Friends of the Earth Scotland | biofuelwatch | No Leith Biomass | Grangemouth Community Council

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How Scottish Government proposals will support destructive, low-efficiency, large-scale biomass

The Scottish Government has published its proposals for electricity subsidies for 'renewables' – including for biomass – through proposed amendments to the Renewables Order. Following some further specific consultations, those will be subject to affirmative procedure and are expected to be debated and voted upon by the Economy, Energy & Tourism Committee in early 2013.

Please take a moment to read this briefing. Here are some key actions which we recommend:

1) If you are a member of the Economy, Energy & Tourism Committee, please raise the concerns set out in this briefing and support the necessary changes during the ROCs banding debate and vote;

2) If you are not a member, then please raise your concerns with the Committee Chair and members;

3) Please request a full Parliamentary Debate on this issue, so that the proposed changes to the ROCs legislation can be fully and openly discussed by all MSPs.

Background:
In October 2011, the Scottish Government published a consultation on future subsidy levels under the Renewables Obligation.[i] In this it stressed that biomass was expected to make a significant contribution to Scotland's renewable heat target but that there was a need to "*encourage the most efficient and beneficial use of this finite resource.*" It expressed "*major concern over the scale of the UK Government's ambition for biomass, including the desire to see more enhanced co-firing and conversion, as well as the inefficient use of the resource*". Those statements reflected similar concerns expressed in existing Scottish policy positions including in the current draft Energy Generating Policy Statement, the 2020 Routemap for Renewable Energy in Scotland and the Section 36 Biomass Scoping Guidance. Last year, Fergus Ewing warned: "*Large-scale woody biomass used for electricity generation is much less efficient than smaller scale neighbourhood plants. Huge electricity-only biomass plants require vast quantities of wood - far more than the UK can provide.*"[ii]

On 13th September 2012, the Scottish Government published its response to the consultation.[iii] Although the Government acknowledged that biomass is a scarce, finite resource that must be used sustainably and in the most efficient way, and although they have taken the initiative of limiting subsidy of electricity-only biomass power stations, other proposals put forward contain loopholes that continue to allow for unlimited expansion of inefficient biomass burning in power stations – exactly what the Scottish Government previously criticised Westminster for supporting.

Summary of the Scottish Government's proposals on Renewable Obligation Certificates (ROCs) for biomass

1. A 10 MW cap on virgin wood burning, electricity-only biomass power stations has been proposed and is currently being consulted on[iv]. Power stations up to this level will be eligible for the current level of ROCs (1.5 ROCs/MWh); electricity-only power stations over 10MW will not receive subsidy unless they burn recovered waste wood or biomass other than wood.
2. Under the proposal, biomass power stations classed as 'good quality CHP' will continue to qualify for a high level of ROCs (2 ROCs/MWh) regardless of size. The current definition of 'Good Quality CHP' is misleading: for the purpose of ROCs it includes power stations with as little as 35% overall efficiency. This contradicts EU legislation which states that governments should support biomass efficiency levels of at least 70% and it does not reflect the Scottish Government's position that the most efficient use should be made of what is a scarce resource i.e. wood, or that the emphasis is to hit renewable heat targets.
3. Energy companies burning coal or oil will be offered more subsidies for converting whole units to biomass or bioliquids than for co-firing

What are the implications of the Scottish Government's proposals and what must it do in order to secure its own stated policy objective of highly-efficient, appropriately scaled biomass?

1. Electricity-only biomass power stations operate at just 20-30% efficiency. This means that for every four trees cut down for a power station, around three will be entirely wasted. Even a 'small' 10 MW electricity-only power station requires at least 100,000 tonnes of wood per year. This figure must be viewed in the context of the UK already being a net importer of approximately 80% of wood and wood products.[v] Furthermore, the Scottish Government proposes exempting biomass other than virgin wood from the cap – yet genuine waste wood, straw and crops such as miscanthus are in short supply and should not be burnt inefficiently.

Our position: There should be no ROCs for any electricity-only power stations because this is the least efficient use of biomass, a finite and scarce resource.

2. Implications of exempting "good quality CHP" from the proposed 10 MW cap:
Under EU law, Member States are supposed to promote conversion technologies for biomass that are at least 70% efficient in industrial applications.[vi] Yet, under current UK-wide rules for ROCs, biomass power stations regardless of size are currently defined as 'good quality CHP' if they reach efficiency levels of just 35%.[vii] Biomass power stations built primarily to supply electricity can be easily adapted to supply a very small amount of heat in order to reach the low 35% efficiency figure.

Any cap that exempts 'good quality CHP' as defined under current ROCs legislation will thus do nothing to limit the amount of biomass burnt in Scottish biomass power stations nor to avoid the worst impacts of bioenergy on forests, climate and communities. The EU Renewable Energy Directive requires governments to support minimum efficiency levels of subsidised bioenergy of at least 70%. Even then, efficiency alone cannot protect climate, forests and communities – as well as other sectors using wood such as the wood panel industry or heat-only biomass schemes - from the effects of an excessive demand for bioenergy for electricity

Our position: If Scotland is to support only small-scale, highly efficient bioenergy, then ROCs should only be available to power plants with at least 70% efficiency and at most up to a 10 MW overall cap.

3. Biomass co-firing and conversion:
Contradicting concerns previously expressed by the Scottish Government, the current proposal seeks to mirror UK bioenergy policies which support large-scale inefficient biomass burning in coal power stations. Large-scale co-firing elsewhere in the UK is heavily dependent on imported wood.[viii] Coal power stations are virtually always inefficient electricity-only power stations**.** In England, an identical DECC proposal has caused Drax to announce plans to convert half their capacity to biomass – which would require the equivalent of them burning 20 million tonnes of harvested wood every year (twice as much as the UK's total annual wood production). Furthermore, we note with concern that this proposal is not being consulted on.

Our position: If Scotland is to take a stand against large-scale inefficient biomass, then it cannot subsidise co-firing or biomass conversions through ROCs.

Sustainability standards and proposed planning conditions
The Scottish Government has published a consultation on biomass sustainability standards which would be identical to those proposed by DECC for England and Wales. There are serious flaws in the proposals:

- The most serious climate change impacts – including the carbon debt and indirect land use change identified as crucial in the UK Bioenergy Strategy and by many scientists[ix] – would be entirely ignored when calculating emissions from bioenergy. DECC's impact assessment shows that all potential sources of imported and domestic wood are expected to meet the proposed greenhouse gas criteria, meaning that those criteria are effectively meaningless. Furthermore, the UK Bioenergy Strategy confirms that burning wood from trees cut down for this purpose increases CO2 emissions by 80% over 20 years and 49% over 40 years compared to burning equivalent amounts of coal[x] Subsidising the burning of wood from trees logged for bioenergy is thus incompatible with Scotland's climate change targets. The proposed greenhouse gas standards would do nothing to prevent such an outcome
- There are no sustainability (as opposed to greenhouse gas) standards proposed except that the criteria of the UK Public Procurement Policy on Timber must be met. Those criteria can be met through a range of voluntary certification schemes,but these are seriously flawed.. There is documented evidence of wood linked to human rights abuses, illegal logging, destruction of oldgrowth forests, indiscriminate killing of wildlife having been certified 'sustainable' by eligible schemes. These flaws are well documented in Biofuelwatch's recent report, 'Sustainable Biomass: A Modern Myth.'[xi]

Furthermore, the Scottish Government proposes planning conditions to limit the amount of domestic wood to be used for bioenergy. This might protect Scottish woodlands and wood-based industries – but at the expense of forests and communities overseas, a position which we believe is not morally justifiable.

[i] The Scottish Government, 'Renewable Energy The Renewables Obligation (Scotland) Order 2011 Consultation on Review of ROC Bands' (October 2011) http://www.scotland.gov.uk/Publications/2011/10/27123530/0

[ii] The Scottish Government News Release, 'Call for biomass rethink' (30th October 2011), www.scotland.gov.uk/News/Releases/2011/10/28105521

[iii] The Scottish Government , 'RENEWABLES OBLIGATION BANDING REVIEW 2011-12: Scottish Government Response to the Consultation' (13 September 2012), http://scotland.gov.uk/Resource/0040/00401801.pdf

[iv] Renewables Obligation Banding Review – Supplementary Consultation, www.scotland.gov.uk/Resource/0040/00404106.PDF

[v] The Scottish Government , 'RENEWABLES OBLIGATION BANDING REVIEW 2011-12: Scottish Government Response to the Consultation' (13 September 2012), http://scotland.gov.uk/Resource/0040/00401801.pdf

[vi] Article 13(6) of the EU Renewable Energy Directive states: "In the case of biomass, Member States shall promote conversion technologies that achieve a conversion efficiency of at least 85 % for residential and commercial applications and at least 70 % for industrial applications."

[vii] DECC Guidance Note 44 which the Scottish Government decided in 2009 to apply in Scotland, too, provides that for the purpose of ROCs, biomass CHP Schemes are classed as 'good quality' regardless of size if they demonstrate 35% overall efficiency (gross calorific value). The CHPQA Standard can be found at https://www.chpqa.com/guidance_notes/documents/CHPQA_Standard_Issue3.pdf and Guidance Note 44 can be found at https://www.chpqa.com/guidance_notes/GUIDANCE_NOTE_44.pdf

[viii] Biomass co-firing figures in Scotland have so far been very low.

[ix] See the list of Scientific Articles compiled at http://www.biofuelwatch.org.uk/resources-on-biomass/

[x] UK Bioenergy Strategy, DECC, Defra and Department for Transport, April 2012, www.decc.gov.uk/assets/decc/11/meeting-energy-demand/bio-energy/5142-bioenergy-strategy-.pdf

[xi] Available at http://www.biofuelwatch.org.uk/2012/biomass_myth_report/