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:** **The consultation does not clearly enough distinguish between the promotion of investment in heat generating installations and that in heat networks required to distribute their generation.** **A full focus on what level and type of incentive is required to promote investment in future heat networks is vital to avoid sub-optimal results and the risk of heat dumping.** **This issue is particularly relevant to aligning the Renewable Heat Incentive as closely and successfully as possible with the Government's zero carbon homes policy. Under the zero carbon policy it is likely that on the one hand some on-site renewable heat installations will want to export surplus heat to other local users in the existing built environment and on the other hand new developments may wish to connect with or help finance off-site renewable heat networks under the "carbon compliance" and "allowable solutions" elements of the policy respectively.** **If a suitable return on investment in such heat networks is not available where such networks make sense technically, the zero carbon homes policy will become both more difficult and more expensive to deliver with a consequent threat to housing delivery.** **The Government therefore needs to give urgent consideration to a suitably designed uplift to the RHI to ensure that investment in feasible heat networks is encouraged.** **We also believe the consultation gives insufficient attention and weight to the role of all types of CHP and low carbon technologies – including as a means of providing a bridge between the current position, where there is very little renewable heat generation and few related heat networks, and a future in which renewable heat infrastructure provides an established part of national energy supply and distribution.**

In addition, the consultation document focuses too much on technologies and not enough on their relative efficiencies in saving carbon. There is a consequent danger that – coupled with our wider concern about the need to consider a more effective incentive for renewable heat networks - the RHI might as a result promote or lock in perverse outcomes that do not prove to be sufficiently robust for the longer term. **Greater emphasis on promoting feasible district heat networks and less on installations of specific technologies would help future proof the renewable heat strategy.**
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:** **The lack of a properly designed and focused uplift in the RHI to encourage investment in heat networks would be a barrier to such projects being able to raise finance at affordable rates where they are technically sensible and practical to deliver.** **A clear basis for homeowners being able to assign RHI income to developers or third parties in order for them to be able to raise finance effectively against this income is needed for the incentive to be effective in helping to reduce the cost of the zero carbon homes policy. There are contractual and marketing issues to consider and further discussion on this would be helpful to ensure that the possibilities for accessing the RHI income stream are as accessible to home builders and their delivery partners as possible.** **Ideally home builders and their delivery partners would be able to access direct the RHI income stream for duly accredited installations on their developments as this would reduce the potential contractual and marketing difficulties of assignment by the householder.**
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:** **Although we are generally content with the proposals, we do have concerns about the proposal that for small and medium sized installations the Microgeneration Certification Scheme should be the preferred means of delivery and the sole basis for accreditation. We understand there are quite widely held concerns – including in the renewables**

industry - about whether the MCS currently works effectively. These concerns need to be addressed and we would favour policies that assist alternative accreditation mechanisms of the required standards to be established. **We would add that Ofgem is currently untested in this field and close attention needs to be given to ensuring that its relevant processes are fit for purpose both for smaller and larger installations.**
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?
No **Comments:** **As mentioned in answer to Question 3, we believe there a quite widely held concerns about the effectiveness of the MCS. We would therefore propose that market competition for the provision of accreditation services meeting the required standards is encouraged. This would also help ensure the costs of certification schemes are kept as low as reasonably possible.**
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?
No **Comments:** **Given the existing concerns about the MCS, this would not appear to be an appropriate step to take – at least until the operational issues relating to the MCS had been resolved.** **We do, however, favour the principle of competition in the provision of accredited services. Suitable certification principles for medium and larger scale installations could be managed by Ofgem.** **On a specific point, we also believe that the new limit of 300 kW for biomass installations to be dealt with effectively under the MCS is too high and should therefore be reduced. The MCS is not at present fit for purpose to deal with installations of this size.**
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? **No.**
Comments:

Q7: Do you agree with our proposed approach to eligibility of energy sources, technologies and sites?
Not in their entirety **Comments:** **We support the bulk of what is proposed as a pragmatic application of the RHI to currently applicable technologies.** **We do not, however, agree with the exclusion of renewable cooling from the scope of the incentive. With cooling requirements expected to become an important consideration in future for new and existing homes it risks frustrating the optimum development of both future building design and renewable heat technologies not to allow the RHI to apply to renewable cooling.** **We also consider that more attention should be given to the role of CHP and low carbon technologies.** **As mentioned in our overview comments under Question 1 above, the role of CHP and low carbon technologies as a bridging technology and facilitator of investment in renewable heat networks has been largely overlooked in the consultation.** **Given the challenges of developing new heat networks there is a strong case for allowing all CHP installations – irrespective of their fuel source - to be eligible for support under the RHI for an agreed transitional period in view of the carbon benefits the network would provide. A transition period of about 8 years would seem appropriate in view of the lead times and payback periods involved. Beyond that networks and installations would need to qualify as proposed in the consultation for RHI support to continue to be available.** **In addition, gas-fired CHP should be eligible for the RHI where suitable biogas is used as a fuel source.**
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 **Comments:** **We have no specific comment on this issue.**

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/No **Comments:** **Safeguards to air quality are very important, but whether these proposed maximum emission standards are sufficient we do not know at this stage – we do not currently have data that we can provide to assist a decision on this issue.** **We would point out that there are also Carbon monoxide (CO) concerns as biomass boilers can produce up to 10 times the amount of CO compared to gas boilers.**
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 – but with serious reservations on the methodology as indicated in our comments below **Comments:** **We agree in principle that deeming is the best and simplest approach for ensuring household scale installations are coupled with the achievement of desired energy efficiency standards.** **At present, however, the home building industry has concerns about the robustness and consistency of EPC assessments. There are also issues about the reliability of the SAP methodology which is being revised at present and may need to be updated further in future. For these reasons we do not believe it would be fair or acceptable to rely solely on deeming at present and that metering may also be needed – at least in the initial years of the RHI – as a backstop check to monitor the robustness of deemed decisions on the amount of RHI payable for household installations.** **We think deeming will also be most suited to household level installations and more difficult to validate for larger scale installations where there may also be some risk of fraud.**
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: **We do not think there would be any incentive for developers to build to lower energy efficiency standards ahead of the 2013 and 2016 building regulations changes as a result of the introduction of the RHI.** **The work undertaken by the Zero Carbon Hub to determine the proposed minimum fabric efficiency standard under the zero carbon homes policy clearly identified that this level of efficiency represented the best balance in terms of carbon and financial cost and benefit. It follows that the application of renewable technologies not required to meet this standard of efficiency would be sub-optimal for the developer as well as in policy terms.** **In addition, given the upfront capital cost involved and the consumer, service, maintenance and replacement issues associated with the use of renewable technologies, developers will naturally want to employ feasible and practical energy efficiency measures as their priority before considering the application of household scale renewable technologies.** **Moreover it should be noted that for some types of new dwelling – notably flats and apartments - the new 2010 Part L requirements will already take performance standards close to the proposed minimum fabric efficiency standard under the zero carbon homes policy.** **For all these reasons we do not think that any additional policy intervention is needed or justified on the point raised in the question. If nevertheless the Government seeks reassurance on this matter, the simplest answer would be to deem the RHI payable to be consistent with the requirements of the proposed minimum fabric efficiency standard under the zero carbon homes policy.**
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 – but again with significant reservations **Comments:** **Please see our comments on questions 10 and 11 above. The principle of deeming is sound, but at present we do have concerns about the reliability and consistency of EPC data and the SAP methodology for new homes. The ability to cross-check and adjust deemed allocations if necessary is therefore required which would mean considering some metering alongside deeming at this stage.**

We do not think deeming is a robust solution for installations that are of larger than individual household scale.
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 – but again with significant reservations **Comments:** **Again the principle is acceptable, but we do not think the SAP methodology and EPC assessment is currently sufficiently robust on its own to ensure a fair outcome in determining deemed allocations of the RHI for new homes.**
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 **Comments:** **On the practical difficulties concerning heat meters our biggest concerns centre around potential reliability and costs. We understand, however, that the CHPA considers metering to be a practical option for larger scale installations.**
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: **We have no comments on this issue.**
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 have no data that would help resolve this matter.**

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 **Comments:** **We believe that in general the proposed rates of return for installations are sensible and fair. We have some doubt, however, that the proposed tariffs for different types of installation necessarily achieve the target rates of return and ask that further work is conducted in partnership with industry stakeholders to validate final figures to ensure they are robust.** **We have a specific concern that the proposed tariff for large scale installations of more than 500 kW are too low at 1.6 to 2.5 pence per kWh. A level of about 5 pence per kWh is needed to provide a sufficient return on such installations.** **We are also concerned that the proposed tariffs do not address the nature and level of incentive required to promote the development of renewable heat networks and district heating schemes where these are technically and practically feasible.** **It is important that this other dimension of the policy is effectively put in place from the start of the RHI to ensure that the best and most cost and carbon-effective schemes can be developed for the future. Where such schemes are feasible they should prove more efficient for all parties. The sizing and location of renewable heat installations cannot be optimised without supporting investment in heat networks where this makes sense.** **A further concern is that the proposals for tariffs have too much of a focus on technology alone and do not consider the need to promote solutions that are the most efficient in terms of saving carbon in terms of their cost per tonne of carbon. This further dimension of policy is important if the RHI and related policies to decarbonise UK energy supply are to promote sub-optimal outcomes for the longer-term future.**
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:**
Q20: Do you believe that we should provide an uplift for renewable district heating?
Yes **Comments:** **This is an important issue.** **It is essential that an accessible and effective uplift to the RHI should be available for district heating from the beginning of the incentive in 2011. There is real scope to develop district heating networks in the UK, but where such networks are feasible the investment required will involve local distribution infrastructure as well as the generation plant itself. The additional risks and costs entailed mean that such investment will be unlikely to be forthcoming unless the rate of return proposed for installations is also made available to suitable district heat networks.**
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 made available to all eligible district heating networks.** **A simple criterion for determining which networks qualify for the RHI is required.** **Having discussed the position with bodies representing the potential providers of renewable heat, we believe a suitable criterion for determining eligibility for the RHI would be to establish a 12% rate of return on a typical high density heat demand (which could perhaps be pitched at 3,000 kWh/m2/yr as recommended in work undertaken by the Poyry consultancy). All installations and networks that otherwise complied with the**

standards of RHI would be eligible to claim the uplift if a network were developed or extended in tandem with a new installation.

This would be a self-regulating approach because in areas where the heat demand was of a lower density the cost of developing a network per kWh of heat delivered would rise and, therefore, the return on the project investment would fall below an acceptable rate even with the RHI. The advantage of this approach would be to avoid the need for bespoke eligibility criteria for determining if a network was eligible for support. By contrast, the concept of "hard-to-treat" properties would be very hard to apply and potentially add enormous administrative complexity to a RHI uplift. In turn that would create much greater certainty for potential investors.

Within this overall approach it would also be necessary to ensure that uplifts were available for different types of network and their respective investment requirements.

Besides networks using industrial process heat – which fall outside the expertise and knowledge of the Federation – provision will need to be made to encourage investment in lower grade heat networks. There are likely to be two types of such networks:

- **Single building networks – where a scheme is designed to deliver heat across a single building with multiple customers such as a tower block. The support level for such networks would need to be designed to cover the costs of heat exchangers, risers meters etc but not the cost of conventional digging.**
- **Multiple building networks – where the incentive would need to cover the cost of conventional heat networks servicing a number of buildings. Such networks would need the highest level of RHI uplift.**

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:

The effectiveness of the RHI will depend on investors having certainty about the income stream available to them for the duration of the investment. We agree that attempting to allow for fluctuations in the tariff over time other than to correct for inflation would introduce undesirable complexity into the scheme.

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:** **It is important not to introduce degression initially given the immaturity of investment in renewable heat installations and networks and the related uncertainty about their costs.**
Q24: Do you agree with our proposed approach on innovative and emerging technologies?
Yes **Comments:**
Q25: Do you have any views on how we should encourage technology cost reductions through the RHI, particularly on solar thermal heat?
Comments: **Degression is a recognised means of encouraging technology costs reductions once a scheme such as the RHI is properly established. It has the merit of being an uncomplicated and readily explicable mechanism.**
Q26: Do you agree with our proposed approach to reviews, and the timing and scope of the initial review?
Yes **Comments:** **The reviews should be aligned with those for the Feed-in Tariff to ensure overall consistency of policy over time.** **There should also be liaison with Communities and Local Government over the definition of zero carbon for new domestic and non-domestic buildings to ensure the RHI is as accessible and helpful as possible in realising these policy objectives effectively.**
Q27: Can you provide examples of situations that could be taken into consideration in determining criteria for an emergency review?
Comments: **No specific comments.**

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: **We agree with the proposed approach.**
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?
No **Comments:**
ANNEX 3: CALL FOR EVIDENCE ON DISTRICT HEATING NETORKS
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?**
No **Comments:** **Please see our answer to question 21 above.**


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