Consultation on proposals for the levels of banded support under the Renewables Obligation for the period 2013-17 and the Renewables Obligation Order 2012

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.

PERSONAL DETAILS
Respondent Name: Catherine Bowyer Email Address: cbowyer@ieep.eu Contact Address: 15 Queen Anne's Gate, London, SW1H 9BU Contact Telephone: +44 (0) 207 193 5206 Organisation Name: Institute for European Environmental Policy (IEEP) Would you like this response to remain confidential? No
SUMMARY OF KEY POINTS – Response to Question 78
This response focuses on summarising the views of IEEP in relation to the use of bioenergy in the UK. This is based on analytical work at both the EU and UK level reviewing potentials and policy instruments to secure sustainable bioenergy solutions. Further analysis of the role of the RO and RHI in relation to bioenergy can be found in IEEP's report 'Securing Biomass For Energy – Developing an Environmentally Responsible Industry for the UK Now and Into the Future' - http://www.ieep.eu/assets/856/IEEP_UK_responsible_bioenergy.pdf While banding of the RO is welcomed, this review fails to reflect the highly variable environmental performance of bioenergy feedstocks. Unlike many other types of renewable technology the source from which the biomass for bioenergy production is derived is critical in determining the overall emission reduction potential; a key parameter in selecting which technologies to promote. The consultation document specifically states that there is a desire to promote significant expansion in the use of bioenergy, given its relatively low cost as a renewable solution. To promote such expansion with no consideration of the differing environmental credentials of feedstocks risks providing perverse incentives and underpinning unsustainable consumption of bioenergy. As one of the UK's headline policies for the promotion of renewable technologies it is important that the RO provide a positive incentive for environmentally preferable

feedstocks. This would mean altering the banding under the RO to reflect not only the economic costs but also the environmental impacts of the principal feedstocks - a ROC 'environmental bonus'. Such a mechanism would offset the higher costs involved in some cases, for example in accessing more scattered and intermittent resources from habitat management and arboricultural arisings. The goal should foster a more proactive approach to accessing the environmentally preferable feedstocks. Applying sustainability criteria for biomass, while useful, at best removes the worst solutions from the system but does not promote use of the best solutions.

More specifically there is a need to promote the most efficient use of biomass feedstocks to ensure a positive carbon balance and promote the most sustainable renewable energy solutions into the long term. Using biomass purely for electricity production, whether in dedicated plant or in cofiring, does not represent the most efficient solution, with CHP being a preferable alternative. Sadly, there continue to be significant barriers to the wider uptake of CHP it should, therefore, continue to be supported at a higher level despite the introduction of the RHI. This is of particular importance given that no extra subsidies for CHP applications are provided under the RHI. Separating the heat and electricity elements would lead to additional bureaucracy and the risk limiting further the uptake of this desirable technology.

CHAPTER 9: BIOMASS ELECTRICITY

Q18: Do you agree that we should not exempt existing generators from future changes to the UK's sustainability criteria for solid and gaseous biomass? Please explain your response with evidence.

Agree

Comments: This is a developing policy field and it is important that all biomass meets best practice standards with regards to sustainability, especially given the anticipated high level of UK imports and associated global footprint.

Q19: Do you consider that the 90% biomass purity threshold is still appropriate? Please explain your response with evidence.

Agree

Comments: It is important to positively promote the use of waste materials for biomass, given that these are one of the most sustainable sources. However, at present we see no need to adjust this level for all biomass. This question could potentially be addressed through waste policy to ensure higher quality waste streams, an issue inhibiting UK performance against other environmental goals.

Q21: Do you agree that 1 ROC/MWh is an appropriate level of support for biomass conversions? Please explain your response with evidence.

Agree

Comments: We welcome the differentiation between conversions and new dedicated plant.

Q27: Do you agree that 1 ROC/MWh is an appropriate level of support for enhanced co-firing? Please explain your response with evidence.

Disagree

Comments: The establishment of the enhanced co-firing band raises concerns in that it promotes specifically high levels of co-firing in large plant. This is counter to what are often considered to be the most sustainable forms of biomass usage for energy supply, ie smaller scale, dedicated CHP etc. Rewarding ever higher levels of co-firing would appear to be counter intuitive, especially given that with economies of scale one would not anticipate rising costs as biomass use expands, especially since key barriers relate to the initial establishment of supply chains.

Q28: Do you agree that generating stations should generate at least 15% of their electricity from biomass in order to qualify for the enhanced co-firing band? Please explain your response with evidence.

Disagree

Comments: We do not agree with the concept of rewarding higher levels of co-firing given that biomass is a limited resource. The UK needs to adapt its energy supply system to deliver a sustainable energy future into the long term and support should be focussed on those technologies most appropriate to achieving this outcome. The goal should not be purely to hit our 2020 targets but to decarbonise the UK economy which, according to the Climate Change Committee, would need to be substantially delivered in the power sector by 2030 in order to meet 2050 government commitments.

Q32: Do you agree with the proposed level of support of 0.5 ROCs/MWh for standard co-firing of biomass? Please explain your response with evidence.

Agree

Comments: Co-firing uptake has been significant since the introduction of the RO and is one of the cheaper renewable energy solutions. Moreover this lower level of support is more reflective of the fact that co-firing is arguably is not the most sustainable or efficient mechanism for making use of biomass. Nor does it bring about wider environmental benefits.

Q35: Do you agree with the biomass fuel price assumptions for domestic and imported fuel from AEA, and the use of a 10:90 domestic to imported ratio for average fuel costs for large (>50MW) dedicated biomass and 90:10 for small (<50MW) dedicated biomass based on the Arup report? Please explain your response with evidence.

Disagree

Comments: In the absence of additional incentives to secure smaller scale use of biomass and additional support to develop sustainable supply chains it is considered that the 90:10 estimate for small, dedicated biomass is an over-estimate of likely domestic supply. While in many respects such a ratio would be desirable, in practice the evidence that we have seen suggests that without additional incentives, such as the proposed environmental bonus for preferential feedstocks (see summary) it is considered unlikely that such a high domestic supply level could be delivered. This is based on our research demonstrating the difficulties that small scale producers of sustainable biomass face in accessing the market and obtaining sufficient local supplies - summarised in our report on 'Securing Biomass for Energy' - http://www.ieep.eu/assets/856/IEEP_UK_responsible_bioenergy.pdf

For large plant, while the AEA assumption would not appear unrealistic based on business and usual, it is not considered desirable for the UK to import such extensive quantities of biomass. This is given uncertainties of the ability of sustainability schemes to safe guard the environment and the fact that instruments are not currently in place to promote preferentially the 'best' sources of feedstock. As discussed in the summary, any efforts to use the RO to promote the expansion of biomass for energy should take into account the variable environmental credentials of the feedstocks concerned.

Q36: Do you agree with the proposed level of support of 1.5 ROCs/MWh for dedicated biomass? Please explain your response with evidence.

Agree

Comments: We agree that dedicated biomass plant should be supported at a higher level than co-firing etc. However, arguably dedicated plants that only generate electricity are making inefficient use of limited biomass resources, a point that has also been made in the recent CCC Bioenergy Review. We would, therefore, wish to see a continued incentive to use biomass for the combined output of heat and power rather than completely separating incentives under the RO and RHI. There is a significant potential risk in terms of the development of future UK energy infrastructure in supporting electricity from biomass alone, since this would miss the opportunity to improve the efficiency of our energy networks in the long term. We support the setting of the level of the RO band with the intent of supporting smaller scale plant.

Q37: Do you agree that the support level proposed for dedicated biomass manages the risk of locking supplies of feedstock into this sector? Please explain your response with evidence.

Disagree

Comments: While we agree with the goal of supporting smaller scale dedicated plant, the inability to differentiate between categories of feedstock and in absence of a mechanism to reward the use of the more preferred sources means we remain unclear as to how lock-in would be avoided.

Q39: Do you agree that support for bioliquids should be the same as for solid and gaseous biomass under the dedicated biomass, biomass conversion, enhanced co-firing and standard co-firing bands? Please explain your response with evidence.

Disagree

Comments: While there are limits to alternative uses, at present, of solid and gaseous biomass this does not apply to all bioliquids. As a consequence, these should be promoted at a lesser level than solid biomass given the advantages of using them in sectors where alternatives are in more limited supply, ie for transport, iIn the longer term we would support restricting further the use of liquid biofuels to transport modes with no other low-carbon alternatives such as shipping and aviation.

Q41: Do you agree that a cap should be put in place on the amount of electricity generated from bioliquid that suppliers can use to meet their renewables obligation? Please explain your response with evidence.

Agree

Comments: As above there are already concerns regarding the level of bioliquids aka biofuels, needed to fulfil demand in the transport sector. It is important to limit demand in sectors where there are clear and affordable renewable alternatives, given the more limited options in the transport sector.

Q42: Do you agree with the level of the cap being set at 4% of each supplier's renewables obligation, broadly equivalent to a maximum level of generation of 2TWh/y in 2017? Please explain your response with evidence.

Disagree

Comments: According to the consultation document the proportional nature of this cap means that the actual level of bioliquids utilised can increase under the cap up to 2017. Given that one of the arguments for the inclusion of bioliquids in the power sector is that

fuels are not currently compatible with transport usage, and given the anticipated development in bioliquid technologies as a response to increasing demand together with the anticipated huge expansion of bioliquid use in the transport sector in the form of biofuels, it is not considered appropriate that usage in this sector should expand in real terms up to 2017.

CHAPTER 10: ENERGY FROM WASTE WITH CHP

Q45: Do you agree that 0.5 ROCs is an appropriate support level for EfW with CHP? Please explain your response with evidence. We would particularly welcome evidence relating to levels of gate fees received by generators and additional capital costs relating to heat offtake.

Disagree

Comments: While the absence of wholesale endorsement of the use of energy from waste is welcome, given the need to pursue a waste management hierarchy in a systematic way, ie giving priority to prevention and recycling, there is a concern that this proposed low level of support would apply to all waste products equally. Given that waste is an important source of biomass for energy resource we would welcome more consideration of differentiation between different waste streams rather than the application of a blanket level of support for all categories of waste. While landfill gas is well exploited, other forms of waste in particular food waste are not used up to their potential primarily because a lack in separation and collection infrastructure, as also explained in IEEP's report on 'Securing Biomass for Energy' - http://www.ieep.eu/assets/856/IEEP_UK_responsible_bioenergy.pdf.

CHAPTER 11: ANAEROBIC DIGESTION

Q48: Do you agree with the proposed level of 2 ROCs/MWh for Anaerobic Digestion, stepping down to 1.9 ROCs in 2015/16 and 1.8 ROCs in 2016/17? Please explain your response with evidence.

Agree

Comments: We welcome that a high level of support for AD remains so long as appropriate monitoring is in place to ensure use of crops for AD is limited and this technology is focused on the use of waste materials.

CHAPTER 15: RENEWABLE COMBINED HEAT AND POWER (CHP)

Q65: Do you agree with the arrangements for transition from the CHP uplift to RHI support as set out in this chapter (i.e. no RHI for projects accrediting under the RO; one-off choice between RHI and CHP uplift for projects accrediting between April 2013 and March 2015; no CHP uplift for projects accrediting after that date, unless the RHI is unavailable for that technology on 1 April 2015)? Please explain your response with

evidence.

Disagree

Comments: Disagree with the ending of additional support for CHP over and above that for exclusively electricity or exclusively heat supply. CHP is arguably a more complex technology to site and develop, and it also represents the most efficient use of biomass for energy. As such there is considered to be a risk associated with promoters of CHP plants having to apply under two different schemes for support ie potentially increasing the complexity of administrative burdens. Combined activities are not clearly signalled as being preferential to singular approaches.

CHAPTER 16: ENERGY CROP UPLIFT

Q69: Do you agree that we should narrow the definition of energy crops to limit its scope to only the short rotation coppice and perennial grass species as described above? Please explain your response with evidence.

Agree

Comments: It is important that food crops are not diverted.

Q71: Do you agree with the proposed level of 2 ROCs/MWh for dedicated energy crops, stepping down to 1.9 ROCs in 2015/16 and 1.8 ROCs in 2016/17? Please explain your response with evidence.

Disagree

Comments: While it is agreed that it has been difficult on occasions to establish energy crop supply chains with the active participation of farmers, our concerns about this relatively high level of support are two fold. Firstly it is unclear as to the extent of the area that is realistically and sustainably available in the UK for such crops. There is a need to protect food production capacity, particularly in high grade agricultural land and areas of environmental value more broadly, including for biodiversity. The latter would include, example, species rich grasslands many of which are found on less productive agricultural land, where it has been mooted that some energy crops may be planted. In the same way that the siting of onshore wind turbines needs to be appropriate, energy crops also need to be sited appropriately to ensure their low carbon and sustainability credentials. They also need to generate substantial net savings in GHG emissions to justify the deployment of incentives but often this is not achieved in practice. A blanket application of energy crop support under the RO would not allow such considerations.

Finally, a key challenge identified in production of energy crops in the UK is lack of farmer uptake and confidence in the market for energy crops. It is not clear how providing additional incentives at the top of the consumption chain would necessarily translate into

promoting farm up take in the absence of other support mechanisms.
Q72: Do you agree with the proposed level of 1 ROC/MWh for standard co-firing of energy crops? Please provide evidence on costs and deployment potential. Disagree Comments: see above
Q73: Do you consider that we should extend the energy crop uplift to the new biomass conversion and enhanced co-firing bands? It would be helpful if you could provide evidence on costs and deployment potential to inform our decision. Disagree Comments: see above
CHAPTER 17: CO-FIRING CAP
Q74: Do you agree that the co-firing cap should be removed completely from 1 April 2013? Please explain your response with evidence. Disagree Comments: See comments under Q 27