

Renewable Heat Incentive

Call for evidence: Large Biomass (>1MW)

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The consultation and Impact Assessment can be found on DECC's website:
www.decc.gov.uk/rhi

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General information

Purpose of this call for evidence

This is a call for evidence for data on large biomass over 1MW in order that we can review and test the assumptions used to set support levels for this technology in the Renewable Heat Incentive.

Issued: 20 September 2012

Respond by: 18 October 2012

Enquiries to:

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Call for Evidence Reference: **URN:12D/357** – Large Biomass Tariff (>1MW)

Territorial extent:

This consultation applies to England, Scotland and Wales.

How to respond:

The closing date for responses is: 18 October 2012

Please send responses by email to: rhi@decc.gsi.gov.uk. Alternatively, hard copy replies should be sent to the address above.

Additional copies:

You may make copies of this document without seeking permission. An electronic version can be found at: www.decc.gov.uk/rhi

Other versions of the document in Braille, large print or audio-cassette, including a Welsh version, are available on request via the enquiries address above.

Confidentiality and data protection:

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the access to information legislation (primarily the Freedom of Information Act 2000, the Data Protection Act 1998 and the Environmental Information Regulations 2004).

If you wish information that you provide to be treated as confidential please say so clearly in writing when you submit your response to the consultation. It would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive

a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded by us as a confidentiality request.

Introduction

The Renewable Heat Incentive (RHI) was launched in November 2011 with the objective of helping the UK achieve the targets set out under the Renewable Energy Directive. The scheme supports renewable heating in commercial buildings, industry, community infrastructure and district heating by providing a payment in the form of a tariff for each kilowatt hour (kWh) of renewable heat generated. Three consultations are being launched in parallel to this call for evidence: “Renewable Heat Incentive: proposals for a domestic scheme”, detailing proposals of introducing RHI support for households; “Renewable Heat Incentive: expanding the non domestic scheme”, detailing our plans for introducing support for new technologies; and “Renewable Heat Incentive: Air to Water Heat Pumps & Energy from Waste”, detailing our proposals for Air to Water Heat Pumps and Energy from Waste. These consultations are all available on the DECC website and have a closing date of 7 December.¹

In addition to these consultations we will be launching a series of ‘calls for evidence’ relating to different technologies. Please note that these calls for evidence are being issued as separate documents and are being run to different timescales with different deadlines for response. This call for evidence relates to large biomass over 1MW and is open for 4 weeks, with a deadline of 18 October. Details of the other calls for evidence are available at the end of this document.

Large Biomass (>1MW)

Large biomass is currently the most cost-effective technology in the RHI scheme, in that it has the lowest cost per unit of energy generated.

Due to the cost efficiency of this technology we originally set the tariff at a rate of 2.7p/kWh with the aim of incentivising 100% of the large biomass potential. For all other technologies, apart from solar thermal, the tariffs were intended to incentivise 50% of the potential for each tariff band. As part of the European Commission state aid clearance for the scheme, we had to use a consistent tariff methodology for large biomass. That change in methodology resulted in the tariff being reduced from 2.7p/kWh to 1p/kWh. Based on our evidence about costs and performance, alongside fossil fuel cost projections, we estimate that a tariff of 1p/kWh would be sufficient to incentivise 50% of the large scale biomass potential. Indeed, we have already received a significant number of applications for large biomass.

However, anecdotal evidence from industry suggests that following the reduction in tariff to 1p/kWh more than 50% of projects planned at the 2.7p/kWh rate have been cancelled. Therefore, we are calling for evidence to verify our assumptions about the capital and operating costs of large biomass boilers and their performance.

Question

¹ www.decc.gov.uk/rhi

Can you provide us with specific examples where large biomass projects have not gone ahead, specifying why the projects were cancelled?

Our original modelling was based on the following assumptions;

Main assumption	Biomass Boilers	Biomass District Heating
Capital Cost	Full installation costs including, plant and machinery, building works, flue and fuel handling.	All investment costs up to and including the heat exchanger in the heated property.
Operating cost	No assumptions made	2% of capex, Bioheat Project figures as reported by Austrian Energy Agency course material.
Efficiency	Annual efficiency on net basis.	80% on net basis, this is annual not peak.
Overall efficiency to consumer	No assumptions made	Net basis is less due to loss of 10% in pipe work and distribution. Bioheat Project figures as reported by Austrian Energy Agency course material.
Load Factor	This data was taken from Carbon Trust Users Guide to Biomass Heating.	This data was taken from Carbon Trust Users Guide to Biomass Heating.
Lifetime	Enviros figures and AEA estimates used.	Enviros figures and AEA estimates used.

Applicability	Small urban properties are assumed to be excluded due to air quality concerns, detached properties will be retained as some will be suitable.	All urban and rural areas. Urban areas are high density areas supplied by traditional networks fuelled by waste wood and other cheaper biomass in large installations. Rural areas are small mini networks covering pockets of high density buildings with the benefit of local fuel. Suburban areas are excluded as loading per km is too low to be economical.
Impact on counterfactual	Commercial and industrial are assumed to supply existing and suitable heating systems such as warm air and wet.	Commercial and industrial are assumed to supply existing and suitable heating systems such as warm air and wet.
Typical size	These are AEA estimates based on the numbers of installations, consumption and knowledge of the sectors.	No assumptions

Question

Please provide data, in the format of the table above where possible, on the main assumptions. In particular where you disagree with current assumptions and evidence base, please provide specific supporting examples.

During the period of this call for evidence we have also commissioned a review of cost and performance assumptions for RHI-supported technologies. This call for evidence and the work we have commissioned to be carried out are designed to be complementary. Therefore, you do not have to supply information through both sources though please use this call for evidence if you are not contacted by our consultants and if you would like to provide supplementary information.

Other calls for evidence

Call for Evidence- Ground Source Heat Pumps

The existing tariff for ground source heat pumps has not brought forward the number of installations of this technology we expected. Discussions with the industry have indicated that this may be due to inaccuracies in our assumptions about the costs, performance and load factors of installations. We are issuing a call for evidence to verify our current assumptions.

Call for Evidence- Landfill Gas

Landfill gas is a declining resource and is not currently supported under the RHI. We are launching a call for evidence asking for more information on this technology.

Call for Evidence- Biopropane

A relatively recent proposal from the industry involves importing biopropane for use in the UK. Initial research suggests this would present good value for money in terms of renewables targets but importing this gas would not promote green growth and UK heat self sufficiency to the same degree as other renewable technologies and fuels. Currently, we do not have sufficient data to make firm proposals about the inclusion of biopropane. In order to obtain more information we are publishing a call for evidence on this fuel.

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