

Date : 23/06/2011 13:30:34

From : "Iain Morrow"

To : "Paget Fulcher"

Subject : FW: Draft final report: A Renewable Heat Incentive for Northern Ireland

Attachment : DETI comments draft response 080611 sent to AEA.docx;RHI ranges 080611.docx;NI RHI Growth Rate Summary; Paget

Did we ever get a reply from AEA about the banding ranges?

Thanks

Iain

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**From:** Paget Fulcher  
**Sent:** 08 June 2011 17:24  
**To:** Oliver Edberg  
**Cc:** Mahmoud Abu-ebid; Jeremy Stambaugh; Iain Morrow; Patrick Taylor; Mark Cockburn  
**Subject:** RE: Draft final report: A Renewable Heat Incentive for Northern Ireland

Dear Oliver,

I have been through DETI's comments and identified a selection that require input from AEA. I have attached a document listing these comments and providing space for your responses. Please let me know if you have any questions.

The third comment in the attached document asks that we provide banding ranges for the subsidy levels. The data we have used is based on a small number of discrete representative installation sizes provided by AEA. Therefore while we know what sort of installations fall within our range, we do not know where the edges of the ranges lie. I have attached a document with a table that it would be useful if you could populate for our response to DETI. I have included the rates used in the NERA *Design of the Renewable Heat Incentive* as reference.

One further area that would be useful if you could check is the installation capacity constraints provided by AEA in the attached email. These constraints are binding in most cases and therefore are influential in the model, making it difficult to achieve the ten percent target.

Many thanks,

**Paget Fulcher**  
Consultant

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**From:** Hutchinson, Peter [mailto:Peter.Hutchinson@detini.gov.uk]  
**Sent:** 07 June 2011 16:51  
**To:** Iain Morrow  
**Cc:** Mark Cockburn; Paget Fulcher; Patrick Taylor; Mahmoud Abu-ebid; Oliver Edberg; Jeremy Stambaugh; McCutcheon, Joanne; Connolly, Samuel; Stewart, Susan  
**Subject:** RE: Draft final report: A Renewable Heat Incentive for Northern Ireland

Iain,

Thanks for the draft report, I think generally it is in good shape however as with all reports there are some issues that we would like you to consider and address for the final version. Firstly I think it is important that we have sight of the model as soon as possible, if this could be finalised and sent through as a matter of urgency that would be greatly appreciated.

I apologise for the format of response, have listed below some overarching issues/questions that I think need addressed/answered in the final version. Some will be self-explanatory though others may need clarification and therefore it may be useful to arrange a teleconference to chat through these issues in advance of a final final report being finalised. At the bottom of the email there are more minor issues that should be easily addressed. I have also attached Sam's comments, which are easier to follow.

Grateful if you could look through and then we can discuss further, and if possible could the model be sent through as a matter of urgency.

Thanks in advance for considering these matters.

Peter

Some general comments and issues that need to be considered are;

**Not reaching 10%** - As no options deliver 10%, as above, can tariff levels be developed that would deliver 10%? Obviously the associated costs would also need to be developed.

Do these projections include domestics? How would figures change if industrial and domestics were included?

April presentation suggested 12.5% could be met under RHI – what has changed in final model?

**RHI Tariff levels** - Is there a need for additional tariff options;

- i) at a 15% rate of return, rather than 12%; and
- ii) tariffs which will deliver 10% renewable heat by 2020.

Is this possible? Would need to detail the costs of these options and reference the funding constraints of £25m to 2015/2016.

Need a section fully explaining why NI tariff levels are lower than GB levels (i.e. high energy costs and mitigating impact on gas). Need to explain the negative impact of increased tariff levels (gas issue).

Do these tariff levels indicate that heating prices in NI will always be high? Would higher levels force fossil fuel prices down?

**Domestic Sector** - Need to be clear from the start that the RHI options are non-domestic only, whereas the capital grant options would be available to all (barring heavy industrial??). Should also reference the GB position and the current DECC work on 'phase 2' of RHI. Need to include a recommendation that domestic are introduced to RHI by October 2012, similar to GB, and earlier if possible. Are the current projected uptake levels inclusive or exclusive of the domestic market i.e. the NI RHI delivers 8% renewable heat, is this all non-domestic? If so, how would this figure change with the inclusion of the domestic market from 2012?

**Heavy Industrial Sector** - Understand the rationale for excluding (cost and impact on gas) however I think we need to include a potential tariff for large industrial, specifically large biomass. The inclusion of this tariff can be accompanied with the various caveats and potential recommendation that DETI only include the tariff if various safeguards are put in place to mitigate against the risk of cost-effective solutions or important gas customers (current or future) taking up the incentive.

**AD** - We need to be clearer on the RO support levels (4 ROCs up to 500kw, 3 ROCs for 501kw to 5MW and 2 ROCs above 5MW). Should include an evidence based recommendation that these RO levels of support mean that a RHI uplift would be double-incentivisation and provide no additionality. However, need inclusion of a heat-only AD tariff level, and accompanying proviso that these installations are highly unlikely given RO levels.

**CHP** - Any views on interaction with RO?

**Front-loading tariff.** We need a more detailed recommendation, either to include;

- design of a RHI option to include front loading (however is this necessary for non-domestic sector??); and
- Consideration of using the £2m in year 1 for domestic grants (akin to premium payments) in advance of a RHI being in place for April 2012 and also to cover the fact that the domestics are excluded in the first wave of the RHI. This would need to include suggested grant levels and how these installations would be dealt with under a RHI when introduced to domestic market (i.e. if domestic grants of £x were available then those who take that up could only then claim 16/18 years of RHI?? This, in essence, would be front loading for the domestic market.

**Final recommendations** - Need to be very clear why RHI is preferred option over Challenge Fund in the long term funding scenario.

## Specific issues

Pg 6 – reference the do nothing option

Pg 6 – need more information on how do nothing would deliver 4.8%, seems very high. Is spending £25m to achieve a further 3.2% value for money?

Pg 9 – can we include an example of what these tariff figures would mean

Eg. A business with xxxxx heat load switches to biomass. RHI would be xx per kwh meaning a yearly tariff of xxxx, paid in 4 quarterly payments of xxxx. Annual biomass bills would be xxxx in comparison to xxxx of oil.

Need exact banding for technologies rather than small/medium/large.

Need a discussion on geothermal – recommendation that geothermal is included in GSHP tariff as in GB but recommend further research is carried out to examine costs and barriers to deep geothermal in NI.

Need to explain why no ASHP (tariffs for ASHP had been included in April report and presentation). If they are excluded need explanation and a recommendation to consider introducing in 2012.

Please replace any “Northern Irish” to “Northern Ireland”.

Pg 29 – Can % figures be included in table?

Pg 35 Need to be clearer on AD roc levels (4 for up to 500kw, 3 for 501kw to 5mw and 2 beyond).

Need it clearly explained that existing RO levels are sufficient to make AD commercially viable and any additional RHI payment would be uneconomical.

Need a heat only AD tariff but an acknowledgement that the development of such plants would be unlikely.

The 'Need' section requires expansion and more detail.

- EU targets / RED
- NI target / SEF
- Danger of NI doing nothing in comparison to GB RHI
- Need to increase security of supply
- Reduction of CO2
- Reduction of dependence on oil.

Pg 41 – Need to highlight the GB position of RHI open to 2020 even though there is no budget beyond 2015. Could NI do similar? Should NI RHI only be open to 2015 however to be extended to 2020 once funding was secured?

Pg 48 – need to reference previous commitment to support new installations from 1 September 2010 (<http://www.northernireland.gov.uk/index/media-centre/news-departments/news-deti/news-deti-september-2010/news-deti-200910-foster-recognises-importance.htm>)

- need to explain rationale of no other existing installations being supported.

Deeming – any thoughts on a NI deeming method that would allow domestics to be included in initial RHI scheme or is the recommendation to definitely wait until GB position becomes clear??

Bioliqids Would delaying the introduction of bioliqids until 2012 enable tariffs for other technologies to be increased?

What would the impact be of this delay?

Is this more sensible given lack of resource, ongoing trials and issues with bioliqids for transport?

Table of tariffs – define small medium and large

- include tariffs which have a 15% rate of return and tariffs that would ensure 10% target.

Pg 63 - Not sure if I understand this graph, why does the heat delivered under the RHI flatline at 2015, is this using the first funding scenario? Surely the RHI is only feasible in long term funding scenarios and therefore the graph should show renewable heat increase until 2020 and then flatline?

Pg 82 – Minimal impact on gas – is there a need to discuss the limiting of incentives to non-gas users?

## Peter Hutchinson

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

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**From:** Iain Morrow [mailto:[Iain.Morrow@cepa.co.uk](mailto:Iain.Morrow@cepa.co.uk)]

**Sent:** 31 May 2011 20:16

**To:** Hutchinson, Peter

**Cc:** Mark Cockburn; Paget Fulcher; Patrick Taylor; Mahmoud Abu-ebid; Oliver Edberg; Jeremy Stambaugh

**Subject:** Draft final report: A Renewable Heat Incentive for Northern Ireland

Peter

Please find attached our draft final report on an NI RHI; please do let me know any final comments on it. One question we had on producing this version was about the two long term funding scenarios. We wondered if you felt that it was useful to have both of them included, or whether in the interests of clarity it might be helpful to drop scenario 3. In any case, perhaps we could discuss this later in the week and what the next steps might be?

I'd also like to say that it has been a pleasure working with you and your colleagues from DETI on this project. I hope the results are useful to you.

Regards

**Iain Morrow**  
Managing Consultant

Provided by CEPA on 17th May 2017

Annotated by RHI Inquiry

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## Response to DETI comments on Draft Final Report received on 7<sup>th</sup> June 2011

The table below provides the consortium's initial responses to DETI's comments on the Draft Final Report.

### Consultant responses

#	DETI comment	Consultant response
<i>Email comments</i>		
5	<u>AD</u> - We need to be clearer on the RO support levels (4 ROCs up to 500kw, 3 ROCs for 501kw to 5MW and 2 ROCs above 5MW). Should include an evidence based recommendation that these RO levels of support mean that a RHI uplift would be double-incentivisation and provide no additionality. However, need inclusion of a heat-only AD tariff level, and accompanying proviso that these installations are highly unlikely given RO levels.	
6	<u>CHP</u> - Any views on interaction with RO?	
12	Need exact banding for technologies rather than small/medium/large.	
13	Need a discussion on geothermal – recommendation that geothermal is included in GSHP tariff as in GB but recommend further research is carried out to examine costs and barriers to deep geothermal in NI.	
17	Pg 35 Need to be clearer on AD roc levels (4 for up to 500kw, 3 for 501kw to 5mw and 2 beyond). Need it clearly explained that existing RO levels are sufficient to make AD commercially viable and any additional RHI payment would be uneconomical. Need a heat only AD tariff but an acknowledgement that the development of such plants would be unlikely.	
21	Deeming – any thoughts on a NI deeming method that would allow domestics to be included in initial RHI scheme or is the recommendation to definitely wait until GB position becomes clear??	
22	Bioliquids Would delaying the introduction of bioliquids until 2012 enable	

	<p>tariffs for other technologies to be increased?          What would the impact be of this delay?          Is this more sensible given lack of resource, ongoing trials and issues with bioliquids for transport?</p>	
<b><i>Economist comments</i></b>		
<b>36</b>	<p>Section 6.6 – Are CEPA recommending that DETI should copy the GB deeming procedures when published? Does CEPA have its own view on what would be best for Northern Ireland?</p>	
<b>48</b>	<p>It is not clear why it is being assumed that an oil boiler would require 2 days to install compared to 4 for domestic heat pumps and biomass boilers. Please clarify/provide evidence.</p>	

Technology	Group	Capacities from AEA data (KW)	Investor groups	NERA ranges <sup>1</sup>	Proposed NI range	
					Lower bound	Upper bound
ASHP	Small	14	All domestics and small commercial/public	0-45		
	Medium	200	Large commercial/public (but not large enough for industrial)	45-350		
Biogas injection	All	1,000	All	All		
Biomass boilers	Small	12 and 20	All domestics and small commercial/public	0-45		
	Medium	200	Large commercial/public (but not large enough for industrial)	45-500		
GSHP	Small	11	All domestics and small commercial/public	0-45		
	Medium	200	Large commercial/public (but not large enough for industrial)	45-350		
Liquid biofuels	Small	20	All domestics – (but not large enough for small commercial/public 50KW)	0-45		
Solar Thermal	Small	3 and 8	All domestics and small commercial/public	0-20		

<sup>1</sup>[http://www.decc.gov.uk/assets/decc/consultations/rhi/1\\_20100129161148\\_e\\_@@\\_designoftherenewableheatingcontivenerareport.pdf](http://www.decc.gov.uk/assets/decc/consultations/rhi/1_20100129161148_e_@@_designoftherenewableheatingcontivenerareport.pdf) p iv