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Department of Enterprise,  
Trade and Investment

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# The Northern Ireland Non Domestic Renewable Heat Incentive

**Response to consultation and final policy**

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# Contents

## Background

Final policy on the Northern Ireland Non Domestic  
Renewable Heat Incentive

## Background

On 22 July 2013, DETI launched a public consultation on Phase 2 of the Northern Ireland Renewable Heat Incentive (RHI). These proposals included three main elements, the introduction of a domestic RHI scheme; the expansion of the existing non-domestic scheme to include new technologies; and the introduction of measures to improve performance of the non-domestic RHI, namely metering arrangements and biomass sustainability.

The consultation ran for 12 weeks and as part of the process, DETI held stakeholder events in Armagh, Belfast and Coleraine. These were attended by nearly 100 people and were useful in gauging opinions regarding the draft proposals. The consultation closed on 14 October 2013 and 50 responses were received, two of which offered no comment. All responses received are available on the DETI website.

This paper seeks to respond to the comments received relating to the non domestic RHI proposals and sets out the Department's final policy position and the next steps in terms of implementation.

## EXPANSION OF THE NON DOMESTIC NI RHI

### ISSUE: LARGE BIOMASS (OVER 1MW)

#### Original Proposal

- 1.1 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 position was reassessed and the revised assumptions has led to a tariff being set for large biomass installations above 1MW size against a counterfactual position of [wood-pellets/](#)biomass replacing oil. The proposed tariff is 0.6p/kWh for 20 years. This proposed tariff is linked to RPI, similar to all other tariffs.

#### Stakeholder Response

- 1.2 Respondents welcomed the support but many felt it was too low, (GB 1pence but increasing to 2pence), though no evidence was provided to support this. Some felt it should be capped at 5MW and one thought a coal counterfactual should be used. One respondent asked that a 7 year tariff be developed for large biomass. There was a general consensus that large biomass is vital for meeting the renewable heat target and the wider market and therefore the tariff needs to be appropriate.

#### Final Policy

- 1.3 A tariff of 0.6 pence per kWh will be introduced for large biomass over 1MW. [Large biomass installations make a significant contribution to meeting our renewable heat targets](#)~~This will encourage large biomass installations which are vital for meeting our renewable heat targets and 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 estimated cost would be:-

$24 \times 7 \times 365 \times 0.8 \times 0.006 = \text{£}294,336$  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 ~~6.34~~ pence tariff would cost in the order of £3.9m so it is therefore around one tenth of the cost. This illustration demonstrates that larger plants [prove much demonstrate](#) better value for money.

#### SUMMARY OF KEY POINTS

A tariff of 0.6 pence per kWh will be introduced for large biomass over 1MW capacity. Large biomass installations are vital for meeting renewable heat targets and demonstrate value for money.

[There are already a number of large installations that could potentially make use of the scheme.](#)

### ISSUE: BIOMASS AND BIOLIQUID COMBINED HEAT AND POWER

#### Original Proposal

- 1.4 Biomass and bioliquid CHP is currently incentivised under the NIRO, with good quality CHP that is accredited under CHPQA in receipt of an additional 0.5 ROC uplift. DETI has indicated that 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 GB 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.

- 1.5 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. In addition, a discount rate of 12% has been used and the revenue from ROCs for electricity is included and factored into the analysis. Finally, a counterfactual position of natural gas has been used based on analysis demonstrating that the new CHP sites in 2020 are likely to have access to natural gas as a fuel. DETI is therefore proposing a tariff of 3.5 p/kWh, for new biomass and bioliquids CHP systems.
- 1.6 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 capital costs incurred for converting to renewable CHP from fossil fuel CHP is quite different from the capital costs involved in the development and build of a new renewable CHP station. The tariff for conversion sites has been developed in the same way as the new build CHP tariff however with different assumptions on capex. For existing fossil fuel CHP sites' converting to renewable fuelled CHP the proposed tariff is 1.7 p/kWh.
- ~~1.7 To receive the RHI the accredited station must be certified under CHPQA. This means before the removal of the existing ROC uplift there could be two different incentive mechanisms for CHPQA systems.~~
- 1.78 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 500 GWh of per annum will be in place through CHP by 2020, over a third of the renewable heat target.

#### Stakeholder Response

- 1.89 There was general agreement with the proposals. One respondent expressed concern that two separate tariffs (one for conversion) will increase risk of gas CHP converting to renewables – but in fact the opposite is likely to be true ~~true~~ because if there was one tariff it would be the 3.4pence and therefore conversion would be more attractive. ~~There were other comments made around issues to be considered in drafting legislation and we will be working closely with DECC on issues such as co-firing.~~

#### Final Policy

- 1.109 Two new CHP tariffs will be introduced, 3.5 pence per kWh for new systems and 1.7 pence per kWh for those converting from fossil fuels. The response to the public consultation and subsequent engagement with the industry has confirmed significant interest in this tariff. Large CHP plants have a significant role to play in meeting RHI targets. The new tariff will be in place to coincide with the removal of the 0.5ROC uplift from October 2015.

#### SUMMARY OF KEY POINTS

A tariff of 3.54 pence per kWh will be introduced for new biomass and bioliquid CHP installations.  
A tariff of 1.7 pence per kWh will be introduced for biomass and bioliquid CHP installations converting from fossil fuels.  
The new tariffs will coincide with the removal of the 0.5 ROC uplift for heat from October 2015.

#### ISSUE: BIOMASS DIRECT AIR HEATING

##### Approach

##### Original Proposal

- 1.1011 Currently the RHI only supports biomass heating whereby the boiler produces heat that is transferred via a delivery liquid or steam to provide central heating, hot water heating or process heating. ~~The original DETI proposal is now proposing was~~ to introduce support for technologies where there is no heat delivery liquid and air is warmed directly through the combustion of biomass – examples of this type of heat use could be found in agriculture in grain drying or in other industrial or commercial drying and curing processes. Two separate tariffs for this technology ~~are were~~ proposed, the first of which will cover smaller installations less than 100kW<sub>th</sub> in size and is proposed to be 5.1 pence per kWh. The second tariff will cover larger technologies over 100kW<sub>th</sub> but less than 1000kW<sub>th</sub>, this is proposed to be 1.4 pence per kWh. No tariff is offered over 1000kW<sub>th</sub> in size at this stage.

**Stakeholder Response**

- 1.112 There were only a few comments, general welcome of the proposal but agreement that measuring heat is problematic.

**Final Policy**

- 1.123 The proposal will not be taken forward as part of the Phase 2 review and will be deferred for consideration in a later phase. There is currently no evidence to suggest an imminent need for this tariff and significant concerns remain around how to measure the heat. In addition there is currently no tariff for this technology in the GB RHI scheme.

**SUMMARY OF KEY POINTS**

The proposal will not be taken forward in Phase 2 but will be deferred for consideration again in a later phase.

**ISSUE: ASHP'S (AIR TO AIR AND AIR TO WATER)****Original Proposal**

- 1.134 Air source heat pumps were excluded from phase 1 of the RHI due to a lack of detailed evidence on the costs and performance of the technology and issues surrounding the accurate measurement of heat output. DETI ~~has re-assessed these issues and now~~ propose~~s~~ to introduce support for both air to air heat pumps (AAHP) and air to water heat pumps (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 was~~ proposed for systems less than 100kW<sub>th</sub> in size. ~~DETI wishes to limit s~~Support for these technologies, ~~was to be limited to at this stage,~~ to smaller systems so the market can be tested and this technology can be rolled out in a staged manner.
- 1.145 AWHPs have the potential to displace existing fossil fuel heating systems by providing buildings with space heating and hot water heating by utilizing 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 costs of these systems and developed a proposed tariff of 2.5 pence per kWh that would be available for systems less than 100kW<sub>th</sub> in size. Similarly to AAHP, a larger banding for this technology may be considered in due course dependent on evidence gathered during this consultation and through actual deployment of technologies under the RHI.

**Stakeholder Response**

- 1.156 There were only a few comments on this issue, all generally in agreement with the proposals. Air to water heat pumps were widely accepted but less so air to air heat pumps. Some respondents suggested the Seasonal Performance Factor, (SPF) suggested at 2.5 was too low and should be raised to 2.9.

**Final Policy**

- 1.167 All technologies supported under the RHI must have a class 2 meter and air to air heat pumps are currently unable to meet this criterion. Because of this metering difficulty this technology will not be included at this time but may be considered again in a later phase. Air to water heat pumps have been very successful in the domestic sector under the interim Renewable Heat Premium payment Scheme, (RHPP), and since December 2014 under the domestic RHI. Under the RHPP this technology represented 12% of the installations supported and demonstrates a demand for air to water heat pumps. A tariff of 2.5 pence per kWh will therefore be introduced for air to water heat pumps less than 100kWh. ~~An~~ minimum SPF of 2.5 will be applied to all installations.

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**SUMMARY OF KEY POINTS**

A tariff of 2.5 pence per kWh will be introduced for air to water heat pumps under 100kWh.  
~~An SPF of 2.5 will be applied to all installations.~~  
 Air to air heat pumps will not be included in Phase 2 but may be considered again in a later phase.

**ISSUE: DEEP GEOTHERMAL****Original Proposal**

- 1.178 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.
- 1.189 In developing support or incentive measures for deep geothermal, DETI considered two potential options. The first of which 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 for deep geothermal heating 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.

**Stakeholder Response**

- 1.1920 Responses were supportive of the proposal, however geothermal companies continue to argue for higher tariff, 5pence rather than 3.7pence. The GB RHI provides support at a rate of 5 pence per kWh. There was also some comment on the potential for case by case support; however this wouldn't be welcomed by the Geothermal industry.

**Final Policy**

- 1.204 Although there is no evidence to suggest that the current ground source heat pump tariff is preventing schemes coming forward the specific deep geothermal tariff of 3.7 pence per kWh will be introduced. This is in recognition of recent calls from the industry and debate at the Northern Ireland Assembly to promote geothermal energy.

**SUMMARY OF KEY POINTS**

A tariff of 3.7 pence per kWh will be introduced for deep geothermal installations of all sizes. Recent calls from the industry and debate at the Assembly supports the need for a specific tariff.

**ISSUE: BIOLIQUIDS (HEAT ONLY)****Original Proposal**

- 1.212 As well as considering supporting bioliquids boilers in the domestic sector and bioliquids CHP in the non-domestic sector, DETI also proposes to introduce support for bioliquids boilers (heat only) under the non-domestic RHI. Bioliquids have been incentivised under the NIRO for renewable electricity generation for sometime and DETI is aware that such bioliquids could also have the potential to contribute to renewable heating targets. Two tariffs are proposed depending on the scale of the boiler in place, under 100kW<sub>th</sub> the proposed tariff is 2.6 pence kWh and above 100kW<sub>th</sub> a tariff of 2.1 pence per kWh is proposed. No tariff above 1MW<sub>th</sub> is proposed as it is assumed that projects of this scale would be CHP systems and could therefore avail of those relevant tariffs. DETI will, however, consider extending the cap on support for heat only bioliquids to beyond 1MW<sub>th</sub> if there is sufficient evidence those projects could be developed in Northern Ireland.

**Stakeholder Response**

- 1.223 There were only a few responses but there was general agreement with the proposal with a suggestion from some that there should be no cap at 1MW.

**Final Policy**

- | 1.234 Although there was a positive, (albeit limited), response it has been decided not to include the proposal in phase 2 but to defer to a later phase. This is in line with the position in GB which does not currently support bioliquids under RHI.

**SUMMARY OF KEY POINTS**

The proposal will not be taken forward in Phase 2 but will be deferred for consideration again in a later phase

**ISSUE: LARGE BIOGAS OVER 200kW LANDFILL GAS****Original Proposal**

- | 1.245 DETI has assessed the need for and potential of support for renewable heat generation from large biogas over 200kW<sub>th</sub> and from heat recovery from landfill gas. Biogas combustion is currently supported under the RHI under 200kW<sub>th</sub> but only in circumstances where the plant is not accredited under the NIRO and in receipt of ROC support. Given the very limited potential to contribute to targets, the risk that artificial heat loads could be created to claim RHI and the diminishing nature of landfill meaning that it would need to be replaced within a short period of time, DETI does not propose to incentivise heat recovery from landfill under the RHI.

**Stakeholder Response**

- | 1.265 There were no responses received.

**Final Policy**

- | 1.267 Through discussion with stakeholders it is apparent that there is no demand to introduce a tariff for large biogas. However, discussions have indicated the need to review the existing tariff for biomethane injection and this is now included as a separate proposal under this phase 2 review.

**SUMMARY OF KEY POINTS**

The proposal for a tariff for large biogas over 200kW will not be taken forward under Phase 2. Biomethane injection tariff rates will be reviewed as a separate proposal.

**ISSUE: LARGE SOLAR****Original Proposal**

- 1.278 DETI also considered the need for incentive support for solar thermal installations over 200kW in size. The experience in the existing UK market is that solar thermal installations over 200kW<sub>th</sub> are not being considered. This is demonstrated insofar that currently under the GB RHI, as demonstrated by the Ofgem public report<sup>1</sup>, there is 662kW<sub>th</sub> installed in England across 52 separate installations representing an average capacity of 12.7kW<sub>th</sub>. [Typically installations A formal definition of what is large scale solar thermal does not exist but one training course<sup>2</sup> defines it broadly as 40m<sup>2</sup>, and above are considered to be large scale](#) this represents less than 40kW<sub>th</sub>. In addition, to date no solar thermal installations have been accredited under the Northern Ireland scheme. DETI has therefore concluded that a tariff for this category is not appropriate until examples in the 50-200kW<sub>th</sub> category arise.

**Stakeholder Response**

- 1.289 No responses received.

**Final Policy**

- 1.2930 It is clear that there is no demand for this technology and therefore no need to introduce a tariff at this time.

**SUMMARY OF KEY POINTS**

The proposal for a tariff for large solar will not be taken forward under phase 2  
There is no demand to introduce a tariff at this time.

**ISSUE: DISTRICT HEATING****Original Proposal**

- 1.301 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. These 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. At this stage, DETI are considering introducing an uplift tariff of 7p/kWh for community heating or district heating schemes. This would apply to the first 1314 peak load hours, after which the tariff would reduce to the standard biomass tariff.

**Stakeholder Response**

- 1.312 There was a lot of comment and interest in this proposal and general agreement that uplift is required and contentment with the tariff suggested. There was a general consensus that it should be for larger systems and as such the definitions must be appropriate to prevent the uplift being taken by very small schemes to the detriment of larger ones. There was also some comment that the uplift should apply to all renewable technologies, (heat pumps, solar, CHP, geothermal), as well as conversions.

<https://rhi.ofgem.gov.uk/Public/ExternalReportDetail.aspx?RP=RHIPublicReport>

<http://wagner-academy.com/events/solar-thermal-large-scale-training-16082012/>

**Final Policy**

- 1.323 [District heating in EU terms is defined as '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.'](#) Evidence has shown that large district heating schemes are not coming forward under the existing incentives thus proving the need for the new tariff. Smaller district heating schemes, (under 200kW), will be incentivised under the proposed extension of the 6.3 pence biomass tariff. GB has taken the challenge fund approach with district heating, however our engagement with the industry here suggests that the proposed 7 pence tariff for the first 1314 peak load hours would stimulate more growth in this area. Evidence from previous district heating pilots/trials would indicate that ongoing support through tariff payments, rather than upfront capital is needed to make such schemes successful.

**SUMMARY OF KEY POINTS**

A tariff of 7.0 pence per kWh for the first 1314 peak load hours will be introduced for biomass district heating for installations of 200kW and above.  
Smaller district heating schemes will be incentivised under the extension of the 6.3 pence biomass tariff.  
Hours over the 1314 peak load will be paid at the standard biomass rate.

**ISSUE: CHALLENGE FUND ALTERNATIVE****Original Proposal**

- 1.334 There are a number of technologies where DETI has proposed introducing a RHI tariff whilst also suggesting the possibility of an alternative method of support via a competitively awarded challenge fund. Technologies where a challenge fund could be considered, instead of a RHI tariff, would be large biomass (over 1MW<sub>th</sub>), deep geothermal or district heating schemes. The reason why a challenge fund scheme could be considered in place of a RHI tariff is because the numbers of potential schemes are small and the capital costs may be barrier to deployment. The purpose of the challenge fund would be to deliver a small number of exemplar projects and to reduce the barrier that projects face in terms of up front capital

**Stakeholder Response**

- 1.345 There were some comments that geothermal and district heating could avail of this option.

**Final Policy**

- 1.356 Although there is some suggestion that geothermal and district heating could avail of this option current budgetary pressures would potentially rule out the option of challenge fund support for renewable heat incentives. The [Department's proposed Energywise scheme OFMDFM/SIB Household Energy and Thermal Efficiency programme, \(HEaT\)](#), includes provision for low interest loans for renewable heating and district heating schemes. It is therefore considered that there is no merit in pursuing a challenge fund.

**SUMMARY OF KEY POINTS**

A challenge fund will not be taken forward under phase 2.  
The [Energywise proposal HEaT programme](#) includes provision for low interest loans .

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**ISSUES NOT SPECIFIC TO THE CONSULTATION****ISSUE: EXTENSION OF THE 6.43 PENCE BIOMASS TARIFF TO 200kW****Proposal**

- 1.367 Although not part of the consultation it is now proposed to extend the current 20 - 99kW 6.43 pence per kWh 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 , practical on farm renewable energy 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.~~

1.378 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 April 2015 305, (over half of the total), of the approved applications were of 99kW capacity. The multiple applications each qualify for the higher 6.43p / 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.

1.389 Because the industry was already receiving the 6.43 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 are likely to be a very ~~few small number, if any, so there should be little need for retrospectiveback dated~~ tariff payments. The proposal will also encourage the development of small (district heating) domestic / non-domestic heat networks.

#### Consideration

1.3940 Feedback to RHI presentations at events such as the DARD CAFRE on farm renewable energy event is in support of extending the 6.43 pence tariff rate to 199kW. Ofgem has highlighted to DETI the issue of multiple 99kW applications for single sites in the course of its RHI application processing. Informal communication with the industry has also demonstrated support for the proposal.

#### Final Policy

1.404 Even though this proposal wasn't covered as part of the formal consultation it can only be viewed as beneficial to both DETI and customers. The extension of the 6.43 pence tariff to 199kW will encourage the development of small heat networks, (small scale district heating), and it will also encourage more single boiler installations rather than multiple smaller boilers which are less efficient.

#### SUMMARY OF KEY POINTS

The 6.43 pence biomass tariff to be extended to 199kW  
The proposal which has wide support will encourage more single boiler installations rather than multiple less efficient smaller boilers.

#### ISSUE: INCREASED TARIFF FOR BIOMETHANE INJECTION

##### Proposal

1.412 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.

1.423 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

##### Consideration

- 1.434 Representation from the industry through several stakeholders including the Gas Alliance has informed DETI of the potential for a number of projects waiting in the wings to come forward provided the right incentive is in place. It is clear that the current tariff is insufficient to stimulate the technology whilst and GB with a more lucrative incentive has been able to stimulate growth. [The GB experience was that there was very little uptake in the first couple of years to the tariff then in place based on a 1MW waste plant scenario. DECC became aware of a number of much larger plants underdevelopment and there was concern that if these installations came forward they could result in over compensation based on the existing tariff. Therefore in February 2014 the revised tariff structure as outlined above was introduced to address the concerns.](#)

#### Final Policy

- 1.445 Unlike other NI RHI technologies the biomethane injection tariff is not based on an oil counterfactual and therefore the rationale that applies in GB is also relevant to Northern Ireland so there is no reason why the GB tariff shouldn't apply. It is therefore proposed to introduce the GB biomethane injection tariffs to the NI RHI under the phase 2 review. This will enable projects understood to be ready to proceed.

#### SUMMARY OF KEY POINTS

The increased incentive will enable projects understood to be ready to proceed  
 Tariffs for biomethane injection will be introduced as follows;  
 Tier 1 first 40,000 MWt 7.4 pence  
 Tier 2 next 40,000MWt 4.4 pence  
 Tier 3 remaining 3.4 pence

#### ISSUE: INCLUSION OF DOMESTIC PROPERTIES OVER 100kW

##### Proposal

- 1.46 The current Domestic RHI scheme introduced in December 2014 covers properties with renewable heating systems up to a capacity of 100kW. Whilst most domestic properties are adequately provided for within this range it is recognised that some larger and perhaps older properties or listed buildings may require boilers larger than 100kW. Boilers larger than 100kW are viewed as commercial and therefore should be required to meet the same standards as other non-domestic systems. This could include domestic district heating systems over 100kW. Although not included in the phase 2 consultations as a specific item DETI wishes to make a change to the non-domestic RHI to facilitate such installations

##### Consideration

- 1.47 With the domestic scheme up and running, (covering boilers up to and including 99kW), we are aware of a gap for a small number of large domestic properties where the heating need would dictate a larger boiler installation. This larger size of boiler is in effect of commercial capacity hence the consideration to include installations of this nature under the non-domestic RHI. GB has not currently made this provision for single domestic properties but does allow 100kW boilers where more than one building is heated e.g. separate office or workshop.

##### Final Policy

- 1.48 We are aware through feedback from stakeholder that there are a number of older and larger domestic properties including large Estate/national Trust building that are currently unable to avail of the RHI and we therefore propose to make appropriate amendments to the legislation to include such installations in the non-domestic RHI.

#### SUMMARY OF KEY POINTS

Boilers of 100kW and above to be included for large single domestic properties.

## SETTING STANDARDS, IMPROVING PERFORMANCE AND COST CONTROL

### ISSUE: BIOMASS SUSTAINABILITY

#### Original Proposal

- 2.1 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 have recently come into effect 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.
- 2.2 DETI is also considering adopting GB proposals to extend biomass sustainability requirements to technologies less than 1MW<sub>th</sub>, however with less stringent reporting given that these RHI recipients are unlikely to be energy professionals. Instead, accredited installations under 1MW<sub>th</sub> 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.

#### Stakeholder Response

- 2.3 There were several comments on the proposals and most were in broad agreement. One respondent suggested that sustainability standards should also apply to energy crops and not just traditional forestry. There was a general consensus that any system put in place should be simple to administer. There was comment too that existing wood quality schemes such as WFQAS and BENI should satisfy the requirement. There will be a need to ensure integration with RO and RHI proposed Bioenergy requirements which are different.

#### Final Policy

- 2.4 There is no reason not to adopt the same approach taken by DECC for the GB RHI so similar arrangements will be introduced to the NI RHI. In terms of biomass supply many customers both domestic and non domestic are already sourcing from suppliers registered under the GB Approved Supplier list. [Whilst not a legislative requirement it is recommended that suppliers are also accredited with a wood quality assurance body, \(such as WFQA or equivalent\).](#)

#### SUMMARY OF KEY POINTS

- Biomass sustainability requirements similar to GB will be introduced to the NI RHI
- Many customers are already sourcing biomass fuel from suppliers registered under the GB scheme.
- [It is recommended that suppliers be accredited with a recognised wood quality assurance.](#)

### ISSUE: AIR QUALITY STANDARDS

#### Original Proposal

- 2.5 DECC has proposed to introduce 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 MW<sub>th</sub>. The maximum permitted emission limits will be 30 grams per gigajoule (g/GJ) net thermal input for particulate matter (PM) and 150 g/gj for NO<sub>x</sub>. 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.

#### Stakeholder Response

- 2.6 A range of views were received on this issue. Some expressed concern about the potential impact on the biomass industry and suggested that the proposal should be postponed until the scientific basis is clear and boiler manufacturers have time to adjust their technologies. Other comment suggested that 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, however DECC is aware and will correct the error in the GB RHI and DETI will need to replicate. There was comment too on the rise of biomass contribution to the heat sector and that air quality and emission limits should be set and monitored and inference that the biomass streams within Northern Ireland are different to GB, so one size doesn't fit all. Clear guidance and adequate notice should be provided to ensure that small producers are not disadvantaged. There was a suggestion that as biomass is a local product a local accredited test station should be available to test fuel.

#### Final Policy

- 2.7 The same situation on air quality pertains in Northern Ireland as in GB so there is no reason that the same shouldn't apply. The same air quality standards as GB will therefore be introduced to the Northern Ireland RHI.

#### SUMMARY OF KEY POINTS

Air quality standards similar to GB will be introduced to the Northern Ireland RHI.

### ISSUE: METERING ARRANGEMENTS

#### Original Proposal

- 2.8 DETI is conscious that whilst heat metering is intrinsic to the RHI and is essential to make payments to installers, it is a relatively new area for many of those involved in installing renewable heat technologies, be it applicants or installers. To ensure that heat metering doesn't become a barrier to deployment it is proposed that metering arrangements for the non-domestic RHI are revised to make the requirements simpler and more flexible. The proposed changes are as follows;
- **Redefining what constitutes a 'simple' or 'complex' system**
  - **Allowing heat losses from insulated external pipes Removing the need for unduly burdensome meters**
  - **Changing the approach to ineligible renewable heating Proxy measurements for gas and electric heat sources**

#### Stakeholder Response

- 2.9 The proposals to simplify the arrangements were generally welcome and viewed as sound and realistic. One respondent agreed that heat loss calculations should be permissible if piping meets a certain standard but went further to suggest that such heat loss calculations may not be necessary if the piping meets such a standard. There was also comment that the insulation standards must be clearly defined.

#### Final Policy

- 2.10 Although the consultation responses were positive there is no particular demand from the industry to see changes as the current system is working well. In light of this DETI is not proposing to introduce any changes at this time.

#### SUMMARY OF KEY POINTS

The proposal to introduce changes will not be taken forward under the phase 2 review. The current system is working well and does not require to be changed at this time.

**ISSUE: COSTS CONTROL****Original Proposal**

- 2.11 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. ~~Over the last 12 months the number of RHI applications has grown from around 130 to in excess of 600, resulting in expenditure of over £1.2 m per month. DECC are in the process of~~ introducing a system of tariff digression 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. In order to ensure confidence in the scheme continues DETI ~~propose~~s to introduce a number of trigger points that ~~would~~ provide forewarning to potential applicants that the committed budget is nearing the set limit.

**Stakeholder Response**

- 2.12 Several responses were received on this issue. There was a concern expressed that a trigger method of budget management could be viewed as a disincentive and cause further uncertainty in the market. Comment was also made that confirmation was required that any suspension of the scheme would only apply to new applications and not existing accreditations. The need for good clear advance warning with guidance and parameters for any cost control measures was also emphasised.

**Final Policy**

- 2.13 The proposed trigger 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 and this needs to be provided for in the scheme legislation. On the wider issue of affordability given the lack of clarity on RHI funding beyond 2015/16 DETI will plan for future reduced tariffs now as part of the phase 2 review. The most popular tariff, (6.43 pence biomass), will be reduced in April 2017 and again in April 2018. The rate of reduction will be ~~by 2.1 pence 33% per kWh on~~ each occasion. ~~In addition a tier structure will be introduced from 1 April 2016. The first 1314 hours will be paid at the standard tariff, and hours thereafter will be reduced to 1.5 pence per kWh~~

**SUMMARY OF KEY POINTS**

The proposed trigger points are too restrictive and will not be introduced at this time. DETI requires the flexibility to restrict/close the scheme to new applicants at any time to help manage the budget. Provision will be made in the scheme legislation to reduce the most popular tariff, (6.43 pence biomass), in April 2017 and again in April 2018. ~~The reduction will be 33% 2.1 pence per kWh on each occasion. A tier structure will apply from 1 April 2016 where the first 1314 peak hours will be paid at the standard tariff and hours thereafter reducing to 1.5 pence per kWh.~~

**ISSUE: ENHANCED PRELIMINARY ACCREDITATION****Original Proposal**

- 2.14 DECC has previously considered introducing enhanced preliminary accreditation given the fact the tariffs in GB are potentially subject to digression and therefore can reduce once pre-assigned trigger points are achieved. DETI does not propose to introduce digression at this and therefore the need for enhance preliminary accreditation is much less. It is currently DETI's view that in the absence of digression, enhanced preliminary accreditation is unnecessary and not in need of urgent consideration.

**Stakeholder Response**

- 2.15 There were a range of comments received. Some suggested that EPA would exacerbate the potential for speculative applications. Other comments suggested that it would be beneficial to provide certainty for larger and more complex projects to be developed particularly with Ground Source Heat Pumps. There was one suggestion for an EPA fund allocation with a requirement for regular, (say quarterly), restatements of intent to proceed with projects.

#### Final Policy

- 2.16 Tariffs have remained unchanged since the scheme was introduced in 2012, (except for annual RPI uplifts), and this has resulted in over 400 accredited installations and the renewable heat increasing to over 3%. There has been no particular call from the industry for an EPA system and it is therefore considered there is no need to introduce a form of EPA at this time.

#### SUMMARY OF KEY POINTS

There has been over 400 accredited installations since the RHI was introduced in 2012 and renewable heat has increased to over 3%  
It is therefore considered that there is no need to introduce a form of EPA to the NI RHI at this time.

#### ISSUE: OTHER ISSUES

##### Original Proposal

- 2.17 There are other minor changes DETI proposes to make to the commercial RHI scheme to support improved performance and to remain in line with DECC in terms of administration.

**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. 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.

#### Stakeholder Response

- 2.18 There was a general welcome from respondents to the proposals. The proposal to redefine processes to include the drying of crops etc outside of a building was particularly welcomed as too was the proposal to allow the relocation of an accredited plant which it was highlighted should help to encourage investment in renewable technologies. The Ground Source Heat Pump Association agreed the proposal for Ground Source Heat Pumps and indicated they are in the process of writing an “open loop” standard for pumps using ground or surface water.

#### Final Policy

- 2.19 The proposals as outline above are all to be taken forward. The amendment to the inflationary calculation will ensure a more equitable inflationary rise across all tariffs. The adoption of the DECC definition of “installation” is a sensible position to take and brings us into line with the GB scheme. A clear need has been identified to provide for the use of heat outside a building for processes such as drying and again this is in line with the GB RHI. Allowing the relocation of accredited systems provided 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 Ground Source Heat Pumps to ground water will help to encourage uptake of this technology which has been limited to date.

#### SUMMARY OF KEY POINTS

The calculation of the annual inflationary rise will be revised to provide a more equitable uplift across all tariffs.  
 The DECC definition of installation will be adopted to bring us into line with the GB scheme.  
 The scheme will be amended to allow heat to be used for certain processes outside of a building such as drying.  
 The relocation of accredited systems will be allowed providing that all eligibility criteria is still met.  
 The scheme will be amended to allow heat pumps to use ground or surface water.