

26th April 2010



Department of Energy & Climate Change
3 Whitehall Place
London
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Dear RHI Team

HWE are Scotland's largest specialist biomass heating company employing more than 20 people with ambitions to grow through the successful delivery of sustainable energy. We are strongly supportive of the government taking steps to ensure that the UK energy mix can be delivered in a more sustainable way. We therefore agree with the RHI in principle as it will lead to an expansion in the level of renewable heat being utilised which should correlate with reduced CO₂ emissions, economical heating bills for users, increased security of the UK energy supply, help prepare us for declining fossil fuel supplies and stimulate economic growth across the full renewable supply chain.

Given the requirement to quickly introduce a mechanism to allow the UK to have the opportunity to deliver its 2020 targets we will accept the underlying premise of the consultation document that the RHI, alongside the FiT and ROCs, is the most appropriate solution for delivering sustainable energy. This is as opposed to – for example – the introduction of a CO₂ tax. However, we also note that the development and administration of a scheme like the RHI is inherently more complex than a CO₂ tax would be. It is also underpinned by a large number of assumptions and policy objectives that will likely lead to unintended consequences. One immediate observation on the RHI is that it places a wide range of value on 1 tonne of CO₂ savings when compared with mains gas heating. These range from £86 per tonne for a larger scale biomass project, through (a very optimistic) £645 per tonne for a highly efficient (4:1) domestic ground source heat pump (assuming the grid becomes 30% less carbon based) and up to £1027 per tonne for a solar thermal solution. Given the significant, non CO₂ based advantages associated with the introduction of the RHI this is not necessarily a shortcoming but it does emphasise the policy driven nature of the incentive and the range of value based assumptions that underpin it.



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The key requirements of any incentive which is introduced to stimulate the uptake of renewable heating are as follows:

1. It needs to be introduced quickly. Continuing uncertainty will prevent decision makers from adopting renewable technology which will mean an ability to meet 2020 targets and prevent business like our own from surviving and prospering.
2. It needs to be consistent and available for a sustained period. The industry and customers need certainty to allow them to invest for the future.
3. It needs to be available to all sectors. Existing capital grant schemes tend to focus on one sector and exclude others which means the projects with the most benefit are not necessarily the ones which are being taken forward.
4. It needs to be “scaleable” and “expandable”. By this we mean that uptake cannot be prevented on the basis of all available capital funding having been used and if more people adopt than anticipated the system can cope.
5. It needs to have widespread political support. Which means it needs to be rational, transparent, accountable and defensible in the popular press.

In our view the RHI proposals meet the first 4 of these criteria and we are optimistic that it will have widespread political support and can be amended slightly to be made more rational and transparent.

The Consultation document asks for specific responses to a number of areas and we respond to each of the key areas in turn below and attempt to identify areas where we think the proposals can be improved. If we have not responded to a question it is because we either agree with the proposal or do not have sufficient expertise to suggest an alternative approach.

Question 5. In relation to increasing the limit to which MCS certification applies it would seem to be logical to align the accreditation requirement with a specific banding payment. The proposal in the consultation document to increase the accredited limit to 300kw does not align with any banding or other recognisable criteria and is therefore random. A 305kw system would receive the same level of RHI as a 295kw system but be subject to a different procurement process. We would propose that either the accredited banding is increased to 500kw or a separate RHI banding from 45kw to 300kw is introduced.

Question 7. Fully automated pellet stoves should not be excluded from the RHI proposals. These technologies meet national efficiency standards, can be clean air compliant, are operated with wood pellet fuel that meets national quality standards and cannot be used with coal or other fuels. The cost of administering these in the scheme need not be large as a recognised number of hours per annum of use could be agreed. Fuel purchase receipts could be retained by the owner and subject to auditing on a random basis by OFGEM and these could also be serviced by accredited companies on an annual basis. For many householders this form of technology will represent the most effective means of renewable heating and therefore there uptake should be encouraged.

Question 9. One question not specifically asked, but which is referred to in the content before question 9, relates to the solid biomass sustainability criteria. It is likely that there will be considerable uptake of biomass projects at a local – farms and estates - or community level where either on-site or local biomass resource is being utilised. It is conceivable that the biomass resource to feed these systems could be made up of a number of small pockets of timber from a range of sources from the immediate locality (windblown, dead standing wood, small quantities from the local estate, etc, etc). To try to ensure that all biomass resource for these type of systems was certified to ensure access to the RHI would be a significant barrier to uptake. It is not clear from the document as to whether it is the intention of the RHI proposals for biomass to classify the “microgeneration” banding at 45kw or 300kw. However, it would seem to be appropriate that either the 300kw or 500kw banding be the level above which fuel should be certified as sustainable. Above these sizes the volume of fuel required will be more significant and therefore the economics of undertaking certification should be more practical.

Question 10. We are of the view that the deeming method as currently proposed can be utilised to encourage energy efficiency. The deeming proposals will effectively assume that properties are appropriately insulated which is a coherent and justifiable stance in that it will not reward those who are not energy efficient and will encourage them to take steps to improve. Any attempts to make energy efficiency measures compulsory are likely to be a significant barrier to the adoption of renewables.

Question 13. We agree with the proposals about metering versus deeming although in practical terms we think it likely that depending on the methodology for deeming (see below) it is likely that most biomass projects in the 45kw to 500kw range will utilise a heat meter.

Question 14. The process for deeming is an area that we feel requires consideration. The process for deeming needs to be simple, clear, transparent, accountable and not open to manipulation. This is particularly the case in the retro-fit sector as for new build projects information should already be available. In the retro-fit sector there is the potential danger that installers competing for projects could interpret variables differently in order to maximise the RHI payment and use this as a means of attempting to win projects. The most straightforward approach would be to develop a matrix for different types of buildings and construction methods which identified the notional kWh per sq m (or m3) when all reasonable energy efficiency steps were taken and model this based on the appropriate climatic zone. The hot water demand could also be identified. The matrix would need to be constructed in such a way that it accounted for the different types of buildings that were in the sub 500kw range and there likely different uses and occupancy.

The RHI claimant and the installer would be liable for the accuracy of the deemed claim and this would be subject to audit and verification as required.

The deeming methodology also needs to take account of climatic variability not just across the UK but in different parts of Scotland.

Question 18. Based on the varying cost per tonne of CO2 saved, the 12% ROI calculation used to underpin the levels of the RHI is clearly a policy decision based on factors additional to the pure reduction of CO2 emissions. However, there are several key points about the proposed bandings approach which we believe require to be addressed.

1. It does not seem logical to band based on installed capacity rather than heat use. This will result in sub-optimal choices in relation to size of systems being installed and could potentially lead to increased fossil fuel consumption. For example a project could need a 50kw system but choose to install 40kw to maximise RHI payment which would result in more fossil fuel being used despite a higher RHI payment being received. Switching to a system based on actual heat use would not require a substantive change to the proposal.
2. The dramatic drop off in RHI level above 500kw for biomass systems will mean that very few projects between 500kw and 1MW will be installed. A 500kw system delivering 2000 MWh of heat per annum would, under the proposal, receive an annual RHI payment of £130,000. In contrast, a 1 MW system producing 4000 MWh of heat per annum would receive £100,000. This is not a logical nor desirable position.
3. One solution to this is to introduce an additional banding between 500kw and 1MW for biomass systems. This will lessen the impact of the mismatch. However, whenever there are distinct bands introduced it will always be the case that people on the larger side of a band will be tempted to “downsize.” The only alternative approach is one whereby the RHI is awarded incrementally to projects as they move through the consumption bandings. This would eradicate the desire of projects to “game” play. The consequence of this would, however, be that larger biomass projects would receive more RHI payment than currently proposed. An example of how this would work is shown in the following table:

Annual MWh	RHI £	Total Annual RHI at threshold	Lifetime RHI	Method	Calculation note
50	£90	£4,500	£67,500	Deemed	= 50 MWh x £90
100	£70	£8,000	£120,000	Deemed + Measured at £20	= (50 MWh x £90) + (50 MWh x £70)
200	£65	£14,500	£217,500	Deemed + Measured at £20	= (50 MWh x £90) + (50 MWh x £70) + (100 MWh x £60)
500	£55	£31,000	£465,000	Deemed + Measured at £20	
1000	£40	£51,000	£765,000	Deemed + Measured at £20	
1500	£30	£66,000	£990,000	Deemed + Measured at £20	
2000	£25	£78,500	£1,177,500	Measured	
2500	£20	£88,500	£1,327,500	Measured	
2500+	£15			Measured	

Questions 20 and 30. We agree that district heating projects will require an uplift. Investment in district heating infrastructure provides a foundation for the future distribution of heat. This heat can be produced from a range of renewable or low carbon sources and offers us the potential to benefit from technologies not yet developed. The establishment of these networks will play an important role in reducing our reliance on fossil fuels. However, in the short term, for District Heating projects to be viable two things require to happen. 1. The issue relating to the 500kw biomass banding “drop-off” needs to be resolved. 2. There needs to be some cognisance given to the cost of the pipework and infrastructure. Based on the current RHI proposals there will be virtually no district heating projects viable with the exception of small densely packed properties requiring less than a 500kw boiler. However, we would also note that to achieve a 12% ROI on a district heating networks for widely spaced new build domestic properties which have a very small heat load will require an extremely significant uplift. It will be beyond the power of the RHI to make all district heating schemes financially viable and attempting to do so would not represent the best use of resources. We would therefore propose that some means be developed for reviewing district heating schemes on a case by case basis but there should be upper limits applied to the level of support provided.

Question 28. We feel strongly that biomass projects implemented before July 2009 should be eligible for the RHI. The reason for this is that there is that the introduction of the RHI will have a dramatic and artificial impact on the biomass fuel market. It is a fundamental economic rule that when demand for a primary resource goes up, price goes up. The modelling work in this area undertaken to help develop the RHI proposals does not seem to recognise this fact. Given that we are already seeing prices in the region of £30 to £40 per MWh for wood chip fuel it is not clear how the modelling work that has been undertaken would predict that the upper range of fuel prices will be £34 per MWh in 2020 following the very significant increase in demand for biomass fuel which will be required to achieve the renewable heat targets. The economic foundation on which many existing biomass projects were developed (we have undertaken more than 200) depended on the availability of fuel at a reasonable price and will therefore be fundamentally affected by this proposal. It would be counter-productive for existing biomass projects to be forced to come off-line and install fossil fuel systems because of the introduction of an incentive aimed at reducing fossil fuel consumption.

If you would like to discuss this further, please contact me as follows:
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Yours faithfully

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