Joint response by Biofuelwatch and Econexus to Consultation on Draft Guidelines on Environmental and Energy Aid for 2014-2020

Biofuelwatch[1] is a UK/US-based research and campaign organisation that focusses on the impacts of large-scale bioenergy, including biofuels and wood-based biomass. We have been closely following the EU and UK policies and debates in relation to subsidies and other State Aid for renewable energy including bioenergy. We would therefore like to comment primarily on aspects of the Draft Guidelines that relate to biomass power plants and to biofuels.

EcoNexus[2], founded in 2000, is a small environmental justice organisation with scientific expertise. It specialises in researching emerging technologies that have the potential for severe negative impacts on biodiversity, ecosystems and society, including: genetic modification, synthetic biology, geoengineering, bioenergy and those related to the bioeconomy. EcoNexus believes that it is vital to examine the issues around state aid, since bioenergy applications (biofuels and biomass) are primarily being driven by targets and subsidies.

General comments:

There is growing evidence, including in the form of peer-reviewed science, that biomass[3], bioliquids and biofuels[4] cannot be relied upon to result in greenhouse gas reductions compared to the fossil fuels they replace and that in many cases they result in increased ghg emissions for a period of decades or centuries. Similarly, there is strong evidence that EU and biofuels have resulted in harm to biodiversity, and, especially in the case of biofuels and bioliquids, in adverse impacts on food security and increased malnutrition[5], and in human rights abuses associated with land acquisitions for biofuel production in developing countries[6].

[1] biofuelwatch.org.uk
[2] econexus.info
[3] See for example Opinion of the EEA Scientific Committee on Greenhouse Gas Accounting in Relation to Bioenergy, available at http://www.eea.europa.eu/about-us/governance/scientific-committee/sc-opinions/opinions-on-scientific-issues/sc-opinion-on-greenhouse-gas/view and Neslen, A. (2012) 'EU carbon target threatened by biomass 'insanity', available at http://www.guardian.co.uk/environment/2012/apr/02/eu-renewable-energy-target-biomass and Schulze *et. al* (2012) 'Large-scale bioenergy from additional harvest of forest biomass is neither sustainable nor greenhouse gas neutral', *Bioenergy* 4(6): 611-16 and Haberl *et al.* (2012) 'Correcting a fundamental error in greenhouse gas accounting related to bioenergy' *Energy Policy* (2012)

[4] See for example Fargione *et al.* (2008) 'Land Clearing and the Biofuel Carbon Debt', *Science* 319(5867): 1235-38, available at http://www.sciencemag.org/content/319/5867/1235.abstract and Searchinger *et al.* (2008) 'Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land-Use Change' *Science* 319(5867): 1238-40, available at http://www.sciencemag.org/content/319/5867/1238.abstract

[5] See for example Charles *et al.* (2013) 'Biofuels—At What Cost? A review of costs and benefits of EU biofuel policies', available at http://www.iisd.org/publications/pub.aspx?id=2780 and Sharman, A. and J. Holmes (2010) 'Evidence-based policy or policy-based evidence gathering? Biofuels, the EU and the 10% target', *Environmental Policy and Governance* 20(5): 309-21.

[6] See for instance Borras, S.M., *et al.* (2011) 'Towards a better understanding of global land grabbing: an editorial introduction' *Journal of Peasant Studies* 38(2): 209-216 and Borras, S.M. and J.C. Franco (2012) 'Global land grabbing and trajectories of agrarian change: a preliminary analysis' *Journal of Agrarian Change* 12(1): 34-59 and GRAIN (2013) 'Land grabbing for biofuels must stop', available at http://www.grain.org/article/entries/4653-land-grabbing-for-biofuels-must-stop

We are pleased to note that the Draft Guidelines propose that there should be no investment aid to installations producing biofuels from starch rich crops, sugars and oil crops. We believe that no State Aid for any land-based biofuels must be allowed.

We believe that the EU's State Aid rules must comply/accord with the EU's international obligations and commitments. Those include:

+ Decisions by the Convention on Biological Diversity, to which the EU is a partner, including the Aichi Targets:

Aichi Target 3 states: "*By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions*."

There is clear evidence that land-based biofuels and wood-based bioenergy supported through State Aid within the EU are harming biodiversity. For example, State Aid support for coal-to-biomass conversions and biomass co-firing has gone towards power stations which burn imported wood from the southern US, including from a company which is known to source at least some of it from clearcut ancient swamp forests.[7] Given that any biomass, regardless of its impacts and origin, let alone scale, is classed as 'renewable' under the RED and State Aid guidelines, harm to biodiversity caused by State Aid support/subsidies appears unavoidable.

+ Extraterritorial Obligations: State Aid for biofuels, bioliquids and biomass to a significant part supports imports, which means that key impacts of such support measures are being felt outside the EU. Those include social impacts, including human rights impacts. In relation to biomass, social impacts outside the EU have so far been more limited than those of biofuels, not least because the development of a global market in wood pellets lags behind that of a global market in biofuels. However, a report by the European Parliament's Directorate General for External Policies in 2012 stressed that in future, demand for imported biomass might increasingly be met from imports in developing countries, with potentially serious social as well as environmental impacts:

> *"The developing countries most likely to export woody biomass to feed Europe's demand are west and central African countries as well as Latin American countries. While clear links between the increasing EU demand for wood for energy generation and impacts in developing countries, both negative and positive, need to be drawn on a project level, the additional demand for biomass worldwide will have macro effects. The rising demand for woody biomass energy is likely to raise the global price for wood, thus adding pressure on forests and other ecosystems and driving land use conflicts. More specific risks include deforestation when natural forests are replaced by monoculture plantations and long term impacts on local food*

[7] http://www.dogwoodalliance.org/2013/08/wood-pellet-exports-to-europe-endanger-vulnerable-southern-us-wetlands/ and http://www.dogwoodalliance.org/2013/08/press-release-new-maps-reveal-envivas-ahoskie-wood-pellet-facility-threatens-southern-wetland-forests-surrounding-ecosystems-and-wildlife/ and http://www.nwf.org/~/media/PDFs/Wildlife/Conservation/NWF_Biomass_Biodiversity_Final.ashx

and energy security."[8]

We believe that State Aid Rules should have full regard to the Maastricht Principles on Extraterritorial Obligations[9]. Those were developed by international law and human rights impacts to ensure that international principles such as those expressed in the Vienna Declaration and Programme of Action and in the Millennium Declaration are actually put into practice.

We believe that the sustainability of biomass – especially wood-based bioenergy – cannot be guaranteed without strict and enforced limits on the amount of wood burned for this purpose. Given the absence of any existing policy mechanisms for limiting the amount of bioenergy in the EU to sustainable levels, we believe that wood-based bioenergy (as well as land-based biofuels) should be excluded from eligibility for State Aid.

However, given that the Renewable Energy Directive (RED), in force until 2020, defines all biomass as 'renewable', we would propose State Aid rules on efficiency which would be very much aligned with the RED.

State Aid and biomass efficiency

Article 13(6) of the RED 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."*

By agreeing this provision, decision makers clearly sought to see only highly efficient biomass conversion supported by Member States.

According, we believe that State Aid for biomass must be restricted to schemes which meet those minimum conversion efficiencies. In practice, this would rule out electricity-only biomass plants which tend to have 20-30% efficiencies, as well as the burning of biomass in coal power stations (whether co-firing or coal-to-biomass conversions), with the exception of high-efficiency CHP plants. On the other hand, efficient heat-only and CHP biomass schemes can achieve 70-90% efficiencies.

Biomass combustion in coal power plants:

We believe that biomass combustion in coal power plants must not be eligible for State Aid under any circumstances, including in the case of CHP plants which meet the above cited efficiency rules.

Where State Aid is granted for co-firing or coal-to-biomass conversions (which are commonly unit rather than whole power plant conversions), those funds inevitably support the whole development and thus the continued burning of coal. In many cases, companies which own coal power stations are choosing to add significant amounts of biomass to the fuel

[8] DG For External Policies (2012) *Impact of EU bioenergy policy on developing countries*, available at http://www.ecologic.eu/files/attachments/Publications/2012/2610_21_bioenergy_lot_21.pdf
[9] http://www.fian.org/fileadmin/media/publications/2012.02.29_-_Maastricht_Principles_on_Extraterritorial_Obligations.pdf

mix in order to achieve the sulphur dioxide limits of the Large Combustion Plant Directive or the Industrial Emissions Directive – biomass thus helps them avoid having to close down coal plants and thus to burn more coal long-term. In other cases, companies have used the greenhouse has accounting loophole under which all biomass is allowed to count as 'carbon neutral' as a means of reporting greenhouse gas reductions due to biomass co-firing or unit conversions, and thus of legitimising continued coal burning in existing or even new coal power plants.

Biomass and technology deployment

Paragraph 114 of the Draft Guidelines suggests that technologies with a minimum share of 1-3% in EU electricity production are classed as 'deployed technologies', and ones with a smaller share are considered 'less deployed', which means, they would be favoured under State aid rules. Special conditions for "small and first commercial scale installations, for biomass and for biofuels are also included".

"Biomass and renewable waste" had a share of 6.8% in EU-wide energy generation in 2011[10]. Overall, 10% of the EU's energy consumption that year was from energy classed as renewable, thus biomass has far greater market penetration than wind, solar, hydro, tidal & wave and geothermal power put together. Biofuels are currently guaranteed a large and fast-growing market share due to the Renewable Energy for Transport target and Member States' decision, reflected in their National Renewable Energy Action Plans, to meet around 90% of that target from biofuels.

Classing specific biofuel and biomass technologies as 'less deployed' would favour a further increase in the market share of 'biomass and renewable waste', thus further distorting the mix of energy classed as renewable in the EU. Allowing specific technologies to be classed as 'less deployed' would, for example, allow standard biomass combustion to be favoured this way simply because there are many different combustion techniques, each of which is technically quite established but may have less than a 1-3% share of overall EU energy generation.

In this context it is important to note that there is a large range of designs and technologies for biomass combustion, each of which may well have less than a 1-3% share of energy generation in the EU, but all of which rely on similar feedstock and a similar overall model. For example, Fluid Bed Combustion, commonly used in biomass plants, can be divided into atmospheric systems, bubbling FBC and circulating fluidised bed combustion and, in theory, each of those could be classed as a separate technology.

According to the EU's energy statistics for 2011, wind had a market share of just 0.9%, solar and geothermal of 0.4% each and wave and tidal of zero. Clearly, those, rather than bioenergy, are the 'less deployed' energy technologies in the EU.

Procedures for considering complaints and comments about State Aid-related applications and decisions

We understand that a recent complaint about a grant of UK State Aid to Drax, submitted by Friends of the Earth, was rejected on the ground that they are not a competitor of Drax.

[10] http://ec.europa.eu/energy/publications/doc/2013_pocketbook.pdf, page 40

We believe that there cannot be proper scrutiny of State Aid decisions without allowing complaints and other representations to be made by non-competitors, including by civil society organisations. State Aid decisions, for example about energy-related projects, will usually result in significant environmental impacts, which can be positive or negative ones. We would therefore question whether indeed the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters might apply.

Example: Recent UK State Aid for Drax, in the form of a Green Investment Bank loan and a public loan guarantee under the UK's Guarantee Scheme has allowed them to avoid closure of their 4GW power station. The Green Investment Bank obtained State Aid clearance from the European Commission on the condition that they would lend mostly to three priority sector and less so to any of five non-priority sectors. Yet as confirmed by the Secretary of State, GIB funding for Drax allowed it to avoid closure under European industrial emissions rules[1]. This means that it directly supported an additional 3.7 million tonnes of coal being burned every year in future (additional compared to the alternative of Drax closure). Yet the possibility of the GIB directly or indirectly helping to finance ongoing coal burning in this manner had not been mentioned in the original State Aid application and thus in the Commission's decision on it and, we understand that no competitor has obtained. This leaves no current avenues of getting Commission to look into this potential breach of State Aid conditions.