

<b>Title:</b> The Future of the Non-Domestic NIRHI Scheme	<b>Regulatory Impact Assessment (RIA)</b>
	<b>Date:</b> 27 February 2019
	<b>Type of measure:</b> Primary Legislation
<b>Lead department or agency:</b> Department for the Economy	<b>Stage:</b> Draft
	<b>Source of intervention:</b>
<b>Other departments or agencies:</b> N/A	<b>Contact details:</b> Jamie Warnock
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### Summary Intervention and Options

<p><b>What is the problem under consideration? Why is government intervention necessary?</b></p> <p>On 1 November 2012, the former Department of Enterprise, Trade and Investment<sup>1</sup> (DETI) launched the Northern Ireland Non-Domestic Renewable Heat Incentive Scheme ('RHI' or 'the Scheme'). When the Scheme was initially introduced, the incentive paid for each kWh of heat produced exceeded the cost of production for that unit of heat for small and medium sized biomass boilers which account for over 95% of the installations on the Scheme. This provided a financial incentive for participants to produce more heat than they would typically require and resulted in the projected level of payments being greater than the available budget.</p> <p>On 1 April 2017, the Renewable Heat Incentive Scheme (Amendment) Regulations (Northern Ireland) 2017 ('the 2017 Regulations') came into force moving all small and medium biomass boilers to a tiered tariff structure. The 2017 Regulations were intended as a short term measure to bring the Scheme expenditure more in line with the available budget from Treasury. The Department for the Economy ('DfE' or 'the Department') further extended the tariffs introduced under the 2017 Regulations, through the Northern Ireland (Regional Rates and Energy) Act 2018, to 31 March 2019. These interim arrangements have ensured that Scheme costs stayed within the budget allocation and received State aid approval from the European Commission for 2017-18 and 2018-19.</p> <p>During this time options for the long term payment structure have been developed based on an external tariff review conducted by the energy consultancy Ricardo Energy &amp; Environment ("Ricardo") as well as evidence from a public consultation exercise, data collected via the running of the Scheme, and the independent Public Inquiry into RHI. As no Northern Ireland Executive has been formed following the 2nd March 2017 Assembly election, these cost control measures cannot be extended by the normal process through the Assembly. Therefore legislation via Westminster is required.</p> <p>If no new legislation is in place by 1 April 2019, DfE would have no statutory basis for making payments to approximately 1,800 biomass installations accredited to the scheme before 18 November 2015 (the nature of the legislation means that c.300 installations that joined the scheme after this date could continue to be paid). Having assessed all of the options and evidence available, DfE has identified a preferred option for the future of the scheme.</p> <p><b>What are the policy objectives and the intended effects?</b></p> <p>To develop and implement a long term policy in respect of small and medium biomass boilers which:</p> <ol style="list-style-type: none"> <li>i. supports the generation of renewable heat;</li> <li>ii. provides a reasonable (target of 12%) rate of return on investment to the Scheme participants; and</li> <li>iii. Ensures Scheme operates within its allocated budget; and</li> <li>iv. Represents Value for Money</li> </ol>
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<sup>1</sup> On 8 May 2016, DETI merged with the Department of Employment and Learning to form the Department for the Economy (DfE). References in this guidance to DETI and DfE should be read relevant to the 8 May 2016 transfer.

**What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)**

The formal public consultation exercise considered 8 options, analysis of which is set out in the Consultation Report published on 31<sup>st</sup> January 2019. Both documents are available online by clicking [here](#) The preferred option is to establish a new set of tariffs for all small and medium sized biomass boilers accredited to the Scheme. The basic payment structure will provide a Tier 1 tariff applied to the first 1,314 hours of heat generation each year, with a Tier 2 tariff applied to the remainder.

	<b>Installation capacity</b>	<b>Tariff (p / kWh)</b>
<b>Small biomass</b>	Less than 20kWth	Tier 1: 7.4 Tier 2: 1.8
<b>Medium biomass (lower capacity)</b>	20kWth and above, up to but not including 100kWth	Tier 1: 1.7 Tier 2: zero
<b>Medium biomass (upper capacity)</b>	100kWth and above, up to but not including 200kWth	Tier 1: 1.2 Tier 2: zero

The new tariffs are a variant of the “Base Case” tariff structure from the Ricardo Tariff Review (Option 4) which involved a negative Tier 2 tariff for medium sized boilers. However, responses to the public consultation highlighted potential issues with this option and it has been amended to deliver the same prospective rate of return, set at 12%, without the need for a negative second tier. The tariffs will be adjusted annually in line with inflation as measured by the Consumer Prices Index.

Alongside the new tariff structure, NIRHI Scheme participants will also be able to apply for a voluntary buy-out. This recognises that a small number of installations with very low usage requirements or higher-than-average capital costs could see low rates of return under any of the tariff options that were consulted on. The voluntary buy-out will provide participants with a one-off payment equivalent to a 12% return on the additional capital cost of their biomass boiler, taking account of RHI payments already received and the timing of the payment. In return for the one-off payment, participants would not receive any further ongoing NIRHI payments.

<b>Will the policy be reviewed?</b> Yes – periodically	<b>If applicable, set review date:</b> n/a
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<b>Cost of Preferred (or more likely) Option</b>				
<b>Total outlay cost for business</b> £m	<b>Total net cost to business per year</b> £m		<b>Annual cost for implementation by Regulator</b> £m	
The policy does not impose direct costs on business	The policy does not impose direct costs on business		2017-18 £0.6	
<b>Does Implementation go beyond minimum EU requirements?</b>			<b>NO</b> <input checked="" type="checkbox"/>	<b>YES</b> <input type="checkbox"/>
Are any of these organisations in scope?	<b>Micro</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Small</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Medium</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Large</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Approved by: Jamie Warnock

Date: 27 February 2019

## Summary: Analysis and Evidence

### ECONOMIC ASSESSMENT

Costs (£m)	Total Transitional (Policy) (constant price) Years	Average Annual (recurring) (excl. transitional) (constant price)	Total Cost (Present Value)
Low	Optional	Optional	Optional
High	Optional	Optional	Optional
Best Estimate		£0 million	£0 m

**Description and scale of key monetised costs by 'main affected groups'** Maximum 5 lines  
 There are no costs to businesses under this option. There is a cost of approximately £51m to the public purse relating primarily to the projected level of ongoing RHI payments to scheme participants from 2019-20 to the end of the Scheme. The payments are intended to offset the additional costs of running a renewable heat boiler, as well as providing a 12% rate of return on the additional capital investment. Provision has also been included for a Voluntary Buy-Out where participants can apply to receive a one-off payment to provide a 12% rate of return, but with no ongoing tariff payments.

**Other key non-monetised costs by 'main affected groups'** Maximum 5 lines  
 Monitoring of the impact of the 2017 Regulations and 2018 Act to date has identified a reduction in heat production compared with the corresponding period in the preceding years. The long-term policy option will require further improved energy efficiency measures and Scheme behaviours.

Benefits (£m)	Total Transitional (Policy) (constant price) Years	Average Annual (recurring) (excl. transitional) (constant price)	Total Benefit (Present Value)
Low	Optional	Optional	
High	Optional	Optional	
Best Estimate		N/A	£51m

**Description and scale of key monetised benefits by 'main affected groups'** Maximum 5 lines  
 Participants will continue to receive ongoing payments throughout the remaining lifetime of the scheme which meet the cost of generating heat from a renewable heat installation plus a 12% rate of return.  
 The Net Present Value of future RHI payments is estimated to be £51m.

**Other key non-monetised benefits by 'main affected groups'** Maximum 5 lines  
 The main non-monetised benefit to Scheme participants is expected to be the reputational value for their businesses in supporting the reduction in carbon emissions.

**Key Assumptions, Sensitivities, Risks** Maximum 5 lines  
 The tariff structures identified by Ricardo Tariff Review and the Business Case upon which the preferred tariff is calculated have made a number of assumptions in relation to capital, operating and fuel costs. Assumptions have also been made in calculating the rate of inflation going forward.  
 The key risks associated with the long-term policy relate to future changes in fuel prices, as well as the potential for further legal challenge.

### BUSINESS ASSESSMENT

Direct Impact on business (Equivalent Annual) £m			
Costs: £0m	Benefits: £51m	Net: £51m	

### Cross Border Issues

**How does this option compare to other UK regions and to other EU Member States (particularly Republic of Ireland)** Maximum 3 lines

The Irish government has announced its own Scheme (Support Scheme for Renewable Heat) which will include a tiered tariff structure and review mechanisms with the potential to adjust future tariff levels downwards for projects that have previously been approved.

## Background

Under the 2009 EU Renewable Energy Directive (RED) each Member State has committed to generating certain proportions of renewable energy by 2020. This Directive states that:

*“The control of European energy consumption and the increased use of energy from renewable sources, together with energy savings and increased energy efficiency, constitute important parts of the package of measures needed to reduce greenhouse gas emissions and comply with the Kyoto Protocol to the United Nations Framework Convention on Climate Change, and with further Community and international greenhouse gas emission reduction commitments beyond 2012.”*

This means that it is not simply a matter of increasing the amount of renewable heat, but that this heat should be produced as efficiently as possible. On 1 November 2012, the NI Non-Domestic Renewable Heat Incentive (RHI) Scheme was introduced in pursuit of increasing the amount of heat generated in NI using renewable energy sources. A Domestic Renewable Heat Scheme was introduced in 2014. Around 4,700 renewable heating installations have been incentivised to date under the Non-Domestic and Domestic NI RHI Schemes.

The Scheme is aimed at compensating boiler owners for the additional costs of renewable heat compared with the conventional fossil fuel alternative. For Non-Domestic RHI, the compensation was to be delivered via ongoing payments linked to heat output produced rather than an up-front capital grant. The additional costs include capital costs, operating costs and the non-financial ‘hassle’ factors that are involved in replacing existing heating systems with renewable heating technologies. Except for solar thermal, the initial tariffs for the Non-Domestic NIRHI were intended to provide an average rate of return of 12% over the lifetime of the technology, assumed to be 20 years.

When the Scheme was developed, there was limited evidence available on actual boiler costs, usage and characteristics with the result that assumptions had to be made in setting the original tariff. The 2012 tariff for medium biomass boilers was informed by advice from external consultants who used a number of assumptions regarding typical use. For example, the tariff was based upon a 50kW boiler, operating 17% of the time and with a capital cost of £608 per kW. It was also assumed that the boiler would use a more expensive form of wood pellet rather than cheaper wood chip and that it would be installed in place of an oil boiler.

The assumption that the typical boiler would be used for 17% of the time was based on the normal space heating requirements for a property, whilst cost assumptions were based on the available evidence of market prices, which were somewhat limited at the outset of the Scheme. It was recognised at the time that not every boiler would share these characteristics, however, it was considered that these assumptions would be sufficiently representative of boilers on the Scheme to base the tariff on them. Actual experience shows that these assumptions were incorrect.

In the first instance, the most common boiler installed was a 99kW biomass boiler, accounting for 73.5% of biomass boilers accredited to the Scheme prior to November 2015. Less than 10% of installations were around the assumed typical boiler size. Most boilers therefore would have generated substantially more heat than anticipated, even if they had operated at the assumed load factor (17%). Meter readings submitted by participants on the Scheme to date show that the average annual amount of heat generated per 99kW boiler is 320,000kWh (more than four times the 2012 estimate). The average actual load factor is more than double that initially assumed. This shows that boiler running hours have been significantly higher than anticipated.

Further, evidence from applications to the Scheme suggests that the actual capital cost of boilers was lower than assumed when setting the tariff. At the same time, the latest market data shows that the cost of biomass fuel has been lower than the fossil fuel alternative for most of the time that the Scheme has been in operation. Overall the forecast rate of return on eligible installations is significantly higher than that assumed at Scheme initiation.

In early 2015 it became apparent that, as a result of the original tariff being set at too high a level, the cost of the Non-Domestic NIRHI Scheme was projected to be much more than the available budget for 2015-16 and for future years. As a result, on 17 November 2015, the Northern Ireland Assembly approved the 2015 Regulations.

The 2015 Regulations introduced a new tariff structure for new accreditations for small and medium biomass boilers from 18 November 2015, which included tiering and an annual usage limit on heat payments.

The tiered tariff structure, which is still currently in place, was intended to reduce the scope for overcompensation to Scheme participants by placing limits on the amount of payment they receive in respect of the fixed capital cost of a boiler.

The tiered tariff structure initially only applied to new accreditations to the Scheme from November 2015. However there was a spike in applications immediately prior to the introduction of new tariffs, which resulted in a further increase in the projected cost of the Scheme.

In response, the Department introduced the Renewable Heat Incentive Schemes (Amendment) Regulations (Northern Ireland) 2016 (‘the 2016 Regulations’) in February 2016. These Regulations gave the Department the power to suspend the NIRHI Scheme to all new applications on the grounds of budgetary pressures. The Department suspended the Scheme to new applicants on 29 February 2016.

However, it was clear that the actual and forecast budgetary position was still unaffordable, even after the suspension of the Non-Domestic Scheme. It was also apparent that many of the participants were receiving payments that would generate a forecast rate of return significantly above the 12% target. In order to address this, legislation was introduced to extend the tiered tariff to small and medium biomass installations that had been accredited before 18 November 2015.

The 2017 Regulations, which came into force on 1 April 2017, moved all small and medium biomass boilers to the same tiered tariff structure introduced by the 2015 Regulations. The 2017 Regulations were intended as an interim measure and brought the Scheme expenditure more in line with the available budget from Treasury. While the provisions in the 2017 Regulations were planned to apply for one year only, it has been necessary to extend them for a further year, via the Northern Ireland (Regional Rates and Energy) Act 2018 with the intention of introducing a long-term payment structure from 1 April 2019.

The legality of 2017 Regulations was the subject of a judicial challenge which was rejected by the High Court. The High Court Ruling has been appealed by the applicant. The outcome of the appeal will be decided by the Court in due course.

In order to inform the development of the options, the Department commissioned energy consultant Ricardo Energy and Environment ('Ricardo') to undertake a review of the current tariff structure. The Ricardo Tariff Review identified three main tariff payment options as well as assessing the impact of the current and previous tariff structures on the NI and GB RHI Schemes.

On 14th June 2018, a public consultation was launched on the Future of the Non-Domestic Renewable Heat Incentive Scheme in Northern Ireland. The primary focus of the consultation was on small and medium biomass boilers, which account for the majority of the projected expenditure on the Non-Domestic RHI Scheme. A total of 258 written responses were received.

The options all relate to the future operation of the Scheme and relate only to future payments, made under future legislation.

### **NI RHI Scheme funding**

Funding for the NIRHI is provided in the form of an Annual Managed Expenditure (AME) budget from the UK Government. This is separate from the Department Expenditure Limit (DEL) funding which is used for most of the public services provided by the NI block grant. However, the Statement of Funding Policy, which sets out the funding arrangements for the devolved administrations, makes it clear that:

*"Where a devolved administration wishes to offer more generous terms for an AME programme, then the excess over that implied by adopting broadly similar criteria to the relevant UK government department ....must be met from within their DEL budgets."*

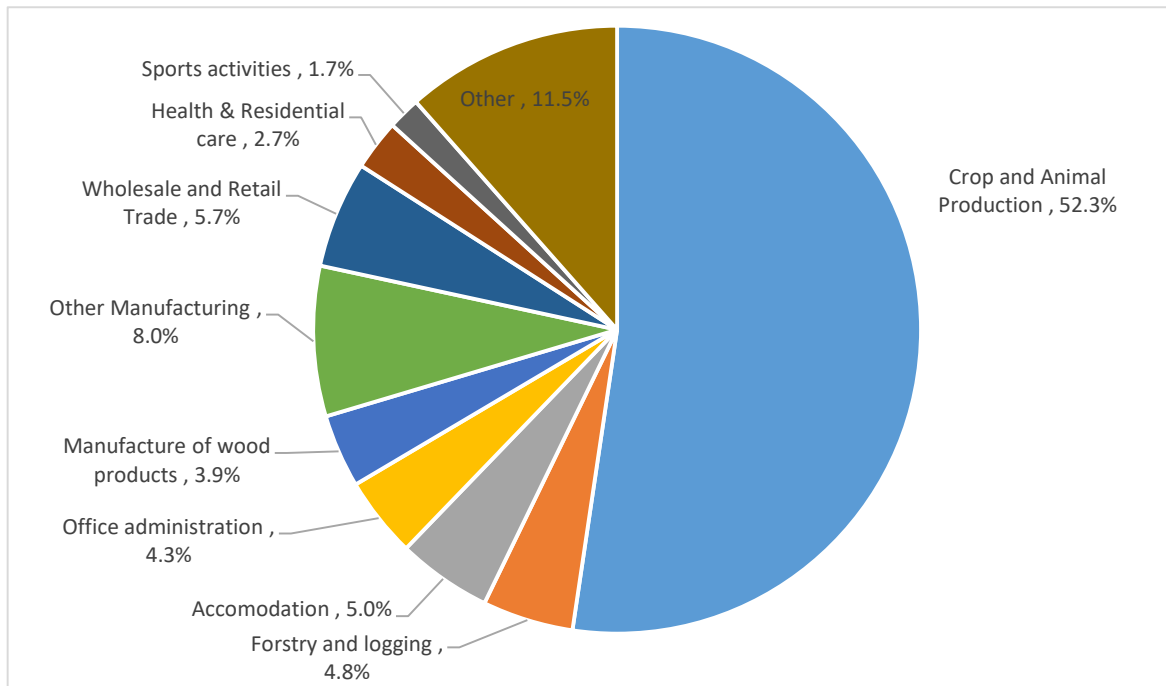
The rapid growth in projected payments for the NI RHI Scheme in 2015-16 meant that the AME was not expected to be sufficient with the result that some of the funding for the Scheme had to come from the DEL budget, at the expense of public services. This led to the suspension of the Domestic and Non-Domestic RHI Schemes for new applications from 29 February 2016 under the 2016 Regulations. Even with Scheme suspension for new applications, the projected existing NIRHI commitments would have far exceeded the available AME budget from 2016-17 onwards if the original 2012 tariff structure had not been amended.

The impact of the extension of the 2017 Regulations through the Northern Ireland (Regional Rates and Energy) Act 2018 has been to bring the Scheme back within budget in the 2018-19 financial year. The budget for the NI RHI Scheme will increase to £28.9 million in 2019-20 with the budget for future years to be set as part of the 2019 Spending Review.

### **Business Sectors benefitting from RHI**

As part of the accreditation process, participants were asked to specify the sector in which their business operated. The proportion of users within each sector is summarised in the chart below. The most popular sector was Crop and Animal Production (52.3%). Within that sector the predominant use was poultry farming.

**Chart 1: RHI Boilers by Sector**



**Urban/Rural Split**

The Department compared postcodes provided on beneficiaries’ application forms with the Northern Ireland Statistics and Research Agency’s Postcode Directory (updated in November 2016) to ascertain the urban / rural split of the location of installations accredited under the Scheme.

The breakdown, which is set out in Tables 1 to 3, indicates that the majority of accredited installations are in rural areas (88%). The split of 12% urban and 88% rural for locations of accredited RHI installations remains approximately the same whether the installations were accredited before or after the 18 November 2015 tariff changes.

The percentage of payments is approximately the same; 91% for rural installations accredited before 18 November and 94% for rural installations accredited after the November 2015 tariff changes. These figures indicate that the overwhelming financial benefit of the Scheme went to rural businesses with either pre or post 18 November 2015 installations.

**Table 1: Pre 18 November 2015 Count & % of Installations and Count & % of Payments Split by Urban/Rural**

	Number	%	Payments to 31 March 2018	%
<b>Urban</b>	212	12%	£7,796,318	9%
<b>Rural</b>	1589	88%	£76,836,644	91%
<b>Total</b>	1801	100%	£84,632,962	100%

**Table 2: Post 18 November 2015 Count & % of Installations and Count & % of Payments Split By Urban/Rural**

	Number	%	Payments to 31 March 2018	%
<b>Urban</b>	41	13%	£326,888	6%
<b>Rural</b>	286	87%	£5,142,533	94%
<b>Total</b>	327	100%	£5,469,421	100%

**Table 3: Total Count & % of Installations and Count & % of Payments Split by Urban/Rural**

	Number	%	Payments to 31 March 2018	%
<b>Urban</b>	253	12%	£8,123,206	9%
<b>Rural</b>	1875	88%	£81,979,177	91%
<b>Total</b>	2128	100%	£90,102,383	100%

## Direct costs and benefits to business

There have been over 2,000 renewable energy installations approved to date under the Non-Domestic NIRHI Scheme with an overall installation capacity of approximately 211MW.

The RHI tariffs in NI were designed to bridge the gap between existing fossil fuel heating systems and the renewable heat alternative, with consideration given to the additional capital costs, operating costs and the non-financial 'hassle' factors that are involved in replacing existing heating systems with renewable heating technologies. The 2011 consultation advised the tariffs for the Non-Domestic NI RHI would be developed using similar methodology to that used by DECC in designing the tariffs for the GB RHI. The tariffs set by DECC were designed to provide a rate of return of 12% (considering the capital costs, operating costs and non-financial 'hassle' costs) across each technology.

The assumption was that the additional renewable heat would act as a replacement for heat previously generated by fossil fuels. However, in their application forms to the Scheme only one third of participants indicated that their boiler would be replacing an existing heating source, although some of the remainder may be in respect of a new heat requirement that would otherwise use a fossil fuel source of heat. In addition, the meter readings provided to date suggest that some installations are generating more heat than was originally expected.

## Rationale for Intervention/Policy Objective

The Department has a responsibility to develop and implement a long-term policy to replace the current interim arrangements. The Department is aiming to balance its obligation to provide ongoing payments to Scheme participants, with its duty to safeguard the public interest including Value for Money, impact on NI Executive Budget and State aid compliance.

## Rationale and evidence that justifies the level of analysis used in the RIA

A partial RIA was made available (along with a draft RNIA) as part of the consultation exercise. No comments were made by respondents on either document.

However, where specific information, particularly on costs associated with biomass installations and the impact of tariff changes on businesses, were identified through the consultation exercise, it was used to inform the development of the detailed business Case which analysed the available evidence prior to identifying the preferred long-term policy option.

## Description of Options Considered

The Department consulted on eight tariff options for small to medium (up to 200kW) biomass boilers which comprise over 95% of installations on the Scheme:

1. Cease payments;
2. Retain tariff structure under the 2017 and 2018 legislation;
3. Revert to original tariff structure under 2012 Regulations (including post 18 November 2015 installations);
- 4(i) Adopt the base case tariff structure proposed in the Ricardo Tariff Review (the 'Tariff Review');
5. Adopt the tariff structure from the Tariff Review excluding fuel costs;
6. Adopt the hybrid tariff structure from the Tariff Review;
7. Adopt the current GB tariff structure; or
8. Adopt the tariff structure for entrants to the GB Scheme in autumn 2015.

The consultation document also considered the potential for a one-off compulsory buy-out payment. This would involve a one-off payment being made to participants, which would reflect the projected additional lifetime cost of a biomass boiler minus the level of RHI payments received to date, in place of ongoing tariff based payments. However, to encourage the continued provision of meter readings, a £100 payment would be made for every meter reading submitted.

In addition to consideration of a compulsory buy-out, the consultation document also sought views on:

- What level (if any) should be used for the Annual Usage Limit;
- Issues for other technologies and large biomass installations;
- What basis (if any) should be used for the annual inflationary uplift in tariff levels; and
- The need for public subsidy to encourage the deployment of Combined Heat and Power (CHP) plants.

The Department also considered a voluntary buy-out element within some of the options for those Scheme participants who wish to withdraw from the Scheme because their specific circumstances mean that their boiler investment would not generate the 12% target rate of return. In return for surrendering their right to ongoing NIRHI payments, participants would be provided with compensation.

A key consideration in deciding upon the preferred option was whether there would be expected to be a challenge from the European Commission in respect of State aid. Whilst the State aid approval decision for the original NI RHI Scheme made reference to an 8-22% range of rates of return, in further discussion Commission officials have clarified that a payment structure which provide a rate of return higher than 12% would not be acceptable. In the context that Option A4 was involved a negative Tier 2 tariff, that might result in participants switching to fossil fuel, a variant Option A4 (ii) was developed. This is based on a zero Tier 2 tariff with the Tier 1 tariff set at the level required to provide a 12% rate of return for the typical installation.

## Analysis of Options

Analysis indicates that the large majority of the expenditure on the Non-Domestic NI RHI Scheme is in respect of small and medium sized biomass boilers. For this technology and size bands, the option chosen in respect of the long-term tariff structure will have a significant impact on the cost of the Scheme both in 2019-20 and for the remaining years of payment. Reverting to the 2012 Regulations under Option 3 would be expected to cost more than £1billion between 2019-20 and 2036-37. This is more than double the level of available funding and would impose a significant cost on the NI Executive

Other than Option 3 (Revert to tariff structure under 2012 Regulations), all options contained in the consultation, are anticipated to be affordable within the allocated budget. The projected total cost for each tariff option is shown in the table below:

Tariff Option	Estimated Total Cost (£m)	
	2% Inflation	3% inflation
1. Tariff structure under the 2017 and 2018 legislation is not continued	0	0
2. Retain tariff structure under 2017 and 2018 legislation	440	480
3. Revert to tariff structure under 2012 Regulations	940	1,020
4(i). Adopt the base case tariff structure from the Ricardo Tariff Review	65	70
4(ii) Ricardo Tariff Review base case with zero Tier 2 tariff	70	75
5. Adopt the tariff structure from the Ricardo Tariff Review excluding fuel costs	160	170
6. Adopt the hybrid tariff structure from the Ricardo Tariff Review	120	130
7. Adopt the current GB tariff structure	330	360
8. Adopt the tariff structure for entrants to the GB Scheme in autumn 2015	290	310

With the exception of Options 1 and 4, the prospective rate of return for each of the options in the consultation document are anticipated to deliver a rate of return which would not be compliant with the State aid rules.

Option	Estimated Rate of Return for typical installation (%)
1. Tariff structure under the 2017 and 2018 legislation is not continued	0
2. Retain tariff structure under 2017 and 2018 legislation	50
3. Revert to tariff structure under 2012 Regulations	100
4(i). Adopt the base case tariff structure from the Ricardo Tariff Review	12
4(ii) Ricardo Tariff Review base case with zero Tier 2 tariff	12
5. Adopt the tariff structure from the Ricardo Tariff Review excluding fuel costs	25
6. Adopt the hybrid tariff structure from the Ricardo Tariff Review	19
7. Adopt the current GB tariff structure	40
8. Adopt the tariff structure for entrants to the GB Scheme in autumn 2015	35

While the original Option 4(i) is affordable and provides a prospective rate of return of 12%, the introduction of a negative Tier 2 tariff could be disruptive to participants' cash flow which was a key area of concern raised during the consultation exercise.

Further, any future payment structure must be able to be implemented by the Department, Ofgem and Scheme participants. The introduction of a negative Tier 2 tariff as described in the consultation would require users with higher load factors to receive incentive payments early in the year before then making payments back to the Department/Ofgem as they move onto the second (negative) tier.

This additional time and expense, to both the Department and Scheme participants, is considered sub-optimal. Therefore, the Department has identified its preferred long-term tariff for small and medium sized biomass boilers on the non-domestic RHI Scheme as Option 4(ii) with a Tier 1 tariff of 1.7p/kWh and a Tier 2 tariff of zero p/kWh. This adjustment of the tiered tariffs under the preferred policy recommendation would deliver the same overall return without the need for a negative Tier 2.



Like the original Option 4(i), the amended Option 4(ii) would include a Voluntary Buy-Out. In light of the amended tariff having the potential to result in a greater number of boiler not achieving a 12% rate of return the annual funding for the Voluntary Buy-Out has been increased from £2.0 million to £4.0 million so that the amended Option 4(ii) has a total cost of £8.0 million in 2019 - 2020.

In assessing each option, the Department also considered non-monetary costs and benefits. The main non-monetary factors in respect of the NI Non-Domestic RHI Scheme include:

- Environmental impact-
- Economic impact-
- Reputation of Department-

Set out below is an assessment of each of the options in respect of these criteria.

### **Environmental Impact**

The primary objective of the Scheme is to support an increase in the amount of heat generated in NI from renewable heat sources by 2020. However increasing the generation of renewable heat is not an end in itself, but instead a mechanism to reduce the level of carbon emissions as the ultimate goal and it is not necessarily the case that the option with the highest level of renewable heat is best in respect of its environmental impact.

There is evidence that the tariff for small and medium sized biomass boilers before the extension of a tiered tariff structure at the start of 2017-2018 resulted in an incentive for Scheme participants to generate more heat than was required. It is not clear if further changes in tariff levels would have an additional impact now that the perverse incentive has been removed and the level of heat being generated should be at the level required to meet business needs.

However more heat may still be being generated by participants than would be the case in the absence of the RHI. This implies that whilst changes in the tariff levels may have an impact on the level of renewable heat produced, there will be less of an impact on the ultimate environmental objective in respect of the level of carbon emissions.

On this basis, Options 2 to 8, excluding Option 3, have broadly the same environmental impact whilst Option 1 has a slightly lower impact. Option 3 would have the lowest environmental impact due to the incentive to produce unnecessary heat in order to increase RHI payments and hence unnecessarily increase carbon emissions.

### **Economic impact**

The NIRHI is primarily an environmental scheme. However, installing and operating the renewable heat installations was expected to be some economic impacts, although these would have already have been accrued and are not relevant in respect of the long term payment structure.

In terms of other economic impacts, although the tariff included compensation for the additional labour costs associated with renewable heat, it was not expected that operation of a renewable heat boiler would require more staff. In addition, whilst the excess payments previously provided to participants may have been used as a subsidy for their wider business interests, this unintended benefit was not an objective of the Scheme.

While amending the level of RHI tariffs to better reflect the additional costs of renewable heat may reduce the associated profits, for individual Scheme participants, it is not expected to have a material impact on the wider economy. On this basis, there is assessed to be no significant difference between the options in respect of their economic impact.

### **Reputation of Department**

The reputation of the Department for the Economy, the NI Executive and the NI Civil Service has been diminished by the previous mismanagement and exploitation of the NI RHI Scheme. This includes inadequate responses to allegations of fraud on the part of Scheme participants and insufficient weight given to value for money and affordability considerations. All are linked to the initial tariff structure for small and medium sized biomass boilers, with the single tier tariff resulting in the rate of payments being greater than the marginal cost of generating heat. This in turn created the perverse incentive to generate as much heat as possible regardless of the business requirements and/or the eligibility criteria for the Scheme.

In this context, the more the expected rate of return under each option deviates from the original 12% target, the greater the potential for further reputational damage.

### **Risks and Assumptions**

There are a range of risks associated with each of the options:

#### **Budgetary**

With the exception of Option 3, all options are affordable within the available budget. However, the risk remains that the assumptions underpinning the cost projections are not reflected in the actual outcomes. These include:

- Installations not yet accredited - although a conservative approach has been adopted, there is significant uncertainty in respect of when, or if, the outstanding applications will be accredited onto the Scheme, as well as what their level of usage will be;

- Variation in fuel usage over time - the assumption has been that the level of heat generation in 2018-19 will be in line with the average to date. However, this average has often been on the basis of a small number of quarterly readings. Furthermore, whilst the overall average load factor for the Scheme is broadly stable between years, the monitoring of meter readings has highlighted significant variations for individual installations;
- Behavioural response - the monitoring data suggests that the main behavioural response by participants in response to the 2017 Regulations has been in respect of the overall 400,000kWh usage limit. Although this has already been reflected in the cost projections there remains the possibility that there will be a significant reduction in the usage of boilers towards the 1,314 hours Tier 1 threshold; and
- Rate of inflation - whilst a conservative approach has been taken, using the latest OBR projections for the rate of RPI inflation, there remains the potential for a higher or lower figure.

Close monitoring will be required throughout the lifetime of the Scheme to gauge these various budgetary risks and to update the cost projections where necessary.

### **Financial Return (Rate of Return)**

Although Option 4 would be expected to provide a 12% rate of return on a prospective basis, if previous over compensation was taken into account the rate of return would be significantly higher. The prospective rate of return for all other options is considerably in excess of 12%.

### **Legal Risk**

Any long-term policy option must be legally defensible.

The 2017 Regulations were subject to a legal challenge by way of an application for judicial review of the legislation. The Department responded that it was within its rights to make amendments to the tariff structure when it is in the public interest. This was in the context that the tariff structure under the 2017 Regulations still provides those investing in renewable heat technologies with a generous rate of return. Although the Judicial Review was dismissed, it is now subject to an appeal, brought by the applicants.

In his Judgement (Para 216) dismissing the application for Judicial Review, Mr Justice Colton indicated that one of the applicants (an RHI Scheme participant) did enjoy a right to ongoing payments under the 2012 Regulations for the Scheme. This implies that ceasing payments under Option 1 would be expected to be subject to successful legal challenge.

Mr Justice Colton indicated (Para 437) that "In conducting the ultimate balancing test between the demands of the general interest of the public and the requirements of the individual's fundamental rights I am particularly influenced by my conclusion that the tariffs are being used to subsidise and support businesses rather than bridging the gap between the cost of converting heating systems which is their real purpose". As all of the other tariff options would provide overcompensation to subsidise the wider business interests of participants, only tariff options 4 to 6 appear to meet this test.

Although there is risk of a further legal challenge to the long-term tariff structure, the Department is confident that it could be defended, on the basis of objective evidence, as being in the public interest

### **Operational Risks**

Any future payment structure must be able to be implemented by the Department and its delivery partner, Ofgem. The introduction of a negative tier 2 tariff as described at Option 4 as described in the consultation documents could prove very difficult to administer.

Ofgem have been able to implement previous changes to the payment structure including amended tariffs and the introduction of a tier with relative ease. Therefore, each of the options involved in the continued operation of the NI RHI Scheme are assessed as being broadly similar in terms of ease of implementation.

### **Risk of not receiving State aid approval**

In identifying a preferred option, the Department must ensure that State aid rules are adhered to.

The Department has been in regular contact with the European Commission throughout the policy development process in an effort to ensure the future payment structure is compliant with State aid rules. In recent months Commission officials have made it clear that a prospective rate of return higher than 12% would not be compliant with State aid.

Breaching State aid rules can have serious consequences for both policymakers and for businesses in receipt of State aid including for example recovery of aid, suspension or withdrawal of aid schemes and penalties or fines.

### **Rural Proofing**

A rural proofing exercise has been carried out.

### **Enforcement and Sanctions**

Ofgem inspections have been undertaken since the Scheme was introduced and have provided valuable information on ongoing compliance with the Scheme Regulations and the amount of heat produced. The ongoing

Department-led site inspections and desk audit programme together with a robust monitoring and enforcement regime will continue throughout the lifetime of the Scheme.

## Conclusion

The Department has identified its preferred long-term tariff for small and medium sized biomass boilers on the non-domestic RHI Scheme. It proposes to amend Biomass Tariff Option 4 (Ricardo Tariff Review Base Case) by setting the Tier 2 tariff at zero and reducing the Tier 1 tariff to 1.7p/kWh. The tariff will be subject to an annual inflationary uplift using the Consumer Price Index. It is not proposed to include an annual usage cap measured.

## Monitoring and Review

The Department, in liaison with Ofgem, will continue to monitor the NIRHI Scheme to ensure that it is delivering the anticipated benefits.

Option	Basis of Payment			NPC £m	Non-Monetary Assessment	
		Tier1 (p/kWh)	Tier 2 (p/kWh)		Environmental	Rate of Return
Ongoing Payment Options						
A1	Do nothing- cease payments	0.0	0.0	0	Low/Medium	Medium
A2	Extend 2017 Regulations	7.2	1.7	293	Medium	Low
A3	Revert to 2012 Regulations	7.2		624	Low	Low
A4(i)	Tariff Review- Base Case	2.3	-0.4	45	Medium	Medium
A4(ii)	Tariff Review Base Case with zero Tier 2 tariff	1.7	0.0	51	Medium	Medium
A5	Tariff Review- Base Case excluding fuel costs	3.4	0.5	108	Medium	Low/Medium
A6	Tariff Review (hybrid)	2.9	0.0	81	Medium	Medium
A7	GB Tariff Structure- Current	3.11	2.18	223	Medium	Low
A8	GB Tariff Structure- Oct 15	4.67	1.24	195	Medium	Low