SNH Policy Statement:
Biomass energy and the natural heritage

A CONTRIBUTION FROM FORWARD SCOTLAND

Introduction

Forward Scotland welcomes the opportunity to respond and provide feedback to the Scottish Natural Heritage Biomass energy and the natural heritage consultation information. We are happy to have this response placed in the public domain, and invite questions or further discussion of any issues raised in this document.

Forward Scotland has outlined its continuing commitment to sustainable development in its corporate strategy for 2006-09. The main focus within the strategy centres around promoting a change in perceptions, attitudes and actions in Scotland and by "championing innovative approaches to Sustainable Development".

It is clear that this position paper resonated with our own plans and other relevant strategies; particularly the Scottish Sustainable Development Strategy and those associated with meeting the 2020 target of generating 40% of electricity from renewables.

Overall Comments on the Consultation Document

Forward Scotland welcomes the focus of this consultation which presents a clear argument for SNH's policy position on bioenergy. With this clarity it is obvious that SNH sees a clear role for bioenergy in reducing carbon emissions to combat climate change as part of Scotland's Sustainable Development Strategy[1] and Scotland's Climate Change Programme[2].

The key points made in this response focus mainly on points of clarification and language, as well as providing further information to inform the substance of the SNH Policy Statement, reduce uncertainty and unnecessary caution and potentially avoid hindering the development of this crucially important industry which can deliver substantial benefits for Scotland's economy and the environment.

Lanarkshire Biomass: learning from partnership working

Forward Scotland has been working with a number of partners including Scottish Natural Heritage, Forestry Commission, Scottish Enterprise Lanarkshire, Central Scotland Forest

[1] *Choosing our Future: Scotland's Sustainable Development Strategy* (2005) Scottish Executive
[2] *Changing our Ways: Scotland's Climate Change Programme* (2006) Scottish Executive

Trust, North Lanarkshire Council and South Lanarkshire Council on activities in support of developing wood fuel supplies and boiler installations in Lanarkshire.

A great deal of learning has occurred over the last 6 years and this is currently being evaluated by the partners.

The project is an exemplar of good practice and is featured prominently on the Wood Energy website[3] with further detail on the Forward Scotland website[4].

The lessons for this project have heavily informed our response along with experience drawn from a number of local biomass projects with community groups and our own research[5] into biodiesel.

Demand for biomass materials

Forward Scotland believes that there is often a tendency to imply that a substantial expansion in biomass plantations (be that forestry or energy crops) is expected to emerge over the coming decade or two in order to meet the growing demand for bioenergy. A significant proportion of the maturing forest material is already committed to supply other forestry markets that can offer higher prices for the material. The current policy in forestry is that there is potential for more fibre to be extracted from the existing resource, and this – along with use of secondary sawmill products, reused wood and agricultural residues - is where the bioenergy industry is most likely to benefit.[6]

Furthermore, planned bioenergy projects are generally scaled to fit existing supply, rather than supply growing to meet demand. Further large-scale biomass projects of a similar scale to the Stephen's Croft plant in Lockerbie are unlikely to be developed due to limited fuel supply. The existing large projects are very specific to local circumstances and have received substantial funding from the Scottish Executive and other sources. For this reason, future bioenergy projects are likely to be small to medium in scale and matched to existing resource. It would be both informative and reassuring to provide some indication of this in the policy statement.

Native forest species

It is worth noting that native, hard wood species such as birch are actually very well-suited to bioenergy due to the lower moisture content compared to soft woods such as sitka spruce. For this reason, native woodlands, if carefully managed, may be a suitable resource for the bioenergy market while also encouraging biodiversity enhancing the landscape and visual amenity.

[3] Wood Energy website - www.UseWoodfuel.co.uk
[4] Forward Scotland activities - www.Forward-Scotland.org.uk/about_us/core_activities.cfm
[5] Forward Scotland research - www.Forward-Scotland.org.uk/publications/
[6] Further information on projected supply and demand for wood fibre is available from the 2006 industry report, *Forecast Wood Fibre Availability & Demand In Scotland & Northern England To 2016*

Short Rotation Coppice and other Energy Crops

There is a fairly large section of the draft Biomass Policy that is focussed on the uptake of Short Rotation Coppice (SRC). Forward Scotland's experience through Lanarkshire Biomass is one where, in 2000, the partners looked seriously at the potential of SRC as a wood fuel supply and land remediation method. There was little confidence that SRC would have a significant role to play with its high costs of extraction. This is also evident in the FREDS Biomass Energy Group report[7] which states that there is "considerable uncertainty" over SRC's sustainable yield on commercial planting in Scotland. The Biomass Action Plan[8] for Scotland notes that SRC planting has been "slow to expand in Scotland, with only around 200 ha [short rotation coppice and short rotation forestry] planted to date".

At present, co-firing practices predominantly use imported material, so this sector of the industry is not currently stimulating supply of energy crops significantly.

Indeed, recent indications from the farming industry would suggest that interest is focussed mainly on the growing of oil seed rape (OSR) for liquid biofuels as opposed to other biofuel crops or SRC. Research[9] into the feasibility of biofuel crops in Scotland indicates that OSR is the one of the most economically viable options as well as providing the greatest conversion efficiencies into liquid biofuel.

Some of the language in the SNH policy statement regarding energy crops is rather alarmist, for example, "it seems likely that set aside will become extensively used for SRC and other energy crops" (paragraph 46). The research and our own experience do not suggest this, therefore we would urge that such statements are either removed or softened to reflect the industry situation and avoid unnecessary caution.

Points on language

The sentence in paragraph 64 that states, "If tallow becomes more widely in demand as a biodiesel feedstock, there is a risk that these industries will turn to palm oil imports to supply the shortfall…" is a rather resolute statement and seems to be based on a big assumption. The section of the policy statement pertaining to palm oil is sufficient, so it seems unnecessary to bring the issue of palm oil into the section on tallow as well. We would recommend the inclusion of this sentence be reconsidered.

In paragraph 72, it would appear there may be a typing error in the statement regarding ash that reads, "…it is not suitable for application on clear-fell sites as it would not be exposed to wind blow…", where the second 'not' should be omitted?

Paragraph 87 states, "SNH recommends that the use of material for biomass should be restricted to forests and SRC plantations which meet these existing standards". For clarity, this should read "…the use of virgin material for biomass…" as secondary/waste materials will not apply.

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[7] *Promoting and accelerating the market penetration of biomass technology in Scotland* (2005) Forum for Renewable Energy Development in Scotland (FREDS) Biomass Energy Group, Scottish Executive
[8] *Biomass Action Plan for Scotland* (2007) Scottish Executive
[9] *Economic Evaluation of Biodiesel Production from Oilseed Rape grown in North and East Scotland* (2005) Scottish Agricultural College

Good Practice and Accreditation for Bioenergy

SNH states that its support for biomass is dependent upon good practice being followed in the management of biomass feedstocks (paragraph 85). Forward Scotland appreciates that it is essential that good practice is developed and that suppliers of feedstocks are encouraged to meet appropriate management standards.

SNH also suggests that there needs to be a specific environmental accreditation standard for biomass. The experience of Lanarkshire Biomass suggests that, while a large proportion of feedstock will come from virgin material, there is significant potential for feedstock from secondary raw materials such as recycled wood. Indeed much of the feedstock contributing to biodiesel is from reused materials such as used cooking oils (UCO) as well as rendered animal fats (tallow).

If SNH recognises the contribution these sources can make to the bioenergy industry it would seem unnecessarily complicated to introduce an accreditation scheme for feedstocks that applies to only part of the supply chain.

We are also concerned that the introduction of an onerous accreditation scheme could stifle this developing sector at a time where there is growing enthusiasm for renewable energy.

We would suggest that existing standards be used in place of the development of a further raft of accreditation standards. Consumers of bioenergy will be concerned about the consistency of supply within the supply chain as well as the performance of their boiler. Existing quality standards such as ISO 9000/2001 and/or ISO 14001 may provide sufficient comfort to consumers as the industry develops.

Indeed, in terms of managing the natural heritage and landscape, SNH itself identifies pre-existing domestic standards in Annex 2 of the Biomass Policy, relating to forestry and agricultural products.

As part of the recommendations intended to ensure a good management standard SNH recommends that accreditation should be required.

One of the key areas for exploration through Lanarkshire Biomass was the potential of a vibrant bionenergy sector to revitalise woodland management where there is currently a significant amount of poorly or under-managed woodland. Any accreditation attempts for bioenergy supply could hamper this potential.

Support for the rural economy

SNH's policy also states that biomass processing or power plants should be located in brownfield sites or co-located with other wood processing industries to minimise transport requirements. Forward Scotland recognises that bioenergy from wood has a potentially significant role to play in supporting the economics of, in particular rural, communities[10]. It is important for SNH to acknowledge this potential and ensure that its

[10] *Skills for Renewable Energy in Scotland* (2005) Forward Scotland

policy is sympathetic to the needs of rural communities recognising the role they play in protecting our natural heritage.

There are wider economic benefits in urban areas where there are also significant potential fuel supplies and job opportunities in the supply chain through installation of equipment, fuel delivery structures and in billing and other service supports. Indeed many of the economic benefits are likely to be experienced in areas of highest demand where heat plants may well be concentrated.

Conclusion

Forward Scotland generally welcomes Scottish Natural Heritage's policy position paper.

We feel that it represents a positive statement from SNH on the future role it sees biomass playing in Scotland. Scotland has the potential to derive a significant amount of its energy needs from bioenergy and the technologies are well developed and reliable, as shown by their widespread use across Europe. Scotland has for many years operated its forest resources commercially and there are no prohibitive barriers to that expanding to the supply of wood fuel.

The market for bioenergy is new in Scotland and it needs to be supported by positive language and direction from all parties - public, private and non-governmental - to ensure that confidence is not weakened but increased.

Forward Scotland has worked with SNH on a range of community engagement and environmental projects and programmes where we have sought to push the boundaries of accepted wisdom. We believe that this relationship has provided insight into new ways of work; many of which are evident in the policies and practices of public and community sector bodies.

As a result the organisation has developed a range of skills and experiences that we intend to apply to meet the emerging challenges of sustainable development in Scotland. We welcome the opportunity to contribute to this consultation and we look forward to supporting the work of Scottish Natural Heritage in promoting sustainable development with particular reference to protecting Scotland's natural heritage and resources.

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