

**To:** Committee Members  
**From:** Jim McManus, Committee Clerk  
**Date:** 14<sup>th</sup> May 2012  
**Subject:** SL1 – Renewable Heat Regulations

---

## **Background**

1. The Committee considered the renewable Heat Regulations SL1 at the meeting on 19th April. The Committee agreed to Agreeed: To receive more detail from the Department on incentives for domestic installations (Regulation 15 (1) (a) and 15 (2)) and on payments to participants, levels of tariffs and how these will be calculated (Regulation 37).

## **Summary of Content/Clerk's Analysis**

2. The Department has responded that, as EU State Aid approval has not yet been received, exact details of bandings and tariff levels cannot be provided. The Renewable Heat Premium Payment (RHPP) element of the scheme has been approved. Details are provided at the table at page 3 of the Department's paper. Details of proposed tariff levels are at the table at page 4 of the Department's paper.

## **Suggested Way Forward**

3. If the Committee is content with the SL1, the Department can be asked to provide details of any policy changes at SR stage.

---

**Analysis of Consultation Responses**

---

**Energy**

---

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

20 July – 3 October 2011

---

**Table of contents**

	<b>Page No.</b>
Background and introduction	3
The Northern Ireland Renewable Heat Market	5
A Renewable Heat Incentive for Northern Ireland	6
Support for the Industrial Sector	13
Interim Support for Domestic Households	16
Interactions with other DETI Energy Policies	19
Renewable Heat Strategy Group	21
The Costs of and the Barriers to the Deployment of Deep Geothermal Energy in Northern Ireland	22
Annex A: List of respondents	24

## 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](http://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.

## Chapter 2 - The Northern Ireland Renewable Heat Market

### 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 emphasis 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 of 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 you 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 CO<sub>2</sub> 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 up front 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 CO<sub>2</sub>.

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.
- Developing an Action Plan for Renewable Heat.
- 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

GeoServ  
agriAD  
arc21  
RES  
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