

15 September 2011

Biomass Power Station at Blyth

Local and Global Threats

Biofuelwatch Briefing

What is proposed?

Energy Company RES wants to build a large-scale, 100MW biomass Power Station at Battleship Wharf in the Port of Blyth, which they state will burn up to 900,000 tonnes of wood a year. At the global level, such a large new demand for wood will mean more carbon emissions, making climate change worse, and more forest destruction and more land-grabbing for industrial tree plantations. The local impacts will include more air pollution in and around Blyth and a threat to protected coastline habitats and marine life.

Can the Power Station be stopped?

Yes. But only if there is enough loud local opposition now. Similar developments in Scotland and Southampton have been successfully delayed due to public opposition and at least two applications in Wales have been defeated – so it can be done with enough voices calling for Blyth Estuary and people's health to be protected and for the end to this sort of greenwash.

1. Build up local opposition to the Power Station. For ideas of how, get in touch with biofuelwatch@ymail.com.
2. The Council will have a say on the development – make sure to get in touch with your local Councillor as well as with your MP and raise your concerns with them. To find out who your Councillor and MP are, see www.writetothem.com.
3. The Infrastructure Planning Commission (IPC) will have the final say on this development. RES intend to submit a full planning application by December 31st 2011 to the IPC. The IPC then have 28 days to decide whether to accept the application. If they do, they will conduct a 3-month 'pre-examination' followed by a 6-month 'examination' in which you will have a chance your views – but only if you register your interest. Keep a close eye on when RES announces that it is submitting the application. Once it does, make sure to register your interest by visiting the IPC website:
<http://infrastructure.independent.gov.uk/>
4. RES is currently consulting on the development with a questionnaire. This may just be an exercise so that they can say that they have consulted people – but you may still wish to let them know how you feel at: <http://www.res-ltd.com/Surveys/fs.aspx?surveyid=77a0955b2644065b51486549026768c>.

Global concerns

1: Burning biomass on a large scale causes deforestation and human rights abuses

Although it is presented as green, burning biomass relies on importing wood from around the world, when forests worldwide are being degraded, cut down and turned into monoculture plantations at a rate faster than ever before. RES expects to import 80% of the wood burned. Recently, demand for wood for biomass in the UK has skyrocketed, exceeding UK supply many times over. The biomass proposals across the UK, including the power station at Blyth, will require a total of more than 60 million tonnes per year. The UK's total wood production is less than 10 million tonnes of wood per year. The growing biomass industry will directly or indirectly cause more forests and other ecosystems and farmland, to be turned into fast-growing monoculture tree plantations. This is disastrous for biodiversity, soils, water supplies and very often for local communities.

From Brazil to Indonesia to Mozambique, communities are already being evicted, sometimes violently, and are seeing their livelihoods and land destroyed for industrial tree plantations. The demand for UK biomass power stations will make the situation even worse.

RES says that its wood will be sourced sustainably. But the fact is that relying on imports can simply not be said to be sustainable. RES has not stated where it intends to source its wood from. Furthermore, if the power station is granted planning permission, RES will be free to source its wood from wherever it wants. Another company planning biomass power stations in the north-east of England, MGT Power, has just announced their plans to buy wood from eucalyptus plantations in Brazil, from a company implicated in the destruction of rainforests and savannah and in serious land conflicts.

2: Burning biomass does not produce carbon emissions savings

Big biomass is branded as reducing carbon emissions because a tree burned can be regrown. However, burning wood produces an immediate release of carbon into the atmosphere, which can take many decades or even hundreds of years to be replaced through forest regrowth – that's if forests, once destroyed, are allowed to and able to regrow, which is doubtful. This carbon debt is ignored by Developers and is not factored into their carbon emissions savings calculations. Developers must not be permitted to rely on the image of forests as carbon sinks to legitimise their destruction and combustion – if anything, it should be all the more reason for their protection. Forests play a vital role in regulating the Earth's climate system, including the carbon and rainfall cycle and thus weather patterns – destroying them for bioenergy will make it less likely that the climate can ever become stable again.

3: Burning biomass predominantly for electricity is inefficient

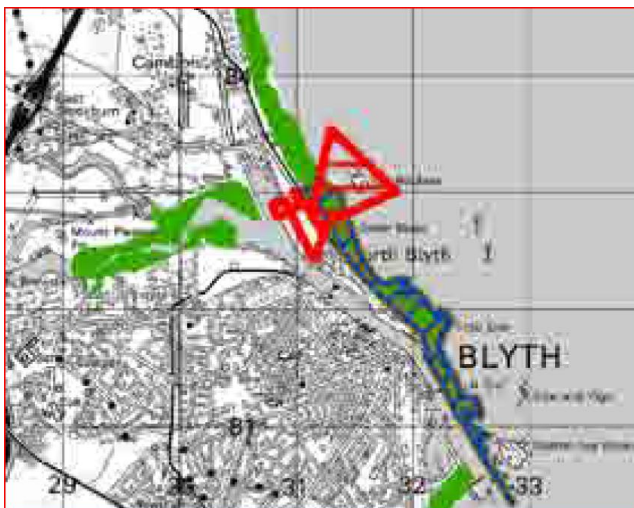
The majority of the energy supplied by RES would be in the form of **electrical energy rather than heat energy**. Burning biomass to generate electricity only is notoriously inefficient, achieving efficiency levels of on average 30%. This falls far below the recommended EU standard of 70% efficiencies for biomass power stations. Although RES states that it will look into the feasibility of supplying thermal energy from the power station, it remains unclear (a) whether this will be feasible, and (b) how much heat will be supplied.

Local Concerns

1: Blyth's legally protected coastline at risk

RES states that its development will be very close to the Northumberland Coast Special Protected Area and Ramsar Site and the River Blyth Estuary Site of Special Scientific Interest (SSSI). The sites contain a number of wintering waders, and the estuary contains important areas of narrow-leaved eelgrass (*Zostera angustifolia*), listed as very rare by Swan, the rare yellow glasswort (*Salicornia fragilis*), and the rare long-spiked glasswort (*Salicornia dolichostachya*).

RES' own data appears to show that the development will be directly on top of a SSSI and Ramsar site:



Key:

RED: Site boundary

GREEN: SSSI

BLUE STRIPED: Ramsar

Map from RES' Scoping Report (Listed as 'Figure 3')

RES's preferred option for cooling the power station is to take water from the harbour and discharge it into the North Sea within the estuary at up to 10oC higher than surrounding temperatures - together with polluted 'blowdown' and surface drainage water and effluent from a

water treatment plant. Toxic biocides may even be added to the cooling water and thus be discharged. Taking in the water can kill fish larvae and other small marine life. Cooling water discharges of 30C or greater temperatures compared to surrounding waters can instantly kill fish through 'thermal shock'. RES confirm that eels, sea trouts and Atlantic salmon may all pass the site during migrations and that the estuary is an important habitat for many different fish species, some of which are endangered and some of which are commercially important. Increases in pollutants from emissions and from fuel shipments will also threaten species. The development will threaten the SSSI and Northumberland's unique coastland may be at risk from the proposal. RES also envisages building a pipe line across the protected seashore to discharge this water.

Northumberland Wildlife Trust notes of the site, 'Maintaining the existing mudflats is of importance here, and the most likely threats to the site are reclamation for building or impounding or dredging of the river.' These sites are legally protected under UK and EU law, and both local and central authorities have a duty to protect them and prevent their degradation or damage. The proposed development clearly puts these at risk.



From this... Northumberland's beautiful and protected Coastline



To this? (Biomass power station half the size of what is proposed at Blyth, Steven's Croft, Scotland)

2: Poorer Air Quality as a result of Big Biomass?

According to a report by the UK's Environmental Audit Committee, up to 50,000 people a year may already be dying prematurely each year due to exposure to polluted air. There are concerns that burning biomass worsens the problem: Biomass Power Stations emit harmful pollutants into the atmosphere, and is considered to be as bad as using burning oil and worse than burning gas. Former Energy minister John Fitzpatrick has said of biomass: "The mortality health impacts of [renewable energy policy] scenarios were estimated to be between 340,000 and 1,750,000 measured as the number of life years lost in 2020 from the impact on air quality of increased biomass combustion."

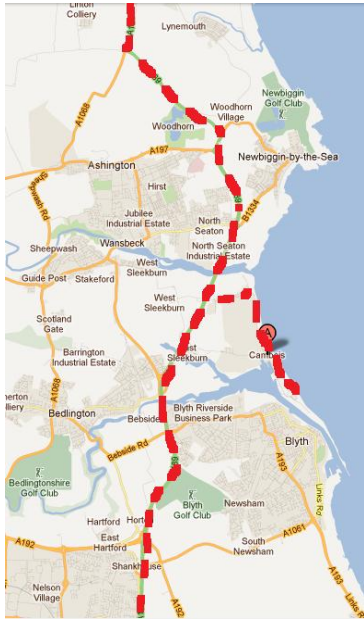
Blyth Valley is already in breach of legal EU and UK air quality standards. It is a designated 'Air Quality Management Area' because of high levels of small particulates, which are linked to respiratory and heart disease. Northumberland is legally obliged to improve air quality in those areas, but a new polluting power station in the area would make this difficult, if not impossible.

Emissions from this Biomass Power Station will include:

- **Oxides of nitrogen (NOx):** can affect lung metabolism, structure, function, inflammation and host defence against pulmonary infections
- **Carbon monoxide (CO) :** inhibits the blood's ability to carry oxygen to vital organs such as the heart and brain.
- **Particulates:** PM exposure affects the respiratory and cardiovascular systems in children and adults and extends to a number of large, susceptible groups within the general population. There are no safe levels for small particulates PM2.5, meaning that the slightest emissions of PM2.5 from the Blyth power station would harm health.
- **Sulphur Dioxide:** Can result in breathing problems for asthmatic children, and shortness of breath.
- **Heavy Metals and Dioxins and Furans:** Toxic and carcinogenic to human health. There is nothing in the planning application to stop RES burning chemically treated and thus even more toxic wood, too. However, even 'clean' untreated wood can contain high concentrations of heavy metals and burning it can release dioxins and furans.

RES claims that the proposed Power Station will have reduced pollution because it will burn 'clean' wood only – that is, virgin untreated wood rather than toxic waste wood. However, in a biomass Power Station in Vermont, USA, which is half the size of that proposed for Blyth, 79 different pollutants from the power station have been recorded. RES proposes that it will raise the chimney height of the power station (which is already proposed to be between 80-100m) to lessen the effects of air quality, which will simply disperse pollution but expose more people to it.

3: The Power Station will have serious implications for local traffic and transport



During the construction phase, there will be around 300 vehicle visits per day. During the operational phase of the plant, RES will deliver at least 180,000 tonnes of wood by truck to the Power Station over the course of the year. **Deliveries will be five days a week, from 7 am until 7 pm.**

Based on RES' own figures, there will be a two-way traffic flow of around **62 vehicles visiting the site per day – that's 5 vehicles passing every hour, or one every ten to fifteen minutes.** RES also states that if, in the worst case scenario, it has to import all of its fuel by road, the two way flow could be up to 264 lorry visit per day, with 22 lorries passing per hour – or, one vehicle every three minutes.

Deliveries will go along the A198, the West Sleekburn Road, and Cambois (see map). This will potentially affect houses on Sandfield Road, Waterfield Road, Wilson Avenue, and North Fields.

This is what one 28.5 tonne dump trucks looks like:



The bottom line: Profit, not People or the Environment

If RES gets the go ahead, they will be able to claim between **£43-58 million in public money** every year, paid through a national levy on electricity bills (Renewable Obligation Certificates). With this amount of money available, it is no wonder that they are investing time and effort into claiming that the Power Station is green.

We must respond quickly and thoroughly to this proposal!

To share ideas of what to do about RES's plans and how to campaign on this, please contact

biofuelwatch@gmail.com.

www.biofuelwatch.org.uk