

From: [Murphy, Shane](#)
To: [Cooper, Trevor](#)
Subject: NI Renewable Heat Incentive and Renewable Heat Premium Payments
Date: 11 June 2015 15:30:04
Attachments: [NI Renewable Heat Incentive and Renewable Heat Premium Payments.doc](#)

Tariff review: Not only a DFP condition but DETI Policy recommended to the Minister – see para 12

From: Fiona Hepper

Date: 16 March 2012

To: 1. Andrew Crawford
2. Arlene Foster MLA

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THE NORTHERN IRELAND RENEWABLE HEAT INCENTIVE AND RENEWABLE HEAT PREMIUM PAYMENTS

Issue: This submission seeks approval to proceed with the introduction of a Northern Ireland Renewable Heat Incentive (NI RHI) and the associated Renewable Heat Premium Payments (RHPPs).

Timing: Urgent

Need for referral to the Executive: Not at this time.

Presentational Issues: None

Freedom of Information: Elements of this submission may not be disclosable at present on grounds of policy development.

Programme for Government: A target for renewable heat is in the Programme for Government.

Financial Implications: HMT has advised that £25m of AME is available over the spending period 2011-2015 for a Northern Ireland RHI.

Statutory Equality Obligation: An equality screening form has been completed for this policy.

Legislation Implications: None.

Recommendation: It is recommended that you note this briefing, approve the final NI RHI and RHPP policies and confirm that you are content for the schemes to proceed. You are also asked to endorse and sign the statement at the foot of the Regulatory Impact Assessment.

Background

The EU Renewable Energy Directive (RED) (2009/28/EC) set a binding target that 20% of the EU's energy consumption should come from renewable sources by 2020. The UK share of this target commits the UK to increasing the share of renewable energy to 15% by 2020 and Northern Ireland is expected to contribute to this share. The Department of Energy and Climate Change (DECC) has indicated that renewable heat levels of around 12%, coupled with 30% renewable electricity consumption are required for the UK to meet its requirements and a target of 10% renewable heat for NI by 2020 was therefore included within the Strategic Energy Framework; this is a challenging target given that the current level is 1.7%.

2. £860million has been made available from central Government funding to support the introduction of a Renewable Heat Incentive (RHI) in GB over the period 2011-2015; HMT has notified the Northern Ireland Executive that £25million of funding is available for a NI RHI over the same period.
3. You are aware that in July 2009 the Department for Energy and Climate Change (DECC) announced its intention to introduce a Renewable Heat Incentive and that a scheme was introduced in GB on 28 November 2011. Given the very different heat market in Northern Ireland, it was agreed that it would be appropriate to separately assess how the NI renewable heat market could be best developed. You will recall that you announced, in September 2010, that a NI RHI would be introduced to support renewable heat installations (commissioned from 1 September 2010) if, after a full economic appraisal, it was considered to be viable and economic to do so.
4. A procurement exercise was undertaken resulting in the appointment of Cambridge Economic Policy Associates in conjunction with AEA Technologies (CEPA/AEA) to conduct an economic appraisal to consider the most appropriate form of a Renewable Heat Incentive (RHI) for Northern Ireland. This work was completed in June 2011 and formed the basis for the proposals contained in the public consultation which was launched on 20 July 2011. The consultation ended on 3 October 2011; 78 responses were received and you received briefing (11/11/11) on the main issues raised by consultees. In light of the consultation responses, DETI engaged CEPA/AEA in December 2011 to conduct some further analysis, particularly regarding tariffs, banding & technologies. CEPA/AEA produced a report on this additional analysis (Feb 2012) and that has informed the final policy presented here for approval.

NI Renewable Heat Incentive (NI RHI)

5. The NI RHI represents a long term approach to developing the renewable heat market by providing consistent, secure, long term payments for renewable heat generation. The incentivisation involves payments to installers of renewable heat technologies, with tariffs dependent on the type and size of technology installed, and in the form of pence per kilo watt hour (p/kWh) for heat generated. Payments will be made quarterly over a 20 year period for all eligible installations (following accreditation) and it is proposed that the scheme will be open to new installations until 31 March 2020; this is in line with the GB RHI.

6. The NI RHI tariffs have been calculated to cover the cost difference between traditional fossil fuel heating systems and a renewable heat alternative. The tariffs account for the variances in capital costs, in operating costs, as well as seeking to address non-financial 'hassle' costs. The tariff is generated against a counterfactual position of heating oil; this is due to the fact that Northern Ireland is primarily dependent on oil and most of those switching to renewable heat will be oil consumers.
7. Tariffs vary depending on the type and size of technology to ensure that financial support is targeted for the specific installation and so over-compensation is avoided. Tariffs are paid for 20 years (the lifetime of the technology) and are 'grandfathered'¹; however they will be amended on a yearly basis, for existing installers and new schemes, to reflect the rate of inflation.

The tariff setting methodology has three general principles:

- Renewable installations are divided depending on the type of technology and size of installation;
- Within each banding a reference technology² is chosen to develop a consistent tariff across technologies and scales; and
- The net costs (difference between capital and operating costs of fossil fuel counterfactual and renewable alternative) are calculated and a tariff determined

To generate the appropriate tariff the difference in costs between the renewable technology and the fossil fuel counterfactual is determined and this figure is divided by annual heat output to demonstrate the appropriate tariff.

8. RHI payments will be made on a quarterly basis and are determined by multiplying the applicant's actual (metered) heat output with the relevant tariff level. Under the RHI only 'useful heat' is deemed eligible; this is defined as heat that would otherwise be met by fossil fuels, this excludes deliberately wasting or dumping heat with the sole purpose of claiming incentive payments.
9. It is proposed that the NI RHI will be introduced in two phases. The first phase will commence as soon as possible after 1 April 2012 and will be for non-domestic installations. There will be four eligible technologies – biomass, biomethane, ground source heat pumps and solar thermal – and tariffs will be as presented below.

¹ Provides certainty for an investor by setting a guaranteed support level for projects for their lifetime in a scheme, regardless of future reviews

² In order to set a fixed incentive rate for each band a 'reference installation' is chosen and the tariff set relates to this installation and provides appropriate subsidy to make it viable. In line with DECC's methodology, the reference installation is chosen as the installation requiring a subsidy that would incentivise half of the total potential output from the technology that could be taken up across the period 2011-20 if that rate was offered to that band in every year. Total potential output is calculated as heat output that could be achieved if all technically viable segments within the band installed the technology.

Technology	Size	Proposed tariff	Equivalent tariff in July 2011 consultation	GB equivalent tariff
Biomass	Less than 20kWth	6.2	4.5	³ Tier 1: 7.9 Tier 2: 2.0
	Between 20kWth and 100kWth	5.9	⁴ 4.5	Tier 1: 7.9 Tier 2: 2.0
	⁵ Between 100kWth and 1000kWth	1.5	1.3	⁶ Tier 1: 4.9 Tier 2: 2.0
Biomethane	Biomethane all scales, biogas combustion less than 200kWth	3.0	2.5	6.8
Ground source heat pumps	Less than 20kWth	⁷ 8.4	4.0	4.5
	Between 20kWth and 100kWth	4.3	4.0	4.5
	Between 100kWth and above	1.3	0.9	3.2
Solar thermal	Below 200kWth	8.5	8.5	8.5

10. You will wish to note that biomass installations over 1MW in size will not receive a tariff under the current banding proposals. The reason for this is that, following the additional analysis, it appears that it would be cost effective for these sites to change to a renewable technology without an incentive. Indeed, when calculating a tariff for these technologies, using the same methodology as for the other tariffs, the proposed value is negative i.e. no tariff is required. The assumptions used in considering the over 1MW tariff are as follows;

³ TIERING is used to ensure the technology is not 'over-used' just to receive an incentive. It works by dropping the paid tariff after the technology reaches its optimum use for the year; this is deemed at 1314kWhrs (15% of annual hours). After this level is reached the tier 2 tariff is paid. TIERING is not included in the NI scheme because in each instance the subsidy rate is lower than the incremental fuel cost.

⁴ Previous consultation set out a tariff of 4.5p/kWh up to 45kWth and then 1.3p/kWh above

⁵ The GBRHI has an open band above 1000kWth of 1p/kWh. Given the oil counterfactual it is deemed that Northern Ireland installations over 1000kWth are already cost-effective to 2020 and therefore do not require an incentive. If evidence to the contrary is provided by stakeholders this upper limit will be reviewed under Phase 2 of the RHI.

⁶ As the GB banding is different the tariff of 7.9p/kWh applies up to 200kWth and then it drops to 4.9p/kWh

⁷ This tariff reflects a deeming approach for the domestic sector. If a metered approach was introduced a tiered tariff would be more appropriate. This would be 9.3p/kWh for the first 1314 hours and then 4.9p/kWh after that.

	Industrial biomass boiler over 1MW	Conventional oil boiler over 1MW
Capex (£/kw)	316	31
Opex (£/kw/year)	14.38	0.23
Efficiency (%)	81	89
Load factor (%)	82	82
Lifetime (years)	20	20
Fuel costs (p/kWh)	2.5	4.8

Using these assumptions the following example can be generated for a 3MW biomass system being installed instead of a similar oil system.

	Biomass (3MW)	Oil (3MW)	Difference in costs
Overall capital cost	£995,000	£95,000	£900,000
Yearly operating cost	£43,000	£600	£42,400
Annual fuel costs	£800,000	£1,210,000	£410,000
Total annual operating cost	£843,000	£1,210,600	(£367,600)

In this scenario, whilst the upfront capital cost is £900k more than the counterfactual on an annual basis around £370k is being saved, this results in the capital costs being recovered in less than 3 years. If a tariff of 1p/kwh was set for installations over 1MW the annual payment for this installation would be around £215,000, this would reduce the payback to around 18 months. Given these figures and these assumptions, a tariff for larger biomass heating systems cannot be justified. However, if evidence is produced to challenge the underlying assumptions, a tariff could be considered under Phase 2 of the scheme.

- In Phase 1, as the RHI only applies to the non-domestic sector, all renewable heat installations will be required to be accompanied with a heat meter that will determine actual heat output. Heat meters are already common in many commercial applications and therefore should not be a barrier to uptake. Meters will allow for accurate readings to be taken of actual heat usage and appropriate payments made. They will also ensure accurate statistics are maintained throughout the lifetime of the scheme. All beneficiaries will also be required to submit an annual declaration to the scheme administrator to confirm that the installation is in working order, being maintained and is being used for eligible purposes. There is an obvious incentive to keep the equipment maintained given that payments are made on metered output.

12. It is expected that the NI RHI will be open to new installations until 2020, meaning the final payment from the scheme will be in 2040. The NI RHI will have scheduled reviews built-in to the scheme to allow DETI to ensure that the scheme remains fit for purpose and value for money for the duration. The scope of these reviews will include analysis of tariffs (either to be reduced or increased), the appropriateness of technologies (remove existing technologies or add new innovative ones) and the assessment of effectiveness and success.
13. Phase 2 of the scheme will extend the NI RHI to domestic installations. As the sector with the largest heating demand, the deployment of renewable heat within the domestic sector will be vital in supporting the achievement of the 10% target. However, a phased approach will allow DETI to carry out the further analysis that is necessary to understand the appropriate design for the domestic market scheme including whether heat should be metered or deemed. This is in line with the approach taken in GB.
14. Phase 2 may also include the introduction of further eligible technologies if these are shown to be viable and require an incentive to develop the market within NI. The timing of Phase 2 will be dependent on progress on Phase 2 of the GB scheme as we can then benefit from the lessons learned and from economies of scale in terms of developing the administrative system. DECC has publicly indicated that Phase 2 of its scheme will commence in October 2012. However, following recent discussions it would appear that this phase of the scheme might well be delayed in GB; it is therefore proposed that the second phase of the NI RHI will commence as soon as possible after 1 April 2013.

Renewable Heat Premium Payments (RHPPs) for the domestic sector

15. In the interim it is proposed to introduce a RHPP for the domestic market. These one off grant payments will assist in the capital costs of the renewable heat installation.

Technology	Support per unit (£)
Air Source Heat Pump	1700
Biomass boiler	2500
Ground Source Heat Pump	3500
Solar Thermal	320

16. In line with GB, all installations under the scheme will be required to be certified under the UK Microgeneration Certification Scheme (MCS) and installed by MCS accredited installers. Applicants will be required to provide routine information on the technology installed, to assist in developing the understanding of renewable heat performance and use in the domestic sector. As well as surety in product and installation standards, by following this route Northern Ireland will also be able to learn from all the experience and research gained through the GB RHPP.
17. Those availing of the RHPP will remain eligible for a longer term tariff when Phase 2 of the RHI commences. However, the lifetime of the tariff under the RHI will be reduced accordingly so that all customers are equally incentivised. For example, a domestic customer who has availed of the RHPP will only receive 18 years of an RHI rather than the standard 20 years (the value of the RHPP has been set at the equivalent of 2 years RHI payments).

18. The RHPP scheme was part of the consultation exercise and the majority of those responding agreed with the rationale for treating the domestic sector separately. However it was also felt that any delay in introduction should be kept to the minimum and that clear plans were made for domestic customers as soon as possible to remove any uncertainty from the market.
19. The RHPP scheme will be administered within DETI Energy Division. Customers will apply direct to the Department where an initial assessment of eligibility will be undertaken. Successful applicants will then be issued with a voucher guaranteeing the RHPP once the technology is installed subject to terms and conditions. Once the installation is completed it will be inspected and payment made. Vouchers will not be redeemable beyond 31 March 2013.

Legislation

20. The primary power to enable DETI to make regulations for a NI RHI scheme to encourage renewable heat was incorporated into the Energy Act 2011⁸ which was given Royal Assent on 18 October 2011. The necessary secondary legislation is now being drafted; we will then proceed to lay the Renewable Heat Regulations through draft affirmative resolution procedure in the Assembly. A SL1 letter is attached at **Annex A** for onward transmission to the ETI Committee, if you are content to proceed.
21. A Regulatory Impact Assessment (RIA) has been completed in respect of the RHI scheme and accompanying Regulations (Annex B). There is no requirement to issue the RIA to the ETI Committee. It is retained in DETI and made available on the Department's website.

Development of an administrative system

22. The introduction of a RHI requires an administrative system capable of managing enquiries and applications, ensuring participants meet ongoing obligations throughout the life of the scheme, processing payments, preventing fraud and providing management information. The Office of Gas and Electricity Markets (Ofgem) has developed such a system for DECC and is already managing the administration of the GB RHI. In addition, it has experience of delivering other large scale incentive schemes such as the Renewables Obligation, (including the NI Renewables Obligation for DETI), and the Feed-in-Tariff. It was considered that there could be significant advantages in utilising the existing systems and so a direct award contract was awarded to Ofgem to carry out a feasibility study into how the DECC GB RHI system could be used as a basis for an administrative system for the NI RHI.
23. The study concluded that Ofgem had the operational structures in place to deliver an administrative system, tailored specifically for NI, following a development phase of approximately 4 months. The cost of the development work would be £386K. Forecasts of operating costs for the next four years are £136K, £157K, £ 198K and £249K based on NI accounting for a 3% share of the workload. In any case, Ofgem has confirmed that it will only pass through actual costs to DETI.

⁸ <http://www.legislation.gov.uk/ukpga/2011/16/part/3/crossheading/northern-ireland-renewable-heat-incentives>

24. Exploiting synergies with the GB RHI will drive down the costs of administering the scheme whilst maintaining a high quality service to generators. For example, using the existing Customer Relationship Management (CRM) Software will save NI an estimated £100-150K, while using the existing SUN system to make generator payments, instead of a payment service provider, could save in the range of £100 - 500K. In addition, using the main existing RHI register instead of commissioning a bespoke IT system is expected to save between £2m and £3m. Overall, it is estimated that using Ofgem's existing systems could save somewhere between £3.2million and £5.15million with additional ongoing operational savings.
25. Responses to the consultation were mixed in terms of who should administer the NI RHI. Some consultees felt that the use of Ofgem would be beneficial in terms of efficient delivery, consistency and reduced administrative costs. Others argued that the scheme should be administered locally with the possibility of creating new jobs and skills in NI. However, the completion of this feasibility study provides clear evidence that there are substantial gains (both in terms of efficiency and cost) to be had from utilising the existing GB system. Looking forward, there is the additional advantage that we would only be required to pay our share of any future development or enhancement costs.
26. It is therefore proposed to appoint Ofgem to administer the scheme under a Direct Award Contract (DAC). This has been discussed with colleagues in Central Procurement Directorate and they are content. A separate paper will be coming to you via the Accounting Officer for your formal approval to appoint Ofgem.

Approvals

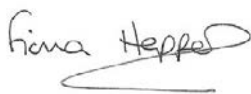
27. Before the NI RHI can be introduced we need approval from the EU Commission that the proposals are compatible with the Guidelines on State Aid. A notification paper was submitted to the Commission in December 2011. The application was timed to benefit from the lessons learned by DECC from its RHI application (as the two schemes are similar). It is hoped that by addressing the Commission's concerns regarding the GB scheme prior to submitting our application, the approval process might run more smoothly. It is hard to predict exactly how long the approval process will take. In the last few days we have been told we can expect to hear from the Commission in the next two weeks; however, this contact may simply be to request further information or to pose questions. It is unlikely therefore that we will begin the scheme much before June given that we need the State aid approval, DFP approval and the Regulations have to be passed by draft affirmative resolution which includes a debate in the Assembly.
28. The proposals for the NI RHI and associated Premium payments were considered by the DETI Casework Committee on 9 March 2012. The Committee was content subject to us gaining Accounting Officer approval for the DAC, alerting TMT to the ongoing administrative costs associated with the projects (as these will have to be found within DETI's existing budgets), approval of the minutes of Casework and further discussion with CPD regarding the specific terms of the Ofgem contract.
29. If the Minister is content with the scheme as outlined above, final approval will be sought from DFP (a Strategic Outline Case has already been approved by DFP).

30. The NI RHI scheme **cannot** commence until all the approvals are in place. The RHPP scheme **can** commence once Ministerial & DFP approval is obtained i.e. State Aid approval is not required.

Recommendation

31. It is recommended that you:

- i. note this briefing, approve the final NI RHI and RHPP policies and confirm that you are content for the schemes to proceed subject to the necessary approvals (as outlined above);
- ii. agree the SL1 (attached at **Annex A**) for onward transmission to the ETI Committee; and
- iii. consider and, if content, sign the Regulatory Impact Assessment (attached at **Annex B**) which should be returned to Energy Division for filing.



FIONA HEPPER
Ext 29215

cc: David Sterling
David Thomson
David McCune
Clare Baxter
Joanne McCutcheon
Peter Hutchinson
Sam Connolly
Susan Stewart
Glynis Aiken

From: [Murphy, Shane](#)
To: [Cooper, Trevor](#)
Subject: RE: NI Renewable Heat Incentive and Renewable Heat Premium Payments
Date: 11 June 2015 16:14:28

Trevor,

Think I can make the 9:30am meeting. However, I'm afraid what I have seen on this only makes it look worse if anything.

Seems that the requirement for regular or periodic review (tariffs and technologies etc) was not just part of the DFP approval but also:

- Part of the Business Case
- Part of DETI Policy (set out in consultation docs)
- Part of the submission to the Minister on proceeding with the scheme
- Part of the State Aid Notification

The 1st Review was to have taken place in 2014 with changes in place by 2015 (April I think) and this is referred to in various documents.

Given the position we are in I suspect we will have to show DFP that we are taking some action to address the underlying situation if we are to stand a chance of them "giving us a break" on this one.

Suggestions to Press Energy On:

- 1) Was that 2014 Review taken forward. If not, could the review could be kicked off urgently to help demonstrate to DFP that we are keen to rectify the situation as soon as possible.
- 2) It seems that for the non-domestic RHI scheme plants need to gain DETI accreditation before they become eligible. At a quick look at the regs there do not appear to be any timeframe in the regs for DETI to confirm or reject accreditation applications. We should ask Energy to look at the scope of suspending the accreditation of new applications to "stop the problem getting worse" while tariffs are reviewed. At the very least they might consider slowing down new accreditations.
- 3) Energy should consider withdrawing the promotion of the scheme to minimise adding to the problem.

If we could do some or all of the above, or some things akin to these, then perhaps we might just be able to paint this as not unreasonable efforts to improve the VFM of the scheme as it has become more apparent that the subsidy was capable of being reduced, and that we are taking action in the intervening period to curtail entering into new commitments until more appropriate tariffs are set. If we can't show any such action then our efforts to demonstrate VFM will only look like words.

Doesn't help that this comes hot on the heels of Invest NI launching Innovation Vouchers in advance on DFP approval – cannot even try pass this off as a one off gaffe.

Shane

Shane Murphy

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From: Cooper, Trevor

Sent: 11 June 2015 15:50

To: Murphy, Shane

Subject: RE: NI Renewable Heat Incentive and Renewable Heat Premium Payments

Shane

Im meeting dfp at 9.30 tomorrow on this with stuart Wightman – might you be free?

Or any points that we might suggest as how we might approach vfm issue (and maybe the overall vfm is the only one that we might be able to cling to but it feels a pretty weak line to me)?

I have a meeting at clare house that i am leaving for now so if you can come along tomorrow great

Trevor

From: Murphy, Shane

Sent: 11 June 2015 15:29

To: Cooper, Trevor

Subject: NI Renewable Heat Incentive and Renewable Heat Premium Payments

Tariff review: Not only a DFP condition but DETI Policy recommended to the Minister – see para

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