

## PPW 12.8 – Planning for Renewable Energy Consultation

### Planning Policy Wales

#### Chapter 12 – Infrastructure and Services

#### Section 12.8 Planning for Renewable Energy (Consultation, July 2010)

Response submitted by Ian Lander, Robert Palgrave & Almuth Ernsting on behalf of:

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Biofuelwatch welcomes this opportunity to comment on Welsh plans for renewable energy.

Biofuelwatch campaigns against the use of biofuels and biomass on an industrial scale. We support the use of true renewable energy technologies as part of a strategy to tackle climate change.

Our comments here focus on the expectation that bioenergy for heat and power will need to contribute such a large proportion of Welsh renewable energy. In our view this is a dangerous and misguided policy and we provide solid evidence to illustrate the issues that would arise if bioenergy were developed to the extent envisaged.

Our first observation is that Section 12.8 is a nine page document with 36 paragraphs and yet you confine your appraisal and the remit of your preferred consultation response, to just four questions. Three of these concern themselves with loose parameters and targets that make assumptions about renewable energy, which are inappropriate and unacceptable. This pre-disposition is somewhat contradicted by the fourth question. If the indicated national criteria referred to, were actual guidance that needed to be adhered to, rather than being merely rhetorical, then section 12.8 would no longer contain reference to biofuels and biomass as renewable energy. We wonder if this is the reason why you have included paragraph 17. *We are **not**, however, consulting on the Assembly Government's renewable energy policy and the energy aspirations contained within it – this was published in March 2010.*

The following paragraphs are taken from this policy document:

*(1) 'Climate change is the greatest environmental, economic and social challenge facing the planet. Unless the global emissions of carbon dioxide and other greenhouse gases from energy generation and other human activities peak by around 2015 and then rapidly diminish, the world will probably see a global temperature rise of 4°C by around 2060 resulting in famine and droughts in many parts of the world, significant sea level rises, and an increasing risk of further catastrophic climate changes.'*

The use of bioenergy will not contribute to a peaking of emissions by 2015 and a subsequent rapid reduction. Burning biomass increases short term atmospheric concentrations of GHGs.

*(2) 'Wales once led the world in carbon-based energy. Our goal now is to do the same for low carbon energy'.*

Clearly this is a reference to coal. Burning biomass produces more CO<sub>2</sub> emissions than burning coal. In 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](http://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](http://www.catf.us/resources/whitepapers/files/201007-Review_of_the_Manomet_Biomass_Sustainability_and_Carbon_Policy_Study.pdf) .

*(3) 'This Assembly Government statement explains what we will do and what we want others to do to make our ambition for low carbon energy a reality. ... **Second**, our energy needs in a modern society will remain considerable, and must be met securely from low carbon sources. We will move to resilient low carbon energy production via indigenous (and thus secure) renewables, on both a centralised and localised basis'.*

In order to meet these 'considerable' energy demands, the vast majority of biofuel and biomass feedstock, will not be 'indigenous'. The UK Government's National Renewable Energy Action Plan, submitted to the European Commission in July 2010, acknowledged that significant levels of biomass would need to be imported. Over 80% of biofuels used in transport are currently imported (RFA). Most of the UK-sourced biodiesel comes in fact from used cooking oil and tallow, not from crops. The UK Confederation of Forest Industries has estimated that at least 30 million tonnes of wood will need to be burnt every year by 2020 to fuel proposed biomass electricity generation schemes across the UK. The UK produces about 10 millions tonnes of wood per year, with a tiny amount being exported.

(4) **'d). Bio-energy/Waste** Our aim is:  
to deliver by 2020 up to 6 kWh/d/p in Wales of electricity from biomass – 50% indigenous/50% imported – and a heat potential of 2-2.5 kWh/d/p in Wales'.

This contradicts the above statement which suggests a greater use of indigenous supplies than 50%.

(5)

- . • promoting the use of waste woods and local supply of biomass rather than very large-scale new planting of commercial biomass in order to prevent negative impacts on the environment or food security;
- . • requiring that any larger scale plant can demonstrate that it is supplied by fuel from sustainable sources;

We would agree with the sentiment expressed in this first point – to make use of local supplies and to keep the use of biomass to a level where it does not have negative impacts. However, all the evidence to date suggests that this aspiration cannot be met. As a result of other UK Government policies which over-compensate generators of biomass electricity, there are numerous proposals in development in Wales for large electricity-only power stations which rely heavily on imported fuel. Example – Pre-energy at Port Talbot, Anglesey Aluminum Metal Renewables at Anglesey, Dingles Holding Ltd at Swansea and Bio E Plc at Coedbach.

The second point about sustainable sources is worthy, but again other existing policies will conflict against this if not revoked. UK Planning Policy Statement 22 Companion Guide insists that the sourcing of fuel for a biomass scheme is not the remit of planners.

In any case, the capacity of UK authorities to truly ensure sustainability is in real doubt when supplies are obtained from abroad. In their defence of a judicial review application, DECC has stated recently (Helius Energy, Avonmouth) that the UK has no jurisdiction over forestry production in other countries:

*“The biomass fuel needed for this and many other installations is likely to come from outside the UK. The UK government has no way of imposing, or enforcing, a standard for ‘sustainability’ on forestry operations in other EU Member States or third countries, and to do so could involve an unlawful restraint on trade.”*

*(THE QUEEN on the application of COEDBACH ACTION TEAM LIMITED*

*-v-*

*THE SECRETARY OF STATE FOR ENERGY AND CLIMATE CHANGE*

CO/7004/2010)

(6) **'Technical Annex 5: Relevant sustainable development considerations**

*The Welsh Assembly Government has always had a duty enshrined in legislation to promote sustainable development and now, following the publication in 2009 of One Wales, One Planet, we are using sustainable development as the central organising principle for all Assembly Government activities.*

*In many ways energy and minimising its use is the most important issue within the sustainable development agenda and thus the energy vision in this statement has to be based on sound 'sustainable development' in action – which means that both aggregate development effects, and often individual projects, will need to be assessed against an evidence based framework which looks at the following factors from a whole system / whole life perspective, with the importance of each of the factors often varying with the technology employed and sites under consideration:*

- *environmental consequences – global, regional and local;*
- *energy security of supply – since without this our civilisation is at risk;*

*For example:*

- *sustainable bioenergy depends on the scale limitations associated with land availability, crop displacement and air quality issues;'*

We are pleased to see a reference in this paragraph to 'scale' and to a coherent holistic approach to energy use and supply. However, the intended level of use of industrial bioenergy indicated in the current PPW consultation will not satisfy these aspirations and will not represent '*the prudent use of natural resources*' - one of the pillars of sustainable development accepted by UK Government.

Our second observation about the Renewable Energy Policy, and this consultation on Planning for Renewable Energy regards the legitimacy of public consultation when policy will have a global impact. Planning Policy Wales talks about intending to '*enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations*'. Civil society from the majority world has protested for their voices to be heard regarding EU and UK energy policy for too many years. Their living conditions, their way of life and their futures are deeply affected by how we use energy in this country. For a fair picture of what this planning document could mean please accept the word of civil society, throughout the majority world:

Statement by **Tamil Nadu Environment Council and Equations, India**, December 2007 (<http://cedatrust.in/html/climate.pdf>)

Statement by **Gender and climate change network – Women for climate justice**, December 2007 ([http://www.genanet.de/fileadmin/downloads/themen/COP13/MADRE-gendercc\\_positionpaper-agrofuels\\_final.pdf](http://www.genanet.de/fileadmin/downloads/themen/COP13/MADRE-gendercc_positionpaper-agrofuels_final.pdf))

Declaration "Fuelling Concerns" by farmers, people's movements, NGOs and concerned individuals who came together in Andhra Pradesh, 4<sup>th</sup> December 2007 (<http://tech.groups.yahoo.com/group/biofuelwatch/message/1553>)

Declaration on Agrofuels by **Friends of the Earth International**, 28<sup>th</sup> November 2008 (<http://www.foei.org/en/campaigns/climate/energy/agrofuels-declaration>)

**African Call for a Moratorium on Agrofuels**, November 2007 (<http://www.gaiafoundation.org/documents/Africaagrofuelmoratorium.pdf>)

Statement by **Madre**, 1<sup>st</sup> November 2007 (<http://us.oneworld.net/article/view/154718/1/>)

**Declaration of the First Patagonian Conference on Biofuels**, Argentina, 25<sup>th</sup> May 2007 (<http://tech.groups.yahoo.com/group/biofuelwatch/message/635%22>)

**Official Declaration of Chake Nuha on the Agro-fuels and Environmental Services Traps**, Paraguay, 24<sup>th</sup> April 2007  
(<http://tech.groups.yahoo.com/group/biofuelwatch/message/493>)

**Argentinean Groups against Agrofuels and critical to Al Gore visit**, April 2007,  
([www.wrm.org.uy/subjects/biofuels/Gualeguaychu.html](http://www.wrm.org.uy/subjects/biofuels/Gualeguaychu.html))

**Declaration by Alert Against the Green Desert Network, Latin American Network against Monoculture Tree Plantations, Network for a GM free Latin America, Oilwatch South America, World Rainforest Movement**, 4<sup>th</sup> January 2007  
([http://www.wrm.org.uy/subjects/biofuels/EU\\_declaration.html](http://www.wrm.org.uy/subjects/biofuels/EU_declaration.html))

**Open letter by Sawit Watch**, Indonesia, 29<sup>th</sup> January 2007  
([http://www.wrm.org.uy/subjects/agrofuels/Palm\\_Oil\\_Letter\\_EU.html](http://www.wrm.org.uy/subjects/agrofuels/Palm_Oil_Letter_EU.html))

We now set out our specific comments regarding Section 12.8 Planning for Renewable Energy. Paragraphs in black, are from this consultation and from other important Welsh and UK government and planning documentation. These set the context for our comments which are in blue for ease of reading:

(1) Paragraph 12.8 1 should have additional blue text:

*The UK Government has signed up to the EU Renewable Energy Directive which includes a UK target of 15% of energy from renewables by 2020. The UK Renewable Energy Strategy (2009) sets the path for the delivery of these targets, promoting renewable energy to reduce global warming and to secure future energy supplies. The Assembly Government is committed to playing its part by delivering an energy programme which, **as a minimum, reduces carbon emissions by the mandatory requirements set out in the UK's Climate Change Act. The Welsh Assembly Government Energy Policy Statement (2010) identifies the sustainable renewable energy potential for a variety of different technologies as well as establishing our commitment to energy efficiency. In determining which technologies will spearhead the drive to decarbonise the energy sector priority and support will be given to those which can credibly deliver the demanding Climate Change Act targets for 2020 and 2050 (recognising the relevance of the five year carbon budgets set out to 2022 and prioritising accordingly).***

(2) All 'Renewable Energy' is not the same

With this in mind, we believe it is essential that the outline projections for renewable energy potential set out in para 12.8.2 (below) are re-cast to show the likely greenhouse gas emissions savings from each type of technology. For example, the GHG savings from using biomass will be considerably less than from using wind, solar and marine energy. It is not enough to simply deliver 'renewable energy' against a target, what has also to be delivered and in our view should be given greater weight, is to deliver genuine GHG emissions savings.

For biomass, separate estimates of savings should be given for local, UK and imported biomass, taking full account of the complete lifecycle emissions involved in fuel

[production, wherever and whenever those emissions may occur](#). See our further comments below on the deficiencies in the methodology currently used in carbon accounting for large-scale biomass.

(3) **'Figure 12.1 Wales' sustainable renewable energy potential to 2020/2025:'**

This does not refer to biofuels or biomass for heating or transport.

*'12.8.5 The Assembly Government's aim is to secure an appropriate mix of energy provision for Wales, whilst minimising environmental, social and economic impacts'.*

Biofuel and biomass cause adverse environmental, social and economic impacts: **Joint Research Centre, European Commission**, January 2008, published March 2008 ([ec.europa.eu/dgs/jrc/downloads/jrc\\_biofuels\\_report.pdf](http://ec.europa.eu/dgs/jrc/downloads/jrc_biofuels_report.pdf))

*"Assuming that people do not change eating habits because of biofuels, diverting EU production from food or animal feed markets will result in increased food imports. Together with directly imported feedstock, these will add to world food demand, and the reduction in EU exports will detract from world food supply. ...On economic impacts: Despite all the uncertainty the conclusion is very solid: there is virtually no chance of benefits exceeding costs!"*

**Florian Siegert, Tad Patzek, David Pimentel, Mario Giampietro, Helmut Haberl,**

Open letter to Rajendra Pachauri, Chair of the IPCC, 30<sup>th</sup> October 2007

(<http://www.grain.org/agrofuels/IPCC-Letter-to-DrRKPachauri.pdf>)

*"Even at a small scale, cultivation of biofuels often will take fertile land away from agricultural use, and thus lead to land-use change emissions, as the market-place encourages the world farming frontier to expand into forests and other often carbon rich ecosystems to accommodate. This is currently leading variously to major damage to biodiversity, irregularities in land acquisition and other human rights abuses, water pollution and stress on water resources in addition to the land disturbance emissions."*

The UN special rapporteur on the right to food, Jean Ziegler described biofuels as a crime against humanity.

(4) *12.8.6 'For the purposes of planning policy for renewable energy, renewable energy is the term used to cover those **sources** of energy, other than fossil fuels or nuclear fuel, which are continuously and sustainably available in our environment. This includes wind, water, solar, geothermal energy and plant material (biomass)'.*

We question the use of the term "sustainably available" in relation to biomass and the very superficial treatment of this critical issue in the Policy:

1. Firstly there is currently no legal definition of sustainability. This is confirmed by a recent statement by the head of renewable policy at DECC Sarah Rhodes, in her defence statement in a current judicial review case.
2. Secondly, for a resource like biomass for which availability depends on land resources and other important factors, the issue of 'sustainability' is only meaningful if we know the scale and impact of the production of biomass, wherever it is sourced. And in assessing the impacts of biomass, it is critical to understand the total current and projected demands on the land and other

resources both from biomass and from other uses, primarily but not only food production.

3. Thirdly, DECC has also said recently in evidence that UK Government has no legal powers to control overseas forestry practices, which undermines the intention to manage sustainability of biomass feedstocks.

In our view the Policy must address these uncertainties and omissions if it is to be credible.

(5) '12.8.7 The Assembly Government is committed to using the planning system to:

- *recognise that the benefits of renewable energy are part of the overall commitment to tackle climate change by reducing greenhouse gas emissions'.*

Our view is that the most significant feature of renewable energy is indeed its potential contribution to reducing climate changing greenhouse gas emissions. But RE should also contribute to addressing energy security and should help improve overall 'well-being' both for humanity and the wider biosphere.

From all these perspectives, biomass comes a distant last to the other renewable technologies. It worsens air quality, impacting on ecology and human health; being reliant on imported fuel supplies it hardly helps improve energy security; and the greenhouse gas performance of biomass is poor – even when the full life cycle impacts are not taken into account, as they should be.

For example in DECC's open consultation on the Renewable Obligation Order 2011, they propose a threshold GHG performance for biomass electricity - a 60% saving relative to current EU wide fossil electricity. This saving figure excludes any consideration of land-use change or the temporal carbon debt accrued by burning mature trees. The very fact that GHG savings thresholds are being proposed for GHG savings from biomass and not for other Renewable Energy technologies shows clearly that biomass should not be treated the same as non-polluting, very low carbon alternatives like wind, marine and solar.

The IPCC view that bioenergy should be treated as having zero 'smokestack emissions' is flawed. When mature trees are burnt, the sequestered carbon is released into the atmosphere in minutes. Carbon that has taken years if not decades to be captured from the atmosphere. What is important is how those new emissions affect the climate and how they might be re-captured going forward. The dangerously optimistic assumption is that someone else in another place will replace the trees and manage them to maturity in order to sequester the newly released carbon. Recapturing the emitted carbon will of course take many years.

The delay in recapturing the carbon from burning trees and the delay in offsetting the carbon and other GHG emissions from land-use changes associated with other forms of bioenergy can be represented as a carbon debt. (refer to Manomet and The upfront carbon debt of bioenergy, Graz, Joanneum Research, June 2010". An electronic version ([http://www.birdlife.org/eu/EU\\_policy/Biofuels/carbon\\_bomb.html](http://www.birdlife.org/eu/EU_policy/Biofuels/carbon_bomb.html))

A growing number of peer-reviewed studies assess the climate impact of indirect land-use change from bioenergy (see for example [tinyurl.com/yck2gmu](http://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](http://tinyurl.com/2f46zg)), carbon emissions from peatlands as a result of nitrogen from fertilisers being spread over a large area ([tinyurl.com/32fotg5](http://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](http://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](http://tinyurl.com/ygcqx7z))

(7) ‘12.8.8 Local planning authorities should facilitate the development of all forms of renewable energy and energy efficiency and conservation measures’. (please see above comments about ‘all forms of renewable energy’).

(8) ‘- ensuring that development management decisions are consistent with national and international climate change obligations, including contributions to renewable energy targets;’



Bioenergy is at odds with international climate change obligations, as it creates more greenhouse gases than fossil fuels.

(9) *'12.8.9 At the same time, local planning authorities should:*

- *avoid inappropriate development by ensuring that international and national statutory obligations to protect designated areas, species and habitats and the historic environment are adhered to; and*
- *ensure that mitigation measures are required for potential detrimental effects on local communities'.*

Biofuel and biomass lead to biodiversity and habitat loss in the UK, EU and globally. It is therefore, valuable to have such guidance reminding local authorities of their national and international obligations to protect 'designated areas,' the historic environment' etc. However, we would like this to go further and to guide local authorities to give weight to the UK's international obligations to protect indigenous peoples (overseas) as required by United Nations Declaration on the Rights of Indigenous Peoples (2007). These peoples can be detrimentally affected by biomass production in their countries, and biomass consumption in the UK should take this into account.

LPA's are instructed to take account of obligations to protect certain aspects of the environment – such as designated areas, species, habitats, and the historic environment and this instruction, does not restrict the geographical remit of these obligations. How can these aspects of the environment be protected if the sustainability of fuel sources is to be excluded from decision making?

(10) *'12.8.13 Elsewhere, renewable energy developments have different impacts depending on their type, location and scale. These require different policy considerations depending on the scale of the proposed project6'.*

It is not clear what impacts are being referred to here, but we hope that we have demonstrated that those impacts from biofuels and biomass are adverse and unacceptable on biodiversity, habitat, human rights, food sovereignty & security, water, soil and climate change. This does not therefore merely require different policy considerations, but a complete policy review.

(11) ***'12.9 Development plans and renewable energy***

*12.9.1 Local planning authorities should plan positively for all forms of renewable energy installations using up to date and appropriate evidence. In order to establish an evidence base, local authorities should undertake an assessment of the potential of all renewable energy resources, renewable energy technologies, energy efficiency and conservation measures and include appropriate policies in development plans10'.*

We hope to have demonstrated that all forms of renewable energy, are not the same. And in fact, industrial bio-energy, is not renewable.

We wonder if any local council has access to, or has reviewed up to date and appropriate evidence and indeed, if any can demonstrate that they have undertaken an assessment of the potential of all renewable energy resources. If they had then they would not include biofuels and biomass as a renewable energy and planning officers would not recommend developments of such, at the planning application stage. Presently, this paragraph would also inhibit the power of the local planning authority to

respond to legitimate concerns raised by potential objectors about sustainability. In effect this proposed statement, would leave local residents without a means of voicing concerns about a major development in their area at a stage which could influence the planning decision outcome.

*(12) '12.9.5 Other than onshore wind projects the most likely form of renewable energy installations to be considered will be strategic scale biomass projects. In considering the potential for new strategic biomass installations local planning authorities should consider allocating sites which have good transport links to sources of biomass fuel, the sustainability of the sources of biomass fuel are not planning considerations'.*

We dispute this last sentence, regarding sustainability. It is illogical and inconsistent to say that *"the sustainability of the sources of biomass fuel are (sic) not planning considerations"*. There are many references in UK planning policy statements to the need for development control decisions to take account of sustainability. For a biomass energy scheme operating over a period of maybe 20 or more years, the provision of its fuel must represent its most significant environmental (and possibly social) impact. Ignoring those impacts does not accord with the principles of sustainable development.

Nor does it accord with this statement made in the Welsh Assembly Renewable Energy Policy of March 2010 where global and regional environmental consequences are listed as a key part of decision making:

*"....both aggregate development effects, and often individual projects, will need to be assessed against an evidence based framework which looks at the following factors from a whole system / whole life perspective, with the importance of each of the factors often varying with the technology employed and sites under consideration:*

- *environmental consequences – global, regional and local;*
- *energy security of supply – since without this our civilisation is at risk;*

*For example:*

*□sustainable bioenergy depends on the scale limitations associated with land availability, crop displacement and air quality issues;"*

(13) We would also draw your attention to the following paragraphs in the PPW12.8 consultation document:

#### ***'Ministerial Foreword***

*Climate change continues to be one of the greatest threats to mankind and the build up of greenhouse gases in the atmosphere is directly linked to our increasing use of fossil fuels. We need to take action as a society to minimise the causes of global climate change as a matter of urgency'.*

Biofuels and biomass increase greenhouse gas emissions and cause climate change.

#### ***'Legislative and Policy Changes***

*8. Since the publication of MIPPS (01/2005) a significant number of policy and legislative changes have taken place which provide for a robust basis within which the planning system can respond to mitigating climate change and delivering renewable energy'.*

Biofuels and biomass do not mitigate climate change and are not renewable.

*'The Climate Change Act 2008 introduced a statutory target of reducing carbon emissions by 80 per cent below 1990 levels by 2050, with an interim target of 34% by 2020'.*

Using biofuel and biomass for energy will increase. rather than reduce carbon emissions and is therefore completely at odds with these targets.

*'One Wales (2007) provides the programme for the Welsh Assembly Government contains a commitment to reduce greenhouse gas emissions in Wales, including how it will deliver its fair share towards UK targets contained in the UK Climate Change Act (2008)'.*

See above comments.

*'One Wales: One Planet (2009) sets out the Welsh Assembly Government's new vision of a sustainable Wales and the priority we attach to sustainable development. This is a response to the economic and environmental challenges we face and is the only approach that will secure a long term sustainable future for future generations'.*

The use of industrial biofuels and biomass already increases greenhouse gas emissions, leads to biodiversity & habitat loss, including carbon sinks and in no way can it be considered that their use will secure a long term sustainable future for future generations...It also emphasises the need to reduce the *'ecological footprint of Wales'*, which requires *'a large reduction in total resources used to sustain our lifestyle'*. We believe that this is particularly relevant given the extremely high land requirement for supplying fuel for biofuel and biomass power stations. Planning proposals for UK 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. 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. It is not reasonable, fair or morally acceptable to talk about the future and future generations only applying to the people of Wales. Especially when other UK government documents quoted here (eg. PPS 1, below), actually refer to the wider globe. Furthermore, no planning document refers to actual geographic barriers and people in the global south are actually being affected in the present by the adverse *'economic and environmental challenges'*, caused by our demand for biofuels.

(14) And From other Planning Documentation:

**Planning Policy Statement PPS 1, Delivering Sustainable Development - 2.1,** states: *'The concept of sustainable development is fundamental to all development decisions... The principle of Sustainable Development is to take account of impacts regardless of spatial or temporal distance.'*

**'The Planning System: General Principles (ODPM, Feb 2004)** says in para 11: *"In principle...any consideration which relates to the use and development of land is capable*

*of being a planning consideration. Whether a particular consideration falling within that broad class is material in any given case will depend on the circumstances” (Stringer v MHLG 1971). Material considerations must be genuine planning considerations, i.e. they must be related to the development and use of land in the public interest. The considerations must also fairly and reasonably relate to the application concerned (R v Westminster CC ex-parte Monahan 1989)’.*

The Principles are here stating that considerations that relate to the use of land in the public interest can be a planning consideration.

**‘The Planning Policy Wales (edition 2, June 2010): Section 2.4.4 of the Planning Policy Wales** This specifically refers to “*environmental implications which may be local, regional or international*” thus making it clear that the environmental impacts which should be considered to not end at the local authority’s boundaries.

**Ministerial Interim Planning Policy Statement 01/2005 – Planning for Renewable Energy:** calls on local planning authorities to ensure that “*development control decisions are consistent with national and international climate change obligations, including contribution to renewable energy targets*” (12.8.12) and qualifies this by stating that “*Local planning authorities should consider the effects of any scheme and its associated infrastructure in relation to sustainable development criteria relating to economic, social and environmental impacts*” (12.10.1)’

International climate change obligations are thus directly mentioned and the reference to social and environmental impacts is a very general one which does not exclude impacts outside the UK but directly affected by a planning decision in any local planning decision. Amongst the social impacts of palm oil are the large-scale displacement of indigenous and other forest-dependent peoples. According to the then Chair of the UN Permanent Forum on Indigenous Issues, five million indigenous people in West Kalimantan are at risk of becoming 'biofuel refugees'

**Energy Act, 2008.** According to DECC website, the Act, ‘*The Energy Act updates energy legislation to: protect our environment and the tax payer as our energy market changes*’.

There is no spatial barrier or geographic limitation specified here.

**‘TAN 8 - Technical Advice Note 8, published in 2005, paragraph, 3.11** relates to “*fuel crops, including Woodfuel*” and speaks of a likely “*close locational relationship between the energy generation plant and the growing of crops specifically for fuel in rural areas*”. Annex C to TAN8 illustrates what is meant by ‘*fuel crops*’: *Woodfuel, crops such miscanthus, solid biofuels, in particular agricultural wastes or byproducts.*

At no point is there any suggestion that Section 3.11 should be applied to bioliquids – implying it to imported bioliquids would appear particularly questionable given the reference to ‘*close locational proximity*’ between electricity generation and the growing of fuel crops.

**One Wales – A Progressive Agenda for the Government of Wales (June 2007)** – On page 30, this document states, ‘*We will not digress from playing our part in tackling global environmental challenge*’ and under *Tackling Climate Change*, threat. ‘*We are*

*resolved that this government and the people of Wales will play the fullest possible part in reducing its CO2 emissions’.*

*And ‘We will aim to achieve annual carbon reduction-equivalent emissions reductions of 3% per year by 2011 in areas of devolved competence’.*

[Please see previous statements that contend that biofuels and biomass are at odds this agenda.](#)

**Environment Strategy for Wales (2006)** - Page 2 says: *‘sustainable development underpins and drives everything the Assembly does and advocates others to do; people and communities are at the heart of sustainable development; we take into account the global impacts of decisions made at the Wales level; wherever possible the root causes of problems are tackled; respecting environmental limits, so that resources are not irrecoverably depleted or the environment irreversibly damaged: this implies, for instance, contributing to protection of the planet’s climate; protecting and enhancing biodiversity; minimising harmful emissions; and promoting sustainable use of natural resources; applying the precautionary principle, that cost-effective measures to prevent possibly serious environmental damage should not be postponed just because of scientific uncertainty about how serious the risk is: (pages 21 to 40 deal with the issues of Climate Change, sustainable use of resources and Distinctive biodiversity, landscapes and seascapes in detail).*

[We contend that biofuels and biomass are absolutely at odds with these statements.](#)

**Sustainable Development Action Plan 2004-2007** – From page 4, there are statements on: *‘halting the loss of biodiversity world-wide by 2010; respecting human rights’*; from page 5, *‘Loss of biodiversity in Europe’*. *This Action Plan seeks to position Wales against these global and European challenges in the context of the Assembly’s duty and scheme’* Page 9 *‘Playing our full part in reducing the threat posed by climate change by moving to a low carbon economy’*. Page 21 *Solutions to problems in Wales cannot be found only by addressing them on a Wales basis and decisions we take in Wales can have global repercussions... It also gives us a responsibility to work beyond our shores to promote equity and opportunity for all.’*

In the same pdf, *‘Starting to Live Differently - Page 3, states: SECTION 2: THE DEFINITION OF SUSTAINABLE DEVELOPMENT 2.1 The National Assembly for Wales will promote development that meets the needs of the present without compromising the ability of future generations to meet their own needs. By this we mean the needs of all human life, within the carrying capacity of supporting ecosystems, without compromising the ability of future generations to meet their own social, economic, environmental and cultural needs.*

Page 5, **SECTION 3: THE VISION OF A SUSTAINABLE WALES** *contributing to sustainable development at a global level as well as locally and taking account of the global impacts of decisions made in Wales.* Page 7, **SECTION 4: SUSTAINABLE DEVELOPMENT PRINCIPLES 4.1** *Translating the Assembly’s vision into action will mean changing the way we work so that: sustainable development underpins and drives everything the Assembly does and advocates others to do; critical issues are identified, through dialogue with leading stakeholders, and focused on; people and communities are at the heart of sustainable development; we take into account the global impacts of decisions made at the Wales level; decisions about the short term should not be contradictory to long-term aims; using scientific knowledge to aid decision making, and trying to work out in advance what knowledge will be needed so that it can be*

researched; page 8, *applying the precautionary principle, that cost-effective measures to prevent possibly serious environmental damage should not be postponed just because of scientific uncertainty about how serious the risk is; respecting environmental limits, so that resources are not irrecoverably depleted or the environment irreversibly damaged: this implies, for instance, contributing to the protection of the planet's climate; protecting and enhancing biodiversity; minimizing harmful emissions; and promoting sustainable use of natural resources;*

The use of biofuels and biomass are contra to these aims and objectives

## 12.10 Development management and renewable energy

12.10.1 In determining applications for renewable energy development and associated infrastructure local planning authorities should :

- be consistent with the sustainability principles and key policy objectives set out in Chapter 4;

These include:

### *4.1 A commitment to sustainable development*

*4.1.1 The Welsh Ministers will promote sustainable development, the goal of which is, to "enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations1."*

Industrial biofuels and biomass are utterly at odds with this well meaning rhetoric. In the 2008 'perfect storm' food crisis, a further 150 million people became permanently malnourished. A leaked report from the World Bank said that 75% of the food price increases were due to demand for crops for biofuels. Afro-Colombians and indigenous people in Colombia are murdered during land evictions to plant oil palms for biofuel. Human rights abuses are repeated in West Papua, Malaysia, etc, etc., Paraguay – which includes ill-health, from pesticide use. Peoples lose their homes, livelihoods, source of food. A few might become plantation workers where they are little more than indentured slaves. It seems somewhat of a hollow platitude to then talk about compromising the quality of life of future generations. It might even appear callous and a failure to accept the reality of the current situation.

*4.1.2 Sustainable development in Wales2 means enhancing the economic, social and environmental well-being of people and communities, achieving a better quality of life for our own generations in ways which:*

- *promote social justice and equality of opportunity; (see above comments) and*
- *enhance the natural and cultural environment and respect its limits - using only our fair share of the earth's resources and sustaining our cultural legacy'.*

There is currently a planning appeal for a proposed biofuel power station in Newport. The population of Newport is 140,000 and it covers 75 square miles (19,425 hectares). The developer says that they could supply electricity to 75% of the homes of Newport with their power station. If this ran on palm oil as most of the biofuel stations in Italy and Germany do, this would require 10,000 hectares of oil palm plantations, or half the total area of Newport. This clearly does not include bio-energy/land demand for heating and transport. Surely this can not be deemed: *'using only our fair share of the earth's resources'*?

*‘4.1.3 This commitment is based upon a duty under Section 79 of the Government of Wales Act 2006. Welsh Ministers are required to make, keep under review, and revise a sustainable development scheme setting out how they propose to promote sustainable development in the exercise of their functions.*

*‘4.1.4 The Welsh Ministers are promoting sustainable development:*

- by placing sustainability at the heart of their decision-making processes;*

[This is reassuring, but is not the case if you stand by paragraph 12.9.5.](#)

*‘4.1.5 The Welsh Assembly Government, alongside the UK Government, the Scottish Government and Northern Ireland Administration have agreed on a set of shared UK principles that will help us achieve our sustainable development purpose3:’*

- **living within environmental limits:** by setting out a pathway to using only our fair share of the earth’s resources and becoming a One Planet nation within the lifetime of a generation;*

[Please see above comments.](#)

***promoting good governance:** through confirming sustainable development as the central organising principle of the Welsh Assembly Government and through encouraging and enabling others to embrace sustainable development as their central organising principle; and*

- **using sound science responsibly:** through the use of our sustainable development principles as part of our evidence-based approach to policy making.*

[If this were indeed the case, then this consultation would not include bio-energy.](#)

*4.1.6 The planning system has a fundamental role in delivering sustainable development in Wales. It must help in the process of balancing and integrating these objectives in order to meet current development needs while safeguarding those of the future.*

[Again, for this statement to be more than mere well-meaning rhetoric you must deal with the adverse effects of biofuels and biomass.](#)

*4.1.7 The Assembly Government’s Environment Strategy and Action Plan set out the long term strategy for the Welsh environment. The five main themes of the Strategy are*

- addressing climate change;*
- sustainable resource use;*
- distinctive biodiversity, landscapes and seascapes;*

[Industrial bioenergy, is at odds with these themes.](#)

*4.2 Planning for climate change*

*4.2.1 Tackling climate change is a fundamental part of delivering sustainable development. Climate change is one of the most important challenges facing the world and the Assembly Government has made a commitment to tackling climate change, resolving that the Government and people of Wales will play the fullest possible part in reducing its carbon footprint (see 1.4.4). Our commitment to action on climate change is based on a scientific imperative to act and to act urgently to reduce greenhouse gas emissions and deal with the consequences of climate change.*

[See previous comments on climate change.](#)

4.2.2 The Assembly Government has set out to achieve annual carbon reduction-equivalent emissions reductions of 3 per cent per year by 2011 in areas of devolved competence, which include land use planning<sup>5</sup>.

As above

4.2.3 Climate change will have potentially profound environmental, economic and social justice implications and failure to address it will make **planning for sustainability impossible**. The economic imperative to act was set out in the Stern Review<sup>6</sup> and by the UK Committee on Climate Change, where the costs of doing nothing are significantly greater than the expected costs of co-ordinated global action.

As above.

4.2.5 These impacts present risks to people, property, infrastructure and resources and a fundamental challenge to how we plan the development and the use of land and provision of environmental infrastructure in Wales. A complementary twin-track approach to tackling climate change is needed recognising: A. **The causes of climate change** - by acting, and acting urgently, to cut emissions of greenhouse gas emissions that cause climate change in order to avoid the worst impacts of climate change; and

As above

4.2.7 **Planning to minimise the causes of climate change** means taking decisive action to move towards a low carbon economy (see Section 12.8) by proactively reducing the demand for energy (see Chapter 8 and Section 12.8), facilitating the delivery of new and more sustainable forms of energy provision at all scales (see Section 12.8) and minimising the emissions of greenhouse gases to the atmosphere.

As above.

#### *Ecological Footprint*

4.2.11 Closely aligned to the commitments to tackling climate change is the Assembly Government's approach to reducing the ecological footprint of Wales. One Planet: One Wales sets out an ambition for Wales to use its fair share of the Earth's resources, where, within a generation, our ecological footprint is reduced to the global average availability of resources - 1.88 global hectares per person. The current footprint shows that, if everyone on the Earth lived as we do, we would use 2.7 planets worth of resources. Reducing Wales' ecological footprint will require a large reduction in the total resources used to sustain our lifestyles. The policy and guidance set out here in PPW will make an important contribution to reducing our footprint, whilst delivering sustainable development and tackling climate change.

The ecological footprint of biofuel and biomass power stations is unacceptably high. Bioenergy is a land-intensive form of energy – photosynthesis is the least efficient way to capture solar energy. A recent study by Robert McDonald et al shows that burning energy crops for electricity requires 2,844 – 4,294 km<sup>2</sup>/GW, more than any other type of electricity generation. By comparison, onshore wind requires 199-243 km<sup>2</sup>/GW, solar thermal 26-52 km<sup>2</sup>/GW and solar PV 52-130 km<sup>2</sup>/GW

([www.plosone.org/article/info:doi/10.1371/journal.pone.0006802](http://www.plosone.org/article/info:doi/10.1371/journal.pone.0006802)).



### 4.3 Principles

4.3.1 The following principles underpin the Assembly Government's approach to planning policy for sustainable development:

- putting people, and their quality of life now and in the future, at the centre of decision-making;
- ensuring that everyone has the chance to obtain information, see how decisions are made and take part in decision-making;
- taking a long term perspective to safeguard the interests of future generations, whilst at the same time meeting needs of people today;
- respect for **environmental limits**, so that resources are not irrecoverably depleted or the environment irreversibly damaged. This means, for example, mitigating climate change, protecting and enhancing biodiversity, minimising harmful emissions, and promoting sustainable use of natural resources;
- tackling **climate change** by reducing the greenhouse gas emissions that cause climate change and ensuring that places are resilient to the consequences of climate change;
- applying the **precautionary principle**. Cost-effective measures to prevent possibly serious environmental damage should not be postponed just because of scientific uncertainty about how serious the risk is;
- using **scientific knowledge to aid decision-making**, and trying to work out in advance what knowledge will be needed so that appropriate research can be undertaken;
- while preventing pollution as far as possible, ensuring that the **polluter pays** for damage resulting from pollution. In general the Assembly Government will seek to ensure that costs are met by those whose actions incur them;
- applying the **proximity principle**, especially in managing waste and pollution. This means solving problems locally rather than passing them on to other places or to future generations; and

[See other relevant comments already made on these far reaching issues.](#)

4.4.2 Planning policies and proposals should:

- Promote resource-efficient and climate change resilient settlement patterns that minimise land-take....

[As with all planning documentation, there is no geographical limitation to this advice. As described above growing fuel is not an efficient use of land or natural resources. Biofuels and biomass involve large-scale, systematic land-grabs and evictions of pastoralists, subsistence farmers and indigenous people.](#)

- 'Support the need to tackle the causes of climate change by moving towards a low carbon economy. This includes facilitating development that reduces emissions of greenhouse gases in a sustainable manner'
- 'Contribute to the protection and improvement of the environment, so as to improve the quality of life, and protect local and global ecosystems. In particular, planning should seek to ensure that development does not produce irreversible harmful effects on the natural environment. The conservation and enhancement of statutorily designated areas and of the countryside and undeveloped coast; the conservation of biodiversity, habitats, and landscapes;
- Contribute to the protection and, where possible, the improvement of people's health and well-being as a core component of sustainable development and responding to

*climate change. Consideration of the possible impacts of developments - positive and on people's health at an early stage will help to clarify the relevance of health and the extent to which it needs to be taken into account'.*

The UK government has stated in the House of Commons: "The health impacts on air quality of the increase in particle emissions referred to in the question were converted to monetary values, using advice from the Department of Health on the health effects of particles and economic methodologies agreed by the Interdepartmental Group on Costs and Benefits. The impacts of fine and coarse particles were not assessed individually.

The impacts on morbidity resulting from the uptake of biomass as a renewable energy source were also not assessed during the analyses.

The available estimates of the number of life years lost in 2020 from the impact on air quality of the increased biomass combustion was estimated to be 340,000 for an uptake of 38 TWh of biomass with appliances with the very lowest emission on the market emitting 1.3 kt of coarse particles and 1,300,000 for medium quality units representing what is typical of the currently available units emitting annually 7.6 kt of coarse particles."

<http://services.parliament.uk/hansard/Commons/ByDate/20091207/writtenanswers/part020.html>

All biomass burning releases significant quantities of nitrogen oxides, sulphur dioxide, carbon monoxide, volatile organic compounds and hazardous air pollutants (HAPs). Such pollution increases the risks of respiratory diseases, heart disease, cancer and premature mortality including infant mortality and miscarriage.

#### *4.9 Conserving the best and most versatile agricultural land*

*'4.9.1 In the case of **agricultural land**, land of grades 1, 2 and 3a of the Department for Environment, Food and Rural Affairs (DEFRA) Agricultural Land Classification system (ALC)16 is the best and most versatile, and should be conserved as a finite resource for the future<sup>17 18</sup>. In development plan policies and development control decisions considerable weight should be given to protecting such land from development, because of its special importance'.*

Biofuel and biomass threaten this finite resource for the future. Planning decisions made in Wales, rather than protecting this land of special importance, will directly divert land used to grow food, to grow fuel instead - "All the biofuels we use now cause clearing of natural ecosystems for agriculture. Adding energy production to our current and growing demand for food production inevitably requires more land to be converted to agriculture, whether or not the biofuel is grown directly on that land. So biofuels either directly or indirectly cause land clearing, which releases carbon to the atmosphere and contributes to global warming. This is the biofuel carbon debt...From a climate change perspective, current biofuels are worse than fossil fuels."

**Joseph Fargione regarding a joint study with Jason Hill, David Tilman, Stephen Polasky, and Peter Hawthorne**, 7<sup>th</sup> February 2008 (Interview with J Fargione: <http://www.nature.org/initiatives/climatechange/features/art23819.html?src=new> - study: <http://www.sciencemag.org/cgi/content/abstract/1152747v1> ) 2008, saw food riots and protests in over forty countries as global food prices increased by 75% within the year. This led to another 150 million mal-nourished people. In 2010 we are again seeing food prices spiralling.

12.10.1 - take into account the contribution a proposal will play in meeting identified local, national<sup>11</sup>, UK and European targets and potential for renewable energy.

After 2016 biofuel power stations running on imported vegetable oil will not give an adequate GHG emission saving to qualify under the EU Renewable Energy Directive as renewable energy.

12.10.3 Whilst having regard to the contribution of renewable energy use to wider planning goals such as the diversification of the rural economy and tackling climate change, local planning authorities should ensure that any potential detrimental environmental effects on local communities are minimised, to safeguard quality of life for existing and future generations.

Air quality as illustrated above, will be adversely affected by burning biofuel and biomass for heating and electricity generation.

12.10.5 When determining applications for any form of development, local planning authorities should encourage developers to integrate energy efficiency and conservation measures into the design of new development.

There seems to be a lack of consistency in government policy regarding biomass and biofuel, compared to coal and gas. In the case of the fossil fuels, legislation exists, that requires that power stations must be suitable for CCS. Please note that these observations should not be taken for approval of biofuel and biomass power stations. Any such requirement would not solve habitat & biodiversity loss, food security & food security concerns, water & soil issues and global macro greenhouse gas and climate change increases, due to Land Use Change and Indirect Land Use Change.

(15) Finally, the consultation asks the following four questions:

'Do you agree with the proposed scales of renewable energy development outlined in Figure 12.3?'

No, as it is impossible to be in favour of true renewables, such as wind and solar and also be against bio-energy.

Do you agree that local planning authorities should set local targets for renewable energy generation within the Local Development Plan?

No, not until bio-energy is ruled out.

Do you agree that Local Development Plans should include allocations for renewable energy development?

Yes. But again this must preclude bio-energy.

Do you agree with the set of national criteria for determining renewable energy projects as set out in section 12.10?

No, for the objections stated, that includes the inconsistency at the heart of planning documentation outlined above, regarding the environment and sustainability.