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From: Hughes, Seamus
Sent: 2015-04-01T09:49:45Z
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Subject: NI RHI - Phase 2 Feasibility Study
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[Letter to Ofgem re phase 2 feasibility study.pdf](#)

[Non domestic phase 2 policy development template - Large Biomass over 1MW.DOCX](#)

[Non- Domestic Phase 2 policy development template- Biomass and Bioliquld Combined Heat and Power.DOCX](#)

[Non domestic phase 2 policy development template - Air Source Heat Pumps.DOCX](#)

[Non domestic phase 2 policy development template - Deep Geothermal.DOCX](#)

[Non domestic phase 2 policy development template - District Heating.DOCX](#)

[Non domestic phase 2 policy review template - Biomass Sustainability.DOCX](#)

[Non domestic phase 2 policy development template - Biomethane Injection.DOCX](#)

[Non domestic phase 2 policy review template - Air Quality Standards.DOCX](#)

[Non domestic phase 2 policy review template - cost control.DOCX](#)

[Non domestic phase 2 policy review template - Other issues.DOCX](#)

[Non domestic phase 2 policy review template - Extension of 6.3 pence biomass tariff rate. \(additional to consultation\).DOCX](#)

Edmund

Please see attached letter from Stuart Wightman.(first attachment), asking that Ofgem now commences work on a short feasibility study for DETI proposed changes to the NI RH. You will note that bioliquids is not now included in the list of proposals to be taken forward in phase 2. Following Ofgem's initial feedback on this issue and discussion in our telcon last week we have decided to defer this proposal to a future date as the GB RHI is not currently supporting and we are not being specifically pressed to include at this point.

We are also planning to draft the proposed legislative changes for our phase 2 proposals and will forward these to you in due course.

Regards

Seamus

Seamus Hughes

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**PROPOSAL
BIOMASS SUSTAINABILITY CONSIDERATION****RATIONALE**

As DETI is now proposing to introduce tariff support for biomass over 1MW in size, both in terms of heat only and CHP systems, it will be necessary to also introduce biomass sustainability and reporting standards. This is important to ensure the biomass is being sourced in a sustainable way; similar practices are commonplace under the NIRO and are also now in place for the GB RHI.

The focus of the biomass sustainability standards will be larger installations that are consuming the most fuel. Systems over 1MW in size (both in terms of heat only and CHP) will be expected to comply with proposed standards and provide regular reports to the scheme's administrator to demonstrate compliance. The proposed standards are in line with GB and have two criteria;

i) A green house gas (GHG) lifecycle emissions target whereby solid biomass or biogas/biomethane will have to achieve GHG savings of 60% compared to the GHG emissions of the EU fossil heat average. This equates to lifecycle emissions of less than or equal to 125.28kg CO₂ equivalent per MWh of biomass heat generated. This assumes a boiler efficiency of 70%.

ii) For land criteria DETI propose to use the same criteria set for the GB RHI and determine that solid biomass sourced from a Forest Law Enforcement, Governance and Trade (FLEGT) partner to be considered as satisfying the land criteria. Further consideration is required on how biomass not sourced from a FLEGT partner might be treated. For other biomass, biogas/biomethane feedstocks and bioliquids the set land criteria will correspond with standards set under the EU Renewable Energy Directive for biofuels and bioliquids

Systems over 1MWth will be expected to comply with these standards and retain records that demonstrate compliance. In addition, RHI recipients would be expected to provide reports to Ofgem on the sustainability of the fuel used, in the first year these reports would be provided to Ofgem on a quarterly basis and in subsequent years on an annual basis. The report would need to clearly show that both the CHG lifecycle emissions target and the land criteria had been met

DETI is also considering adopting the GB arrangements which also extends biomass sustainability requirements to technologies less than 1MWth, however with less stringent reporting given that these RHI recipients are unlikely to be energy professionals. Instead, accredited installations under 1MWth would be expected to source their biomass fuel from an approved list of suppliers, these suppliers, in turn, would have to demonstrate how their fuel source adhered to the set standards.

The new GB Regulations came into operation on 5 February 2015 and will be mandatory from 5 October 2015. In summary this requires all biomass installations to:-

Non- domestic

- Source fuel from suppliers on the biomass suppliers list, (BSL) and provide a quarterly declaration to Ofgem

- Self report to Ofgem on the sustainability of their fuel. This will also include a quarterly declaration on whether or not fuel used in the quarter meets the GHG and land use sustainability criteria.
- Installations under 1MW capacity will be able to use default GHG emissions values.

Domestic

- Source all fuel from a registered BSL supplier and make an annual declaration to Ofgem that the biomass fuel used meets the requirements.

CONSULTATION RESPONSES

- ✓ General agreement with the proposals.
- ✓ One respondent, (Action Renewables), suggested that sustainability standards should also apply to energy crops and not just traditional forestry.
- ✓ Any system for suppliers should be easy to administer.
- ✓ Comment that existing wood quality schemes such as WQAS or BENI should satisfy the requirement.
- ✓ Need to ensure integration with RO and RHI proposed Bioenergy requirements which are different.

DISCUSSION

- There is no reason not to adopt the same approach taken by DECC for the GB RHI.
- In terms of biomass supply many customers both domestic and non-domestic are already sourcing from suppliers registered under the GB approved list.

Ofgem COMMENT

RECOMMENDATION To introduce the same arrangements as GB for the NI RHI

LEGISLATIVE CHANGES NEEDED

Appropriate references to be included in the Regulations

Final policy agreed

Signed:

Date:

PROPOSAL

LARGE BIOMASS (OVER 1MW) NEW TARIFF OF 0.6 PENCE PER KW

RATIONALE

Biomass installations over 1MW were not eligible for support under the first phase of the Northern Ireland RHI. The reason for this was that evidence available at the time demonstrated that these types of installations, for the most part, were already cost-effective over the 20 year time period. Whilst it was accepted that a biomass installation over 1MW size was considerably more expensive than the corresponding oil system in terms of capital outlay, the differential in assumed fuel price outweighed the capital costs, given the fuel intensity of these systems, therefore rendering a tariff unnecessary. In fact, when calculating a tariff for this band a negative tariff was generated. However, this was reassessed and the revised assumptions, (detailed in the consultation paper), has led to a tariff being set for large biomass installations above 1MW size against a counterfactual position of wood pellets replacing oil. The proposed tariff is 0.6p kW for 20 years. This proposed tariff is linked to RPI, similar to all other tariffs.

CONSULTATION RESPONSES

- Respondents welcomed the support but many felt it was too low, (GB 2 pence), though no evidence was provided on increase.
- Some felt support should be capped at 5MW and Invista thought a coal counterfactual should be used.
- General agreement that large biomass is vital for the target and wider market and therefore tariff needs to be appropriate.
- One respondent asked that a 7 year tariff be developed for large biomass.

DISCUSSION

- ✓ Content to proceed with proposal of 0.6 pence tariff.
- ✓ This will encourage large biomass installations which are vital for meeting our targets.
- ✓ We are aware of a number of large installations which could potentially make use of the scheme.
- ✓ In considering the cost implications of a typical 1MW industrial plant running for 80% of the time the cost would be:-

24x7x356x0.8x1000x0.006 = £294,336 per annum with a heat output of 49.056GWh

- ✓ Although this cost seems high to achieve the same heat output using say 99kW boilers on the 6.3 pence tariff would cost £3.9m per annum, i.e around one tenth of the cost.
- ✓ The above illustration demonstrates that larger plants represent better value for money.
- ✓ At this juncture there is no evidence to suggest that there won't be enough money in the RHI fund to provide this support.

Ofgem COMMENT
RECOMMENDATION To proceed with proposal for new 0.6 pence tariff
LEGISLATIVE CHANGES NEEDED
Chapter 2
<ul style="list-style-type: none">Remove 5(b) reference to capacity of less than 1000kWh.
Schedule 3
<ul style="list-style-type: none">New tariff for large biomass over 1000kW 0.6 pence kWh.

Final policy agreed

Signed:

Date:

**PROPOSAL
INCREASED TARIFF FOR BIOMETHANE INJECTION**

RATIONALE

Currently biomethane injection is incentivised at a tariff of 3.2 pence and there has been no uptake of projects since the RHI was introduced in November 2012. This suggests that the current rate is not sufficient to stimulate growth in this area. Although not included in the phase 2 consultation evidence has come forward from the sector to suggest that an increased incentive such as with the GB RHI is required to “kick start” projects here and anecdotal evidence would suggest that there are a number of projects that are ready to go if the right incentive was in place.

The proposal therefore is to increase the tariff for biomethane to the GB tiered tariff limits for a one year period to test the readiness of the market.

- Tier 1 first 40,000 MWh 7.5 pence
- Tier 2 next 40,000 MWh 4.4 pence
- Tier 3 remaining MWh 3.4 pence

CONSULTATION RESPONSES

Not included in the phase 2 consultation.

DISCUSSION

- Unlike the other NI RHI technologies the biomethane injection tariff is not based on an oil counterfactual.
- There is no reason why the GB tariff shouldn't apply to NI.
- To liaise with DECC on rationale for the GB tariff.
- Subject to receiving the necessary approvals in time this proposal should go forward as part of phase 2.

Ofgem COMMENT

RECOMMENDATION To proceed with the proposal

LEGISLATIVE CHANGES NEEDED Minimal – change of tariff

Final policy agreed

Signed:

Date:

**PROPOSAL
OTHER ISSUES**

RATIONALE

There are number of other minor changes proposed in the consultation:-

Dealing with annual inflationary adjustments – Each year the tariffs are adjusted in line with the Retail Price Index (RPI) with the revised tariffs applying to existing accreditations as well as new installations This adjustment resulted in tariffs increasing by 3.1% in April 2013. The NI RHI Regulations currently specify that tariffs are rounded to the nearest tenth of a penny; this fact resulted in the smaller tariffs for larger technologies not being affected by the RPI adjustment. DETI consider that this could mean these both to the nearest tenth of the penny and the nearest twentieth of a penny and the tariff is adjusted to whichever is the greater value. In practice, this will have no impact on the tariffs for smaller technologies but will ensure larger technologies receive an inflationary rise. This proposal would have resulted in a large biomass tariff of 1.55 pence and a larger GSHP tariff of 1.34 pence.

Defining an installation – DETI proposes to revise the definition of an ‘installation’, in line with DECC, so a more pragmatic approach can be taken in the determination of what constitutes an installation. This is intended to remove the potential for owners replacing functioning auxiliary elements of technologies just in order to claim the RHI.

Process within a building – The NI RHI Regulations state that the heat generated by a renewable source for heating a space; heating liquid; or for carrying out a process must be used within a building. The building must be permanent and fully enclosed. DETI recognise that this leads to difficulty in accrediting some processes that cannot be carried out within a fully enclosed building i.e. drying of crops. DETI is therefore considering revising the Regulations to state that heat for carrying out certain processes (such as drying) does not have to be used within a building; this requirement would remain in regards heating a space or liquid.

Allowing relocation of renewable heat plants – Currently only ‘new’ installations are deemed eligible under the RHI, therefore second hand equipment is not allowed nor can a technology be accredited twice in two different locations. DETI has considered this issue and proposes to allow accredited systems to be relocated and remain eligible for support, providing it meets all other eligibility criteria at the new location. This should reduce the risk involved in projects by providing certainty that if a site can no longer use the accredited technology it can be resold or relocated and remain eligible for the ongoing support. The total length of time a single technology is incentivised will not exceed 20 years. Second hand technologies, which have not previously been accredited under the RHI, remain ineligible.

Clarification on the use of ground water for GSHPs – Currently the NI RHI Regulations specify that GSHPs must source their heat from surface water only. This will be revised to enable heat pumps to source their heat from both surface and ground water.

CONSULTATION RESPONSES

- General welcome for the proposals.
- Biomass Energy welcomed the proposal to redefine processes to include the drying of

crops etc.

- Allowing the relocation of an accredited installation also welcomed highlighting that this should help encourage investment in renewable technologies.
- GSHO Assoc agreed the proposal for Ground Source Heat Pumps indicating that they are in the process of writing an “open loop” standard for pumps using ground or surface water.

DISCUSSION

- Proposal to amend the inflationary calculation process will ensure a more equitable inflationary rise.
- Adoption of the DECC definition of an “installation” is a sensible position to take.
- There is a clear need now identified to facilitate the use of heat outside a building such as for drying processes.
- Allowing for the relocation of accredited systems providing that all eligibility criteria is still met will help to reduce risk in projects where a site change is required.
- Extending the eligible heat source for GSHP’s to ground water will help to encourage uptake of this technology.

Ofgem COMMENT

RECOMMENDATION To implement the proposed changes.

LEGISLATIVE CHANGES NEEDED

Amendment required to the following:-

Part 5 regulation 36 7 (b) amended to reflect the revised method of RPI inflationary calculation.

Part 2 [need to consider appropriate wording to define an installation as per DECC]

[need to review relevant references to heat usage and amend accordingly]

[need to amend relevant references to relocation of installations and update accordingly]

Part 2 chapter 2 regulation 8 (a) add “ground liquid”

Final policy agreed

Signed:

Date:

PROPOSAL**BIOMASS AND BIOLIQUID – COMBINED HEAT AND POWER****RATIONALE**

Biomass and bioliquid CHP is currently incentivised under the NIRO, with good quality CHP that is accredited under the CHPQA in receipt of an additional 0.5 ROC uplift. From October 2015 the 0.5 ROC uplift will be withdrawn – good quality CHP projects accredited after this date would be eligible for the relevant electricity only ROC level together with the appropriate RHI tariff. This position is largely consistent with the GB position, however given the fact that DETI has not previously indicated a potential CHP RHI tariff an additional grace period for installations has been allowed rather than adopting the GB timescales of April 2015.

In developing an appropriate CHP tariff under the RHI DETI has assumed an investment lifetime of 10 years and a plant lifetime of 20 years. A discount rate of 12% has been used and the revenue from ROC's electricity is included and factored into the analysis. A counterfactual position of natural gas has been used based on analysis that new CHP sites in 2020 are likely to have access to natural gas as a fuel. Therefore DETI is proposing a tariff rate of 3.5p/kWh for new biomass and bioliquid systems.

In addition to the tariff for new CHP systems, DETI proposes to introduce a second tariff for existing fossil fuel CHP systems that wish to convert to renewable CHP. The tariff for conversion sites has been developed in the same way as the new build CHP tariff, however with the different assumptions on capex. For converting CHP sites the proposed tariff is 1.7p/kWh.

To receive the RHI the accredited station must be certified under CHPQA. DETI expects heat from renewable CHP sites to provide a significant contribution towards the development of the renewable heat market and the achievement of the renewable heat target. It is estimated that over 500GWh per annum will be in place through CHP by 2020, over a third of the renewable heat target.

CONSULTATION RESPONSES

- General agreement with the proposals
- Phoenix expressed concern that two separate tariffs will increase the risk of gas CHP converting to renewables, but the opposite is true as one tariff would be 3.5 pence and therefore conversion would be more attractive.
- Nvisa made lots of comments that will need to be considered in drafting legislation, will also need to work with DECC on issues such as co-firing.

DISCUSSION

- Public consultation responses are supportive of the proposed tariff.
- Subsequent engagement with the industry would indicate significant interest in this tariff.
- Large CHP plants have a significant role to play in meeting the RHI targets.

Ofgem COMMENT

RECOMMENDATION To proceed with the introduction of this new technology and tariff.

LEGISLATIVE CHANGES NEEDED

Schedule 3

Add new tariffs

- Biomass or bioliquid CHP (new system) all sizes 3.5 pence per kWh.
- Biomass or bioliquid CHP(conversion) all sizes 1.7 pence per kWh.

Final policy agreed

Signed:

Date:

PROPOSAL COST CONTROL

RATIONALE

Given the introduction of tariffs for larger systems and the need to maintain confidence and consistency in the scheme DETI is proposing to introduce cost control measures that would ensure budgetary levels wouldn't be breached and to remove the need for emergency reviews or reductions in tariffs at short notice. DECC has introduced a system of tariff degression in GB whereby tariffs will automatically reduce when deployment levels reach set trigger points. DETI expect to introduce similar measures in the future but in the interim it is proposed that a simpler system is put in place.

The RHI is different in nature to the NIRO in that there is a finite budget for new installations and these budget limits cannot be breached. Whilst tariffs are designed to ensure that the budget is adhered to there is always a risk that renewable heat technologies might be deployed in greater numbers than what is forecast and payments exceed expectations. The risk of this increases as tariffs become available for larger technologies such as biomass over 1MW, biomass/bioliquids CHP and deep geothermal. Therefore DETI must retain the right to suspend the scheme if budget limits could be breached; however this will only happen at a last resort and, at this stage, is not envisioned to happen

In order to ensure confidence in the scheme continues DETI proposes to introduce a number of trigger points that will provide forewarning to potential applicants that the committed budget is nearing the set limit. The trigger points are set out in summary as follows, (detail in the consultation document).

Trigger 1 **50%** of annual budget committed – DETI will make public announcement on committed budget.

Trigger 2 **60%** of annual budget committed – DETI will make an announcement on committed budget and advise that the domestic RHI may need to close if next budget trigger point is reached.

Trigger 3 **70%** of annual budget committed – DETI will make an announcement on committed budget and begin procedures to close the RHI for the financial year.

Trigger 4 **80%** of annual budget committed – DETI will make public announcement on committed budget and formally advise administrator to prepare for closure.

Trigger 5 **90%** of annual budget committed – DETI will make a public announcement and begin actions to close the scheme for the financial year.

CONSULTATION RESPONSES

- Trigger method of budget management could be viewed as a disincentive and cause further uncertainty in the market.
- DETI would need to clarify if any suspension of the scheme would impact only on new applications and not existing accreditations.
- Good clear advance warning with guidance and parameters would be needed for any cost control measures.

DISCUSSION

- The proposed tripper points are too proscriptive therefore DETI should have the flexibility and control to restrict/close the scheme to new applicants at any given point to help manage the budget.
- This needs to be provided for in the Regulations.
- On the wider issue of affordability/future tariff levels there is a lack of clarity over RHI funding beyond March 2015.
- Consideration should be given to plan for reduced tariffs now as part of the phase 2 review.
- The most popular tariff, (6.3 pence biomass), should be reduced at different intervals.

Ofgem COMMENT

RECOMMENDATION To include tariff reduction for biomass in April 2017 and April 2018. The level of reduction to be determined,(probably looks like about 33% reduction on each occasion).

LEGISLATIVE CHANGES NEEDED

Need to consider further before drafting.

Final policy agreed

Signed:

Date:

**PROPOSAL
INTRODUCE A TARIFF OF 7 PENCE PER Kw FOR NEW DISTRICT HEATING SYSTEMS
OF 200kW AND ABOVE**

RATIONALE

Article 14 of the Energy Efficiency Directive promotes district heating as a more efficient way of heating multiple properties. It is also suitable for “pay as you go” applications and could be used for meeting the heating needs of low income households.

A 2010 study in the development of the Northern Ireland renewable heat market demonstrated that 31 per cent of Northern Ireland’s heat demand lies in areas that could be suitable for district or community heating schemes, where one heat source supplies heating for a number of different buildings. However, District Heating projects often have additional capital costs because of the need for pipe-work to transport heat from the heat source to the buildings connected to the network.

As part of this second phase of the RHI, DETI has considered whether renewable district heating required a specific ‘uplift’ tariff under the RHI to account for the additional costs incurred. A tariff range for the uplift of 4p/kWh to 14p/kWh was developed, highlighting the differences in the scenarios and the variables within each potential district heating. The final proposal was to introduce an uplift tariff of 7p/kWh for new community heating or district heating schemes.

In order to prevent over incentivisation the uplift would only apply to the first 1314 peak load hours, after which the tariff would reduce to the standard biomass tariff.

CONSULTATION RESPONSES

- A lot of comments / interest.
- Agreement that uplift is required and happiness at figure set.
- Agreement that it should be for larger systems and the definitions must be appropriate, (important we consider appropriate parameters to prevent uplift being taken by very small schemes, (two homes beside each other), needs some thought.
- Comment that the uplifts should apply to all renewable technologies as well as conversions.

DISCUSSION

- ✓ The Heat Network (Metering and Billing)Regulations 2014 defines district heating as,
- ✓ **“District heat means the distribution of thermal energy in the form of steam, hot water or chilled liquids from a central source of production through a network to multiple buildings or sites for the use of space or process heating, cooling or hot water”**
- ✓ A network should have a minimum of two buildings and one final customers in addition to the heat supplier.
- ✓ Evidence has shown that large district heating proposals are not coming forward under the existing incentives.
- ✓ Smaller district heating systems, (under 200kW), will be incentivised under the proposed extension of the 6.3 pence tariff.

- ✓ GB has taken the challenge fund approach with district heating, however, our engagement with the industry suggests that the proposed 7 pence tariff would stimulate more growth in this area. Evidence from previous District Heating trials/pilots would indicate that ongoing support (through tariff payments) rather than upfront capital is needed to make such schemes successful.

Ofgem COMMENT

RECOMMENDATION To proceed with the proposal to introduce a specific district heating tariff for the first 1314 peak load hours.

LEGISLATIVE CHANGES NEEDED

The following legislative changes are required:-

Add a definition of district heating to part 1 interpretation,(see highlighted above)
Schedule 3 include new district heating tariff.

- Biomass district heating 200 kW and above 7 pence per kWh.

Final policy agreed

Signed:

Date:

**PROPOSAL
PROPOSED TARIFFS FOR AIR SOURCE HEAT PUMPS (AIR TO AIR & AIR TO WATER)**

RATIONALE

Air source heat pumps were excluded from phas1 of the RHI due to a lack of detailed evidence on the costs and performance of the technology and issues around the accurate measurement of the heat output. DETI included proposals in its consultation to introduce support for both air to air, (AAHP), and air to water, (AWHP). For AAHP, where heat from air outside is transferred through a heat pump via a liquid and used to produce warm air that is circulated within a building to provide space heating a tariff of 5.2 pence per kWh is proposed for systems less than 100kWh in size. DETI wishes to limit support for these technologies at this stage to smaller systems so that the market can be tested and the technology can be rolled out in a staged manner.

AWHP's have the potential to displace existing fossil fuel heating systems by providing buildings with space heating and hot water heating by utilising heat from the outside air, transferring this directly to a liquid. These systems are often used alongside under-floor heating but can also integrate with conventional radiator systems. DETI has assessed the cost of these systems and developed a proposed tariff of 2.5 pence per kWh that would be available for systems less than 100kWh in size. Similarly to AAHP a larger banding for this technology may be considered in due course dependent on evidence gathered and through actual deployment of technologies under the RHI.

CONSULTATION RESPONSES

- Only a few comments, all in general agreement.
- Air to water heat pumps widely accepted, air to air less so.
- Feeling that SPF of 2.5 is too low and should be raised to 2.9.

DISCUSSION

Air to Air

- ✓ All technologies supported under the RHI must have installed a class 2 meter and air to air heat pumps are unable to meet this criterion.
- ✓ Because of this metering difficulty it is not proposed to include this technology at this time.

Air to Water

- ✓ Looking at the success of the domestic RHPP/RHI scheme where 147 air to water heat pumps or 12% of installations demonstrates a demand for this technology.
- ✓ Therefore it is agreed to introduce the proposed tariff for the non-domestic RHI.

A SPF of 2.5 will be applied, as used in the domestic scheme.

Ofgem COMMENT

RECOMMENDATION To introduce the proposed new tariff for air to water but not to proceed with the proposal for air.

LEGISLATIVE CHANGES NEEDED

Definition of air to water heat pumps under part 1 interpretation.

Chapter 2 add new section for air to water heat pumps.

Schedule 3 new air to water tariff to be included.

- Air to water heat pumps less than 100kW 2.5 pence per kWh

Final policy agreed

Signed:

Date:

**PROPOSAL
TO INTRODUCE A TARIFF FOR DEEP GEOTHERMAL**

RATIONALE

Under Phase 1 of the RHI deep geothermal installations were eligible through the tariffs set for large ground source heat pumps. At the time of the July 2011 consultation, DETI sought evidence on the potential deployment of deep geothermal energy in Northern Ireland and the existing barriers both financial and non-financial. Early analysis work demonstrated that a tariff range between 1.6p-4.6p could be appropriate depending on the assumptions on the heat being displaced. It was agreed however that further analysis was required and specific support for deep geothermal would be included as part of Phase 2.

In developing support or incentive for deep geothermal, DETI considered two potential options. The first was the introduction of a specific tariff for deep geothermal energy. To design the tariff the counterfactual position was re-assessed in line with evidence from stakeholders and experience of recent geothermal developments, this involved new assumptions relating to the likelihood of a geothermal energy developer selling heat to a third party or ESCO, rather than taking the heat to individual consumers. This proposed tariff is 3.7 pence per kWh for a maximum of 20 years. The second option is to provide support on a competitive basis, whereby potential developers would submit proposals to DETI on a case by case basis and DETI would award support either on the basis of capital grant or a set incentive level, depending on the financial need of the project.

DETI's preferred approach is the proposed RHI tariff however views were sought on the second option of a challenge fund. For systems to be classed as deep geothermal the energy must be located and extracted at least 500 metres beneath the surface of solid earth.

CONSULTATION RESPONSES

- Generally supportive, however geothermal companies continue to argue for a higher tariff, 5 pence rather than the proposed 3.7 pence.
- Some discussion on case by case support, however this wouldn't be welcomed by the Geothermal industry.

DISCUSSION

- There is no evidence to suggest that the current Ground Source Heat Pump tariff is preventing schemes coming forward.
- However, there have been recent calls from the industry and through debate at the Assembly to promote deep geothermal technology and provide parity with the GB scheme.

Ofgem COMMENT

RECOMMENDATION To introduce the proposed tariff of 3.7 pence.

LEGISLATIVE CHANGES NEEDED

Definition of Deep Geothermal under part 1 interpretation.

Chapter 2 add new section for Deep Geothermal.
Schedule 3 new Deep Geothermal tariff to be included.

- Deep Geothermal all sizes 3.7 pence per kWh

Final policy agreed

Signed:

Date:

**PROPOSAL
AIR QUALITY STANDARDS****RATIONALE**

DECC has recently introduced air quality standards for the RHI in England, Scotland and Wales and propose to introduce Regulations in due course to underpin these new standards. The intention of these new standards is to limit the pollutants associated with biomass heating and will apply to biomass installations smaller than 20 MWth. The maximum permitted emission limits will be 30 grams per gigajoule (g/GJ) net thermal input for particulate matter (PM) and 150 g/gj for NOx. These standards would apply to all new installations commissioned after the date the Regulations come into effect with applicants having to provide a certificate demonstrating that their installation has been tested and met these standards. Once installations are accredited they would not be expected to comply with any further changes to emissions limits.

DETI welcomed views on the issue of air quality standards; the limits set under the GB RHI and the understand the impact of implementing the standards proposed in GB both in terms of air quality and the deployment of biomass. The RHI is designed to achieve a level of 10% renewable heat by 2020 and it is expected that a significant proportion of that target will be met through biomass heating. It is therefore imperative that the impact of increased levels of biomass heating on air quality standards is understood and, if necessary, safeguards are put into place. It is also important that air quality standards set by the EU are adhered to. It is not DETI's intention for the RHI to unintentionally impact upon air quality standards, therefore, the issue of emission limits for biomass installations must be carefully considered.

CONSULTATION RESPONSES

A range of comments were received

- ✓ Concern about the impact on the biomass industry and suggestion that proposal be postponed until the scientific basis is clear and boiler manufacturers have time to adjust their technology.
- ✓ Introduction should be longer term and phased.
- ✓ Under UK air quality requirements biomass plants of 500MW and below might not be eligible for RHI support. DECC is aware and plans to correct the error in GB but DETI would need to regulate to avoid this issue.
- ✓ Due to the rise of biomass contribution to the heat sector the impact on air quality and emission limits should be set and monitored.
- ✓ Biomass streams are different within Northern Ireland and GB so one size doesn't fit all.
- ✓ Clear guidance should be provided on the introduction and adequate notice to ensure that small producers are not disadvantaged.
- ✓ As biomass is a local product a local accredited test station should be available to test fuel.

DISCUSSION

- There is no reason why the NIRHI shouldn't apply the same air quality standards/requirements for biomass heating as the GB Scheme.
- More information is needed on the GB requirements.

Ofgem COMMENT
RECOMMENDATION Unless further research indicates otherwise the recommendation is to proceed and introduce the same air quality standards.
LEGISLATIVE CHANGES NEEDED

Final policy agreed

Signed:

Date:

**PROPOSAL
EXTENSION OF BIOMASS 6.3 PENCE TARIFF RATE UP TO 200kW****RATIONALE**

Although not part of the consultation it is now proposed to extend the current 20 - 99kW 6.3 pence per kW tariff for biomass installations up to 200kW. This is in response to representation from Ofgem and from stakeholders in the intervening period since the consultation including feedback from the CAFRE event at Greenmount on 28 October 2014. The extension of the tariff would broadly bring the NIRHI into line with the GB scheme for small and medium biomass, although the GB scheme does have a tiered system in operation which we are not proposing to introduce in Northern Ireland.

A qualifying system can be made up of a single boiler or multiple boilers. It is the overall capacity of the plant that determines the tariff. The original policy intent was for larger plants (including plants made up of multiple boilers) to receive lower incentives. However, it is clear that Ofgem has been receiving multiple 99kW RHI applications for single sites rather than one application for a single larger capacity plant. As at 26 January 178, (over half of the total), of the approved applications were of 99kW capacity. The multiple applications each qualify for the higher 6.3p / KWh tariff. The proposal to extend the 6.3p/KWh tariff up to and including 199 KW should help to incentivise the installation of larger capacity plants in line with the original policy intent and reduce multiple RHI applications for the same site.

Because the industry was already receiving the 6.3 p/KW tariff via multiple 99KW applications, increasing this tariff banding to cover plants up to and including 199KW should not increase RHI payments. There are currently no accredited RHI installations with a capacity of over 99KW and less than 200KW so there shouldn't be any need for retrospective tariff payments.

The majority of RHI applications are for installations below 200kW capacity. Not sure this is relevant!!

The proposal will also encourage the development of small (district heating) domestic / non-domestic heat networks.

A proposal to extend support for large biomass over 1MW was included as part of the formal consultation.

CONSULTATION RESPONSES

- Feedback to RHI presentations at events such the CAFRE on-farm renewable energy event is in support of extending the 6.3 pence tariff rate.
- Ofgem has highlighted the issue of multiple 99KW applications for single sites in the course of its application processing.
- Informal communication with the industry has demonstrated their support for the proposal.

DISCUSSION

- ✓ Discussed at a meeting on 28 January 2015.
- ✓ Even though this wasn't covered in the consultation the proposal can only be viewed as beneficial to both customers and DETI.
- ✓ This proposal will encourage small heat networks,(district heating).
- ✓ Agreed that proposal should proceed as party of RHI Phase2.
- ✓

Ofgem COMMENT**RECOMMENDATION To proceed to introduce the proposed tariff amendment****LEGISLATIVE CHANGES NEEDED**

Schedule 3 requires amendment to change the medium/large tariff banding as follows:-

- 20kWh and above up to but not including 200kWh 6.3 pence per kWh.
- 200kWh and above but not including 1000kWh 1.5 pence per kWh.

Final policy agreed

Signed:-

Date:-