From: Hutchinson, Peter
To: Iain Morrow
Cc: McCutcheon, Joanne; Connolly, Samuel; Sinton, Dan; Stewart, Susan
Subject: RE: RHI - Follow up report - comments
Date: 03 February 2012 15:11:07

Iain,

Thanks for this - think the key thing for the tables and this report is to ensure that we are clear how the tariffs are calculated as it can be expected that these tables and our assumptions will be carefully scrutinised by stakeholders. The tables will also probably be shared with EU Commission in State Aid process so we need to be able to explain them fully.

Need to think more about setting the reference technology as one from the future as whilst I accept the rationale that prices will reduce over time my concern would be unless they are set at 2011/2012 prices will there be any uptake? My assumption would be that future reviews would utilised to revise assumptions/tariffs as required.

Re the domestic installations I ran a 16% discount rate (very roughly) on GSHP and the end tariff was 5.1p after inflation (capital and barrier 6.5p; opex -0.7p; fuel -0.7p). Though this is still based on existing assumptions so may change when revised copy is submitted.

May be useful to arrange a teleconference when final report is submitted, I am happy to speak in advance also.

Thanks,

Peter

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-----Original Message-----
From: Iain Morrow [mailto:Iain.Morrow@cepa.co.uk]
Sent: 03 February 2012 11:19
To: Hutchinson, Peter
Cc: McCutcheon, Joanne; Connolly, Samuel; Sinton, Dan; Stewart, Susan
Subject: RE: RHI - Follow up report - comments

Peter

First, I should apologise - one reason for the discrepancies you pointed out is that the tariff breakdown tables show the cost for the reference installation (which for small ASHPs for example is in 2014) whereas the technology resource costs table shows the costs today. We assume some reductions in technology costs over time, and so the cost of an ASHP in 2014 is lower than the cost of one today. I can make this clearer, or change the technology resource costs to the same basis, whichever you prefer.

Another difference on capex (which only shows up for domestic installations) is that we assume, following previous NERA work for DECC, that the discount rate for domestic consumers is 16% rather than 12%. This bumps up the tariff needed to cover capital costs for domestic installations, which is why the domestic GSHP tariff is so much higher than the figure you calculated.

On fuel costs, we take account of how fuel costs increase over time rather than just the cost today, so get slightly different results.

For operating costs, our calculation is effectively the same as yours, which is why we get similar results.

Regards

Iain

From: Hutchinson, Peter [Peter.Hutchinson@detini.gov.uk]
Sent: 02 February 2012 11:48
To: Iain Morrow
Cc: McCutcheon, Joanne; Connolly, Samuel; Sinton, Dan; Stewart, Susan
Subject: RE: RHI - Follow up report - comments

Iain,

Appreciate that we hadn't specified in the initial terms of reference that we would like to see a scenario with a 15% rate of return, had not anticipated that it would be a big task. If, as you offered, we are able to look at one or two key tariff bands then biomass would be our priority and then GSHP.

Alternatively, if you are able to advise on my query re the final calculations i.e. total sum difference / (what figure) = tariff; then I should be able to make the calculations and provide you with a list of tariffs based on 15% for input into the model, if the model can assess them? This may or may not be possible?

If we could look at only one or two technologies or bands, biomass (20-100 and then 100-500) would probably be priority and then GSHP.

Thanks,

Peter

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From: Iain Morrow [mailto:Iain.Morrow@cepa.co.uk]
Sent: 01 February 2012 17:47
To: Hutchinson, Peter
Cc: McCutcheon, Joanne; Connolly, Samuel; Sinton, Dan; Stewart, Susan
Subject: RE: RHI - Follow up report - comments

Peter

Thanks for the comments. I have passed the comments on technology assumptions to the AEA guys for them to consider. Separately, I'll have a look at the tariff calculation and see where the differences arise. I'll also revisit the large biomass tariff.

On the final point about a 15% rate of return, I'm afraid we feel that this is slightly outside our terms of reference, and potentially time-consuming if we need to redo all the calculations and tables with 15% return tariffs. Perhaps we could redo the tariffs for one or two key tariff bands to show the impact?

Regards

Iain

From: Hutchinson, Peter [mailto:Peter.Hutchinson@detini.gov.uk]
Sent: 01 February 2012 17:13
To: Iain Morrow
Cc: McCutcheon, Joanne; Connolly, Samuel; Sinton, Dan; Stewart, Susan
Subject: RHI - Follow up report - comments

Iain,

Thanks for submitting the draft report - have had a chance to consider and have made comments on the attached document these range from straightforward questions; asking for more information; and querying some figures. Hopefully all the notes and questions are simple to follow, happy to discuss if needed.

A couple of things have jumped out now the tech assumptions for reference technologies are clear. I had previously enquired about the barrier costs and why 'ongoing barrier' costs were not factored into the tariff calculations, as they are in GB? Also in terms of barrier costs I wished to clarify how these are determined, whether they include the upfront costs of heat meters (as prescribed in the scheme) and why would they differ from GB - do the same barriers not apply? These questions are all marked on the attached report.

In terms of the calculations, have a couple of issues with the final calculation to determine the tariff. My understanding, maybe wrongly, was that you determine the costs of the reference installation and the counterfactual to find the sum of difference per annum, this difference is then divided by the annual kwh of the reference installation to find the appropriate tariff. In doing this I come up with slightly different figures than included in the report. The attached (simple) spreadsheet shows my working out - grateful if you would consider and advise on this issue. The spreadsheet also has a rough sheet showing 'payback', currently the payback lengths appear quite long, 8-15yrs. Is this accurate?

In terms of the large biomass tariff (>500kw) you still have set out as no tariff. This creates an issue of competitiveness with GB in terms of large installations and would limit any biomass systems to 500kw, which is relatively small. Using previous technology assumptions I come up with a tariff of 0.7p, still less than GB, after factoring in opex, capex, fuel and barriers. Grateful if you would consider and advise why this is inappropriate.

Finally, we still have concern that as the tariffs are considerably lower than GB that consumers won't install (awaiting higher tariffs possibly) and esco's will move business operations to GB where the tariffs seem to be more favourable. Given this we would be keen to explore what tariffs at a higher rate of return would be, with the rationale being the need to close to gap with GB in order to develop an initial interest (this would be reviewed at the first planned review in 2014, changes implemented in 2015). Grateful therefore if you could run the model to show tariffs at an initial rate of 15% to show level of renewable heat and cost - this is marked up on the document.

Hopefully everything on the attached document and the calculations on the spreadsheet are self-explanatory.

Happy to discuss as required.

Thanks,

Peter

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