Biofuelwatch NGO Briefing on the Consultation on the Renewables Obligation Order 2011

Background and Scope of the Consultation:

The Government wants to see some 4.5% of all the country's energy needs being supplied from bioenergy in 2020. This is a massive increase on the current position. Much of the growth is expected to come from biomass and biofuels for electricity. Lucrative subsidies are already provided for such power stations. Government is now proposing changes to some of the rules/conditions for those subsidies and has opened a consultation.

The Consultation can be found at www.decc.gov.uk/assets/decc/Consultations/Renewables%20Obligation/261-statutory-con-renewables-obligation.pdf .

It proposes certain changes to the Renewables Obligation, the legal instrument which defines the subsidy rules for 'renewable' electricity. Those relate primarily to:

- Renewable Obligation Certificates (ROCs) for offshore wind;
- Proposed 'sustainability and greenhouse gas standards' for biomass and biogas;
- Incorporation of EU standards for bioliquids into UK legislation relating to ROCs;
- Certain technical considerations which relate to ROCs for combined heat and power and to finance mechanism ('mutualisation').

A further Consultation about different levels of ROCs for different technologies has been announced for this autumn but has not been published yet. The Government states that a review of subsidy levels (ROC bandings) will be completed by April 2013. It is legally and technically possible for the government to withdraw subsidies from certain technologies, such as bioliquids or bioenergy in general. Although changes have been proposed for 2013, they could be made within a far shorter time-scale. This is because the changes required would be changes to secondary legislation, i.e. a Statutory Instrument, which requires very little parliamentary time. ***Biofuelwatch is calling for urgent measures to exclude bioliquids from ROCs and to suspend ROCs for other types of bioenergy.***

This briefing focuses exclusively on those parts of the current consultation which relate to bioenergy.

The Consultation closes on 19th October. Online responses can be submitted at http://econsultation.decc.gov.uk/decfc-policy/roo2011.

Biomass and Biogas Sustainability and Greenhouse Gas Standards:

What is proposed:

The Government proposes to apply the same EU 'sustainability standards' for bioliquids to biomass and biogas, too. Furthermore, a greenhouse gas standard is proposed, requiring providers to 'show' 60% greenhouse gas reductions compared to fossil fuels. EU Member states such as the UK have discretion over any standards for biomass and biogas, whereas ones for bioliquids are mandatory under the EU Renewable Energy Directive. However, as discussed below, member states do not have to subsidise bioenergy at all, provided they can meet the overall renewable energy target.

The proposed 'sustainability' standards as well as the greenhouse gas default values for biomass are those put forward by the European Commission (http://ec.europa.eu/energy/renewables/transparency_platform/doc/2010_report/com_2010_0011_3_report.pdf), with the exception of the suggested 60% greenhouse gas reduction requirement.

How credible are those standards?

Some of the most serious concerns about standards are:

- Standards take no account of the 'sustainability of demand'. The UK is already heavily reliant on wood imports, and UK / European overconsumption of wood is an important driver for deforestation and land-conversion to tree plantations worldwide. Industry plans for burning 35 million tonnes of wood annually in the UK have been announced, compared to UK production of 8.4-10 million tonnes a year (tinyurl.com/39t7von).
- Most bioenergy in the UK will come from imported wood, yet the UK government is making no attempts to hear, let alone listen to the views of communities and civil society organisations in the 'producer countries', which will increasingly be countries in the global South. The UK Government openly acknowledges that imports will have to supply a large part of future bioenergy fuel, and most plans for large wood-fired power stations are in ports.

- Over 100 organisations worldwide have signed an Open Letter against subsidies for industrial bioenergy in Europe. The Letter states: "*The European debate regarding biomass has so far largely focused on sustainability standards – which the European Commission has, for the time being, ruled out as far as EU-wide standards are concerned. The question whether a further massive increase in Europe's demand for wood can possibly be met sustainably if one takes into account all the indirect impacts, particularly in a global market, has been largely ignored in the policy debate. Yet no standard can prevent higher prices for wood driving plantation expansion and increased logging elsewhere in the world. The wider, indirect, impacts of ecosystem conversion to industrial monoculture plantations and greater and more destructive logging of natural forests are likely to be equally severe as the indirect impacts of agrofuels have proven to be.*" (www.globalforestcoalition.org/news/view/195)

The government states that if the European commission decides to take indirect land use change into account for bioliquids, then they will consider whether or not to do so for biomass. There is thus no commitment to take any indirect impacts into account and, furthermore, it is now clear that any 'indirect land use change' indicator which the European Commission might agree to for bioliquids will not in any way reflect scientific and other knowledge of those impacts.

- The default values for greenhouse gas savings which have been proposed suggest very high greenhouse gas savings from wood burning, despite the fact that the smokestack CO2 emissions from biomass burning are greater than those from coal and that several scientific studies show that the life-cycle greenhouse gas impact of large-scale biomass, particularly if whole-tree burning, land-conversion and logging of previously unlogged forests are included, **is strongly negative for a period of decades or even centuries**. The evidence is discussed in more detail below – it shows that the figures cited by the European Commission and the UK Government do not in any way reflect even the direct, let alone the indirect climate impacts of bioenergy. This will render any 'greenhouse gas standards' meaningless.

- All social impacts of bioenergy will be ignored – human rights, land rights, worker's rights, the right to food, health, etc.

- For 'sustainability standards', the Government intends to rely on the Forest Stewardship Council (FSC) and the Programme for the Enforcement of Forest Certification (PEFC). Both the FSC and the PEFC certify industrial tree plantations as 'sustainable', despite widespread protests from communities, civil societies and NGOs. Both have been shown to have repeatedly certified wood from plantations established at the expense of forests and other biodiverse ecosystems, ones linked to human rights and land rights abuses, ones that have been illegally established, as well as from highly destructive old-growth forest logging, including illegal logging. The PEFC has attracted near-universal NGO condemnation, while

large numbers of organisations have spoken out against FSC-certification of tree plantations (tinyurl.com/372vr7y). Under the UK biomass proposals, both FSC and PEFC certification would be treated as 'equal proof' of sustainability standards being met.

Biofuelwatch position:

Our greatest concern is that the fast-growing demand for bioenergy in the UK and elsewhere in Europe is an unsustainable demand which, directly and indirectly, will lead to tree plantation expansion and more destructive logging, much of it in the global South. Sustainability and greenhouse gas standards are a misguided approach which cannot and will not prevent serious negative impacts on the climate, on forests and grasslands, on forest-dependent peoples and other communities who will be affected by tree plantations and logging, and on UK communities who will be affected by more harmful air pollution.

In the case of biogas, we are deeply concerned that the Renewables Obligation does not distinguish between biogas from genuine waste on the one hand and biogas from dedicated crops, such as maize on the other hand. In Germany, maize monocultures for biogas have become one of the main drivers for biodiversity losses. The consequences of blanket biogas subsidies in terms of land use change and biodiversity impacts have not been considered at all by the Government.

The Renewables Obligation is a 'demand led' subsidy scheme. The nature of the scheme is such that any technology included will be included without a cap. Subsidies for bioenergy on a small scale overall are thus not possible under the Renewables Obligation.

In view of the strong and growing evidence about the serious negative impacts of bioenergy, we believe that the government must take urgent measures to suspend ROCs for bioenergy in general and for wood burning in particular, while ROCs for bioliquids should be removed immediately. The rules on ROCs are subject to statutory instruments, i.e. secondary legislation which can be decided and enacted within a relatively short time-scale.

Sustainability criteria for bioliquids:

What is proposed?

All EU member states are required to ensure that from the beginning of next year, no subsidies are paid for biofuels (bioliquids) which do not meet EU 'sustainability' and greenhouse gas standards. This part of the government consultation relates to making subsidy rules compatible with EU legislation.

However, abolishing ROCs for bioliquids altogether would also be compatible with EU law and it would require no more parliamentary time than the current government proposals. Instead, the government wants to introduce 'standards' in April 2011, before looking at banding of and eligibility for different technologies under the Renewables Obligation in 2013.

Background:

Planning proposals for biofuel power stations with a total capacity of around 215 MW have been published by companies. If all of them are built, they will consume 300,000 tonnes of biofuels every year and, under current rules, attract £150 million a year in subsidies. So far, large-scale biofuel use for electricity generation exists in Germany and Italy and in both countries, palm oil accounts for nearly all those biofuels because it is far cheaper than any other type of vegetable oil. If all of the proposed 215 MW in the UK were to be produced from palm oil then a further 75,000 hectares of oil palm plantations would be required, which will mean more rainforest and peatland destruction and more evictions and land-grabbing.

EU 'sustainability' and greenhouse gas standards have been strongly criticised, including for:

- Not addressing indirect climate impacts: Although the European Commission may decide to deduct some 'greenhouse gas savings' because of indirect land use change, this would in no way reflect the science about indirect impacts. Several studies show that, if all impacts are considered, nearly all biofuels emit more greenhouse gases than the same amount of fossil fuels;
- Underestimating direct climate impacts through various forms of creative accounting: A report by North Energy, commissioned by the UK Government (DECC) and NNFCC, for example, shows that if direct climate impacts alone are considered, electricity from biofuels still has a worse climate impact than electricity from natural gas (http://www.nnfcc.co.uk/metadot/index.pl?id=10478;isa=DBRow;op=show;dbview_id=2539)
- Having no credible verification and auditing process;
- Ignoring human rights, land rights, hunger and malnutrition, pesticide poisoning and all other impacts on people;
- Severely restricting 'biodiversity conservation' so as to allow subsidies for biofuels from plantations for which different biodiverse ecosystems and farmlands have been converted.

Those are just some of the flaws in the EU biofuel standards, which have been condemned by hundreds of civil society organisations, many of them from the global South. For background information see and www.biofuelwatch.org.uk/docs/RenewableEnergyDirective.pdf , www.birdlife.org/news/news/2009/11/biofuels_burning_question.html and many of the declarations listed at www.biofuelwatch.org.uk/declarations.php .

Under EU rules, the UK government cannot introduce stronger criteria – but they can decide not to subsidise electricity from biofuels and to instead meet the renewable energy targets through sustainable renewable energy which is climate friendly, such as sustainable wind and solar power.

Biofuelwatch position:

We believe that the evidence about the serious climate, environmental and social impacts of biofuels is so overwhelming that there is no justification for postponing any decision about changes to subsidy rules until 2013. The government has already indicated concerns about subsidies for biofuel electricity and they have stated that they would not guarantee long-term subsidies (i.e. no 'grandfathering' of ROCs for bioliquids). However, significant investment is being made now to develop biofuel power stations which could run for many decades. By 2013, many of the biofuel power stations which have been proposed could have started operating. Deforestation and other land conversion to oil palms is virtually irreversible, which is why the subsidies must be stopped before the new demand has been created and has resulted in new plantation developments.

Instead of consulting on 'sustainability standards', we believe that the government must abolish ROCs for bioliquids as quickly as possible and by April 2011 at the latest.

Further observations about the impacts of large-scale wood-based bioenergy in the context of the debate about greenhouse gas and 'sustainability standards':

A growing number of reports and studies have been published about the likely serious impact of large-scale bioenergy on forests, people and on the climate. Those include the following recent reports:

+ Manomet Study:

This is a recent study by the Manomet Center for Conservation Sciences which was commissioned by the Massachusetts Department of Energy Resources (www.manomet.org/node/322). The two main conclusions from the study were:

- If biomass is used in electricity-only power stations, the overall carbon emissions/climate impacts will still be worse than those of generating the same electricity from coal after a period of 40 years – the period is 90 years if biomass is compared to gas.
- The carbon impact of burning biomass for heat generation or CHP may be better than coal, however even for CHP, when biomass is compared to natural gas, the climate impacts are still significantly worse after 40 years.

It is important to note that many of the assumptions made in the Manomet study are highly optimistic ones (as acknowledged by the authors), some of them contradicted by scientific evidence and by the realities of bioenergy markets and the forestry industry. For example, the authors assume that no additional forests would be logged as a result of bioenergy (something which would make the carbon footprint even worse), yet in the UK, EU and elsewhere, opening up more natural forests to logging for this purpose is encouraged and endorsed by industry and policy makers alike. The authors assume that there will be no carbon emissions from removing residues from forest floors, yet it has been shown that large-scale 'residue removal' significantly reduces forest carbon stocks and also diminishes future tree growth and thus carbon sequestration. Furthermore, land conversion to tree plantations is outside the scope of the study. For a detailed review of the Manomet study, see: www.catf.us/resources/whitepapers/files/201007-Review_of_the_Manomet_Biomass_Sustainability_and_Carbon_Policy_Study.pdf .

Joanneum Research study:

This is a recent scientific study, commissioned by BirdLife International, the European Environment Bureau and Transport & Environment which looks at the carbon debt from wood-bioenergy. The main findings are:

- When trees are felled for bioenergy, there will be no 'climate benefits' compared to fossil fuels for a period of 200-300 years, i.e. **bioenergy from whole trees will worsen climate change for two or three centuries**.
- The removal of logging residues from forest soils will worsen the carbon balance of bioenergy by 10-40%;
- Where bioenergy results, whether directly or indirectly, in land conversion for tree plantations, the full greenhouse gas impact must be taken into account and if forests are converted to plantations, bioenergy will be worse for the climate than the fossil fuels replaced for at least 150 years.

See: www.birdlife.org/eu/pdfs/Bioenergy_Joanneum_Research.pdf

Indirect impacts:

A growing number of peer-reviewed studies assess the climate impact of indirect land-use change from bioenergy (see for example tinyurl.com/yck2gmu). Although many of the studies focus on biofuels rather than large-scale wood-based bioenergy, which is a more recent development, the climate impacts of plantation expansion for woodchips and wood pellets are likely to be similar to those of plantation expansion for palm oil or soya. It is important to note that virtually all such studies use a very narrow definition of 'indirect impacts', one which tends to exclusively focus on land conversion (i.e. the fact that greater demand will translate into greater land use and thus land conversion somewhere in the world). There are, however, other serious indirect impacts, which include:

- New infrastructure, such as logging roads, new ports and waterways, etc. which tend to increase deforestation well beyond the area actually converted to new plantations;
- Higher land prices which in turn can lead to more speculative investment in land and forests, which can cause even greater land conversion;
- Policies being adopted in different countries with the aim of increasing logging and monoculture plantations in response to expected future demand for bioenergy, but with consequences well beyond the 'measurable' additional demand;
- Indirect climate impacts which, although well established, are difficult to quantify: Those include indirect nitrous oxide effects from fertilisers (which Paul Crutzen et al have assessed as being far greater than previously thought, see tinyurl.com/2f46zg), carbon emissions from peatlands as a result of nitrogen from fertilisers being spread over a large area (tinyurl.com/32fotg5), and remaining forests being affected by drying and possibly die-back caused by logging elsewhere. Interactions between biodiversity losses, cumulative 'environmental stress' and climate change: Increased logging as well as forest and grassland conversion to tree plantations not only emits large quantities of greenhouse gases but also diminishes or destroys the ability of ecosystems to help regulate the carbon cycle, nitrogen cycle, rainfall cycle and thus the climate in future. Reduced species diversity on the one hand reduces the ability of ecosystems to store and sequester carbon (see tinyurl.com/385syhx for evidence from a tropical forest in Panama). On the other hand, biodiversity losses make ecosystems less resilient to and less able to recover from 'disturbances' such as storms, fires, droughts, insect infestations and diseases, all of which are now becoming more frequent and severe due to climate change. As a recent report published by the Convention on Biological Diversity states: "The available scientific evidence strongly supports the conclusion that the capacity of forests to resist change, or recover following disturbance, is dependent on biodiversity at multiple scales... Plantations and modified natural forests will face greater disturbances and risks for large-scale losses due to climate change than primary forests, because of their generally reduced biodiversity." (tinyurl.com/ygcqx7z)

Fossil fuel replacement?

As the Center for Biological Diversity recently pointed out in a response to the US Environment Protection Agency, it is wrong to assume that bioenergy will always replace fossil fuels. Firstly, bioenergy may simply be adding rather than displacing capacity currently supplied from fossil fuel burning. Secondly, it can displace potential use of renewable energy such as wind or solar power – particularly relevant in the UK given that those effectively have to compete with bioenergy for subsidies under the Renewables Obligation.

Impacts on forests and forest-dependent people:

Most studies, particularly ones about indirect impacts, focus on the climate impacts of bioenergy, rather than the impacts on forest-dependent people and other communities which will be seriously affected by greater industrial logging and by tree plantation expansion. There is growing evidence that new concessions are already being granted, for example in Brazil, Guyana, Republic of Congo and West Papua. In West Papua, for example, Medco has been granted a large concession for rainforest land to establish plantations for bioenergy woodchips and pellets for export. In Brazil, Suzano Papel e Celulose is investing $1.3 billion in the production of wood pellets from eucalyptus for export to Europe. They have recently signed a Memorandum of Understanding for the supply of pellets to MGT Power, a UK energy firm whose plans for a 295 MW biomass power station in Teesside have been approved and who have also applied for a similar power station in Tyneside. Suzano is heavily involved in the development and promotion of Genetically Engineered eucalyptus, The wood is expected to come from Piaui, where the last remnants of the Atlantic Forests are being destroyed for eucalyptus and other plantations. Suzano and other Brazilian plantation companies have

been denounced by civil society groups in Brazil for evicting indigenous peoples, Afro-descendent people and peasants (tinyurl.com/3x5jr8x).

Human rights abuses, including evictions and pesticide poisoning, slavery-like working conditions, more hunger and malnutrition as people are displaced from their land, forests and pasture are turned into plantations – those realities of tree plantations will be entirely ignored under the UK government's 'sustainability standards'.

For a report about the impacts of Europe's wood bioenergy demand on forests and forest dependent peoples, see:
http://www.globalforestcoalition.org/img/userpics/File/briefing%20paper%20bioenergy_final_1.pdf

GE trees:

The growing demand for bioenergy is being used by companies such as ArborGen, Suzano and Weyerhaeuser to speed up the development of Genetically Engineered trees, such as cold-resistant eucalyptus and faster-growing trees. The UK Government's proposed 'sustainability standards' do not preclude use of woodchips and pellets from GE trees. In the UK, MGT Power's main woodchip supplier is now expected to be Suzano Papel e Celulose who are strongly involved in the development of GE tree plantations in Brazil. Forth Energy, who are proposing four large biomass power stations in Scotland, state that they want to burn large quanitites of eucalyptus and list four regions for supplies (Florida, Baltic States, Scandinavia and UK) where eucalyptus is not commercially grown at present. They state that most of the wood will come from Florida. ArborGen have got permission from the US government to plant 250,000 GE eucalyptus trees in the Southeastern US, including Florida (subject to a legal challenge by environmental organisations) and seek to commercialise GE eucalyptus in the region.

GE trees pose a serious risk to forests because they can spread across large areas, cross-pollinate with non-GE trees and mutate in ways which cannot be predicted. Furthermore, eucalyptus is highly invasive, requires large quantities of water and thus worsens groundwater depletion and droughts, and is very flammable. Furthermore, commercial release of GE trees would increase companies' financial incentives to replace forests and other ecosystems with such plantations. For more information, see:
www.globaljusticeecology.org/stopgetrees.php