

The Business Case doesn't spell out why DETF rejected the challenge fund in favour of a RHI option - As a result DETF needs to spell out Why ! ! .

Domestic "Premium Payments" Scheme

Basically host output "Assumed" or "Deemed" rather than metered for Domestic. However some domestic will be offered financial incentives in return for a more intensive inspection regime (presumably providing data / a sample for the Deemed schemes).

Obvious Questions:

Why not a challenge fund:

~~Consultant~~ Cambridge's Appraisal certainly champions it, ~~really only leave it up~~

Is the HMT funding really only for an RHI Scheme in NI?
 < Any Classification?
 Resource or Capital?

If so then we should be clear to say that while a challenge fund is all very fine and well that HMT's fund is for an RHI scheme & the funding stream knocks on its head this challenge fund idea.

Table 10.2: Total monetised cost of each option, in £m, 2010 prices, compared to "do nothing"

| | Do nothing | Challenge fund | Capital Grant | GB RHI | NI RHI - DECC | NI RHI - Alt |
|-------------------------------------------------------------------------------------------|------------|----------------|---------------|--------|---------------|--------------|
| <i>Funding 1 - Short term funding: £25 m to 2014/15</i> | 0 | 32 | 33 | | | |
| Funding 2 - Long term funding: £25 m to 2014/15, additional £5m/ year from 2015/16 | | 212 | 218 | 519 | 371 | 405 |
| Funding 3 - Long term funding: £25 m to 2014/15, £12m per year thereafter | | 119 | 108 | 186 | 191 | 174 |

Finally, we subtract monetised costs from monetised benefits to yield the net monetised cost/benefit figures in Table 10.3 below.

Table 10.3: Net monetised benefit/ (cost) of each option, in £m, 2010 prices, compared to "do nothing"

| | Do nothing | Challenge fund | Capital Grant | GB RHI | NI RHI - DECC | NI RHI - Alt |
|-------------------------------------------------------------------------------------------|------------|----------------|---------------|--------|---------------|--------------|
| <i>Funding 1 - Short term funding: £25 m to 2014/15</i> | 0 | 14 | -11 | | | |
| Funding 2 - Long term funding: £25 m to 2014/15, additional £5m/ year from 2015/16 | | -24 | -74 | -394 | -217 | -242 |
| Funding 3 - Long term funding: £25 m to 2014/15, £12m per year thereafter | | 50 | -48 | -128 | -98 | -87 |

The first message from these tables is that, purely on the basis of monetised costs and benefits, most of the options – in particular, all the RHI options - have a negative net monetised cost-benefit. This of course takes no account of non-monetised costs and benefits, and is heavily influenced by our assumption about the future carbon price.

In monetised cost-benefit terms; however, the NI RHI – DECC and NI RHI – Alt options are clearly preferable to the GB RHI rates, and as noted earlier they deliver more renewable heat. The choice of RHI rate is therefore between those two options. From Table 3, the cost per unit of renewable heat is comparable for both options, but as Table 1 showed, the "Alt" rates deliver more renewable heat in "funding 2", and roughly the same amount in "funding 3". We therefore recommend those rates.

12. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This section brings together the analysis in the rest of the report, and sets out our overall conclusions and recommendations (as set out individually in appropriate parts of the report). We provide recommendations both on subsidy for renewable heat, and on some of the supporting policies which could help to deliver renewable heat in NI. In doing so, however, this is not intended to be a complete policy package for renewable heat, which is beyond the scope of this study, but a selection of policies which could make an RHI more effective.

12.1. Summary

The initial sections in the report set out the policy context, before describing the workable renewable heat technologies that might be used in Northern Ireland and extent of the subsidy required to make them economic for households and businesses to take up. We then considered the respective pros and cons of different ways in which the necessary support might be best provided, taking into account efficiency and several constraint factors. This was largely undertaken through the development of an economic model. Whilst this was very necessary to undertaking the required analysis, it should always be remembered that models inevitably only provide a partial representation of reality, however sophisticated, and their results should therefore always be interpreted with a degree of caution. Moreover, some issues simply cannot be modelled and must be addressed qualitatively.

The initial modelling was focused on determining the subsidy requirements necessary to make a range of different renewable heating technologies viable. Specifically, this viability was the difference in cost between an oil or gas counterfactual investment, together with a return incentive to promote the change to a renewable alternative. Albeit to varying degrees, all of the conversion costs ran into several thousands of pounds, significant financial outlays for the majority of households.

The analysis also shows how this gap can be funded through either, at one extreme a series of payments over many (twenty) years, or immediately, through an upfront grant. The former approach works by providing so-called “revenue certainty” against which households and businesses may be willing to invest in renewable heat technologies, often by raising finance from third parties. Although on a much smaller scale, this is the same principle as is used in providing FITs to large scale wind-farms, which enables investors and lenders to provide long term financing to such projects. The advantage of such approaches is therefore that in the right circumstances, the available subsidy allows leveraging of debt and equity resources, the commitment of which increases the quantum and speed at which renewable heat technology brought on line (other constraints aside). This is a particularly useful approach where the amount of subsidy available in the early years of a programme is relatively limited. The success of such an approach, though, assuming that the government commitment to continued provision of the subsidy payments over the promised period is seen as being robust, relies on the ability of those receiving the subsidy to raise the necessary finance to purchase the desired technologies.

In the case of households, this can include their ability to borrow. It is important to recognise that there is a difference between creating an incentive for households to borrow to invest in

effective (as well as having potential employment benefits). Indeed, the potential deployment levels that we assume are often the binding constraint.

The next point to note is that under all funding scenarios, the Challenge Fund delivers the most renewable heat. As we will see later, it also scores well on efficiency in terms of cost per unit of heat deployed and on overall cost-benefit. This is because it is competitively allocated; other grant schemes could be expected to deploy heat more slowly than an RHI that gave the same lifetime subsidy per installation (although even the administered grants do better than the GB RHI).

Moving to the RHI options, we can see that it is possible to improve significantly on the GB RHI rates. The figures lead to our recommendation that, on balance, the rates should be set using the "alternative" methodology, since they deliver more heat than the "NI RHI - DECC" rates in the "Funding 2" scenario, and approximately the same level in "Funding 3".

Efficiency

While the tables above show the level of renewable heat deployed, they do not show how efficiently this is done – in other words, how does the deployment score against our key metric of heat per pound? We cannot assume that the level of spending is the same in all scenario/funding combinations, since our analysis suggests that not all the funding will be spent in every scenario. Table 7.4 below looks at the spending in each funding/ policy combination, and shows the cost, in pounds per kWh of renewable heat in 2020. Note that this figure does not take account of the benefits of renewable heat deployed in earlier years, or of the on-going benefits. It is therefore somewhat higher than the figures shown in the "levelised cost" graphs in section 3.

Table 7.4: Average cost in £ per kWh of additional renewable heat in 2020

| | Do nothing | Challenge fund | Capital Grant | GB RHI | NI RHI - DECC | NI RHI - Alt |
|-------------------------------------------------------------------------------------------|------------|----------------|---------------|--------|---------------|--------------|
| <i>Funding 1 - Short term funding: £25 m to 2014/15</i> | n/a | 0.16 | 0.36 | | | |
| Funding 2 - Long term funding: £25 m to 2014/15, additional £5m/ year from 2015/16 | | 0.24 | 0.33 | 1.06 | 0.57 | 0.57 |
| Funding 3 - Long term funding: £25 m to 2014/15, £12m per year thereafter | | 0.13 | 0.41 | 0.90 | 0.51 | 0.52 |

As might be expected, the Challenge Fund options do well, but these figures need to be treated with caution since the Challenge Fund is assumed to be able to target the most cost-effective deployments first. Issues such as a lack of awareness are likely to mean that not all of the most cost-effective heat deployment opportunities can be targeted. This is of course also an issue for other subsidies.

Challenge Fund Issues / long term incentives. Other than typical issues.

1) Not convinced that the challenge fund is as powerful as that suggested by Cambridge. Assume that sufficient ~~high quality~~ resource efficient applications are made. ~~It~~ Too simplistic to assume that things will be as perfect as this - eg. of intensity of solar in renewable programme despite it being bottom of resource efficiency league.

↓ as cost effective as suggested

2) Administrative ⇒ Assessed At 10% for all options. ~~to 12%~~ of £m pa. for challenge fund (Renewable experience in line with this ??). OFGEN solution, RHI dependent, is only a fraction of this.

At least holds from a DfE perspective. & NI perspective.

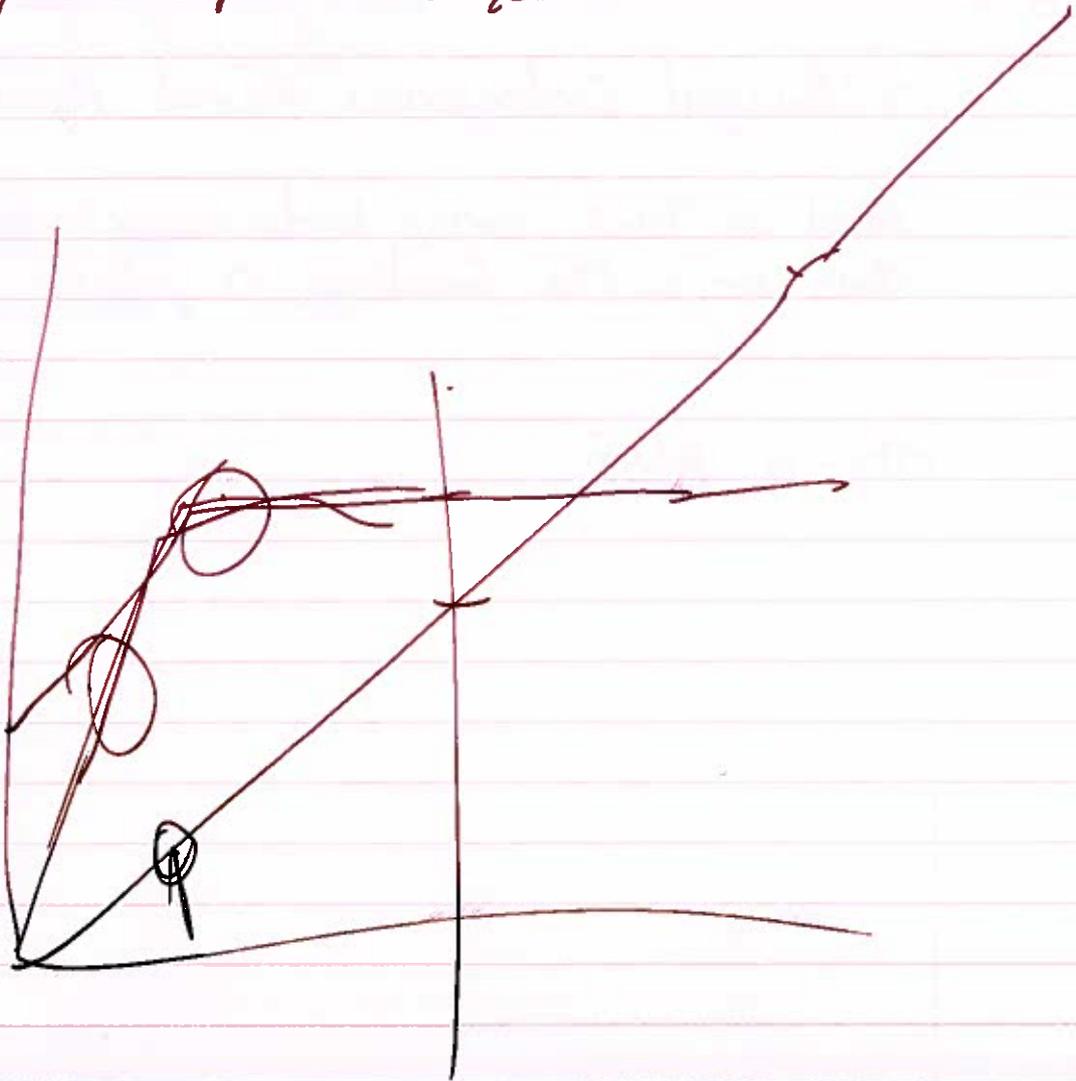
3) Leverage brings cost saving on steam earlier, opportunity to meet targets earlier (would any Milestone Pfd Target be jeopardised by going challenge fund etc.).

The chart

3) Can build up GB system experience for smooth transition to new scheme. Some challenge funds in past suffered from early delays to get properly up and running, forms, applications, approvals assessed, money drawn down. Some

TOP EFFS

- 6) This favour of incumbent technologies under a challenge fund \Rightarrow This is a relatively immature ~~area~~ area where new technology needs to be encouraged - better nurture under an DfE type approach to ~~assist to become~~ improve its performance quicker.



3. Options

SM asked why the challenge fund was not taken forward as the preferred option, as evidence in the consultant's report showed it to be a viable alternative.

PH advised that the report by CEPA and AEA Technology examined a number of options to incentivise the renewable heat market. The two main type of options included capital grant/challenge fund options, which would provide a one off payment to consumers, and renewable heat incentive options that provide a long term, 20 year, stream of payments to consumers to make up the difference in the whole-life cost of a renewable heating system compared to an oil based heating system.

The June 2011 economic appraisal recognised that each approach had its own merits but it was not unequivocal in its overall conclusion. In addition, since then, the feasibility study report compiled by Ofgem has provided further information on the cost of administering a RHI scheme. Whilst the June 2011 analysis suggested that a challenge fund option could produce the most renewable heat at the lowest cost, Energy Division was conscious of a number of other key factors that needed to be taken account of in the final policy decision. These factors have been very influential in the conclusion, by Energy Division, to proceed with the RHI option. They include the following:

- **Affordability of Administration**

In terms of administration, the costs of running a Challenge Fund were considered to be prohibitive, especially in comparison to potential costs of administering the NI RHI. Previous experience of running *Reconnect* demonstrated administration costs of £1.48m for a grant scheme worth £10.5m (14%). The *Reconnect* scheme was for domestic customers only, and on a 'first-come-first-served' basis. A challenge fund, dealing with commercial applications and involving complex evaluation metrics, could be expected to be at least as, if not more, costly than the *Reconnect* scheme, equating to potentially £3.5m over the first 4 years. **This would not be available within DETI budget.**

The RHI option, whilst requiring complex administration arrangements, can be implemented at a fraction of the cost through building on existing systems already in place for the GB RHI. The expected costs of the RHI scheme have been assessed and project development costs of £386k and running costs of £710k over the first 4 years. These administration costs are much more affordable in comparison to the Challenge Fund option.

- **Challenge Fund Assumptions**

Under the Challenge Fund options it is assumed that only the most cost effective systems are incentivised given that applications are ranked via a set of evaluation criteria. On reflection, it has been considered that this assumption is much too idealistic,

What Approvals are and being Sought, from Casework, from DFP?

✓ 1) NI R6T7 Scheme as described.
& Premium Scheme.

Bd: 2) OFGEM Development & Running Costs.

X 3) Illegal Contingency Fund Recommended by OFGEM.

And is there any bids associated with this or is the funding in place.

This is AME.

Simple Case -

- legal & Stat Obligations to meet - unavoidable.
- RHI Scheme being Brought in GB.
- HMT have set aside money for us to do a similar RHI Scheme.
- We are proposing to run a scheme in a very similar way with similar features
- By and large our scheme involves slightly lower subsidy tariffs than GB equivalents

From: [Coyne, Terence](#)
To: [Coyne, Terence](#)
Subject: FW: RHI Casework Committee Minutes
Date: 18 December 2017 14:17:06
Attachments: [Draft casework committee minutes - 9 March 2012.DOC](#)

From: Hepper, Fiona
Sent: 14 March 2012 14:12
To: Cooper, Trevor <Trevor.Cooper@detini.gov.uk>; Murphy, Shane <Shane.Murphy@detini.gov.uk>; Angus, Philip <Philip.Angus@detini.gov.uk>
Cc: McCutcheon, Joanne <Joanne.McCutcheon@detini.gov.uk>; Hutchinson, Peter <Peter.Hutchinson@detini.gsi.gov.uk>; Stewart, Susan <Susan.Stewart@detini.gov.uk>
Subject: RHI Casework Committee Minutes

[Trevor](#)

[Shane](#)

[Philip](#)

Please see attached draft minutes of casework committee which you presided over on Friday. I would be grateful if you could consider these and if you feel changes are required track these on the document and return to me. Once content, I'll arrange for a hard copy for Trevor's signature as chair.

In parallel, we are progressing with the Actions agreed - including, DAC paperwork to go to David S and Minister; the Ministerial submission and the business case material for DFP and hopefully a number of these can issue before the end of the week to keep up the pace re implementation.

Comments as soon as possible would be welcome - although I appreciate you all have other work pressures,

Thanks in anticipation

Fiona

Fiona Hepper

Head of Energy Division

Department of Enterprise, Trade & Investment

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3. Options

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The June 2011 economic appraisal recognised that each approach had its own merits but it was not unequivocal in its overall conclusion. In addition, since then, the feasibility study report compiled by Ofgem has provided further information on the cost of administering a RHI scheme. Whilst the June 2011 analysis suggested that a challenge fund option could produce the most renewable heat at the lowest cost, Energy Division was conscious of a number of other key factors that needed to be taken account of in the final policy decision. These factors have been very influential in the conclusion, by Energy Division, to proceed with the RHI option. They include the following:

- ***Affordability of Administration***

In terms of administration, the costs of running a Challenge Fund were considered to be prohibitive, especially in comparison to potential costs of administering the NI RHI. Previous experience of running *Reconnect* demonstrated administration costs of £1.48m for a grant scheme worth £10.5m (14%). The *Reconnect* scheme was for domestic customers only, and on a 'first-come-first-served' basis. A challenge fund, dealing with commercial applications and involving complex evaluation metrics, could be expected to be at least as, if not more, costly than the *Reconnect* scheme, equating to potentially £3.5m over the first 4 years. **This would not be available within DETI budget.**

The RHI option, whilst requiring complex administration arrangements, can be implemented at a fraction of the cost through building on existing systems already in place for the GB RHI. The expected costs of the RHI scheme have been assessed and project development costs of £386k and running costs of £710k over the first 4 years. These administration costs are much more affordable in comparison to the Challenge Fund option.

- ***Challenge Fund Assumptions***

Under the Challenge Fund options it is assumed that only the most cost effective systems are incentivised given that applications are ranked via a set of evaluation criteria. On reflection, it has been considered that this assumption is much too idealistic, in that it relies on cost effective applications being made in the first instance. If, however, applicants unduly focus on less efficient technologies then the scheme will be skewed towards these less efficient systems. The experience learned from *Reconnect* was that in a capital grant scheme applicants will focus on technologies that are most affordable,

- **Consistency with GB**

Whilst energy is a devolved matter Energy Division is mindful that a high number of commercial operators wishing to avail of support for renewable heat in Northern Ireland will operate jointly in GB. Whilst it is wholly appropriate for a specific incentive mechanism to be developed in Northern Ireland given the variances in the two energy markets, Energy Division is conscious that consistency in approach with GB would be beneficial to those availing of support in both Northern Ireland and GB. Therefore a specific NI RHI, whilst addressing the NI heat market, would be a more consistent approach with GB and will assist policy development options in the future.

- **Example of the NIRO**

The NIRO was launched in Northern Ireland in 2005 to support the development of renewable electricity installations. Similar to the RHI, the NIRO offers no up-front capital support for installations but instead offers 20 years of payments over the lifetime of the technology with payments determined by actual energy output. This example has proved successful with installers and has led to an increase of renewable electricity levels from 3% to over 12% currently. This experience increases confidence in a RHI scheme to generate investment in renewable heat. On the other hand the potential uptake under the Challenge Fund option would be subject to greater unknowns.

The Casework Committee was content that the Challenge Fund option should not be pursued and that, for the reasons above, the RHI was the most appropriate method of incentivisation for the Northern Ireland renewable heat market.

TC asked, how the tariffs had been designed and whether Energy Division felt that the various tariffs and types of technologies were appropriate.

PH advised that the 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'. This provides certainty for an investor by setting a guaranteed support level for projects for their lifetime in a scheme, regardless of future reviews. The tariffs will be amended on a yearly basis, for existing installers and new schemes, to reflect the rate of inflation (RPI).

PH further explained that 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 technology 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.

In order to generate the appropriate tariff, the difference is determined in the costs between the renewable technology and the fossil fuel counterfactual and this figure is divided by

The panel confirmed that they were content that RHI scheme was the most appropriate option to implement in NI.

4. Value for Money / Additionality / Displacement

FH advised that without Government subvention for renewable heat installations, the target of 10% renewable heat by 2020 would not be met. This would impact on the UK's delivery of 15% renewable energy set under the RED. FH also said that it was important that the scheme was not over-subsidising the renewable heat sector; the consultant's work ensured that there was a balance created in terms of the technologies to be incentivised and the tariffs to be given.

The DETI Economist has reviewed the approach taken by the consultants and is content that the proposed scheme represents the best value for money.

In terms of displacement, the main area where displacement might occur, as a result of the RHI, will be in the established heating markets. Displacement is likely to be greatest in the oil market given the fact that tariffs are set against an oil counterfactual (and therefore provide oil customers with a greater incentive). However, this displacement is necessary to ensure a more diverse heating market and reduced carbon emissions. Displacement of natural gas is likely to be much more limited. In terms of job displacement, the RHI is expected to create new jobs, given the need for installers and suppliers. However, these jobs will, to a certain extent, be displacing existing jobs in the fossil fuel market.

TC enquired whether it would also be beneficial to switch natural gas customers to renewable heat as well as oil consumers.

FH stated that the Department was not excluding gas customers from switching and that they could avail of the RHI. However, the Department had based the NI RHI on an oil counterfactual because oil was the predominant fuel source in NI. Oil is also a greater polluter (through carbon emissions) than natural gas. Gas customers are also relatively new and it would be wasteful for consumers to switch whilst their boilers which were reasonably new whereas a large proportion of oil boilers had reached the end of their life.

5. Budgetary management solutions

TC asked what commitment there was from HMT that payments made up to 2015 would be met for 20 years and how would the Department manage the payments based on the current budgets.

FH highlighted the financial commitment made by HMT in the GB RHI and the subsequent funding made available to DETI for the Northern Ireland scheme. FH also advised that HMT had informed DETI that any commitments made under this initial budget would be met by HMT for the lifetime of the scheme i.e. meeting the 20 year payment commitment. The RHI is a flagship policy for DECC and whilst budgets have only been set until 2015/2016 it is expected that further monies will be made available in the next budget period. This is

From: [Coyne, Terence](#)
To: [Coyne, Terence](#)
Subject: FW: RHI Casework Committee Minutes
Date: 18 December 2017 14:17:49
Attachments: [Draft casework committee minutes - 9 March 2012.DOC](#)

From: Angus, Philip
Sent: 14 March 2012 14:41
To: Hepper, Fiona <Fiona.Hepper@detini.gov.uk>
Cc: McCutcheon, Joanne <Joanne.McCutcheon@detini.gov.uk>; Hutchinson, Peter <Peter.Hutchinson@detini.gsi.gov.uk>; Stewart, Susan <Susan.Stewart@detini.gov.uk>; Cooper, Trevor <Trevor.Cooper@detini.gov.uk>; Murphy, Shane <Shane.Murphy@detini.gov.uk>
Subject: RE: RHI Casework Committee Minutes

Fiona

I think I have only one significant comment as tracked in the draft - ie that the business case should explicitly address the reasons for rejecting the Challenge Fund option.

Philip

Philip Angus

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Please consider the environment - do you really need to print this e-mail?

From: Hepper, Fiona

- **Consistency with GB**

Whilst energy is a devolved matter Energy Division is mindful that a high number of commercial operators wishing to avail of support for renewable heat in Northern Ireland will operate jointly in GB. Whilst it is wholly appropriate for a specific incentive mechanism to be developed in Northern Ireland given the variances in the two energy markets, Energy Division is conscious that consistency in approach with GB would be beneficial to those availing of support in both Northern Ireland and GB. Therefore a specific NI RHI, whilst addressing the NI heat market, would be a more consistent approach with GB and will assist policy development options in the future.

- **Example of the NIRO**

The NIRO was launched in Northern Ireland in 2005 to support the development of renewable electricity installations. Similar to the RHI, the NIRO offers no up-front capital support for installations but instead offers 20 years of payments over the lifetime of the technology with payments determined by actual energy output. This example has proved successful with installers and has led to an increase of renewable electricity levels from 3% to over 12% currently. This experience increases confidence in a RHI scheme to generate investment in renewable heat. On the other hand the potential uptake under the Challenge Fund option would be subject to greater unknowns.

The Casework Committee was content that the Challenge Fund option should not be pursued and that, for the reasons above, the RHI was the most appropriate method of incentivisation for the Northern Ireland renewable heat market.

Action – the business case to DFP (and the Minister) should explicitly address the reasons why the RHI is favoured over the Challenge Fund option.

TC asked, how the tariffs had been designed and whether Energy Division felt that the various tariffs and types of technologies were appropriate.

PH advised that the 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'. This provides certainty for an investor by setting a guaranteed support level for projects for their lifetime in a scheme, regardless of future reviews. The tariffs will be amended on a yearly basis, for existing installers and new schemes, to reflect the rate of inflation (RPI).

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From: [Coyne, Terence](#)
To: [Coyne, Terence](#)
Subject: FW: RHI Casework Committee Minutes
Date: 18 December 2017 14:18:26

From: Murphy, Shane
Sent: 15 March 2012 16:19
To: Angus, Philip <Philip.Angus@detini.gov.uk>; Hepper, Fiona <Fiona.Hepper@detini.gov.uk>
Cc: McCutcheon, Joanne <Joanne.McCutcheon@detini.gov.uk>; Hutchinson, Peter <Peter.Hutchinson@detini.gsi.gov.uk>; Stewart, Susan <Susan.Stewart@detini.gov.uk>; Cooper, Trevor <Trevor.Cooper@detini.gov.uk>
Subject: RE: RHI Casework Committee Minutes

I am content with the minutes post Philip's amends.

Shane

Shane Murphy

Analytical Services Unit

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From: Angus, Philip

Sent: 14 March 2012 14:41

To: Hepper, Fiona

Cc: McCutcheon, Joanne; Hutchinson, Peter; Stewart, Susan; Cooper, Trevor; Murphy, Shane

From: [Coyne, Terence](#)
To: [Coyne, Terence](#)
Subject: FW: Casework Minutes : REVISED VERSION
Date: 18 December 2017 14:18:42
Attachments: [Draft casework committee minutes - 9 March 2012.DOC](#)
Importance: High

From: Hepper, Fiona
Sent: 15 March 2012 17:06
To: Cooper, Trevor <Trevor.Cooper@detini.gov.uk>
Cc: Hepper, Fiona <Fiona.Hepper@detini.gsi.gov.uk>; Hutchinson, Peter <Peter.Hutchinson@detini.gsi.gov.uk>; McCutcheon, Joanne <Joanne.McCutcheon@detini.gov.uk>; Stewart, Susan <Susan.Stewart@detini.gov.uk>
Subject: Casework Minutes : REVISED VERSION
Importance: High

Trevor

Philip asked for one change. On foot of this, Shane has come back and said he is content. So - I've appended a new version with Philips point highlighted in red so that you have a 'final draft' for consideration as Chair.

I hope this is helpful.

Fiona

Fiona Hepper

Head of Energy Division

Department of Enterprise, Trade & Investment

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To: [Coyne, Terence](#)
Subject: FW: Casework Minutes : REVISED VERSION
Date: 18 December 2017 14:19:11
Attachments: [Draft casework committee minutes - 9 March 2012.DOC](#)

From: Cooper, Trevor
Sent: 21 March 2012 16:07
To: Hepper, Fiona <Fiona.Hepper@detini.gov.uk>
Cc: Hepper, Fiona <Fiona.Hepper@detini.gsi.gov.uk>; Hutchinson, Peter <Peter.Hutchinson@detini.gsi.gov.uk>; McCutcheon, Joanne <Joanne.McCutcheon@detini.gov.uk>; Stewart, Susan <Susan.Stewart@detini.gov.uk>; McFarlane, Iain <Iain.McFarlane@detini.gov.uk>
Subject: RE: Casework Minutes : REVISED VERSION

Fiona

Attached tracked amends.

Ref other appvls, Ive asked Iain/Bernie to advise TMT on administration costs and separately Iain and Mark are advising David on the TPO sub.

Trevor

Trevor Cooper

Head of Finance Division

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From: Hepper, Fiona

1. Background

TC asked for a brief overview of the proposed project.

FH advised that the work on the Renewable Heat Incentive (RHI) came as a result of the Renewable Energy Directive (RED), published in June 2009, which requires the UK to ensure that 15% of its energy consumption comes from renewable sources by 2020. In September 2010, the Northern Ireland Executive endorsed a target of 10% renewable heat in NI by 2020 (against a baseline of 1.7% in 2010). This target is included in the Strategic Energy Framework (SEF) and an interim target of 4% by 2015 is included in the Programme for Government (PfG).

FH explained that the NI RHI was largely based on the GB RHI which provides a continuous income scheme of 20 years (the lifetime of the technology) for those who generate renewable heat. The main differences between the NI and GB schemes is that the NI tariffs are set against an oil counterfactual whereas the GB tariffs have been set against a natural gas counterfactual; this results in lower tariffs being required in Northern Ireland. The reason for this is that the NI heat market is dominated by oil (over 75%) with an emerging gas market (17%), in GB gas is the market leader (70%) with oil a secondary heating source (10%).

FH also explained that the introduction of the RHI would be through a phased approach. The scheme will firstly be open to the non-domestic sector and include the most well-established renewable heating technologies. The domestic sector would then be introduced in phase 2; this phase might also include additional technologies. In the interim, domestic householders will be able to apply for *Renewable Heat Premium Payments* to assist in the capital cost of installations. Those who do avail of the RHPP will still be able to get a RHI but for a lesser period i.e. 18 years instead of the full 20 years as the RHPP represents two years of RHI payments.

FH also advised that another major component of the RHI would be the administration of the scheme. Her Majesty's Treasury (HMT) has provided DETI with funding of £25m over the next four years for the development of the renewable heat market. However HMT has advised that this funding is only to be used for the RHI itself and not the administration of the scheme. Therefore the costs of administration will have to be paid by the DETI. The Department of Energy and Climate Change (DECC) in GB has paid Ofgem (the GB energy regulator) over £5m for the development of the system, of which IT systems are a large part; it expects to pay around £10m over the next 4 years for the administration of the system. By contracting with Ofgem and utilising systems and processes already in place, DETI can expect significant savings whilst enjoying the benefits of the Ofgem administration systems.

SM clarified that the approvals being sought were for the RHI scheme, the RHPP scheme and the costs for administering these schemes. TC confirmed that it would be essential to address all the costs that arose from any policy proposal including administration consequentials. ~~this is the position.~~

FH added that by growing the renewable heat market there are significant opportunities for Northern Ireland to reduce our dependence on imported fossil fuels and increase NI's fuel security and diversity of supply, this in turn will reduce carbon emissions.

2. Policy Context

TC asked what would happen if the NI target of 10% renewable heat generation by 2020 was not met, given the target set under the RED. TC also asked if DECC was comfortable with the target set for NI.

FH advised that Northern Ireland, whilst not an EU Member State, is expected to contribute to the UK target of 15% renewable energy by 2020. To support this target, DETI has set targets of 40% renewable electricity and 10% renewable heat by 2020. If the UK as a whole fails to achieve its target of 15%, then it would be expected that the EU Commission would impose infraction fines at Member State level. It would then be up to Whitehall to pro-rata fines depending on how each of the regions had contributed to the target. It is therefore important that Northern Ireland demonstrates a significant increase in renewable heat levels by 2020. DECC is content with targets set by DETI for Northern Ireland.

FH added that renewable heat technologies are currently unable to compete with existing fossil fuel alternatives, given the often higher capital costs and also the lack of understanding and awareness amongst consumers of what are often seen as innovative technologies. There is a need to consider the implementation of both policy instruments and financial incentives as there is a risk of market failure and of Northern Ireland not achieving the targets set. Financial incentives have already been successful within the Northern Ireland Renewable Electricity market. Since the introduction of the Northern Ireland Renewables Obligation (NIRO) in 2005, the level of electricity generated from renewable sources has increased from 3% to over 12%.

SM confirmed that he was content that there were legal and statutory obligations to be met. PA asked if NI is not on course to meet its target, is there room to negotiate with DECC on the NI target? FH advised that GB would probably look at how the other regions were progressing with their targets. However, if NI did alter its target, this would affect the amount of funding from HMT. As with the NI Renewables Obligation (NIRO), the Department has sought to counteract the possibility of not meeting targets by including periodic reviews of the RHI scheme; the first review is scheduled for 2014. However, the Department has also included an option to hold emergency reviews, if the need arises.

PH added that a RHI roadmap will also be developed, with other NI Departments, and that the Renewable Heat Strategy Group would facilitate this.

TC confirmed that the policy development and implementation had been thorough and robust and showed that there was a definite need to implement a renewable heat scheme in Northern Ireland in line with EC and National obligations and in particular given the provision of GB funding for the policy (although not for the administration thereof).

Also, in terms of risk, an RHI delivers earlier against the target. In the event that corrective action were required then the RHI option would identify this need earlier and also allow more time, scope and budgetary flexibility for action to be taken to put the scheme back on track.

- **Consistency with GB**

Whilst energy is a devolved matter Energy Division is mindful that a high number of commercial operators wishing to avail of support for renewable heat in Northern Ireland will operate jointly in GB. Whilst it is wholly appropriate for a specific incentive mechanism to be developed in Northern Ireland given the variances in the two energy markets, Energy Division is conscious that consistency in approach with GB would be beneficial to those availing of support in both Northern Ireland and GB. Therefore a specific NI RHI, whilst addressing the NI heat market, would be a more consistent approach with GB and will assist policy development options in the future.

- **Example of the NIRO**

The NIRO was launched in Northern Ireland in 2005 to support the development of renewable electricity installations. Similar to the RHI, the NIRO offers no up-front capital support for installations but instead offers 20 years of payments over the lifetime of the technology with payments determined by actual energy output. This example has proved successful with installers and has led to an increase of renewable electricity levels from 3% to over 12% currently. This experience increases confidence in a RHI scheme to generate investment in renewable heat. On the other hand the potential uptake under the Challenge Fund option would be subject to greater unknowns.

On the basis of the information presented above, the Casework Committee accepted that was content that the Challenge Fund option should not be pursued and that, for the reasons above, the RHI was the most appropriate method of incentivisation for the Northern Ireland renewable heat market.

Action – the business case to DFP (and the Minister) should explicitly address the reasons why the RHI is favoured over the Challenge Fund option.

TC asked, how the tariffs had been designed and whether Energy Division felt that the various tariffs and types of technologies were appropriate.

PH advised that the 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'. This provides certainty for an investor by setting a guaranteed support level for projects for their lifetime in a scheme, regardless of future reviews. The tariffs will be amended on a yearly basis, for existing installers and new schemes, to reflect the rate of inflation (RPI).

PH further explained that the tariff setting methodology has three general principles:

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.

SM sought clarification on the fact that the scheme appeared to be backdated to September 2010. PH explained that applicants who had technologies installed on or after that date would be able to avail of the RHI scheme but the payment would not be backdated to that date.

It was confirmed to TC and SM confirmed that no retrospective payments would be given out under the NI RHI and RHPP schemes.

~~The panel confirmed that they were content~~ On the basis of the evidence presented, the panel accepted that of the options presented the proposed RHI scheme was the most appropriate option to implement in NI.

4. Value for Money / Additionality / Displacement

FH advised that without Government subvention for renewable heat installations, the target of 10% renewable heat by 2020 would not be met. This would impact on the UK's delivery of 15% renewable energy set under the RED. FH also said that it was important that the scheme was not over-subsidising the renewable heat sector; the consultant's work ensured that there was a balance created in terms of the technologies to be incentivised and the tariffs to be given.

The DETI Economist has reviewed the approach taken by the consultants and is content that the proposed scheme represents the best value for money.

In terms of displacement, the main area where displacement might occur, as a result of the RHI, will be in the established heating markets. Displacement is likely to be greatest in the oil market given the fact that tariffs are set against an oil counterfactual (and therefore provide oil customers with a greater incentive). However, this displacement is necessary to ensure a more diverse heating market and reduced carbon emissions. Displacement of natural gas is likely to be much more limited. In terms of job displacement, the RHI is expected to create new jobs, given the need for installers and suppliers. However, these jobs will, to a certain extent, be displacing existing jobs in the fossil fuel market.

TC enquired whether it would also be beneficial to switch natural gas customers to renewable heat as well as oil consumers.

FH stated that the Department was not excluding gas customers from switching and that they could avail of the RHI. However, the Department had based the NI RHI on an oil counterfactual because oil was the predominant fuel source in NI. Oil is also a greater polluter (through carbon emissions) than natural gas. Gas customers are also relatively new and it would be wasteful for consumers to switch whilst their boilers which were reasonably new whereas a large proportion of oil boilers had reached the end of their life.

5. Budgetary management solutions

From: [Coyne, Terence](#)
To: [Coyne, Terence](#)
Subject: FW: RHI Casework Minutes : Final Draft
Date: 18 December 2017 14:19:40
Attachments: [Draft casework committee minutes - 9 March 2012.DOC](#)
Importance: High

From: Hepper, Fiona
Sent: 27 March 2012 16:41
To: Cooper, Trevor <Trevor.Cooper@detini.gov.uk>
Cc: Hepper, Fiona <Fiona.Hepper@detini.gsi.gov.uk>; McCutcheon, Joanne <Joanne.McCutcheon@detini.gov.uk>; Hutchinson, Peter <Peter.Hutchinson@detini.gsi.gov.uk>; Stewart, Susan <Susan.Stewart@detini.gov.uk>
Subject: RHI Casework Minutes : Final Draft
Importance: High

[Trevor](#)

Many thanks for considering the casework minutes. Your comments have been taken on board in full, and I attach a final set for your approval and signature.

Happy to speak

Regards

Fiona

Fiona Hepper

Head of Energy Division

Department of Enterprise, Trade & Investment

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What Approvals are and being Sought, from Casework, from DFP?

✓ 1) NI R6T7 Scheme as described.
& Premium Scheme.

Bd: 2) OFGEM Development & Running Costs.

X 3) Illegal Contingency Fund Recommended by OFGEM.

And is there any bids associated with this or is the funding in place.

This is AME.

Difficulty of forecasting the levy

The levy needs to meet demand for RHI. Demand for the RHI is highly unpredictable however. The heat market in the UK is not well developed so there is very little historical data available which we can use for forecasting. The heat market is also extremely varied and fragmented ranging from multinational highly-regulated companies to small family-owned businesses.

For each technology which will be supported under the RHI we need to consider capital and operating expenditure as well as other properties of the technology such as its lifetime and efficiency. Currently, the renewable heat market is extremely small which makes it difficult to get accurate and reliable data on the technologies which will be incentivised. In addition, there are lots of non-financial barriers and, in the domestic market, a diverse range of discount rates, which makes it extremely difficult to produce accurate models of uptake.

Our overall modelling has a number of assumptions, these include:

- The total level of heat demand
- Renewable heat potential
 - Technical potential
 - Market potential
 - Economic potential
 - Demand potential
 - Supply potential
 - Final potential

We need to consider the above for each technology to get a complete picture for renewable heat.

Once we have a picture of the potential we will then have to produce a model for renewable heat demand as we develop the tariffs. The variables in the overall demand and the cost of the policy include:

- Level of renewable uptake – particularly unpredictable at domestic scale where the discount rates are extremely varied
- Size of generators - ranging from household to large scale industrial
- What technology is being used - different technologies will generate different amounts of renewable heat and may receive different levels of tariffs
- Weather conditions and seasons – this will influence how much renewable heat is generated and sales of fossil fuels for the purposes of heat
- Variable fossil, renewable fuel and electricity prices – this will influence how attractive different heating technologies are and their level of uptake. This impact can influence the number of new installations and the use of existing installations. For example, a sharp rise in fossil fuel prices or fall in biomass prices could cause a sudden rise in demand for new renewable generation and it could also mean that those who use both fossil fuel and renewable heat using more renewable generation. These spikes could impact just within one financial year, and could be critically damaging to DECC's ability to live within a DEL budget.
- Economic conditions - as we have seen over the past year, changes in economic conditions have a significant effect on the demand for energy.

Therefore, demand for renewable heat will be uncertain which means that the level of the levy required to meet that demand will also be uncertain. Whilst we have to maximise certainty to the suppliers paying the



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From: David Thomson

Date: 2 March 2012

To: Trevor Cooper

CASEWORK PAPERS FOR THE NORTHERN IRELAND RENEWABLE HEAT INCENTIVE AND THE RENEWABLE HEAT PREMIUM PAYMENT SCHEME

You will have received papers outlining the proposals from Energy Division regarding the introduction of a Northern Ireland Renewable Heat Incentive (RHI) and *Renewable Heat Premium Payments* (RHPP). These papers are to inform the meeting of the Casework Committee scheduled for **Friday, 9th March 2012 at 2pm.**

The RHI is a major new policy initiative from Energy Division and has been signposted in the Strategic Energy Framework (SEF), Ministerial statements and a public consultation process initiated in July 2011. The aim of the RHI, and the associated RHPPs, is to develop the renewable heat market to an overall market share of 10% by 2020, in-line with EU and SEF targets. To support the uptake of these technologies, the RHI will aim to equalise the cost of conventional heating and alternative renewable heating technologies over a period of 20 years, in a similar way to the incentives in place for renewable electricity under the Northern Ireland Renewables Obligation.

Significant work and research has already been undertaken by Energy Division to assess the appropriate support levels for these technologies. This work includes an initial study into the Northern Ireland heat market, an economic appraisal into the potential incentive mechanisms, a consultation on the proposed design of the RHI and a feasibility study into administration systems. The Northern Ireland RHI is similar in many ways to the RHI scheme which was introduced in GB in November 2011; it is therefore important that the Northern Ireland scheme is implemented as a matter of urgency to ensure that the local renewable heat market is not unduly disadvantaged.

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PH further explained that 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 technology 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.