Do we diverge from DECC?” or whatever.

Mr Lunny: But would she have made you aware that, for example, Ofgem are saying, “There are some flaws in DECC’s regulations” — we have a choice here; we can either try to tailor our regulations so they no longer have those flaws or we can continue to mirror DECC?

Mr Thomson: I’ve read it or heard it as part of the Inquiry. I do not recall —.

Mr Lunny: That sort of detail.

Mr Thomson: Yes. Do not recall that sort of detail.

Mr Lunny: That review was in November of 2011. It was followed in early 2012, in February, by the CEPA addendum report that the panel have mentioned. And the CEPA addendum, one key feature of it is that, because of the changes to the tariff levels and banding, the subsidy cost had increased from a projected 334 million to £445 million. You’re aware of that?

Mr Thomson: Yes.

Mr Lunny: Did you see that report at around the time it came in?

Mr Thomson: I did see the addendum report.

Mr Lunny: And did you notice that feature of it?

Mr Thomson: I’m sure I did. I mean, I scanned through the report; I would’ve spotted things like those changes.

Mr Lunny: And another feature on the same table, where the increase in subsidy spend is noted, it’s noted that there is no increase in the renewable heat being delivered; in fact, it’s falling from 11·14 to 11·10%. Did that fact — the very significant increased spend and the