

Renewable Heat Incentive Consultation on the proposed RHI financial support scheme

Please use the table below as a template to respond to the consultation. It will help us to record and take account of your views.

Also, please provide evidence for your answers and comments where possible.

INTRODUCTION
<p>Q1: Are there any issues relevant to the design or operation of the RHI that are not addressed in this consultation document? If so, how should we deal with them?</p>
<p>Yes/No - yes</p> <p>Comments: The issue is the difference between renewable energy generation and consumption. Failing to make this distinction is a fundamental flaw in the entire scheme.</p> <p>Biofuel generation involves growing and processing biofuels, which removes carbon dioxide from the atmosphere. Clearly the aim is to encourage production of biofuels.</p> <p>Consuming biofuels emits carbon dioxide. This conversion of fuel to heat must not be confused with fuel production or energy generation. So we want biofuels to be used as efficiently as any other fuel. Incentivising the consumption of renewable energy rather than the generation risks simply increasing energy consumption – the opposite of what we need to do to meet carbon dioxide reduction requirements.</p> <p>We realise that the EU directive is measuring the use of biofuel as a renewable energy contributing towards the UK target of 15%. However subsidising the actual consumption of the fuel doesn't necessarily follow as the way to achieve this.</p> <p>If a subsidy is required then it should be applied to reduce the cost of the renewable fuel, to encourage use in preference to fossil fuel, but not to encourage wastage.</p> <p>Given the likely resource of biofuel in the UK, the scheme is likely to end up relying on the use of heat pumps to make up the numbers.</p> <p>The renewable element of heat pumps is being considered as the total heat delivered less the electricity consumed. Yet the electricity use represents only a fraction of primary energy value of the electricity consumed in generation – logically, this energy is what should be subtracted before any of the heat can be considered "renewable". If additional fossil fuel is burnt to generate the additional winter electricity requirements of these heat pumps then this is a purely arbitrary re-assignment of those additional fossil fuels as "renewable energy" with no basis in actual</p>

"renewability" and of no benefit to the ultimate aim of reducing carbon emissions.

This should be dealt with by being honest.

CHAPTER 1: ACCESSING THE RHI

Q2: Do you see any barriers to such financing schemes coming forward? In particular, are there any limitations in leasing and finance legislation that you feel inappropriately restrict the development of RHI financing models?

Yes/No

Comments:

Q3: Do you agree with our proposed RHI registration and payment approach? If not, can you suggest how this approach can be improved?

Yes/No - no

Comments: payment on basis of consumption of energy is wrong, see Q1.

CHAPTER 2: ELIGIBILITY AND STANDARDS

Q4: Do you agree with our approach of requiring products and installers for installations up to 45kW within RHI to be accredited under MCS or equivalent?

Yes/No - no

Comments: There is a confusion between energy generation and energy consumption here – most of the products covered are energy consumers not generators.

Q5: Where MCS product and installer certification is extended beyond this limit, do you agree that we should introduce the requirement of using certified installers and equipment for eligibility for the RHI?

Yes/No

Comments:

Q6: Can you provide details of any UK or European standards that should count as equivalent to MCS? How should we recognise these standards for the RHI?

<p>Comments:</p>
<p>Q7: Do you agree with our proposed approach to eligibility of energy sources, technologies and sites?</p>
<p>Yes/No - no</p> <p>Comments: Heat pump efficiency depends on the heat emitter temperature as well as heat pump performance. Heat pumps COPs would need to be assessed at the required operation temperature, not the standard test figure. Replacing a boiler with a heat pump on an existing radiator system will not provide the desired performance. Technically this would probably not comply with the EU Renewable Energy Directive requirement for the output of heat pumps to significantly exceed (ie by 15%) the primary energy input. Heating emitter systems would need to be replaced in most retrofit situations to meet the stated COPs. Even in these cases the average external heat supplied by heat pumps barely exceeds the primary energy input and it is debatable whether any current heat pump systems can be considered renewable under the terms of the EU directive. Perversely the amount of heat considered “renewable” is the total heat output less the delivered electrical input, when it is reasonably clear that the only sensible input to consider should be the primary energy.</p>
<p>Q8: Do you agree with our proposed approach on bioliquids? Are you aware of bioliquids other than FAME that could be used in converted domestic heating oil boilers? If so, should we make them eligible for RHI support, and how could we assess the renewable proportion of such fuels to ensure RHI is only paid for the renewable content of fuels?</p>
<p>Yes/No - no</p> <p>Comments: Biodiesel is already in short supply for transport fuel- encouraging use for heating doesn’t make sense. Further, there are big doubts over the sustainability of biodiesel and whether it has lower or higher total carbon emissions than fossil diesel fuel. For example, there are potentially undesirable environmental and social consequences from the possible displacement of food production and/or loss of forest or other valuable habitat. The requirement of just 35% greenhouse gas emissions reductions shows how pointless this exercise is – this level of demand reduction is usually pretty easy to achieve in either existing buildings or a new design, if there is the will.</p>
<p>Q9: Do you agree with the proposed emissions standards for biomass boilers below 20MW? If not, why, and do you have any evidence supporting different ones, in particular on how they safeguard air quality?</p>
<p>Yes/No - no</p> <p>Comments: If in the interests of public health there is an emission limit for larger boilers in terms of g/GJ output, then the same standard should apply to smaller boilers.</p>

<p>Q10: Do you think the RHI should be structured to encourage energy efficiency through the tariff structure (in particular the use of deeming), or, additionally, require householders to install minimum energy efficiency standards as a condition for benefiting from RHI support?</p>
<p>Yes/No - no</p> <p>Comments: This minimum standard of energy efficiency is unreasonably low. We should be encouraging energy efficiency before promoting consumption of fuel, however renewably produced.</p>
<p>Q11: Can you provide suggestions for how to ensure that developers do not build to lower energy efficiency standards as a result of the RHI in advance of 2013 and 2016 building regulations taking effect?</p>
<p>Comments: drop the whole stupid idea. Any tinkering and fiddling is pointless as the basic premise of the RHI is fundamentally flawed, as described in answer to question 1.</p>
<p>CHAPTER 3: TARIFFS</p>
<p>Q12: Do you agree with our proposals on where we should meter and where we should deem to determine an installation's entitlement to RHI compensation?</p>
<p>Yes/No</p> <p>Comments: Metering and rewarding consumption pro rata as a means of reducing total carbon emissions is never going to work. Note that parts L2A and L2B of the building regulations already requires metering of LZC technologies in new and existing non-domestic buildings.</p>
<p>Q13: Do you agree that a process based on SAP or SBEM for existing buildings or the Energy Performance Certificate for new buildings is the best way of implementing deeming? Do you have any suggestions on the details of how this assessment process should work?</p>
<p>Yes/No -no</p> <p>Comments: Clearly the very high rates for energy use in many of the deemed categories can't be paid on metered use as the payment far exceeds the fuel cost. However using SAP and SBEM will simply reward poor building efficiency, given the capital cost is relatively fixed for small installations.</p>
<p>Q14: Do you agree that at the large scale/in process heating, where we propose metering,</p>

the risk of metering resulting in a perverse incentive to overgenerate is low? How could we reduce it further within the constraints of using metering, to ensure only useful heat is compensated? Do you see any practical difficulties concerning use of heat meters (such as on availability, reliability or cost of heat meters) and, if so, how should we address them?

Yes/No - no

Comments: Risk of overconsumption of fuel when incentivised by payment is inevitable in cases where the payment exceeds the cost of the fuel, and it wouldn't be hard for users to get round any additional constraints. Energy managers have spent decades struggling to reduce energy consumption, and have filled text books of the many ways energy is accidentally lost – to pay people to increase energy consumption is asking for them to re-instate all these losses!

Q15: What is the right incentive level required to bring forward renewable heat from large-scale biomass including in the form of CHP while minimising costs to consumers?

Comments: It will be hard to avoid over production of heat if electricity generation is incentivised...one must consider overall fuel use compared with expected heat demand to see if the heat is indeed being put to good use.

Q16: What is the right incentive level required to bring forward renewable heat from biogas combustion above 200 kW including in the form of CHP while minimising costs to consumers? Do you have any data or evidence supporting your view?

Comments:

Q17: Do you have any data or evidence on the costs of air source heat pumps above 350 kW or solar thermal above 100 kW?

Comments:

Q18: Do you agree with the proposed approach to setting the RHI tariffs, including tariff structure and rates of return? Do you agree with the resulting tariff levels and lifetimes? If not, what alternatives would you prefer, and on the basis of what evidence?

Yes/No - no

Comments: Providing fixed rates of return is not a good idea – it will encourage the most uneconomic methods, and quite likely those with lowest energy return on investment too, as energy

costs money. Cost of reducing carbon emissions is sounder basis.

Q19: Do you agree with our proposed approach on mixed fuels? Do you agree with our proposal that, at larger sites, with the exception of EfW, RHI will require the use of a dedicated boiler for the renewable fuel? Where our approach is to follow the Renewables Obligation, do any aspects need to be adapted to account for the different situation of renewable heat?

Yes/ No - no

Comments: This provides a clear incentive to increase consumption of fossil fuel above 50% - and be paid for it if you had a cheap enough (eg interruptible) gas tariff! But as it would still count towards the renewable heat target that's OK?

Q20: Do you believe that we should provide an uplift for renewable district heating?

Yes/No

Comments: It is important to consider where the heat is metered – if it is at the point of entry to the district heating system then adding insulation to the pipes could be a loss-making enterprise for the operator if the extra fuel burnt is effectively free.

Q21: Do you believe that an uplift should be available to all eligible district heating networks, or that eligibility should be determined on a case-by-case basis depending on whether a network contributes to the objective of connecting hard-to-heat properties (and, if the latter, how should we determine this for each case)? Do you agree that situations of one or a small number of large external heat users should not be eligible for an uplift, and, if so, what should be the minimum eligibility requirement for an uplift (expressed for instance as a minimum number of external customers)?

Yes/NO:

Comments:

CHAPTER 4: THE RHI BEYOND 2011

Q22: Do you agree that RHI tariffs should be fully fixed (other than to correct for inflation) for the duration of any project's entitlement to RHI support? Do you agree that we should include bio-energy tariffs, including the fuel part of those tariffs, in such a grandfathering commitment?

<p>Yes/No - no</p> <p>Comments: Biofuels, and electricity already follow fossil fuel prices – only on-site renewables such as solar thermal offer real decoupling from fossil fuel prices.</p>
<p>Q23: Do you agree with our proposal not to introduce degression from the outset of the scheme but consider the case at the first review?</p>
<p>Yes/No -no</p> <p>Comments: Given the flaws outlined above the scheme will probably need reviewing from day 1.</p>
<p>Q24: Do you agree with our proposed approach on innovative and emerging technologies?</p>
<p>Yes/No - no</p> <p>Comments: A higher tariff will simply encourage even less effective technologies than already identified.</p>
<p>Q25: Do you have any views on how we should encourage technology cost reductions through the RHI, particularly on solar thermal heat?</p>
<p>Comments: Solar thermal is unusual compared with most of the technologies considered since it does actually generate renewable heat – this may explain why it is more expensive than heat pumps. Active solar space heating (ie from a solar panel) does not make a lot of sense as a stand-alone technology – the availability of solar energy during the depths of the heating season means additional capital expenditure on collection area is only collecting heat from the worst months of the year. By contrast, passive solar, ie optimised size and orientation of windows, which are needed anyway, can be very cost effective, but the heat generated can only be measured in terms of reduced energy imports to the site, and is thus excluded from the EU definition of renewable heat.</p>
<p>Q26: Do you agree with our proposed approach to reviews, and the timing and scope of the initial review?</p>
<p>Yes/No</p> <p>Comments:</p>
<p>Q27: Can you provide examples of situations that could be taken into consideration in</p>

determining criteria for an emergency review?

Comments: yes – implementation of any scheme similar to that described in the consultation would merit immediate emergency review!

CHAPTER 5: INTERACTION WITH OTHER POLICIES

Q28: Do you agree with our proposed approach to allow access to RHI support to new projects where installation completed after 15 July 2009, but not before? Do you have any evidence showing that in particular situations RHI support for installations existing before this date would be needed and justifiable?

Comments: no – there is no need to support projects already installed. Even in terms of target-chasing these schemes are already there, so why waste the money!

CHAPTER 6: ADMINISTRATION

Q29: Are there any parts of the proposals set out in this consultation that in your view would allow for unacceptable abuse of RHI support, or other unintended consequences? If so, how could we tighten the rules while keeping the scheme workable, and avoiding an overly high administrative burden?

Yes/No Yes

Comments: the whole RHI appears designed to promote abuse, fraud and increased energy consumption. Whether these are unintended consequences is unclear given the obvious desire to meet the EU target without any sensible strategy for reducing energy use in the country as a whole; or any consideration of the carbon emissions reduced or increased; or the value for money of the scheme.

ANNEX 3: CALL FOR EVIDENCE ON DISTRICT HEATING NETWORKS

Q30: Do you agree with our proposed overall approach to setting the level of the uplift? Can you provide evidence that would help us to determine the level of uplift? In particular:

Can you describe typical district heating networks that would be appropriate as reference networks, and what are their network costs, heat loads, and customer numbers and characteristics?

What proportion of the heat load of such networks is typically supplied to hard-to-treat properties? What proportion of the total network of the reference installation(s) supply heat to hard to treat properties?

Should we choose one reference network and determine one uplift (in p/kWh) applicable to all sizes of networks, or should there be several based on a number of differently sized reference networks?

Yes/No

Comments:

AECB the sustainable building association April 2010