

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

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?

Yes

Comments: Although, in a supplementary Impact Assessment of the RHI, the Government estimates likely costs to energy consumers, and, in the consultation document, proposes a number of financing models, it does not make explicit how funds will be raised for the RHI and therefore what constraints there will be on funding. This is important because delays or limits on the amount of funding available could seriously constrain the operation of the RHI.

The consultation document (only) partly acknowledges the challenge of accommodating within the same incentive scheme every level of intervention from small (domestic)-scale heating to large scale district heating (DH) schemes. However it does not deal with possible duplication, for example subsidising solar thermal panels in an area earmarked for district heating.

Lessons may be learnt from the operation of the Renewables Obligation (RO) to avoid or mitigate unforeseen or even perverse outcomes. The benefits (as reduced overall CO₂e emissions) of providing a significant financial incentive for large scale DH schemes, drawing heat from a number of sources only some of which may be renewable, may greatly outweigh the direct gains from using renewable energy sources. However a large Combined Heat & Power (CHP) scheme using imported wood as “dedicated energy crops” will already receive a very substantial subsidy through the RO. The RO incentivises generation of electricity and hot heat, potentially to overall detriment to the thermodynamic efficiency of conversion of fuel to energy. However the RHI could be an opportunity to subsidise district heating *systems* as opposed to just the sources of heat that will feed into such systems. (This would require further guidance about the degree or proportion of *ownership* of a system required for different organizations feeding heat into a DH scheme). This might be achieved by allowing the subsidy to go beyond strictly renewable heat and apply to a system drawing from both renewable and “non-renewable” heat sources. Widening the subsidy to promote more efficient use of non-renewable heat would bring forward large scale projects increasing substantially the percentage of renewable energy generated. Estimates would be then needed of renewable heat to satisfy the monitoring requirements for the Government’s renewable energy targets.

Feed-in Tariffs proposed for Anaerobic Digestion (AD) are higher for electricity production (11.5p/kWh over 20 years) than for heat generated (proposed 5.5p/kWh over 10 years for on-site

combustion, and 4p/kWh for biomethane injection). This would encourage electricity generation from AD, which is a less efficient use of biogas than heat production (whether through local distributed heat systems or biomethane injection into grid). AD also offers considerable potential as a transport fuel (arguably providing more environmental benefits than through generation of power through CHP and injection of gas into the grid). The financial incentives developed for AD in particular should reflect the highest/most efficient utilisation of the fuel.

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

Comments: In order to “de-risk” future investments, a floor value must be established for the value of RHI subsidies to large projects in the medium and long term. The greater certainty the Government can establish for future pricing, the greater the likelihood of timely and substantial investments being made in projects with a long-term (20-50 year) horizon.

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

Yes

Comments: However attention should be given to the definition of the “owner” in relation to DH schemes, where a system may be fed by a number of different heat sources, as under Q1 above.

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

Comments: LARAC does not have specialist knowledge in this area

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: LARAC does not have specialist knowledge in this area

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?

Comments: LARAC does not have specialist knowledge in this area

Q7: Do you agree with our proposed approach to eligibility of energy sources, technologies and sites?

Yes/No

Comments: LARAC does not have specialist knowledge in this area

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?

Yes/No

Comments: LARAC does not have specialist knowledge in this area

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?

Yes

Comments: Government should take a pragmatic approach to emissions standards for small scale biomass boilers, and allow for permitted emissions limits to be reviewed (and reduced in the future) in the light of the performance of the best available technology. This would provide an incentive for manufacturers to improve the performance of their equipment.

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?

Yes/No

Comments: LARAC does not have specialist knowledge in this area

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?

Comments: LARAC does not have specialist knowledge in this area

CHAPTER 3: TARIFFS

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?

Yes/No

Comments: LARAC does not have specialist knowledge in this area

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?

Yes/No

Comments: LARAC does not have specialist knowledge in this area

Q14: Do you agree that at the large scale/in process heating, where we propose metering, 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

Comments: LARAC does not have specialist knowledge in this area

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: Under Q1 above, we pointed out that large-scale biomass CHP will already receive a large subsidy from the RO, so may not need significant additional incentivisation. However getting the capital investment for a large DH scheme that might include biomass CHP as one of a number of heat sources may require a significant subsidy through a RHI.

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: We believe the most environmentally advantageous use of biogas is as a road fuel. The

Government may, as a separate issue, wish to review the Renewable Transport Fuels Obligation in the light of this. Next to this, direct injection into the grid provides arguably more flexibility for distributed heat than CHP. CHP may be generated from biomethane or syngas from both renewable and non-renewable sources, especially as energy from waste. The same argument applies as above for DH, that the subsidy should be directed to the distribution system as well and not to the generator *per se*, and that it should be used to incentivise more efficient use of heat generated from non-renewable as well as renewable sources. Probably a ROC subsidy provides most of the incentive needed to develop CHP.

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: LARAC does not have specialist knowledge in this area

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

Comments: LARAC does not have specialist knowledge in this area

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

Comments: Co-firing renewable fuel (such as Secondary Recovered Fuel) with fossil fuel is technically feasible and should not be eliminated – even though different emissions monitoring standards may, in practice, reduce the likelihood of this taking place. Although allowing the use of mixed fuel may, on the face of it, make monitoring more difficult, in practice generic assumptions about the proportion of renewables in a given mix may be made, with the onus on the generator to demonstrate that their fuel mix contains more renewable material than assumed. A similar approach is allowed under the RO concerning the proportion of renewable material in residual municipal waste.

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

Yes

Comments: Definitely. Refer to our responses to questions 1, 16 and 19 above

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-treat 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

Comments: An uplift should be available to all eligible DH networks. The focus should be on environmental gains, not on whether properties are considered to be “hard to treat”. It would be difficult in any event to provide transparent and fair criteria for “hard to treat” in respect of properties, especially if a DH network was proposed to extend (or be designed to allow for extension) over a number of types of properties.

There is no reason why networks connecting one or a small number of large external heat users should not be eligible for an uplift, provided that the owner can demonstrate that he has thereby replaced heat that would otherwise have been generated using fossil fuels with heat generated from renewable fuel. Making an uplift available to small numbers of heat users would promote symbiotic developments and increase investment in industry. However there is a strong case for differentiating between schemes that pipe heat (as hot water) to heat commercial and residential premises, that should benefit from the largest possible uplift, and schemes that pipe steam to industrial processes, that might be incentivised by a smaller subsidy.

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?

Yes

Comments: Yes and yes, for the reasons given in the consultation document.

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?

Yes

Comments: For (large) projects that have long lead-in times and long time horizons,

degression should not be a possibility for a very long time – at least 5-10 years. The risk (of unnecessarily generous subsidy) is far less far-reaching and significant than the risk of projects not going ahead because of insufficient subsidy.

The same does not apply to small projects and domestic-scale schemes, where the rate of subsidy could be adjusted from a first review in the light of better market information.

Q24: Do you agree with our proposed approach on innovative and emerging technologies?

Yes/No

Comments: LARAC does not have specialist knowledge in this area

Q25: Do you have any views on how we should encourage technology cost reductions through the RHI, particularly on solar thermal heat?

Comments: LARAC does not have specialist knowledge in this area

Q26: Do you agree with our proposed approach to reviews, and the timing and scope of the initial review?

Yes

Comments:

Q27: Can you provide examples of situations that could be taken into consideration in determining criteria for an emergency review?

Comments: Lack of prospective investment in large DH schemes.

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: An early and clear cut-off date for projects ineligible for RHI support is helpful. This minimises the time during which projects may be delayed owing to prospective support not yet being available.

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?

Possibly

Comments: The effect of RHI support on large-scale CHP schemes that already receive a substantial subsidy from the RO will have to be considered and then monitored carefully, as levels of support for long term projects will (rightly) be fixed for the duration of projects. Relying solely on the RO subsidy would tend to make owners operate plant to maximise electricity generation, at overall less thermodynamic (and carbon) efficiency than when heat output is greater. On the whole, a constant heat load throughout the year is preferred by schemes like this, hence the question about incentivising schemes with a small number of large scale heat users. The most important question is how to incentivise district heating systems, which will give for the most efficient possible use of heat, but with a substantial annual variation in heat load, and therefore less than optimal from the point of view of the heat provider. Directing the subsidy to the owner of the distribution system and making it available also for non-renewable heat (with a specified minimum proportion of renewable heat) may be a way of achieving the right balance between incentivising investment and possible abuse of support.

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-heat properties? What proportion of the total network of the reference installation(s) supply heat to hard to heat 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: We are not experts in district heating systems, but we suspect that large projects will need to be dealt with on a case-by-case basis until a body of evidence has been developed that will indicate an appropriate and effective level of subsidy (and, possibly, other market incentives). Our responses above (especially to Q1, 21) refer. In the early stages negotiations could be initiated with owners of DH projects on the basis of indicative levels of support. The level of incentive needed then could be negotiated alongside other Government or EU interventions.