Planning Department
Barnsley Metropolitan Borough Council
Town Hall
Barnsley, S70 2TA

Biofuelwatch

info@biofuelwatch.org.uk

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Planning Application - 2009/1539
Erection of a new steel portal frame building to house biomass electricity generators with ancillary tanks, radiators and up to 22.5m high chimney stack. (Amended description) (Amended plans) Whaley Road Barugh Green Barnsley

Dear Mr Woodward,

I am writing on behalf of Biofuelwatch to object to the plans submitted by Rocpower Ltd to build a Biofuel Power Generation Plant at Whaley Road, Barugh Green, which is to burn virgin vegetable oil, including palm oil. The application is little changed from the one withdrawn in 2009, so our reasons for objection are to a large extent also the same. As far as we can see there is some inconclusive additional data on AQ modelling which has led to the stack height being increased. All other data appears unchanged.

We object to the application on the following grounds:

1. Air Quality Impacts/ Environmental Permit
2. Climate Change, Environment & Social Justice
3. Fuel Sustainability
4. Rocpowers Power Station Plans
5. Tall Oil Problems (Wakefield)
6. Contradictions Regarding Fuel Sourcing in Application

(1) Air Quality Impacts / Environmental Permit

1. In a written answer to Parliament on 2 November 2009, Jim Fitzpatrick, Defra minister, said:

"The use of biomass for heat and power can pose a significant air quality problem. Large scale heat or combined heat and power schemes should not normally be used in heavily built-up areas (subject to an Environmental report) unless they are of high quality (20g/GJ PM 10 or less) or have efficient abatement equipment specified…. It would be easy to infer that biomass should not be encouraged in air quality management areas, which obviously already have a significant problem with air pollution. Seeking non-combustion alternatives - ground or air source heat pumps, solar thermal, better building design should be the first option; the second is to attempt to group users together - this allows the use of a smaller number of larger plants, and larger plants are easier to control."

We commented in our earlier objection letter that air quality impacts ought to be assessed for this size and type of renewable energy system. To our knowledge it is not proposed that the power station will have any pollution abatement equipment, nor has there been any modelling of air quality impacts from its operation.

2. The US Department of Agriculture studied the mutagenic (PAH) effects of burning different fuels comparing straight vegetable oil with biodiesel and petrodiesel. They reported in January 2009 and concluded:

"In this work, the mutagenic effects of exhaust emissions from biodiesel derived from canola-type rapeseed oil, its parent oil, conventional diesel fuel and a synthetic diesel fuel were compared. It was found that the exhaust emissions from the parent oil showed the by far strongest mutagenic effects. The other fuels were largely comparable among each other. The levels of individual exhaust emissions were also determined and were in line with prior results. This research shows that, when comparing exhaust emissions, biodiesel possesses advantages in terms of certain health effects in comparison to vegetable oils as fuels and that biodiesel is similar in this respect to

modern clean petroleum-derived diesel fuels. Thus, biodiesel is a full replacement for petrodiesel fuels also in this respect."

http://www.ars.usda.gov/research/publications/publications.htm?SEQ_NO_115=229651

Burning vegetable oil produces significantly more damaging emissions than either biodiesel or petrodiesel.

3. In his parliamentary answer referred to earlier, Mr Fitzpatrick MP comments on the need for an environmental permit for a biomass energy plant, writing:

" *Operators of appliances with a rated thermal input of 20 megawatts or more in which biomass is combusted need a permit under the Environmental Permitting (England and Wales) Regulations 2007 which will contain emission limit values set by the relevant environmental regulator. If the biomass is waste, permits are required if the rated thermal input of the appliance exceeds 0.4 megawatts."*

Rocpower state that they are using co-products and not virgin vegetable oil. Has it been clarified if the requirement to be permitted under the Environmental Permitting Regulations 2007 for burning waste applies to co-products?

We refer to the application now:

'Air Quality Addendum II May 2010
2.1 Comments Raised by Biofuelwatch
Biofuelwatch raised a number of concerns regarding the emissions data used in the original air quality assessment. PM10 emission data was taken from a report issued by the Michigan Department of Environmental Quality relating to a General Permit for Diesel Fuel-Fired Engine Generators with a Maximum Nameplate Capacity of 5 Megawatts. This provided an initial emission rate for each of the engines. This emission rate was then reduced on the basis of the information provided by a study that looked at emissions from biodiesel in comparison to mineral diesel engines. This study reported that the biodiesel engines emitted approximately 50% less PM10 than those run on mineral diesel. However, to ensure a conservative approach the ENVIRON report only assumed a reduction of 25% not the 75% assumed by Biofuelwatch. It is accepted that this later report is in respect of biodiesel and not biofuels. However, the PM10 data from the Michigan report is for a 1.8 MW engine, and the site at Barnsley will consist of 1.4 MW engines. This difference in size has not been taken into account in the emissions data, however PM10 concentrations would be expected to be reduced in broadly the same ratio as the engine size and therefore the overall emissions would be reduced by 23 % similar to the emissions estimate used in the original report'.

Biofuelwatch maintain that using this report and making interpolations is not a satisfactory method of defining particulate levels compared to standard air dispersion modeling.

Section 2.1 then says:
'ENVIRON had proposed to obtain actual monitored PM10 emissions data from the Hargreaves, Featherstone facility based in Wakefield. However, due to current operating difficulties it has not been possible to collect this data within the timeframe for this planning proposal'. We do not understand this statement as it is contradicted elsewhere in the application
– This illustrates the problems Rocpower are experiencing burning tall oil/biofuel and would appear to be grounds for refusal.

2.1 – *'Concern was raised regarding the validity of using Featherstone data as this plant may be utilising a different fuel mix. Hargreaves can confirm that it will use the same fuels at both the Featherstone and Barnsley sites and therefore this is considered to be the most reliable source of emissions data'.*

- We assert that this is still a legitimate issue as Rocpower clearly talk about palm oil and other vegetable oils.

'2.2 - The data used in the modelling is provided below in Tables 3.1 to 3.2 and is the same as that used in the previous assessment with the exception of the emission rate of oxides of nitrogen which has been taken from a monitoring exercise carried out at the Rocpower site at Featherstone. Monitored data has not been obtained for PM10 emissions and therefore the modelling of PM10 has not been repeated'.

- We would suggest that this is not acceptable.

'2.2 - Initially BMBC requested that the assessment considered 3 stack heights of 12 m, 15 m and 20 m. However, the initial screening runs indicated that the predicted concentrations from a 12m or 15m stack would be well in excess of the objective concentrations and therefore the use of these stacks were discounted. Instead the assessment has considered emissions from a 17.5, 20m and 22.5m stack'.

- There are still issues regarding with modeling and given BMBC's concerns regarding residential receptors located on Dovebush Way, southwest of the installation site, if even with these increased stack heights are fit for purpose. They also represent almost doubling previous heights and must surely affect the visual amenity of the local area.

3.4 Input Parameters
'The data used in the modelling is provided below in Tables 3.1 to 3.2. The emissions data has been supplied by Rocpower Ltd and has been obtained from a monitoring exercise carried out in May 2011, following the installation of particulate filters at the Rocpower plant at Featherstone when operating using tall oil. The Featherstone plant houses similar engines to those that will be utilised at Barnsley. However, at Featherstone the exhaust gases from each engine are emitted through individual stacks, whilst at Barnsley the emissions will be combined and emitted through a central stack. Thus the emissions data, which was collected from the operation of a single engine at Featherstone has been multiplied by 5 to calculate the total emissions expected at Barnsley'.

- We question whether the use of such a multiplier is too simplistic.

(2) Climate Change, Environnent & Social Justice

Biofuelwatch is concerned about the impacts of the rapidly growing demand for liquid biofuels on the global climate; on communities in the global South, for example in Indonesia, Papua New Guinea, Malaysia and Colombia; and on the life-support systems which underpin global biodiversity.

THE BASIS OF OUR OBJECTION

1. There is now universal acceptance by scientists and politicians that global warming is changing the climate, and recognition that all developments with more than minor climate and sustainability impacts ought to be considered from a global perspective. We note that the applicant describes this fuel as "carbon neutral, as defined by the UK Renewable Obligation scheme". We dispute that burning biofuel can be described as carbon neutral. Both the UK Government, and the EU under its Renewable Energy Directive, 2009, state that vegetable oils burnt to produce energy are considerably worse than 'carbon neutral'. The EU RED sets default values for the greenhouse gas emission savings achieved using common biofuels. For palm oil, the savings range from **only 26% to 68%**. These figures exclude the effects of indirect land-use change which would make the savings lower – significant so in our view.

In Biofuelwatch's view, the proposed development will have significant adverse environmental, social and economic impacts at a global level. We believe these should be treated as material considerations in determining this application.

1.1. Regarding renewable energy specifically, Planning Policy Statement 22: Renewable Energy (PPS22) states as one its key principles that:

'(iv) The wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission.'

Biofuelwatch believe that if wider environmental ***benefits*** are to be treated as material considerations in considering a planning application, then so should wider environmental ***impacts***.

PPS22 also states that:

'Renewable energy developments should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.'

In our view, the use of large volumes of imported vegetable oil, including palm oil, for this application is totally incompatible with the requirement to ensure that "*environmental and social impacts have been minimised".*

1.2. Planning Policy Statement 23: Planning and Pollution Control, confirms that '*any considerations of the quality of land, air, water and potential impacts arising from development, possibly leading to impacts on health are capable of being material considerations in the determination of planning applications.'*

The wording of PPS23 does not limit the geographical scope of 'potential impacts'. In our view therefore, the wider environmental and social impacts of palm oil production, which include adverse impacts on the quality of land, air and water in producing countries as well as on the health of indigenous people, should be treated as material considerations for determining this application.

2. The proposed Power Generation Plant will generate a number of air pollutants, notably Nitrogen Dioxide and particulates (PM10 and PM2.5), which are known to be harmful to human health. It should be noted that PM2.5 is expected to be included in revised EU legislation as an additional pollutant to be monitored and controlled to take effect from 2011at the latest. The likely PM2.5 emissions from the Plant should therefore be modelled and assessed in anticipation of the new legal limits.

We have not been able to review the applicant's Environmental Assessment, listed in his letter of 23 June 2009 to understand how air pollution impacts have been assessed and will be monitored. We understand that the site in Barugh Green is not within any of Barnsley's Air Quality Management Areas. Nevertheless we consider that air quality impacts should be a material consideration for this type of development and therefore the applicant should be required to provide an assessment that addresses this question.

3. Our view is that electricity generation from bio-liquids is only financially viable because high levels of subsidies have recently been made available for this type of operation under the UK Renewable Obligation. The EU Renewable Energy Directive (DIRECTIVE 2009/28/EC), makes these subsidies contingent on the sustainability of fuel. However, both the UK Government and the EU recognise that the current sustainability criteria are inadequate, highlighting for example the need to take account of 'Indirect Land-Use Changes':

DIRECTIVE 2009/28/EC *'(85) The Commission should develop a concrete methodology to minimise greenhouse gas emissions caused by indirect land-use changes. To this end, the Commission should analyse, on the basis of best available scientific evidence, in particular, the inclusion of a factor for indirect land-use changes in the calculation of greenhouse gas emissions and the need to incentivise sustainable biofuels which minimise the impacts of land-use change and improve biofuel sustainability with respect to indirect land-use change.'*

When the European Commission revises the sustainability criteria for bioliquids, as it is expected to do in 2011, it is very likely the Renewable Energy Directive will no longer allow palm oil biofuel use to be subsidised. (We show below that the production of palm oil has particularly high impacts in terms of indirect land-use change.) Without subsidy, it will be uneconomic for Rocpower Ltd to operate the proposed Power Generation Plant.

The Rocpower planning application identifies:
'In December 2007 the supplemental to PPS1 was published referring to Planning & Climate Change. The document refers to the Climate Change Bill, which puts into statute the UK's targets to reduce carbon dioxide emissions.
The key objective is to "*make full contribution to delivering the climate change program and energy policies and in doing so contribute to global sustainability*"
The supplement goes on to state " *an application for planning permission to develop a proposal that will contribute to the delivery of the key planning objectives set out, should receive expeditious and sympathetic handling of the planning application*" (para 40)'
We hope to have demonstrated that this development is contra to these aims.

Their Environmental Statement, 'The purpose of this development is to reduce greenhouse gas emissions and approve energy efficiency. The use of bio fuels to run the proposed generators, will, in itself provide a large environmental benefit which will be ongoing in the reduction of fossil fuel electricity generation. This is inline with government policy and guidelines'. We contend that the development does not comply with this Environmental Statement.

PALM OIL AND OTHER BIOFUELS

The use of biofuels for generating electricity is currently designated by UK Government as renewable energy. However, there is a growing body of evidence and scientific opinion that challenges the basis of this designation. Scientific research as well as first hand experience from affected communities worldwide has shown that the large scale use of biofuels is fundamentally unsustainable and leads to catastrophic social and environmental impacts.

Several recent peer-reviewed scientific papers report that the overall impact of burning biofuels is actually worse for the climate than burning equivalent amounts of fossil fuels. This is due to the strong global warming impact of nitrogen fertilisers used in growing industrial-scale biofuels, and to the large amounts of carbon dioxide emitted when natural ecosystems and healthy soils are turned into biofuel plantations:

- According to a study by Nobel Laureate Paul Crutzen, biofuels from rapeseed oil are up to 70% worse for the climate than the equivalent amount of mineral oil, due to nitrous oxide emissions caused by fertiliser use. This figure does not take indirect land use change into account

- Converting rainforests, peatlands, savannas, or grasslands to produce food-based biofuels, such as palm oil and soya in Brazil, Southeast Asia, and the United States creates a 'biofuel carbon debt' by releasing many times more CO_2 than the annual greenhouse gas reductions these biofuels achieve by displacing fossil fuels. Joseph

Fargione of the University of Minnesota calculated that biofuel from palm oil grown on forest land leaves a carbon debt of 86 years and for palm oil grown on peat land this figure increases to 840 years.

- According to the Stern Review, nitrous oxide and methane emissions from industrial agriculture account for 14% of all global greenhouse gas emissions.

Official statistics currently omit all 'indirect land use change' emissions despite a major Government report (the Gallagher Review in 2008), identifying them as one of the main drawbacks of crop-based fuels:

www.dft.gov.uk/rfa/reportsandpublications/reviewoftheindirecteffectsofbiofuels.cfm .

It is impossible to ensure that biofuel feedstock is not grown directly or indirectly at the expense of forests, grasslands or peatlands, nor is it possible to fully account for the very significant greenhouse gas emissions that arise from land conversion.

Without taking account of these large direct and indirect land use change emissions, it is not possible to accurately assess the full environmental impact of producing biofuels, and it is therefore presumptuous to describe them as sustainable.

PARTICULAR IMPACTS OF PALM OIL

CLIMATE: According to the United Nations Environment Programme, palm oil is the biggest driver of deforestation in Malaysia and Indonesia, see:

http://www.unep-wcmc.org/resources/publications/LastStand.htm

Largely due to Europe's growing demand for biofuels, the Indonesian government is planning to expand oil palm plantations by 20 million hectares. According to Wetlands International, over half of all new oil palm concessions in Indonesia and Malaysia are on peatlands. In order to grow oil palms, the peat is drained and this commits all of the carbon sequestered in the peat to the atmosphere. Plantation companies commonly set fires to speed up the process. Peat expert Professor Florian Siegert of Munich University estimated that the emissions from such fires accounted for 15% of all global greenhouse gas emissions in 2006. Professor Siegert said the following about the use of palm oil for generating heat and power in Germany:

"*We were able to prove that the making of these plantations and the burning of the rain forests and peat areas emits many thousands of times as much CO2 as we then are able to prevent by using palm oil. And that is a disastrous balance for the climate.*"

See: http://de.indymedia.org/2007/03/170912.shtml

HUMAN RIGHTS AND HUNGER: EU legislation prescribes how biofuels used in the UK are to be assessed for sustainability, which in turn allows the UK government to give them financial subsidies. This legislation ignores key factors that are frequently associated with overseas biofuel production: all human rights abuses, increases in food prices and in the number of people going hungry, abusive working conditions and slavery-like conditions - common for example amongst Indonesian migrant workers on oil palm plantations in Malaysia.

According to Watch Indonesia!, 45 million people in Indonesians depend on rainforests for their livelihoods. Oil palm plantations could eventually create up to 10 million jobs but this would leave 35 million people destitute. Evictions are common; many of them violent, and according to the Indonesian NGO Sawit Watch, there are already 576 land conflicts in Indonesia linked to oil palm plantations:

www.sawitwatch.or.id/index.php?option=com_content&task=view&id=79&Itemid=64&lang=english .

Pesticide poisoning leading to acute and chronic illness and even death is common on oil palm plantations and often involves pesticides which have been banned in the EU because of the health risks, such as the highly toxic Paraquat.

A World Bank report in 2008 indicated that biofuels caused 75% of global food price inflation:

www.guardian.co.uk/environment/2008/jul/03/biofuels.renewableenergy .

BIODIVERSITY DESTRUCTION: Not just Orangutans but many thousands of species are threatened with extinction as a result of deforestation. NGOs including Greenpeace and the Centre for Orangutan Protection have shown that even those palm oil companies who are members of the Roundtable on Sustainable Palm Oil are also responsible for the destruction of Orangutan habitat.

CONCLUSION

1. All industrial-scale biofuels, whether imported or domestically grown, cause more greenhouse gas emissions than equivalent fossil fuels and therefore will only exacerbate dangerous climate change. (see www.biofuelwatch.org.uk/docs/lca_assessments.pdf).

2. Increasing the use of biofuels makes it harder to save the tropical rainforests.

3. Biofuels lead to rising food prices, world hunger and human rights abuses.

4. Biofuelwatch dispute that palm oil, jatropha and other imported vegetable oils can be deemed sustainable. Palm oil is responsible for large-scale deforestation, major carbon dioxide emissions, evictions and human rights abuses, more global hunger, serious biodiversity losses and pesticide poisoning.

5. It appears from our review of the application documents that the applicant has not submitted an Air Quality report which would allow the effects of additional air pollution to be assessed.

6. Reassessment in 2011 by the EU of the sustainability criteria under which the UK Government is allowed to subsidise electricity generation from palm oil, is likely to mean that the Power Generation Plant will become financially unviable, with the risk that it will be shut down.

If approved, this development will have very significant adverse consequences for the environment and for people in the South for decades to come. **We therefore ask that you recommend refusal.**

(3) Fuel Sustainability

Rocpower provided a Sustainability Policy ("the Policy") regarding the fuel stock to be used for their development at Sheffield. The main objective of the Policy appears to be to show that the fuels that Rocpower / Rocfuel intend to use are 'co-products' and that the fuels they will use are 'sustainable' because they will comply with OFGEM's sustainability policy.

1. The Policy states that, *"the source products are generally co-products from the food, oleo-chemical and wood pulp industries."* Biofuelwatch believes that this particular form of words, specifically the use of "*generally*", allows Rocpower to use any proportion of virgin vegetable oil. **They give no assurance that virgin vegetable oil is never to be used to fuel their power station.** Rocpower's definition of 'co-products' is so wide that it would encompass any type of virgin vegetable oil, including palm oil, simply because other parts of the plant or nut tend to be used for different purposes, often as animal feed. Such an arbitrary definition is not used in any legislation or scientific documents.

In a subsequent paragraph, the Policy says that *"The majority of the co-products that Rocfuel sources are supplied from large multinational food, oleo-chemical and paper producers."* Again this is vague and allows for the supply of other products.

2. Rocpower's earlier Design and Access Statement proposed the use of 'Virgin Vegetable Oil' and did not mention co-products. We find it difficult to believe that there has been an abrupt change of plan; particularly since it would take significant time to develop a completely new business plan and research changes to the supply arrangements:

- Firstly, the UK's financial support arrangements for bio-energy under the Renewable Obligation Order 2009 are structured so that 'Energy Crops', such as Virgin Vegetable Oil, are given the highest level of support – a rate of two Renewable Obligation Certificates per MWh. For waste products, i.e. co-products, the support rate is 1.5 ROCs per MWh. By switching to co-products, Rocpower will have sacrificed a quarter of their total subsidy income from operating the power station.

- Secondly, we are familiar with other biofuel companies who try to call common types of virgin vegetable oil 'co-products', simply because the solid matter produced as part of the extraction of oil – e.g. soymeal or rapeseed meal can be used in animal feed, as can be palm kernel, regardless of the fact that the demand for vegetable oil is the main reason for new plantings. The EU's Renewable Energy Directive lists different types of 'agricultural crop-residues' all of which, apart from glycerine, are solid biomass, and are not suitable for the proposed power station. Rocpower has made no suggestion that glycerine would be used and indeed global glycerine production is small and fully used by other industries.

- As far as suitable 'co-products' not currently used by the food or oleo-chemical industries are concerned, we do not believe that those exist in sufficient quantities to supply the Rocpower installations. The company has,

verbally and implicitly in writing, through reference to wood pulp residues, referred to tall oil, however they made it clear at a public meeting in Sheffield on 2nd November that this would be no more than part of the fuel mix and that they could not guarantee getting ongoing supplies of tall oil. Given that paper mills in Europe and North America are increasingly closing and moving to the global South, reliance on getting any significant amount of tall oil in future seems very dubious.

- The proposal to use vegetable oil 'co-products' implies that there are suitable products available on the market in adequate quantities to operate the power station. Rocpower's plan for such operations across Yorkshire will require at least 80,000 tonnes of liquid fuel per year, which must be procured reliably and in bulk. We do not believe that the industry supplying vegetable oil into the food and oleo-chemical sectors will have that much 'waste' product for which existing uses have not already been developed. For example, cashew nut shell oil (verbally mentioned in public by Rocpower) is highly sought after by different industries, such as the manufacture of resins and paints. Palm kernel oil is used in the food industry.

In short, we are very sceptical that Rocpower will either be able to run the power station solely on true co-products, or will want to accept the loss of income from not using 'Energy Crops'.

4. Under 'Sustainability of supply chain', the Policy states that *"It is not possible for Rocfuel to influence the purchasing or production policy of the major ….businesses that are the primary purchasers and producers of the source virgin oils for the various productions processes."* We believe it is essential that all businesses take full responsibility for the consequences of their operations, including their procurement activities. By abrogating this responsibility, Rocpower is distancing itself from the known issues with producing their feedstocks. At the same time, it is true that harmful impacts from virgin vegetable oil burning cannot be prevented, in particular indirect impacts or displacement, highlighted in the government-commissioned Gallagher Review in 2008.

The adverse environmental impacts of large-scale production of vegetable oils are well known. Industry-led certification schemes like the Round Table on Sustainable Palm Oil (RSPO) have been set up to try to address these problems. Biofuelwatch does not accept that the RSPO is a plausible mechanism for assuring true sustainability in the palm oil industry, nor that palm oil monocultures can be sustainable. Nevertheless, the fact that the industry has set up such a scheme shows that even the producers recognise that there are problems. Rocpower proposes to use co-products from the food and oleo-chemical industries, and we believe it is almost inevitable that the original sources of their co-products will include palm oil, since palm oil is the largest and the fastest growing vegetable oil in the global market. Indeed Rocpower made it clear in the Sheffield public meeting on 2 November that they would not rule out using palm oil. At the meeting they spoke about fractions of palm oil not suitable for food, however virtually all palm oil and palm kernel oil can be used for food.

The sustainability credentials of the primary product from which the co-product is derived are relevant and must be considered. If Rocpower is to use palm oil derived co-products, then they are linked to unsustainable production practices in the palm oil industry. The same applies to tall oil, with the pulp and paper industry being responsible for large-scale deforestation and human rights abuses, for example in Indonesia, Brazil or Chile.

5. In the application, 'Air Quality Addendum II May 2010, 2.2 Additional Information Requested by BMBC says: 'Hargreaves can confirm that all the fuels/blends of fuels that will be used on the site will be OFGEM approved and comply with the requirements of the Renewables Obligations Certificates. Palm oil will not be used'. Apart from the applications references to palm oil, the statement on Ofgem is not strictly true. Satisfying OFGEM's sustainability requirements is only necessary to secure financial credits under the Renewable Obligations Order. We believe that to make the highest return on their investment, Rocpower will endeavour to use fuels complying with OFGEM requirements to be eligible for credits. However, as stated in our earlier representations, we do not accept that the current sustainability regime for biofuels operated by OFGEM is adequate because carbon savings are illusory and there are adverse social and environmental impacts not accounted for in that regime.

6. Rocpower's planning application for a similar development at Wakefield has recently been granted permission. That application proposed only to use virgin vegetable oil and the only type specifically mentioned was palm oil. We find it difficult to accept that Rocpower would operate a power station in Barnsley using true co-products when the same type of scheme a few miles away is able to burn virgin vegetable oil. This would make their fuel supply arrangements much more complex.

7. Under "NGO Policy Implications", the Policy makes a number of misleading statements. Biofuelwatch is in close contact with all the major environmental NGOs and they do not "*generally have policies that encourage the use of products such as these in the energy market"*. Nor is it true that NGOs (or indeed regulators) *"categorise this type of fuel as a second generation Bio-Fuel…"*

Under "Current NGO campaigns" the Policy notes *"not relevant".* Again this is misleading and disingenuous. Biofuelwatch, Friends of the Earth and many other NGOs have actively campaigned for several years against the use of biofuels in transport and in power generation.

Many other organisations have concerns about expanding the use of biofuels. The House of Commons Environmental Audit Committee reported in late 2007 on the issues associated with biofuel use and questioned their sustainability. The Department for Transport and the Renewable Fuels Agency commissioned a report by Professor Ed Gallagher in 2008 which advised caution on plans to stimulate the expansion of the transport biofuel market, recognising that the indirect effects of biofuel production were not fully understood.

Professor David Mackay, scientific advisor to the Department for Energy and Climate Change has assessed biofuels as having a marginal at best contribution to the UK's energy requirements:

" I think one conclusion is clear: biofuels can't add up – at least, not in countries like Britain, and not as a replacement for all transport fuels. Even leaving aside biofuels' main defects – that their production competes with food, and that the additional inputs required for farming and processing often cancel out most of the delivered energy (figure 6.14) – biofuels made from plants, in a European country like Britain, can deliver so little power, I think they are scarcely worth talking about."

8. Rocpower replied to you with additional comments on 21 October. They attached their earlier covering letter dated 16 September. That covering letter mentions sunflower oil and rapeseed oil as possible feedstock in the paragraph titled 'Transport Assessment'. Both are by any common definition virgin vegetable oils, in contradiction to Rocpower's sustainability policy. They did not retract this reference to sunflower and rapeseed oil when they provided the sustainability policy.

CONCLUSION

1. In our view the statements made in Rocpower's Sustainability Policy do not provide guarantees that the fuel to be used in their power station will not contain virgin vegetable oil either partly or exclusively. The concerns we raised in our previous letter about palm and other virgin vegetable oils therefore still apply.

2. We fear that Rocpower's definition of co-products is so wide that it can be read to encompass any type of virgin vegetable oil, including palm oil. If Rocpower do use true co-products from the vegetable oil market, there is no mechanism to assure that the primary product and hence the co-product has been produced sustainably.

3. We believe that serious supply constraints for true co-products and the reduced level of subsidy will make it more attractive for Rocpower to use virgin vegetable oil and even if their Policy was incorporated into planning conditions, it would be so vague as to still allow the power station to be run on palm oil.

The additional submission from Rocpower does not satisfy us that the proposals will ensure a sustainable use of resources, and as before, we ask that Barnsley MBC refuse permission for the development.

(4) Rocpowers Power Station Plans

The applicant is also proposing 5 other similar developments in the region, totalling a generating capacity of approximately 60MWe. We are concerned that this approach has meant that each development is viewed as small-scale with insignificant environmental impacts; whereas a single 60MW plant would be considered a major development and require extensive assessment including an EIA. For this reason we believe each should be considered as a subsidiary part of the whole and treated as though it were a major development, justifying a determination by committee.

We refer to In the Environmental Review and section '1.2 Installed capacity
Bay 6 will house a 'stand-by' generating set (1.4MW output), that will only be operational when one of the others (1 to 5 sets) are taken off line for servicing. However bays 6 and 7 may become available for installation of additional units to feed into the grid once initial trails have been conducted (current YEDL capacity is 8 MW). Hargreaves Services plc/Rocpower Ltd will assess any further proposed installations to feed into the grid and the potential to impact statutory permitting thresholds prior to operation of any further units'.

It seems to us that this application could be paving the way for increasing the output of the plant by an additional 40%, or an additional 2.8 MW. That's an additional 4,000 tonnes of oil a year, which would increase AQ pollution and environmental and social issues. If the power station were run on palm oil only, it would require about 1,600 hectares of plantations to produce its fuel every year – and even more if other types of fuel were used.

(5) Tall Oil Problems (Wakefield)

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.

Rocpower opened their first tall-oil plant in Wakefield in late 2009. 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. I 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) In the new application, Rocpower say that they consider emissions of sulphur dioxide to be negligible and have therefore not assessed them in the Air Quality Assessment, June 2011 (see 1.2.1 Air Dispersion Modelling). Rocpower claim to have been burning tall oil and there appear to be 'special' pollution problems with burning this in diesel engines tall oil. Tall Oil is very corrosive and Rocpower have had major problems with using it in diesel engines. We understand that Rocpowers diesel engines are second-hand and we would imagine that this may exacerbate problems.

This similar installation at Barnsley should surely not be given serious consideration unless a solution is found to the pollution problems at Wakefield.

(6) Contradictions Regarding Fuel Sourcing in Application

There is a lack of consistency in what Rocpower say will be burnt at Barnsley which is a cause for concern and needs clarification.

Rocpowers Fuel Source and Sustainability Statement, 4th December 2009 says: *'We have stated very clearly that is not our intention to supply the plant with any virgin vegetable oils…'*

*Section **'4 Hazardous Substances Storage** The facility plans to install:*
• two 100,000 litre tanks for the storage of virgin vegetable oils (Flash point: >66° C, typical >100° C); and
• one 12,000 litre tank of bio-diesel.' Clearly refers to virgin vegetable oils.

In the Environmental Review by Hargreaves, 2.1 EPR Permitting Assessment, states*: 'The site will make use of various types of fuel sources e.g. Tall Oil (a by-product from the pulping of pine trees), palm oil etc. that are commercially available on the market. The initial start-up of the engines will be achieved through the use of bio-diesel. The choice of fuel will be largely dependent on availability and prevailing financial conditions'.*

Elsewhere, they drop the reference to palm oil and suggest that feedstock will be *'tall oil, vegetable oils etc that are available on the market. The choice of fuel will be largely dependent on the availability and prevailing financial conditions'.*

There is a reference reference to market forces, which suggests that oil palm will indeed be the preferred feedstock - In the Executive Summary of the Air Quality Assessment, the following section states*: '**2.2 Proposed Fuel Use** The facility proposes to utilise a range of biofuels at the Barnsley site. The exact choice of fuel will depend on market forces. Under the current market conditions tall oil is one of the most favoured options and is considered to be the worst case option in terms of pollutant emissions. As there will be a range of fuels used at the Barnsley site, it is not practical to measure the emissions arising from every type and blend of fuel'.* 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. We contend that from a carbon emissions and AQ perspective it is not acceptable to say, 'it is not practical to measure the emissions arising from every type and blend of fuel' and that in fact this is the only way the people of Barnsley will know what is coming out of the stack and how wider global ecosystems might be being affected.

The *ROCFUEL BIOFUEL – FUEL SPECIFICATION SHEET only list: 'A mixture of wood pitch blended with high & low fractions' and 'PALM BIO FUEL DESCRIPTION : Palm Bio Fuel is a blend of Crude Palm Oil (minimum 70%) and fatty acid distillate of vegetable oil origin'. The application includes: **MATERIAL SAFETY DATA SHEET – CRUDE PALM OIL (CPO) IDENTIFICATION,** Trade name : Crude Palm Oil**,** Chemical type : Mixed triglycerides**,** Classification : Vegetable Oil.'* Elsewhere the planning application states: *'The plant will only run on OFGEM accredited fuels and for the avoidance of doubt will **NOT BURN VIRGIN PALM OIL OR VIRGIN SOYA BEAN OIL**, in line with Rocpower's Sustainability policy'.*

Finally their Design & Access Statement refers to co-products: *'**Tall Oil & Vegetable Oil Co Products as a Renewable Fuel** Rocpower Limited are developing a portfolio of renewal energy generation plants throughout the UK, identical to this proposal, utilising vegetable co products as the feed stock. The oil has been selected as the primary fuel due to its contribution in tackling greenhouse gas emissions as well as its availability. The Oil is classed as carbon neutral which is inline with Barnsley's Carbon Management program'.*

Yours sincerely

Ian Lander
Biofuelwatch