NFU Consultation Response

Title:	DECC reforms to RHI scheme	Date:	26th April 2016
		Ref:	RHI_URN16D012_NFU.doc
Circulation:	ETLcallforevidence@decc.gsi.gov.uk	Contact:	Dr. Jonathan Scurlock, Chief Adviser, Renewable Energy and Climate Change
		Tel:	07986 094193
		Fax:	
Deadline:	27th April 2016	Email:	jonathan.scurlock@nfu.org.uk

DECC Consultation URN 16D/012: Reforms to the existing Renewable Heat Incentive Scheme

The National Farmers' Union of England and Wales (NFU) represents 47,000 farm businesses throughout England and Wales. In addition we have about 40,000 countryside members with an interest in farming and rural affairs.

With 75 per cent of national land area in the agricultural sector, NFU members have a significant interest in land-based renewable energy production, where they can benefit directly as energy producers themselves or as hosts for energy plant developed by others. Our own market research, as well as that of other organisations, suggests that more than one-third of farmers and growers have already invested in some form of renewable energy production for self-supply or export to other users. We estimate that farmers own or host around 60% of Britain's solar power capacity, half of AD capacity and the majority of wind power, while playing a significant role in the supply or fuelling of renewable heat.

The NFU believes that domestic land-based renewable energy can deliver up to a quarter of UK clean energy needs by 2020, faster and cheaper than many other low-carbon energy options. This message is consistent with our vision for farming delivering a wide variety of goods and services to the UK economy, centred upon but not limited to food production. We are especially supportive of farmer-owned small and medium scale renewables projects, particularly schemes which deliver multiple benefits from the land or which help farmers to achieve local environmental objectives (e.g. resource protection, biodiversity).

General comments

The NFU would like to make the following observations concerning the main issues raised in the consultation document.

We recognise that, according to Government projections, renewable heating needs to grow to about 12% of heat supply by 2020 (72 terawatt-hours per year) in order to make a significant contribution to the binding targets in the EU Renewable Energy Directive. Some further tapering-off of tariffs was expected as the market grew, but the Government's projected levels of future deployment (just 60 large non-domestic biomass installations per year by 2021) are very worrying for the biomass heat sector, which has been dominated by farmer uptake.

In our responses to previous Government consultations, the NFU expressed satisfaction that the Government recognises the potential opportunities in renewable heat supply and use for farm businesses and rural communities, many of which are not connected to the gas grid and are reliant upon more expensive heating fuels. We expect there to be further opportunities for farm enterprises to

provide heating services and renewable fuels (solid, liquid and gas) to rural communities, e.g. where new development and refurbishments are made to business units or affordable rural housing. In other EU member states such as Austria, heat from wood fuels, agricultural residues such as straw and farm biogas plants is typically supplied to large local heat users and local communities through district heating networks. The NFU would like to see such new business opportunities for bulk heating supply from about 200 kW to 3MW actively encouraged by the Renewable Heat Incentive scheme.

The NFU notes that government data on renewable heat use are not so readily available nor as well broken down as information on renewable electricity production, so it is harder to track progress in delivering renewable heat against national and European policy goals (see our response to Q54d). We also share the serious concerns raised by the Renewable Energy Association and Wood Heat Association that government projections of renewable heat delivery outside the RHI are based upon sparse survey data, potentially leading to implausible conclusions (the updated 2015 domestic wood fuel survey is useful, but it should be subject to further stakeholder criticism and feedback). At present, it appears that the RHI and other Government policies on renewable heat are not sufficient to meet the UK's central ambition under the EU Renewable Energy Directive, i.e. 72 TWh/year by 2020.

Furthermore, we are discouraged that this DECC consultation on the RHI scheme proposes to limit support for renewable heat to around £1bn/year, a fraction of the present £3-4bn/year levy support for renewable electricity. Given that heat is responsible for around half of UK energy supply, and one-third of GHG emissions, this does not seem proportionate.

Under the RHI to date, biomass heating has been the most successful technology by far, accounting for about 95% of installation numbers as well as capacity installed. Yet the projected future level of government support (just 60 large installations per year by 2021) represents a huge reduction in RHI deployment, compared with more than 7000 smaller biomass systems in 2014 and over 3000 in 2015. Farmers have been making up 30% of applicants to the non-domestic RHI, installing mostly small and medium sized biomass systems, and it is hard to see how the biomass boiler supply chain can adapt at the pace now proposed by DECC. The present focus on large-scale biomass heat threatens UK progress since 2011 in developing supply chains mostly around small and medium sized installations, in common with other EU member states. Cutting support for biomass is not going to increase uptake of electric heat pumps, since the two technologies occupy different market niches and are rarely in direct competition. Likewise, the changes proposed to RHI support for heat from biogas and biomethane are likely to stifle growth in the AD sector and disadvantage smaller-scale deployment, further limiting the range of opportunities for many farmers.

The government's longer-term heat strategy, including identifying the UK's likely sources of low-carbon heat beyond 2020, also appears to be poorly developed. Alternatives to the current reliance on natural gas need to be deployed across the domestic, commercial and industrial sectors, at a rate much faster than current buildings and capital assets can be upgraded – which suggests that technologies best-suited to energy-efficient building envelopes and processes (such as heat pumps) will not be sufficient. Contrary to recent Government statements that biomass is a "scarce resource" (or will be by 2050) which cannot be deployed more widely, the NFU believes that an extensive variety of both domestic and imported bioenergy fuels, amounting to tens of millions of tonnes per year, will continue to be supplied in the following decades. According to expert opinion on worldwide biomass supply, "the basic premise that land availability is the key constraint is demonstrably wrong"; another biomass industry view is that "well-managed demand for biomass creates its own supply response". Many authorities agree that biomass and bioenergy are most likely to be strategic, rather than transitional, energy resources – in Britain as well as across the rest of Europe. However, consistent UK government policy measures on low-carbon heat are required to deliver this need, as previously identified in the 2012 Bioenergy Strategy but not since implemented.

Consultation questions

The NFU would like to submit responses to selected questions posed in this Consultation, in addition to the comments made above on the wider policy context.

> *Q1. Do you agree with the proposed policy approach for degression and trigger setting? Yes / No. Please provide evidence to support your answer.*

No. We agree with other stakeholders that the current the degression mechanism is too aggressive, leading to boom and bust cycles in the renewable heat market, although we understand the need to manage the cost of the scheme. Trigger thresholds should be raised, tariff degression should be more gradual and progressive, and DECC forecasts of deployment should be increased for the small and medium size classes. The contraction in the market which is otherwise likely to happen would represent a great waste of previous Government policy effort, and appears to conflict with the aim of the RHI scheme, viz. "to develop the renewable heat market and supply chain so that it can support the mass roll out of low carbon heating technologies".

> *Q7. Are there any potential heat uses which the Government should consider not supporting for new applicants to the scheme? Yes / No.*

No. The NFU does not believe there is a need to limit eligible heat uses for new applicants, given the urgent necessity of stimulating innovation in the delivery of renewable heating (see also our response to Q31 and Q32).

Non-Domestic RHI: Planning Permission

> *Q8. a. Will the requirement to obtain and maintain appropriate permissions for new plant in order to be eligible for and continue to receive RHI support pose any barriers to deployment under the scheme? Yes / No. Please expand.*

Yes. The NFU cannot see the justification for this proposal. Planning permission (where required) is a separate matter for local planning authorities, and any such pre-requisite would only increase the administrative burden for RHI applicants, slowing deployment.

Heat demand limits and heat pumps

> *Q15. Do you agree that the proposal to introduce heat demand limits will contribute to achieving the aims of the reform of the RHI? Yes / No. Please expand.*

No. The NFU agrees with other stakeholders that heat demand limits may have perverse consequences, in some cases rendering otherwise sound renewable heating installations uneconomic without stimulating smaller-scale deployment. Tiered tariffs are a better way of limiting over-compensation of larger installations. The NFU recognises that biomass boilers are particularly suited to older rural domestic properties off the gas grid such as farmhouses, which are likely to have above-average annual heat needs (20-30,000 kWh/year, rather than the 10-20,000 kWh/year more typical of a range of domestic properties in urban areas).

> *Q16. a. What are your views on the limits of: 20,000kWh for AWHP; 25,000kWh for GSHP and biomass? b. What would be the merits of higher/lower limits? Please expand.*

If annual heat demand limits were to be introduced, the NFU would second the proposal put forward by other stakeholders that they should be rebalanced to 20,000 kWh/year for ASHPs and 30,000 kWh/year for biomass boilers, with no limit for GSHPs.

Q17. In light of the issues raised in para 5.20, do you have any alternative proposals to heat demand limits which would achieve the same aims and which would be simple for potential applicants to understand, deliverable and applicable across the GB-wide scheme? Please expand.

The NFU supports the suggestion put forward by other stakeholders that the proposed heat demand limits should be replaced with a tiered tariff scheme, as already used in non-domestic RHI without creating confusion.

Heat pump tariffs and performance

Q 19a. Do you agree with reviewing the tariffs available:
i. Within the range of 7.42 -10.0p/kWh for AWHP? Yes/No.
ii. Up to a maximum of 19.51p/kWh for GSHP? Yes/No.....
...Q22. In your recent experience, what are the main non-financial barriers to the deployment of heat pumps in the domestic sector and how can they best be overcome?

Given the stated objective to deploy the "right renewable heating technologies for the right uses", the NFU supports the views of other stakeholders that increasing the tariffs for heat pumps is likely to deliver neither value for money nor a large increase in deployment. Biomass boilers may be preferred to heat pumps by consumers and installers in some off-gas-grid homes for non-financial reasons such as meeting peak heat load within the limits of single-phase electricity supply in larger houses; these two technologies occupy different market niches and they are not necessarily in direct competition. It is also hard to comprehend DECC's justification for withdrawing RHI support from domestic solar water heating (Q25) as well as non-domestic solar (Q45) on very similar 'value for money' grounds. Limiting the consumer choice of RHI heating technologies may not greatly stimulate the uptake of heat pumps, and the result could be to support the wrong heating technologies in the wrong places.

Biogas derived from crops

Q26a. Do you agree that limiting the use of some feedstocks will deliver more cost-effective carbon abatement? Yes/No. Please provide evidence to support your answer.

No. Having discussed this matter jointly with DECC officials, the NFU agrees with other trade association stakeholders that the Government should exercise caution in introducing restrictions on crop feedstocks in anaerobic digestion plants, given the apparently questionable evidence provided to support this proposal. The assumptions made in the supporting analysis on GHG emissions and carbon abatement costs are unclear, and they appear to apply only to maize and not to other crop feedstocks. Furthermore, this analysis was limited to biomethane plants only, so its conclusions should not necessarily be extended to RHI support for biogas heat.

The NFU believes that many of the environmental criticisms levelled at crop feedstocks for AD may be addressed by adherence to good agronomic practice (e.g. as concluded by the February 2016 ADAS/Ricardo report for Defra SCF0405), and we have participated with industry bodies over the past 5 years (as well as prior to that) in directing and shaping Goverment policy on AD, in order to promote such best practice (e.g. the 2014 Voluntary Code of Practice for Crop Feedstocks). Instead of artificially limiting the use of some AD feedstocks, DECC and Defra should be working together more effectively to encourage the utilisation of wastes and residues, e.g. by promoting or mandating food waste collection, and by reforming/broadening the environmental permitting and permit exemptions for AD plants using low-risk categories of waste.

b. Apart from wastes and residues, are there other feedstocks which should not be subject to payment restrictions? Yes/No. Please provide evidence to support your answer.

Yes – as the range of AD feedstocks grows with experience and technological developments, the NFU is aware of proposals to use grass silage cut from marginal land in environmental management, in addition to the existing use of silage from grass leys in crop rotation. Some grass silage may even be cut from pastures and meadows which are also grazed by livestock. It would be perverse to stifle such innovation in feedstock supply, so for the sake of administrative simplicity we propose that all silages cut from temporary or permanent pasture should be exempted from such restrictions.

Further clarity will be urgently needed on the definition of eligible residues and wastes, not necessarily limited to those with EWC codes, in order to allow for future flexibility. Agri-food by-products should be included, such as sugar beet pulp and brewers' spent grains, as well as unmerchantable food crops, vegetable packhouse discards and trimmings, straw and other crop residues, manures, slurries and agricultural wash-water.

Concerning unmerchantable produce, the NFU works with the British Retail Consortium and its members to improve cooperation across the supply chain and reduce food waste. Where food is not fit for its original intended purpose, it is of paramount importance that anaerobic digestion remains an option, although other uses such as animal feed do exist (depending upon location, logistics, and price).

The NFU proposes also that RHI for the full range of feedstocks should remain available to smaller-scale AD plants, e.g. biomethane plants equivalent to <500 kW electric (about 100 m3/hour biomethane), as well as payments for biogas heat for plants <250 kW (the 1MWth threshold proposed by Government for feedstock audits would be equally appropriate). This would reduce the level of administrative burden and financial risk for on-farm biogas, creating a more level playing field for small-scale AD.

> *Q27. Do you prefer option 1 or 2 as a method of limiting payments in respect of biogas / biomethane derived from crops? Option 1 / Option 2. Please provide your reasons and include any evidence.*

The NFU is pleased that Option 2 is the Government's preferred option, and we strongly support this preference. However, in our experience, such an accounting system **must be applied on an annual, not quarterly, basis** to take account of seasonality of feedstock availability (such as manures from winter-housed livestock). We believe that the Government's proposal to set the maximum proportion to 50% of the biogas yield from crops is too low, not justified by any practical evidence of plant operation (such as the need to maintain year-round consistent biogas output), and could be hard to achieve in practice. We suggest that a more practicable level for this limit would be 67% (two-thirds) or 75% (three-quarters) of the biogas yield from crops, allowing plant operators greater flexibility and plant management from a more balanced mixture of feedstocks.

> *Q30a. Do you agree with proposals to increase auditing requirements? Yes / No. Please expand.*

Although the NFU recognises the likely need for some feedstock audits, we are concerned that this could create unaffordable administrative burden for small and medium-scale operators of biogas and biomethane plants. We would agree to this only on the basis of annual accounting (see Q27 above), and only applicable to installations of 1MWth and above.

> *b. Do you think there are any wastes which should not be subject to unlimited payments? Yes/No*

No, all wastes (as identified by their EWC codes) should be eligible for unlimited payments.

> *c. Is there additional evidence that could be used to demonstrate that a generator intends to use waste? Yes / No. Please expand.*

No.

Q31. Do you agree with the proposal to remove support for heat used to dry digestate for new installations? Yes / No. Please provide evidence to support your answer.

No – although the NFU agrees that digestate drying may not always be the optimal use of available heat, removing its eligibility for RHI support will slow the urgently-needed development of a market for post-processed digestate, holding back desirable outcomes such as more efficient nutrient management and the cascading use of bio-based resources. Drying digestate may cause significant loss of nitrogen as ammonia (which could be subject to environmental regulatory control), but ammonia is not actually a greenhouse gas, and the loss of nitrogen may not actually matter for some commercial applications such as animal bedding.

Q32. Are there other uses of biogas heat which you do not consider a good use of the RHI payment? Yes / No. Please provide evidence to support your answer.

No. It is difficult for the Ofgem administrators of the RHI scheme to determine whether heat might otherwise have been supplied by fossil fuel, with consequent GHG emissions. There is a need to encourage and not stifle innovation in the use of clean energy for heat, in order to stimulate renewable energy supply and make progress against the RED targets.

Non-domestic RHI: Heat Pumps

Q34. In your recent experience, what are the main financial barriers to the deployment of heat pumps in the non-domestic sector? In particular, what are the main reasons why the current tariffs have not achieved higher deployment levels?
Q35. In your recent experience, what are the main non-financial barriers to the deployment of heat pumps in the non-domestic sector and how can they best be overcome? Please consider how they compare to the financial barriers in terms of impact on uptake and provide any supporting evidence.

The NFU shares the concerns of other stakeholders that increasing support for heat pumps while limiting it for biomass boilers in order to attain unrealistic high-level "rebalancing" goals is poor policy, based upon the previously discredited tactic of 'picking winners' from a range of technologies. Non-financial barriers to heat pump uptake include the suitability and energy efficiency of target buildings and processes, and the better fit of heat pump installations to new-build capital assets rather than retrofitting. The NFU supports the widest possible choice of renewable heating technologies for our members, and we believe that individual applications should be determined on the basis of market conditions and professional advice, given a level playing field.

Non-domestic RHI: Biomass and Solar

Q39a. Do you agree that the proposed single biomass boiler tariff should be tiered? Yes / No.
b. What is the appropriate tiering threshold at which participants should move from the Tier 1 to Tier 2 tariff? Please express your answer as a percentage, where 100% equals a system running constantly at full capacity.

Q40a. Do you agree that the appropriate tariff level for Tier 1 support for biomass boilers is in the range of 2.03 – 2.90p/kWh? Yes / No.
b. Within the range 2.03 – 2.90p/kWh what is the appropriate Tier 1 level of support for biomass boilers?

Q41a. Do you agree that the appropriate tariff level for Tier 2 support for biomass boilers is in the range 1.80 – 2.03p/kWh? Yes / No.

b. What is the appropriate level of Tier 2 support for biomass boilers, within the range 1.80 – 2.03 p/kWh?

Yes – we agree with the proposal for a single tiered biomass tariff, which will reduce the perverse incentives to over-size or under-size installations, improving performance and value for money. However, a Tier 1 level of support of 2.9p/kWh is presently too little to allow the supply chain to adapt for smaller boiler installations. The NFU agrees with the Wood Heat Association and Renewable Energy Association that a simple three-tiered tariff system based upon metered delivery of kilowatt-hours (thermal) would represent better design of the scheme across the entire size range. Appropriate tariffs would be 4p/kWh (Tier 1), 3p/kWh (Tier 2), 2p/kWh (Tier 3).

Throughout this consultation and Impact Assessment, there is too much emphasis on large-scale biomass boilers at the expense of small/medium scale installations. European and worldwide market trends so far have shown the greatest growth in medium-sized pellet-fired boilers, typically 100-1000 kW, and it would be very surprising to see the UK biomass heat supply chain changing quite so dramatically within a few years to deliver at a different scale. Such an abrupt change of policy direction threatens to trigger the collapse of the small and medium biomass supply chain and its fuel supply, wasting the previous five years of government effort through the RHI that has helped to build up a maturing industry.

Q45. Do you agree that we should withdraw support for new solar thermal systems in the Non-Domestic RHI from 2017? Yes/No. Please provide evidence to support your response.

No. The NFU agrees with other stakeholders that there is a poor case for saving money by removing support for solar thermal. The level of deployment and cost to the RHI budget has been modest (around 200 to date), but it remains a potentially important technology which enables access to renewable heating for some agricultural applications such as pre-heat for dairy parlour wash-water.

Non-domestic RHI: Tariff guarantees

Q46a. Our policy on tariff guarantees is that they should only be available to projects with long-lead times and which involve high capital expenditure. Do you agree installed capacity is a reasonable proxy measure for these criteria? Yes / No.
b. If No, what alternative proxy would you suggest?
c. Do you agree with the suggested capacity limits for eligibility for tariff guarantees as set out in paragraph 11.15? Yes / No.
d. If No, what capacity limits would you suggest?

Yes - the NFU welcomes the principle of tariff guarantees in order to provide greater certainty to investors and the supply chain across the full range of technologies and capacity limits as proposed (including all scales of biomethane and deep geothermal projects). However, we concur with other stakeholders that the size limit for heat pumps does not need to be appreciably smaller; a threshold of 500kW instead of 100kW would be more proportionate.

Conclusion

Q53. Does your interest in the RHI relate to the operation of the scheme in a particular geographical area?

d. GB-wide

Q54. We are interested in stakeholders' experience of our regular RHI deployment statistics publications.

a. *Do you use these statistics?* Yes
b. *If yes, for what purpose?* For estimating total uptake and uptake by farmers in particular.
c. *Is there any information within the statistics that you find especially useful?* Yes – information on installations by category of RHI applicant (Standard Industry Classification Code)
d. *Is there any information not provided in the statistics that you would find useful?* Yes – quarterly/annual totals of heat generated by technology are a serious omission, and would greatly enhance the deployment data. We also agree with other stakeholders that data on bioenergy sustainability will be useful from now onwards.