

**From:** [Wightman, Stuart](#)  
**To:** [Hughes, Seamus](#)  
**Cc:** [Willis, Adele](#)  
**Subject:** FW: Immediate re RHI  
**Date:** 04 July 2016 21:57:17  
**Attachments:** [Annex A - Domestic RHI - Final policy.DOCX](#)

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fyi

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**From:** McCormick, Andrew (DFE)  
**Sent:** 04 July 2016 21:54  
**To:** Stewart, Chris (DFE)  
**Cc:** McEvoy, Colette; Clydesdale, Alison; Wightman, Stuart; Marten, Lucy; Cousins, Heather; McMurray, Stephen; McCann, Brendan; Woods, Michael (DETI)  
**Subject:** Fw: Immediate re RHI

I sent the message below to the Minister.

Stuart - many thanks again

I checked with the branch about the follow up to the Phase 2 consultation on RHI. As Stuart explains below, there was no comprehensive consultation response, nor is there any advice to the then-Minister on the implications of the responses to consultation on the issue of cost control. It is recognised that this is a very unusual scenario, and the only explanation seems to be that the focus was very heavily on the introduction of the domestic RHI scheme, as that was a clear stated Ministerial priority: the domestic scheme was covered in the Phase 2 consultation, and the action on that was the only follow up to that consultation - the further step promised (in italics in Stuart's email) never happened.

If this was to arise in a media question, the suggested line is:

“Normally there would be a comprehensive response to consultation and analysis and advice to Ministers on the options for the way ahead: it appears that, in the case of the options for cost control set out in the Phase 2 consultation on RHI, no such analysis was provided and it is now clear that that contributed to the difficulties that have arisen. So this is one of the missed opportunities for preventative or corrective action, and it is vital that DfE and others learn this and the other salutary lessons from this saga.”

**I hope this is helpful**

Sent from my BlackBerry 10 smartphone.

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**From:** Wightman, Stuart <[Stuart.Wightman@economy-ni.gov.uk](mailto:Stuart.Wightman@economy-ni.gov.uk)>  
**Sent:** Monday, 4 July 2016 20:59  
**To:** McCormick, Andrew (DFE)  
**Cc:** Clydesdale, Alison; Stewart, Chris (DFE); Marten, Lucy  
**Subject:** RE: Immediate re RHI

Andrew

Just to confirm, the Department did not publish any response to the Phase 2 Consultation (which closed in Oct 2013) until June 2014, when the attached Final Policy was published for the domestic RHI scheme. The last sentence in the Background section states that: *'The issues relating to the non-domestic scheme will be dealt with separately and a similar response document will issue in due course.'*

The final policy for the November 2015 tariff changes to the non domestic scheme was published in September 2015. None of the other Phase 2 proposals were ever finalised and published.

Stuart

Department of Enterprise,  
Trade and Investment

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# **The Northern Ireland Domestic Renewable Heat Incentive**

**Response to consultation and final policy**

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# Contents

## Background

Final policy on the Northern Ireland 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 domestic RHI proposals and sets out the Department's final policy position and the next steps in terms of implementation. The issues relating to the non-domestic scheme will be dealt with separately and a similar response document will issue in due course.

# The NI Domestic RHI

## ISSUE: ELIGIBLE PROPERTIES

### Original Proposal

- 1.1 It was proposed that only properties, used solely or primarily, for domestic purposes could avail of the domestic RHI; this would exclude circumstances where a domestic property had been refurbished for a non-domestic purpose. The key determining factor in assessing the status of a property would be a Rates Bill issued from Land and Property Services. It was also proposed that farmhouses would be classed as domestic, this would remove ambiguity regarding whether they should be supported under the non-domestic scheme or this mechanism. Perhaps the biggest issue was whether second homes (rental properties, holiday homes etc) should be eligible for support; DETI proposed that they would be eligible with the requirement that a heat meter be installed to assess use.

### Stakeholder Response

- 1.2 Generally respondents were content with DETI proposals regarding eligible properties with the majority of respondents agreeing with all the proposals. Many agreed that controls would need to be placed on the payments for second homes to ensure that the payments were not made on unoccupied properties. One respondent felt that holiday homes should be excluded as there would be limited environmental benefit but supported the notion of second homes being eligible. In terms of farmhouses, again most respondents supported the proposals, with only one suggesting that they should be treated under the non-domestic scheme.

### Final Policy

- 1.3 The domestic RHI will therefore be open to all domestic properties, including second homes, social housing and farmhouses. The classification on the rates bill will help to determine eligibility; with homes classed as “domestic” or “house (agricultural)” eligible for support. Second homes or privately rented accommodation will be supported but with measures employed to ensure payments are not made if the house is unoccupied, further details are included in the section entitled “Deeming”. DETI felt it would be problematic to distinguish between holiday homes and privately rented homes and therefore both are eligible under the scheme. Social housing, where the house is owned by the NI Housing Executive or a Housing Association can also avail of support.
- 1.4 In all circumstances the payments will be made to the owner of the technology, this could be the homeowner, the occupant, a private or social landlord, or a third party Energy Service Company (ESCo).

#### SUMMARY OF KEY POINTS

All domestic properties are eligible, including second homes; holiday homes; rental accommodation; social housing and farmhouses.  
 Rates bill will be used to demonstrate eligibility.  
 Payments made to the owner of technology, not necessarily occupant.  
 Domestic RHI only covers one technology heating one house; where a technology is heating more than one property then it will be supported under the non domestic scheme.  
 No public grant or funding (other than the RHPP) can have been received for the installation of the accredited equipment.

**ISSUE : ELIGIBLE TECHNOLOGIES****Original Proposal**

- 1.5 DETI initially proposed that the following technologies would be supported;
- Air to Water Heat Pumps
  - Air to Air Heat Pumps
  - Bioliqid systems
  - Biomass systems (excluding condensing boilers<sup>1</sup>)
  - Ground or Water Source Heat Pumps
  - Solar Thermal

**Stakeholder Response**

- 1.6 Consultees all agreed that the technologies currently supported under the Renewable Heat Premium Payment Scheme (RHPP) should be supported (air to water heat pumps, biomass, ground or water source heat pumps and solar thermal). It was agreed that these technologies were well established and well understood and therefore consumers installing them had the comfort that they were “tried and tested”.
- 1.7 Regarding air to air heat pumps and bioliqid boilers, respondees were more cautious on whether these technologies should be supported from the outset of the scheme. There were concerns that these systems were not well understood and this could lead to confusion amongst consumers in a generally new market place. There were specific concerns regarding the efficiency of air to air heat pumps and the realistic deployment of bioliquids. However a number of stakeholders noted that, due to the prevalence of home heating oil in Northern Ireland, bioliquids could be a realistic and accessible option for many consumers. It was also suggested that bioliquids could prove to be the only viable low carbon alternative for consumers without access to natural gas or without necessary space to accommodate a biomass boiler or heat pump.
- 1.8 Concerns were also raised with the proposal to exclude condensing biomass boilers, with many respondents arguing that these systems were well established, highly efficient and had real potential in the market place.
- 1.9 A very small number of respondents encouraged DETI to consider supporting solar thermal space heating, as well as solar thermal hot water heating. Finally, a small number of respondents queried why technologies such as solar PV, wind or micro-hydro were excluded. (It should be noted that the RHI only covers technologies that are primarily used for heating, therefore technologies that generate electricity are not supported under the RHI, and instead they can avail of support through the Northern Ireland Renewables Obligation).

**Final Policy**

- 1.10 DETI can confirm that the technologies supported under the RHPP (air to water heat pumps, biomass (including condensing boilers), ground or water source heat pumps and solar thermal) will be incentivised under the Domestic RHI. DETI accepts the stakeholder view that air to air heat pumps present concerns relating to efficiency and use and they will not be included in the RHI at this stage.
- 1.11 DETI acknowledges the role of bioliquids given the large proportion of Northern Ireland currently on heating oil and considering that many homes might not be able to avail of natural gas and might be unsuitable for other forms of renewable heat. However, there is further work required to incorporate bioliquids into the scheme. Bioliquids will therefore not be introduced immediately. This will be reviewed within 12 months.
- 1.12 Condensing biomass boilers will also be eligible for support. In all circumstances, except for solar thermal, it is expected that the technology will be able to provide heat for the entire property (space heating and domestic hot water).
- 1.13 Regarding solar thermal space heating, DETI does not propose to support this from the outset but will consider for future incentivisation. The solar thermal tariff is designed specifically for the costs incurred

<sup>1</sup> These systems had been determined as ineligible given concerns raised in GB over potential pollutants however more recent tests carried out by DEFRA have shown that the systems can be supported.

for solar thermal hot water only panels and therefore to incentivise space heating also may be inappropriate.

#### SUMMARY OF KEY POINTS

Technologies supported will be;

- Air to Water Heat Pumps
- Biomass (including condensing boilers)
- Ground Source or Water Source Heat Pumps
- Solar Thermal (domestic hot water only)

All technologies (barring solar thermal) must be able to provide heat for the entire home (space heating and hot water).

Inclusion of bioliquids will be reviewed within 12 months.

#### ISSUE: SYSTEMS LARGER THAN 45kW

##### *Original Proposal*

- 1.14 In the consultation, DETI acknowledged that a gap existed, in that domestic properties over 45kW could not receive any form of support. DETI proposed to rectify that by allowing systems between 45kW-99kW to receive support under the domestic RHI and domestic systems larger than 99kW to be eligible for the non-domestic RHI.

##### *Stakeholder Response*

- 1.15 Firstly, in terms of systems between 45kW – 99kW, there was unanimous agreement that these systems should be supported under the domestic RHI as proposed. Many respondents did comment however that whilst MCS standards don't cover systems larger than 45kW, DETI should insist that MCS technologies and MCS installers are used so consumers are protected and standards maintained. In addition, a number of respondents also raised the need to cap payments or introduce measures to prevent systems from being over-sized in order to gain higher incentive payments. One respondent commented that payments should be capped to assume systems aren't larger than 45kW and another commented that a capping mechanism would only be appropriate if it applied to all installations. Other stakeholders were opposed to a cap.
- 1.16 Regarding domestic installations over 99kW there were fewer direct responses, possibly given the fact that very few circumstances exist whereby a single domestic property would require such a system. Four direct responses were received with 3 agreeing with the proposals and 1 suggesting that these systems should also be supported under the domestic RHI.

##### *Final Policy*

- 1.17 DETI has determined that domestic systems between 46kW – 100kW will be treated under the domestic RHI. Where a single technology is being installed for a system over 45kW (i.e. a single 60kW biomass boiler) a MCS commissioning certificate cannot be required as this size of technology falls outside the scope of MCS. Therefore the technology will not need to be accredited under MCS, however DETI will ask that the technology is installed by a MCS, or equivalent, certified installer. DETI is working with Ofgem to establish how domestic systems over 100kW could be incorporated into the non-domestic RHI. If this is possible it is likely to require a legislative amendment. An update will issue on this matter in due course.
- 1.18 Where an installation involves a number of smaller technologies (i.e. 2 x 30kW biomass boilers or 2 x 40kW GSHPs) the combined capacity will determine how the technology is treated and the individual technologies, that are under the 45kW threshold will need to be MCS accredited. Again the installer will need to be certified under MCS (or an equivalent scheme).

#### SUMMARY OF KEY POINTS

Installations greater than 45kW but less than 100kW will be treated under the domestic RHI and installations will need to be made by a MCS certified installer.

Establishing the process for installations greater than 100kW to be able to apply for the non domestic RHI.



**ISSUE: SUPPORT****Approach****Original Proposal**

- 1.19 In terms of support, DETI proposed a system whereby there were different levels of incentive depending on the date of installation and whether or not support had previously been received under the RHPP. The basic approach was as follows;
- o New installations that are installed and commissioned after the introduction of the domestic RHI would receive up front support and a tariff based payment for 7 years.
  - o Installations supported under the RHPP would receive a tariff based payment for 7 years only at the same level as new installations. No upfront support would be received as this had already been received under the RHPP.
  - o Installations in place and commissioned since 1 September 2010 but without the support the RHPP would not receive an upfront payment but instead receive an adjusted tariff level so ensure they were not disadvantaged. It was expected that these installations would primarily be those that were in place before the RHPP.

**Stakeholder Response**

- 1.20 Stakeholders were concerned that there could be a discrepancy in the overall support received, in that someone who had not received the RHPP would be better off given the higher ongoing tariff.

**Final Policy**

- 1.21 DETI had a clear methodology underpinning the original proposals and the intention was to move to an ongoing payments scheme while providing an equitable outcome between those who had availed of the RHPP scheme and those who had not. However, on the basis of evidence presented DETI accepts that there may be a particular set of circumstances, for example, where the actual heat demand of a property is far in excess of the typical installation where the proposal might not result in an equitable outcome. DETI therefore proposes one approach whereby all applicants receive upfront support (except RHPP consumers that have already received the support) and an ongoing tariff for 7 years. This is in line with the many positive comments received regarding the proposal to have an element of up front assistance.

**Up front plus 7 years****Original Proposal**

- 1.22 As already described, DETI proposed a system of up front support plus ongoing tariff payments for 7 years. The upfront support was designed to increase accessibility of the scheme, assist in the capital expenditure and reduce potential financing costs for applicants. Tariffs would then be paid for 7 years. This is in contrast to the non-domestic scheme where tariffs are paid over the lifetime of the technology up to a maximum of 20 years. The compressed tariff was designed to offer a quick return on investment and to mitigate against concerns that homeowners who might be considering moving property would be put off by the 20 year timeframe. The fact that tariffs were for 7 years did not mean less overall support; rather that tariffs were designed to provide the lifetime support over a shorter period of time.

**Stakeholder Response**

- 1.23 Firstly, respondents generally welcomed the proposal of upfront support and accepted that this would be useful to mitigate against the significant barriers presented by capital costs. Some stakeholders proposed higher up front tariffs, potentially as high as 50% of invoiced costs; however the majority of respondents were content with the proposed levels of payment.
- 1.24 In terms of length of tariffs, there was some debate over whether the payment period should be longer with some respondents suggesting 10 years. It was argued that a longer time period would encourage the installation of better systems. These systems would be expected to last longer than the 7 years which would remove the risk that renewable systems are replaced with fossil fuel systems after payments cease.

### Final Policy

- 1.25 DETI is content to proceed with the proposal to introduce up front support with ongoing tariff payments for 7 years. DETI is content with the level of upfront support proposed; to increase upfront payments any further would lead to the scheme being a de facto capital grant scheme with minimal incentive for the continued use of the technology. DETI considered a simple grant scheme and included it as an option within the consultation. However no stakeholders indicated that they would prefer this option. The levels set have been successful in the RHPP. Regarding the length of tariff, DETI did consider comments from stakeholders suggesting a longer time period (10-15 years) but concluded that the 7 year tariff was most appropriate for consumers, offered the greatest potential uptake and was better value for money in terms of administration; in addition 7 years was favoured by the majority of respondents.

### Tariff levels

#### Original Proposal

- 1.26 Upfront payments and tariff levels were proposed in the original consultation as follows;
- o ASHP - £1700 then 3.4p/kWhr
  - o Biomass - £2500 then 5.5 p/kWhr
  - o Bioliquids - £500 then 2.7 p/kWhr
  - o GSHP - £3500 then 8 p/kWhr
  - o Solar thermal - £320 then 13.1 p/kWhr
- 1.27 Any installations that have received the premium payment would receive the tariff element of the support only.

#### Stakeholder Response

- 1.28 A number of stakeholders were concerned that tariffs were too low, with some suggesting higher upfront payments to offset capital costs and others arguing for higher ongoing tariffs to make the scheme more attractive. Most stakeholders arguing for higher tariffs commented that the tariffs proposed in GB were significantly higher than Northern Ireland and therefore tariffs should be increased to ensure parity. In addition stakeholders were concerned that the tariffs may lead to consumers installing smaller or less-efficient systems that were perhaps cheaper.
- 1.29 Regarding specific technologies, one stakeholder commented that biomass prices were higher in Northern Ireland and therefore the tariff should reflect this. A number of stakeholders also felt the ASHP tariff was low in comparison to the GSHP given that capital costs of the two technologies were broadly equivalent.
- 1.30 Finally, a number of stakeholders responded by saying they felt the tariffs were appropriate, with one stakeholder suggesting they were overly generous.

### Final Policy

- 1.31 Whilst the majority of stakeholders argued that tariffs appeared to be too low there was insufficient evidence provided to warrant a revision in the tariffs. Where respondents suggested new tariffs, there was often no information provided to support their suggestion, other than it would be more rewarding for the end user.
- 1.32 DETI accept that the proposed tariffs are lower than those to be implemented in GB, the tariffs for the NI scheme have been designed specifically for the NI market and consider local energy costs, the fuels being displaced and the scale of technologies being installed. In calculating the tariffs, DETI assess what the whole-life cost differential is between the renewable heat technology and the fossil fuel alternative and then seeks to pay-out this difference (with a rate of return of 7.5%) over the 7 year period. This is the same methodology as GB however the inputs do vary. No respondents challenged this methodology or provided evidence to suggest our assumptions (as set out in the economic analysis) were incorrect. When comparing the payments with GB some respondents failed to recognise that the ongoing savings enjoyed by consumers switching to renewable heat in Northern Ireland are higher than those enjoyed in GB. In almost all cases in Northern Ireland those switching to renewables will enjoy a reduction in their fuel costs (as they are displacing oil) however this is not necessarily the case in GB where some consumers could actually be incurring higher energy costs when moving to renewable heat. Therefore when considering the incentive payments and the savings enjoyed the overall benefit to the consumer in

NI and GB should be broadly equivalent. The scenarios set out under “Worked Examples” further demonstrate that the level of incentive payments should be sufficient.

1.33 The final support levels are detailed below;

	Up front support <sup>2</sup> (£)	Tariff for 7 years (pence per kWh)
Air to Water Heat Pumps	1700	3.4
Bioliqids (when introduced)	500 <sup>3</sup>	2.7
Biomass	2500	5.5
Ground Source Heat Pumps	3500	8
Solar Thermal	320	13.1

1.34 DETI will monitor uptake and energy prices and will periodically review tariffs and the technologies included. All tariffs under the domestic RHI will be linked to the Retail Price Index and will be adjusted accordingly on an annual basis at 1 April each year. As with the GB schemes, tariffs are capped at a level in line with the support offered for off-shore wind, this is in the order of 19.2-21.7 p/kWh. Other than the change with RPI tariffs are “Grandfathered”.

#### SUMMARY OF KEY POINTS

The levels of support and ongoing tariffs are set out in the above table. All consumers availing of the domestic RHI will receive the same level of up front support and the same tariff level for 7 years. Those who have received the RHPP have already received the upfront support and therefore will receive the ongoing tariff only.

#### ISSUE: STANDARDS

##### Original Proposal

1.35 It was proposed that all technologies under 45kW would need to be certified under the Microgeneration Certification Scheme (MCS) at the time of installation and would need to be commissioned by a MCS certified installer. For bioliqids systems, the boiler would need to be installed and commissioned by an OFTEC certified installer and the consumer would need to retain fuel invoices that demonstrate that a renewable fuel was being utilised.

##### Stakeholder Response

1.36 Stakeholders agreed that it was essential for MCS, or equivalent, standards to be required throughout the scheme for installers and technologies. Stakeholders also recommended that MCS standards are required for systems over 45kW. It was agreed by stakeholders that in, what is, a developing industry that consumer confidence could be badly damaged by poor quality installations. Therefore DETI must be rigorous in the enforcement of MCS standards.

##### Final Policy

1.37 DETI will be using MCS standards for all renewable heat installations up to 45kW. Systems larger than 45kW cannot be certified under MCS, however DETI will still require the installation of the technology to be carried out by a MCS registered installer. This will ensure standards and consumer confidence.

<sup>2</sup> For technologies installed under the RHPP this support has already been received.

<sup>3</sup> No support has previously been available for bioliqids.

- 1.38 All installations of renewable heat systems up to 45kW made after the Domestic RHI Regulations come into force must use MCS accredited technologies and MCS accredited installers. Any installations which have been supported by the RHPP and which comply with the RHPP terms and conditions will effectively meet this requirement.
- 1.39 Any legacy installations i.e. those installations made after 1 September 2010 which have not received RHPP support must use renewable heat technologies that were accredited by MCS at the time of their installations. Legacy installations must also be able to demonstrate a direct contract with an MCS accredited installer, workmanship warranty information, as well as paperwork for the design, installation and commissioning certificates. These legacy installations must be able to provide a MCS commissioning certificate that demonstrates that a MCS certified installer has commissioned the technology.

#### SUMMARY OF KEY POINTS

New installations supported under the domestic RHI must be installed and commissioned by a MCS certified installer. Technologies less than 45kW must be MCS certified at the time of commissioning.

Systems larger than 45kW do not need to be certified by MCS however the installation must be carried out by a MCS certified installer.

Legacy systems, those installed between 1 September 2010 and the date whereby the Regulations are enforced and that haven't received the RHPP must demonstrate compliance by production of an appropriate MCS commissioning certificate.

Systems supported under the RHPP have already demonstrated compliance with these requirements.

#### ISSUE: DEEMING METHODOLOGY AND ENERGY EFFICIENCY

##### *Original Proposal*

- 1.40 DETI proposed that applicants would, for the most part, receive payments through a deeming methodology i.e. payments would be made based on an assumed heat demand of the property rather than individual heat meters. There were of course circumstances where metering would be required, this was restricted to second homes and where an ineligible primary heat source remained. In terms of energy efficiency, DETI proposed simple eligibility levels and an assumption that all homes would be C rated or better.

##### *Stakeholder Response*

- 1.41 There was a lot of interest and comments from stakeholders regarding how heat demand would be 'deemed' and payments made under the domestic RHI. Linked to this is how DETI treats energy efficiency and ensures that homes are efficient as possible before receiving RHI payments. There was almost unanimous agreement that deeming was the most appropriate method as it was simple, could be easily understood and removed the costs involved in installing and reading meters. It was also suggested by stakeholders that the deeming methodology should be made clear in advance by DETI, to allow householders to calculate likely payments and make informed decisions about switching to renewable heat. There was also general agreement that metering should be required in cases where deeming was inappropriate, such as in second homes where occupancy might vary and in situations where back-up boilers remain in place and could be used.
- 1.42 There were many helpful comments from stakeholders regarding the exact methodology for 'deeming', with a high number suggesting Energy Performance Certificates (EPC) be utilised, potentially in conjunction with MCS installers calculations. Respondents felt that EPCs would be appropriate given they are well-established with a tried and tested methodology, in addition one respondent highlighted that the EPC would also help consumer education in terms of understanding heat requirements and energy efficiency levels. It was also noted that the number of EPC assessors had increased in recent years and the costs reduced. Some respondents felt that the deeming methodology should take into account individual circumstances such as if the occupant had ill-health, were elderly or worked from home and therefore required higher than normal heating levels.
- 1.43 It was agreed that energy efficiency was an important element of the domestic RHI and that householders should be required to have basic levels of energy efficiency before being eligible for support. However, a

significant number of respondents argued against having a set standard, or an assumed standard, of a C rated property believing that this would be unobtainable for many rural properties in Northern Ireland.

### Final Policy

- 1.44 DETI will introduce a system of deeming under the domestic RHI that is linked primarily to the energy requirements of the individual property as detailed in a Northern Ireland Energy Performance Certificate (EPC). The EPC submitted by the applicant must be up to date and include the renewable heating system installed. Social housing will be deemed like all other properties. Metering will be required for privately rented homes, second homes, holiday homes and properties that retain an ineligible primary heat source (i.e. a gas boiler, oil boiler, old renewable heat system or coal fire linked to back boiler). Where the installed renewable heat technology has the capacity to record its own use through an easily readable display this can be used to record heat use rather than an additional heat meter. Where meters are required, payments will be made on the metered heat output but capped at the deemed level.
- 1.45 Given the comments on the risk of excluding hard to heat homes but also the need to ensure homes are as efficient as possible before receiving the RHI payments, DETI will use calculations included on the EPC for the potential heating demand. The EPC provided by applicants should therefore detail the new technology installed, the details of the home and the potential energy requirements if recommended measures are carried out. More details on how this will work are detailed below and at the section on worked examples.

- 1.46 The calculations used to determine the heat demand will be as follows;

$$\frac{\text{Potential heating costs + potential hot water costs}}{\text{Potential heating costs + potential hot water costs + potential lighting costs}} \times \frac{100}{1} = \text{Potential heating costs as \% of total energy}$$

**Annual heat demand** = Potential heating costs as % of total energy x (Total floor area x Potential energy use kWh/m<sup>2</sup> per year)

- 1.47 This figure will inform the payments for the primary renewable heat technologies (Biomass, Bioliquids (once introduced) and Heat Pumps. For biomass and bioliquids this will be a simple calculation of heat demand multiplied by tariff. For heat pumps the seasonal performance factor (SPF) will be incorporated into the formula to ensure only renewable heating is incentivised. The formulas are as follows;

$$\begin{aligned} \text{Biomass} &= \text{Tariff} \times \text{Annual Heat Demand} \\ \text{Bioliquid} &= \text{Tariff} \times \text{Annual Heat Demand} \\ \text{Heat Pumps} &= \text{Tariff} (\text{Annual Heat Demand}) \times (1-1/\text{SPF}) \end{aligned}$$

- 1.48 The deeming system and requirements for EPCs only applies to the primary technologies. These measures do not apply to solar thermal. The payment for solar thermal will be deemed using information on the MCS certificate.
- 1.49 DETI remains concerned that there could be a perception that under the Domestic RHI homes that are inefficient and have above average heat demand will be rewarded by higher RHI payments. Whilst it is true homes with higher heat demands will receive higher payments this reflects the higher energy costs of these homes. However, to prevent circumstances where inefficient homes are over-rewarded a cap will be placed on the level of tariff that can be received by applicants. These caps will be placed on primary heat technologies only.

- 1.50 On the basis that as there is no green deal in NI (unlike GB) there is no prescriptive energy efficiency levels – therefore there is a risk of very inefficient homes or large homes being over-incentivised. A cap of £2000 has been deemed as appropriate.

#### SUMMARY OF KEY POINTS

The majority of homes will be incentivised paid for a deemed level of heat, taken from the potential standard set by an Energy Performance Certificate.  
 Second homes (privately rented, holiday homes etc), homes with a back up boiler and systems over 45kW will require heat meters. In these circumstances payments will be made on the metered heat output but capped at the deemed level.  
 Annual payments will be capped at £2000.

#### WORKED EXAMPLES

##### Biomass 1

- 1.51 A new build rural domestic property installs a biomass boiler with no back up heat source (i.e. no gas or oil system). The EPC shows that the property's potential rating is B91 with a floor space of 270m<sup>2</sup>, a potential energy use of 65kWh/m<sup>2</sup>. The potential energy costs are £86 for lighting, £350 for heating and £80 for domestic hot water. The following calculations are made to assess payment;

- a) Heating costs as % of total energy =

$$\frac{\pounds 350 + \pounds 80}{\pounds 86 + \pounds 350 + \pounds 80} \times \frac{100}{1} = 83.3\%$$

- b) Annual heat demand = 83.3% (270 x 65) = 14620 kWh  
 c) Annual payment for 7 years = 14620 x 5.5 pence = £804 per annum.  
 d) Upfront payment of £2500.

##### Biomass 2

- 1.52 An urban domestic property installs a biomass boiler with but retains an oil boiler as way of back up. The EPC shows that the property's can only achieve a potential rating of C81 with a floor space of 320m<sup>2</sup>, a potential energy use of 101kWh/m<sup>2</sup>. The potential energy costs are £180 for lighting, £1300 for heating and £150 for domestic hot water. The following calculations are made to assess payment;

- a) Heating costs as % of total energy =

$$\frac{\pounds 1300 + \pounds 150}{\pounds 180 + \pounds 1300 + \pounds 150} \times \frac{100}{1} = 89\%$$

- b) Annual heat demand = 89% (101 x 320) = 28765 kWh  
 c) Annual payment for 7 years = = 28765 kWh x 5.5 pence = £1582 per annum.  
 d) Upfront payment of £2500.

- 1.53 As this property has retained the oil system the payment will be made on the metered heat output but will not be able to exceed £1582 per annum. Whilst this homeowner is receiving twice the annual payment of the more efficient property in biomass example 1 their fuel bills are considerably higher.

## **Biomass 3**

- 1.54 A large rural property requires a 60kW boiler to heat their property which is 430m<sup>2</sup>. The house is listed and therefore is limited in what it can do in terms of energy efficiency and the EPC demonstrates that the highest potential rating is D66. The potential energy use of the building is 145kWh/m<sup>2</sup> and the potential costs are £200 for lighting, £2400 for heating and £250 for domestic hot water. The following calculations are made to assess payment;

- a) Heating costs as % of total energy =

$$\frac{\pounds 2400 + \pounds 250}{\pounds 200 + \pounds 2400 + \pounds 250} \times \frac{100}{1} = 93\%$$

- b) Annual heat demand = 93% of (430m<sup>2</sup> x 145kWh/m<sup>2</sup>) = 57985 kWh  
 c) Annual payment for 7 years = 57985 kWh x 5.5 pence = £3189 per annum.  
 d) The annual payment will be capped at £2000 in line with Para 1.50.  
 e) Upfront payment of £2500.

## **GSHP**

- 1.55 A new build property installs a 22kW ground source heat pump to heat their property which is 375m<sup>2</sup>. The house is highly efficient and the EPC demonstrates that the highest potential rating is B85. The potential energy use of the building is 57kWh/m<sup>2</sup> and the potential costs are £210 for lighting, £540 for heating and £170 for domestic hot water. The following calculations are made to assess payment;

- a) Heating costs as % of total energy =

$$\frac{\pounds 540 + \pounds 170}{\pounds 210 + \pounds 540 + \pounds 170} \times \frac{100}{1} = 77\%$$

- b) Annual heat demand = 77% of (375m<sup>2</sup> x 57kWh/m<sup>2</sup>) = 16459 kWh  
 c) Annual payment for 7 years = 8 pence x (16459 kWh x (1-1/(2.9))) = £863 per annum.  
 d) Upfront payment of £3500.

## **ASHP**

- 1.56 A detached home installs a 14kW air source heat pump to heat their property which is 330m<sup>2</sup>. The house has standard efficiency measures and the EPC demonstrates that the highest potential rating is C72. The potential energy use of the building is 110kWh/m<sup>2</sup> and the potential costs are £280 for lighting, £1180 for heating and £290 for domestic hot water. The following calculations are made to assess payment;

- a) Heating costs as % of total energy =

$$\frac{\pounds 1180 + \pounds 290}{\pounds 280 + \pounds 1180 + \pounds 290} \times \frac{100}{1} = 84\%$$

$$\frac{\pounds 280 + \pounds 1180 + \pounds 290}{1}$$

$$1$$

- b) Annual heat demand = 84% of (330m<sup>2</sup> x 110kWh/m<sup>2</sup>) = 30492 kWh
- c) Annual payment for 7 years = 3.4 pence x (30492 kWh x (1-1/(2.9))) = £679 per annum.
- d) Upfront payment of £1700.

### **Bioliquids**

1.57 A mid-terrace property installs a new bioliquids boiler to heat their property which is 98m<sup>2</sup>. The house has lower than normal levels of energy efficiency and the EPC demonstrates that the potential rating is D60. The potential energy use of the building is 220kWh/m<sup>2</sup> and the potential costs are £130 for lighting, £750 for heating and £250 for domestic hot water. The following calculations are made to assess payment;

- a) Heating costs as % of total energy =

$$\frac{\pounds 750 + \pounds 250}{\pounds 130 + \pounds 750 + \pounds 250} \times \frac{100}{1} = 88\%$$

- b) Annual heat demand = 88% of (98 x 220kWh/m<sup>2</sup>) = 18973 kWh
- c) Annual payment for 7 years = 18973 kWh x 2.7 pence = £512 per annum.
- d) Upfront payment of £500.

### **Solar thermal**

1.58 Solar thermal calculations will be made using information provided in the MCS certificate; there is no requirement for solar thermal installations to be metered. A 1.5kW panel with an annual estimated generation of 900kWh would receive an annual payment of £118 (900kWh x 13.1 pence) for 7 years, in addition to the upfront payment of £320. A 3kW panel with an annual estimated generation of 1860kWh would receive an annual payment of £244 (1860kWh x 13.1 pence) for 7 years, as well as receiving £320 upfront.

## **ISSUE: APPLICATION PROCESS, ONGOING OBLIGATIONS, PAYMENTS**

### ***Original Proposal***

1.59 It was proposed that the application process for the domestic RHI would be similar to the process involved in the commercial scheme in that potential applicants would read the appropriate guidance documents, install the technology to the set eligibility standards and then apply to the administrator for accreditation and payment. It was proposed that payments would be made on an annual basis.

### ***Stakeholder Response***

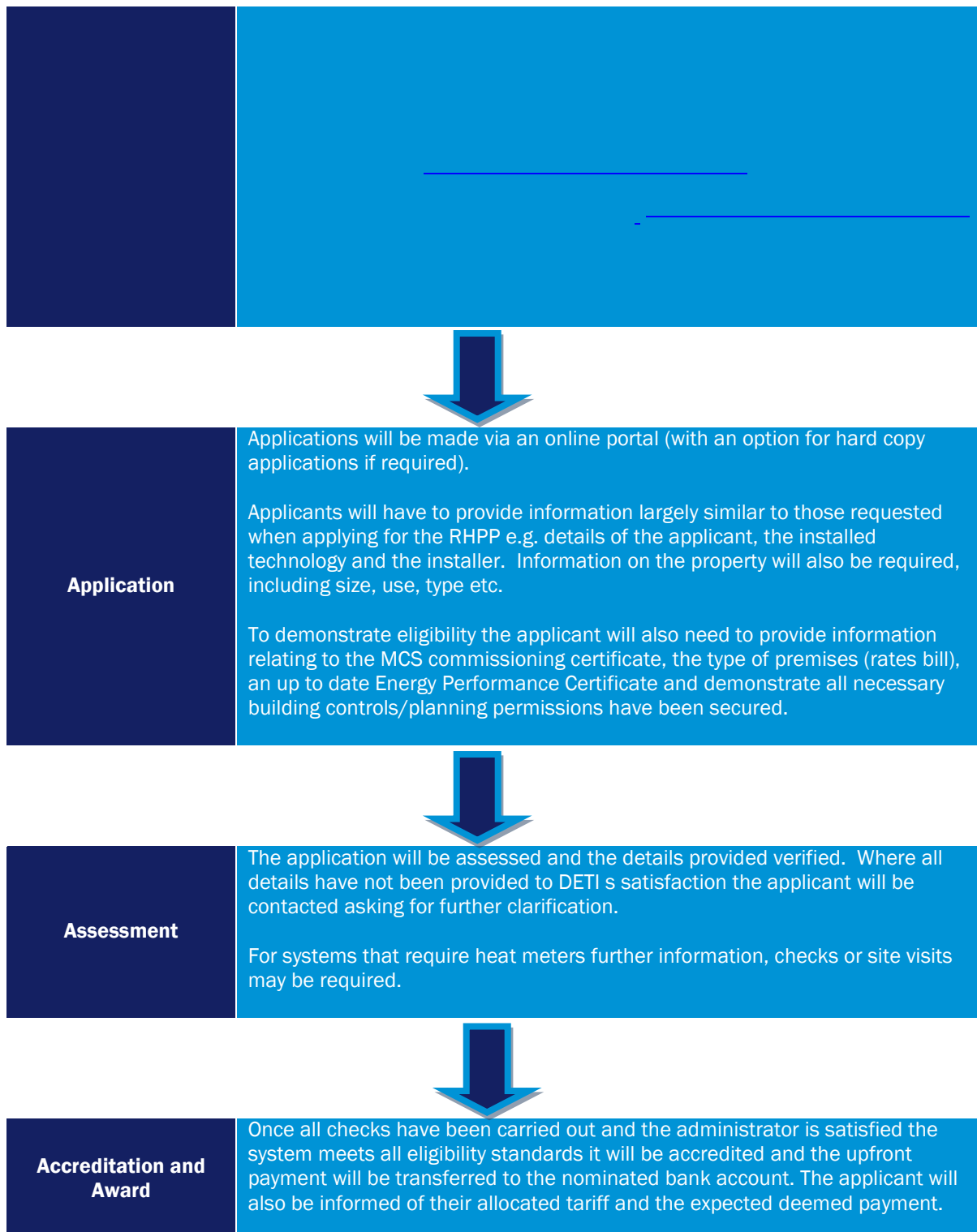
1.60 Stakeholders were generally content with the proposed application process with most comments received on this matter being focused on ensuring the process was simple and not a barrier for applicants. Stakeholders asked that clear guidance be made available and that information could be easily accessed online. It was suggested that guidance should be simple and easily understood so potential applicants knew exactly what the eligibility standards were and were in no doubt about the support they would receive. It was pointed out that as this was still a developing sector, consumers should be protected against uncertified installers.



- 1.61 Further to these comments, stakeholders asked for a hard copy application option to be available, rather than just an online process. It was also suggested that RHPP customers should not have to repeat information that has already been provided to the Department.
- 1.62 In terms of frequency of payments, 13 consultees directly responded to this question with 5 agreeing with the proposal for annual payments, the remaining 8 respondents suggested more frequent payments, ranging from monthly to quarterly. There was also the suggestion that payments should be linked to the traditional 'heating' periods.

### Final Policy

- 1.63 DETI is content to implement the application process as previously proposed and outlined below.



- 1.64 In terms of frequency of payments, DETI will implement annual payments. Only 13 out of the 50 respondents addressed the frequency point and of those who did there were divided opinions. DETI is therefore content to proceed with the original proposals.
- 1.65 Successful applicants will receive the upfront element of the payment once their installation is accredited. The ongoing payment will be processed 12 months after the date of accreditation subject to the applicant providing DETI ongoing compliance information. The owner of the equipment will be responsible for ensuring the conditions of the scheme are adhered to and any changes in use of the accredited system must be notified to the administrator. The administrator will retain the right to audit systems through site visits and can suspend or revoke accreditation where instances of fraud occur. In these instances payments will be withdrawn and could be clawed back as necessary.
- 1.66 Where applicants have provided DETI with information under the RHPP scheme, DETI will streamline the RHI application process to avoid duplication. However, it should be noted that additional information will be required to support the RHI application.
- 1.67 It is proposed that the launch of the scheme will be staggered with applicants in receipt of the RHPP being dealt with first. – of course this does not prevent potential applicants going ahead and installing and gathering all the necessary documentation that will be required for the application process. Further information on this process as well as next steps, eligibility checklists and appropriate guidance documents will be available online.

## SUMMARY OF KEY POINTS

Applications for accreditation will be made after the installation is made and commissioned. Once the installation is complete and all paperwork prepared the application should be made to the administrator.

RHPP customers will be contacted by DETI to request any additional information required for the RHI accreditation.

The upfront payment will be made on accreditation and ongoing payments due on the anniversary of the accreditation date.

Accredited sites can be audited at anytime and the owner of the equipment is responsible for ensuring the conditions of the scheme are adhered to.

The administrator will retain the power to withhold payments and suspend or revoke accreditation where necessary.