

Dear Mr Appleton,

Re: Edgeley Green Power's application for a 32 MW biofuel power station at Shoreham Port, AWDM/0868/12

I am writing on behalf of Biofuelwatch to provide further representation to our objection to Edgeley Green Power's (EGP) application for a 32 MW biofuel power station at Shoreham Port. This is further to our evidence on Air Quality and covers the issue of sustainability and feedstock supply.

Fundamentally the NPPF states the sustainability of developments is a planning concern. Furthermore, the Technical Guidance to PPS23 which said that in the case of biomass feedstock, sustainability should be ignored has been scrapped.

We have commented on EGP's application in order to counter their position on the issue of sustainability:

EGP statements on fuel feedstock and sustainability:

From the Design & Access document:

1.4 EGP state that the plant will be supplied with a '*variety of inedible plant oils and vegetable oils which are unfit for human consumption*'. It could be viewed that all crude vegetable oils are unfit for human consumption, before they are refined for human consumption. We would therefore question the veracity of this statement.

'2.14 The National Planning Policy Framework was published in March 2012 and sets out the government's planning policies for England and how these are expected to be applied.

The NPPF states that 'good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people'. When determining planning applications LPA's should seek to ensure that proposals:

- will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;'*

The plant will adversely affect air quality of local residents in Shoreham, Southwick, Portslade, Hove & Brighton – for the lifetime of the plant. It will increase pollution of Shoreham Beach, a Local Nature Reserve and the Adur Estuary SSSI, for the lifetime of the plant. Finally, the power station will be responsible for increased carbon emissions for the lifetime of the plant and for many years or centuries (in the case of palm oil) after the lifetime of the plant, due to the feedstock's carbon debt. –

<http://www.sciencemag.org/content/319/5867/1235.abstract>

2.16 Policy CC2: Climate Change of the RSS states that local planning authorities should be implementing measures to 'mitigate and adapt to current and forecast effects of climate change' including 'encouraging development and use of renewable energy', as proposed by EGP at Shoreham Port.'

We contend that the development will increase climate change rather than mitigate it. Energy produced by the proposed scheme is categorised under the European Union Renewable Energy Directive (EU RED) as renewable on the condition that it uses fuel from biological sources which fulfils certain criteria, including achieving a threshold level of greenhouse gas saving compared to using fossil fuels. For biofuel electricity generation, the threshold saving stipulated in the EU Directive is currently 35% and is scheduled to rise to 50% in 2017. It is widely expected that when the implications of the indirect effects of producing biofuels are incorporated into the EU's calculation methodologies, biofuels of the type to be used in the appeal development will be assigned a lower GHG saving relative to fossil fuels than currently. Further reducing the likelihood that they will achieve the EU RED threshold. In that case, the energy produced would neither qualify for financial support under the Renewable Obligation, nor would it count towards the UK's renewable energy target.

Unlike other renewables, biofuels produce black carbon (soot) which has a very high global warming potential because it accelerates polar and glacial ice melt and absorbs solar radiation.

There is a suite of scientific evidence that on a full life-cycle analysis biofuels, especially tropical biofuels, are far worse for greenhouse gas emissions than fossil fuels. The DECC's own NNFCC Greenhouse Gas 'Savings' Study admits that it is *not* a full life-cycle analysis, yet it states that it is worse for the climate to burn palm oil or jatropha than natural gas.

2.25 'In considering the merits of the proposed scheme, origin of feedstock is not a material planning consideration.'

In February this year, the Right Honorable Mr. Pickles, Secretary of State for Communities and Local Government in reviewing a public inquiry on a biofuel power station ruled at Avonmouth found: *„However, he considers that the sustainability of bioliquids (i.e. liquid fuels derived from biomass and not used for transport) is a material consideration which is relevant to his decision.“*

The report also found:

1. That the sustainability of bioliquids IS a material consideration for local planning.
2. That the Council's interpretation of 'natural environment' to include CO2 emissions and climate change was correct.
3. DCLG recognize that other legislation would NOT 'control' the type and nature of the bioliquid.

2.28 'The location of the Proposed Development makes the most efficient use of natural resources through the re-development of brownfield land and by the construction of a

Renewable Power Plant will generate 32MW of electricity per hour – the equivalent of powering 18,000 average homes.'

The power station does not provide an efficient use of natural resources. It would burn 50,000 tonnes of biofuels per year. To illustrate the scale of this demand: If EGP wanted to burn UK-vegetable oil (which they don't, they want to ship in all the biofuels) they would need an area over four times the size of Adur District entirely covered in oilseed rape. If they burn palm oil (which has not been ruled out, with caveats) the amount of rainforest that would need to be replaced oil palm plantation, would be three times the size of Adur District. EGP state that this is the first of three similar power station plans which they are developing. If they are successful, they

will greatly increase the demand for biofuels in the UK, with serious consequences for forests and biodiversity, for communities and for the climate.

4.0 'SUSTAINABILITY PRINCIPLES

4.1 *The main driver for this proposal is the construction of a 'state of the art' renewable power plant which will have the capacity to generate 32MW of electricity to supply to the local distribution network.'*

Another possible main driver are Renewable Energy Certificates ROCs. The plant would generate some £15 million every year from selling ROCs.

4.2 *'The following features summarise the sustainability of the design, construction and operation of the facility:*

- *The generation of 32 megawatts of renewable energy per year (the equivalent of powering 18,000 average homes) to reduce the UK's dependency on depleting fossil fuel reserves;'*

The three fuels specifically defined by EGP are already in short supply and the plant would increase competition for these. They will be imported to the port by ship whose fuel will itself be affected by depleting fossil fuel reserves and peak oil.

- *'Creation of employment opportunities for local people, helping to promote social inclusion'.*

EGP claim that they will create 20 permanent jobs. This seems highly unlikely. A comparison with other company plans, together with the size of the fuel tanks, suggests that five permanent jobs would be a more likely figure. EGP also claim that they will boost the local economy, bring in more money and create more indirect jobs. Such claims are widely used by different industries. The Aviation Environment Federation has published an analysis and critique of similar claims made by airport operators:

www.aef.org.uk/downloads//Airport_jobs_false_hopes_cruel_hoax_March2009_AEF.pdf

Planning, Need and Sustainability Statement

1.5 *In preparing the application documentation, EGP has sought to minimise the environmental impact of the proposals and ensure minimal disruption.*

The environmental impact of this application has not been minimized. The power station will directly or indirectly contribute to increased demand for palm oil, causing rainforest destruction with associated biodiversity loss and adverse affect on soil, water, human rights and the right to food. This habitat destruction will accelerate climate change.

4.0 'NEED

4.1 *'In the 21st century climate change is a recognised phenomenon of international and global significance. The scientific evidence is overwhelming and identifies that climate change, as a result of rising greenhouse gas emissions, threatens the stability of the world's climate. The continuing production of greenhouse gases and carbon dioxide in particular, is considered to be contributing to the increasing rate of climate change.'*

The burning of biofuels is at odds with point 4.1.

4.25 *'Edgeley Green Power is aware and acknowledges the concerns relating to the impact of biomass on the environment. In response to these concerns Edgeley Green Power have produced a Fuel Source Sustainability Statement, presented at*

Appendix 2. *This Statement details the types and origin of those biological materials to be utilised by the Proposed Development and demonstrates how all feedstock used in the production of electricity will be sourced in a sustainable and ethical manner. Furthermore as the Proposed Development is classed as 'renewable' for the purposes of Renewable Obligation Certificates (ROCs) eligibility the generator must undertake annual reporting to Ofgem on sustainability issues relating to the sourcing of biomass.'*

Unfortunately this takes no account of Indirect Land Use Change (ILUC), most Land Use Change (LUC) emissions, most habitat and biodiversity loss, any human rights abuses and social justice issues such as food security, food sovereignty and resulting increase in hunger. In order to satisfy ROC requirements and to demonstrate compliance with Ofgem sustainability criteria EGP will need to supply an independent audit. This is an un-audited report compiled by a contractor chosen by the generator. Ofgem do not have the resources to audit the auditors.

EGP have been in negotiations with certification and auditing company SGS and expect them to audit the sustainability of all their biofuels. SGS have a particular reputation for controversial certificates. For example, they have been insisting on accrediting pulp and paper from APP in Sumatra as 'sustainable'. According to WWF and Friends of the Earth Indonesia: "APP is responsible for more natural forest clearance in Sumatra – the only habitat for the Sumatran tiger – than any other company." According to Rainforest Action Network "Indonesia's most destructive corporations": [APP's pulp and paper] comes from clear cutting rainforests and replacing them with monoculture acacia pulp wood plantations grown on these cleared rainforest and peatlands". Greenpeace has published a detailed dossier about their environmental crimes and also campaigned against the sustainability certificate (PEFC) granted by SGS. SGS could find nothing wrong with the company's practices. But under our government's policy, they're allowed to certify the sustainability of any biofuels for subsidy purposes.

The Council leader has said that *EGP 'have promised, and more crucially the Port Authority said they will check to make sure they only import fuels which have been deemed safe and environmentally friendly'*.

However, the Port Authority do not have expertise in this area. The job will be devolved to an auditing and certification company, and EGP have been in negotiations with a certification company that has a record of issuing controversial certificates. OFGEM, who regulate sustainability, have no existing mechanism or any plans to monitor and review either the auditors or any certification issued. In other words they merely accept the certificate, before issuing the ROC. Therefore, we respectfully suggest that the Council leader's faith in the promises of the power company and the Port Authority are misplaced.

5.6 In setting out the policy framework for Renewable Energy Infrastructure the NPS defines the remit of consideration for the purposes of determining an IPC application. In regard to biomass the NPS states the following in regard to the sourcing of materials:

"Operators of biomass plants may source biomass from both domestic and imported supplies. Where operators of biomass plants are seeking to gain ROCs for the combustion of biomass as a renewable fuel they must undertake annual reporting to Ofgem on sustainability issues relating to the sourcing of the biomass sourced including the volume and type of biomass used, country of origin and previous land

use.....Given that operators will need to provide information on the sustainability of the biomass used to Ofgem and will also need to comply with any other requirements or restrictions that may arise, the IPC does not need to consider the source or sustainability of the proposed biomass fuel to be used within the proposed plant.”

Please see previous points about limitations and inadequacy of Ofgem to comply with NPPF over-riding statements and vision on sustainability.

*5.7 'Although the sourcing of biomass is beyond the remit of planning, Edgeley Green Power is aware and acknowledges the concerns relating to the impact of biomass on the environment. In response to these concerns Edgeley Green Power have produced a Fuel Source Sustainability Statement, presented at **Appendix 2**. This Statement details the types and origin of those biological materials to be utilised by the Proposed Development and demonstrates how all feedstock used in the production of electricity will be sourced in a sustainable and ethical manner.'*

It must therefore be evident that Appendix 2 must therefore be valid and stand up to scrutiny.

5.8 'When determining planning applications, local planning authorities should:

- 'not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even smallscale projects provide a valuable contribution to cutting greenhouse gas emissions; and*
- approve the application if its impacts are (or can be made) acceptable.'*

It is difficult if not impossible to see how the impacts are (or can be made) acceptable.

5.24 'Shoreham Port Authority commissioned Hyder Consulting in October 2009 to work with managers on preparing the masterplan. The masterplan sets out the proposals for the future development of the port over the next 15 years and includes the following objectives.

- 'be fit for purpose – efficient, flexible and sustainable meet the changing needs of existing and new customers;*
- safeguard essential port operations e.g. importing aggregates;*
- enhance the port's role in the local community especially in terms of jobs;*
- improve the environment and protect valuable local amenities.'*

We contend that the application will not be sustainable. Please see our previous comment on jobs. It will certainly not improve the local or global environment.

5.27 'These assessments, in combination with this Statement, illustrate that no significant adverse impacts will occur as a result of the development or that where applicable, mitigation measures have been proposed to limit impacts'.

We would suggest that the assessments are not fit for purpose as they clearly have failed to recognize, acknowledge or respond to the myriad complex adverse affects that will occur as a result of this development. Given this failure the application equally clearly fails to provide mitigation measures that would limit these impacts.

6.2 'In accordance with the recommendations made by Adur District Council during preapplication consultation, EGP has appointed a number of consultants to undertake baseline assessments in order to determine the likely effect of the Proposed

Development and identify possible mitigation measures to minimise any adverse effects. Accordingly, the Application is accompanied by separate assessments covering air quality, noise, transport and flood risk’.

EGP’s appointed consultants have failed to identify and determine the effects of the Proposed Development as outlined within this submittal.

7.3 ‘In summary, the Government’s sustainability strategy ‘Securing the Future’ (2005) aims to evolve and develop, rather than depart from, the aims of the 1999 sustainability strategy ‘A Better Quality of Life – A Strategy for Sustainable Development’. The 2005 strategy has stronger international and societal dimensions with an explicit focus on environmental limits and four agreed priorities including sustainable consumption and production, climate change, natural resource protection and sustainable communities.’

Increased demand for biofuels directly or indirectly leads to increased demand for land. This is not sustainable. The plant will increase climate change. The plant will lead to increased demand for natural resources.

*7.7 ‘As it appears that the Inspector raised no significant concerns in regard to the ‘Final Sustainability Report’ the Proposed Development has been assessed against the objectives set out in this earlier Sustainability Appraisal. The objectives used as part of this appraisal process are outlined in **Table 7.1** below:*

Table 7.1: Detailed Appraisal Objectives

Objective No Objective

1 To encourage renewable energy generation and limit energy and water Consumption

3 To conserve, protect and enhance Biodiversity/wildlife

7 Reduce emissions of pollutants, minimise waste production and support recycling of waste

8 Limit or reduce vulnerability to the effects of climate change (including flooding)

9 Maintain and enhance human health’

The proposed development is at odds with these objectives. (In the case of 1, biofuels require a great deal of irrigation for high yields).

8.0 CONCLUSION

8.1 ‘Government policy promotes the development of large and small scale renewable energy schemes, providing that environmental issues are identified and appropriate mitigation measures are established. It is for the developer to demonstrate that adverse environmental effects have been removed altogether or reduced to a level acceptable to the local community and relevant statutory bodies and agencies’.

We contend that the developer has not identified the environmental (and social) issues and appropriate mitigation measures have not been established. Equally, we contend that the developer has not demonstrated that adverse environmental effects have been removed altogether or reduced to a level acceptable to the local community.

8.4 ‘This Planning Statement has demonstrated how the proposals for the Shoreham

Renewable Energy Plant have taken into account and accord with national, regional and local planning policies. The Planning Statement in conjunction with the supporting Environmental Assessments have demonstrated how the Proposed Development has made the best use of natural resources and how environmental effects have been reduced to an acceptable level. The applicant trusts that the local community and relevant statutory bodies and agencies concur with the evidence outlined in this Statement, to the extent that its proposals can be supported'.

We contend that the Proposed Development has not made the best use of natural resources and does not demonstrate how environmental effects have been reduced to an acceptable level. We would suggest that the level of local opposition demonstrates a lack of support for the development and that the council needs to take this into account in-line with the Aarhus Convention.

Appendix 2 Feedstock sustainability statement

'Bio-liquids offer complementary generation A document 'Renewables Obligation: Sustainability criteria of Bio-liquids (Reference 182/11)' was published by OFGEM in December 2011. This document clearly defines the sustainability criteria of each of the three categories of Oils - Virgin oils, Residues and Wastes. The sustainability criteria introduced in the 'Renewables Obligation (Amendment) Order 2011' incorporates the specified sustainability schemes of the impending EU Renewable Energy Directive (RED)'

Unfortunately this Directive takes no account of ILUC, most LUC emissions, most habitat and biodiversity loss, any human rights abuses and social justice issues such as food security, food sovereignty and resulting increase in hunger. Under EU criteria, there has so far been no decision to consider indirect land use change at all.

'As previously stated, our position is that we will not generate electricity from virgin oils which are suitable for human consumption , i.e. Crude and Refined Oils such as palm oil, rapeseed oil, soybean oil and sunflower oil. Our oils will primarily be shipped to Shoreham by vessel, and will be declared prior to arrival to Shoreham Port Authority.

In the event that any of the above oils are deemed unfit for human consumption as a result of cross contamination with other oils, products or previous cargoes, or as a result of incorrect shipping practice then providing these oils are declared for 'fuel use only' we would consider using them as a generation fuel. In this event we would require the supplier to provide all the necessary documentation allowing us to generate and comply with the sustainability criteria for virgin oils as determined in the 'Sustainability criteria of Bio-liquids' document'.

This is a novel way to use palm oil. The allowances would appear to be not unlikely. Who would do the declaring? Anyway this is a moot point as all oils defined comply with Ofgem requirements for ROCs.

'The oils we plan to use for generation fall within the residues and wastes categories of the 'Sustainability criteria for Bio-liquids' document. The products we plan to use are Tallow, Used Cooking Oils, Tall Oil Pitch and processed vegetable acid oils. We will also consider all other acceptable generation oils which meet the sustainability criteria required'.

Firstly, the final sentence is extremely revealing: Virtually all biofuels currently used by industry will meet required sustainability criteria. This includes palm and soy oil.

A new demand for biofuel, especially palm oil, by EGP will, either directly or indirectly, result in more deforestation and more land-grabbing at the expense of indigenous and other forest-dependent peoples as well as small farmers in countries such as Philippines, Papua New Guinea, Cameroon, Uganda, Benin and Mexico. According to a 2007 report by the UN Environment Programme, palm oil is the main cause of permanent forest loss in Indonesia and Malaysia (tinyurl.com/3uexbdk). Studies have shown that biofuels linked to palm oil expansion in Southeast Asia, whether directly or indirectly, cause many hundreds of times more greenhouse gas emissions than using the equivalent amounts of mineral oil. Plantation expansion caused by the increasing demand is also linked to the displacement and eviction of indigenous peoples, small farmers, and other communities, often involving human rights abuses.

Virtually all current biofuels have been shown to be worse for the climate than the fossil fuels they replace if all direct and indirect impacts are considered. Palm oil is by far the cheapest type of biofuel that can be burned for heat and power which is widely available. Emissions associated with palm oil biofuels can be even higher than those from tropical deforestation in general: Particularly in Indonesia and Malaysia, a high proportion of new oil palm plantation is on peatlands. One study found that CO2 emissions from peat fires in 2006 in Indonesia alone were 900 million tonnes (tinyurl.com/y8ko6jk) – far more than the UK's annual greenhouse gas emissions.

Even burning European rapeseed oil has been shown to be worse for the climate than burning mineral oil, due to GHG emissions linked to fertiliser use and taking account of indirect land use change (tinyurl.com/42l7a5a).

Tallow and tall oil are not waste products – they are being fully used by other industries who would otherwise resort either to palm oil or fossil fuels. A report (<http://tinyurl.com/3kmqeow>) commissioned by the UK Government in 2009 showed that burning more tallow as biofuel will lead to more palm oil being imported for soap and cosmetics – so if EGP were to burn tallow, the result will likely be more oil palm plantations.

Used cooking oil and some types of residues, such as tall oil, are often considered to be the most 'climate friendly' biofuels, however both are in very short supply and are already in high demand, for example for transport biofuels in the case of used cooking oil and by the chemical industry in the case of tall oil. Burning them in power stations will simply cause more palm oil or fossil fuels to be used elsewhere.

The '*processed vegetable oils*' are not specified.

EGP's public statements have been confusing and contradictory. They have claimed on their website that most of the biofuels would be a residue of pulp and paper production, called tall oil, but they also speak of using various 'inedible' vegetable oils (tinyurl.com/2vcj5az). They list certain ones which they claim they won't burn, but don't actually say which ones they want to burn.

In a government consultation (tinyurl.com/38u9a4y), EGP do not even mention tall oil but say that they want to burn jatropha oil. Jatropha is inedible and thus in line with what they say on the website. It is also a major threat to the livelihoods and food sovereignty of large numbers of communities in Africa, Latin America and Asia. There are growing numbers of reports of small farmers, indigenous peoples and pastoralist communities being evicted, for example in India, Ghana and Tanzania, to make way for jatropha plantations, to grow fuels for European cars and power stations. In India and Paraguay, biodiverse forests are facing destruction for jatropha.

'Inedible' clearly does not mean 'sustainable' – even vegetable oils used for food are often inedible until they have been refined and would thus meet EGP's criteria.

Used cooking oil is in very short supply and most of the used cooking oil burned as biofuel in the UK is imported from other European countries which themselves rely heavily on palm and soya oil for their biofuels. Used cooking oil is in short supply and large quantities are being imported for biofuels from other European countries which themselves burn palm and soya biofuels.

Tall oil is a byproduct of the pulp and paper industry. Monoculture tree plantations for pulp and paper are anything but sustainable: They replace forests and other ecosystems, pollute and deplete soils and water and often have devastating impacts on local communities, too. Tall oil supplies are already fully used, mainly by the chemical industry – there is no waste to spare. Tall oil is in very short supply.

According to figures collected by the chemical industry (Harrpa), all tall oil produced in Europe "would only be sufficient to supply one medium sized power station". Yet two UK biofuel companies alone (EGP and Rocpower) now say that they want to run nine power stations between them 'mainly' on tall oil, without any known secure supplies. It is in scare supply:

This is because there are there are major pulp mill closures all over North America and Scandinavia and have been for many years. There is a supply of beetle infested wood in North America that is being salvaged logged (which is damaging to the environment), but this is mainly being used for bio energy, not converted to pulp and paper. In North America from a trade point of view, there is presently a big shift from pulp and paper to biomass. We would imagine if EGP really wanted to use tall oil, it would more than likely originate from Indonesia, Brazil, Chile, Uruguay, and we are not aware that such supply routes exist. This suggests that EGP will need to import bio-liquids such as palm oil, which they do indeed refer to. Furthermore we would point out that tall oil is unsustainable, even more so in view of the fact that pulp mills are increasingly concentrated in countries with the worst environmental and social practices and lack of legal enforcement.

EGP intend to build three power stations to run on Tall Oil. This will compete with ROCpowers plans to build six UK power stations to run on Tall Oil. ROCpower have only got planning permission for one of these in Wakefield. It is similar to the one proposed here and attracted complaints about smoke from its neighbours almost as soon as the first engine was switched on. Flue gas treatment equipment was subsequently added. Unfortunately, the particulate filters rapidly blocked up with particulates, resulting in the generators shutting down. We understand that the treatment equipment has now been disconnected. Rocpower are now only able to avoid action under the Clean Air Act by switching the entire plant off when the wind

is blowing in the direction of the complainants. Here is an account of someone who visited the Wakefield plant: "When visiting the Rocpower Common Side Lane site near Featherstone on the 14th June, 2010 - I was shocked to see rusty coloured smoke gushing out of one of its 4 chimneys. Also the air smelt of sulphur."
(tinyurl.com/32mp69u)

We understand that the Harbour is a proponent of the plans and have said that they have a sourcing agreement with EGP. Although we do not know the details of this agreement we would point out that such private agreements can be changed at any time and as the Council will no doubt we aware are irrelevant for planning purposes. Furthermore, we would also point out that so far biomass and biofuel power stations approved in the UK have been approved without any sourcing restrictions in the planning conditions. Companies are not bound by claims they make about 'planning intentions'. Last year, DECC approved MGT Power's application to build a 295 MW biomass power station at Teesside Port. MGT claimed that all or most of the wood would come from North America where there was no 'net deforestation' (even though significant recent losses of forest cover in North America have been well documented) (tinyurl.com/37upmz5 and tinyurl.com/36t3s36). Shortly after winning planning consent they signed a Memorandum of Understanding with Suzano Papel e Celulose for most of the wood to come from Brazilian eucalyptus plantations (tinyurl.com/3yukqn7).

Germany has up to 2000 CHP plants virtually all running on palm oil and Italy has the largest biofuel power station in Europe also running on palm oil, as it is by far the cheapest vegetable oil on the market. It is thus very doubtful whether running a power station of the size proposed by EGPs without palm oil would be economically viable, even with subsidies.

Your sincerely, Ian Lander, Biofuelwatch, 14th December, 2012