

Dear all,

We are writing on behalf of Biofuelwatch and Dogwood Alliance. Biofuelwatch is a UK and US-based campaign group that has been researching and raising awareness of the environmental, climate and human impacts of large-scale bioenergy since 2006. Dogwood Alliance is an environmental NGO based in the Southern US and mobilizes the public and exposes the truth about forest destruction and deforestation to inspire communities, corporations, and government to take action and transform the paper and energy industries.

Both of our organisations have been following the conversion of coal to biomass power stations in the UK – especially the current one by Drax – with deep concern. We were alarmed to see the recent media coverage, based on the report which ReThinkPylons commissioned from BW Energy, which portrays Drax's biomass investments as an example that should be followed by ESB in relation to Moneypoint Power Station.

We believe that you have been misinformed by the consultants from BW Energy about the impacts which a conversion of Moneypoint to biomass would have, and we would like to share with you some of the facts around such conversions below.

***As fellow environmentalists, we urge your organisation end its promotion of large-scale biomass electricity in Ireland, which would result in devastating impacts on forests in North America and on the climate.***

Amount of wood required to convert Moneypoint:

Running a 915 MW power station exclusively on biomass would require around 3.6 million tonnes of pellets made from 7.2 million tonnes of green wood (i.e. freshly harvested wood) every year. This is based on a conservative estimate of such a power station operating for only 7,000 hours a year.

By comparison, we found an estimate that total annual roundwood production in Ireland is only around 2.65 million tonnes a year (or 3.79 million m<sup>3</sup> – see [www.coford.ie/media/coford/content/publications/cofordarticles/Roundwood%20Forecast\\_web.pdf](http://www.coford.ie/media/coford/content/publications/cofordarticles/Roundwood%20Forecast_web.pdf) ). Thus, Moneypoint would need to burn the equivalent of more than 2.5 times the entire Irish wood production every year. This means that such a conversion would be impossible without heavy reliance on wood imports.

What type of biomass could be burnt at Moneypoint?

Although coal power stations which co-fire only a small proportion of biomass can burn a large range of wood, agricultural residues and crops, this is not the case for those which either co-fire high proportions or have whole units converted to biomass.

A Freedom of Information Act request by Biofuelwatch revealed that Drax informed the UK Government in early 2012 that their tests had shown that the only suitable feedstock is wood from slow-growing trees with low bark content (<http://biofuelwatch.org.uk/docs/DECC%20FoI%20EIR%2013-0340%20Q1%20Documents%20Drax%20etc%209May%202013.pdf>). Ash from burning other types of biomass is too high in alkali salts and thus corrodes boilers, which after all were built for burning coal, not biomass. This rules out most sawmill residues, which tend to be high in bark content, as well as biomass from fast-growing trees and from

crops. This means that converted coal power stations rely on burning wood from whole trees which generally take many decades to grow.

A significant proportion of Drax's pellets come from the biggest US pellet producer, Enviva and are made from native hardwood trees. This has been shown by research carried out by Dogwood Alliance and NRDC into one of the main pellet plants that supply Drax, the Ahoskie pellet mill owned by Enviva in North Carolina.

Globally, the southern US and Canada (mainly British Columbia) are the two leading producers and exporters of wood pellets and would inevitably become the main sourcing regions for ESB, should Moneypoint ever be converted to biomass. Both regions are experiencing large-scale clearcutting and conversion of biodiverse and carbon-rich forest ecosystems.

#### What are the impacts on forests?

In the southern US, the large majority of native forests have already been destroyed and many forests have been converted to monoculture pine plantations. In recent decades, this destruction was primarily driven by demand for pulp and paper but increasingly, it is now driven and accelerated by the new demand for wood pellets. In the southern US up to 90% of wetland swamp forests have been destroyed and the remaining fragments are now particularly targeted for pellet production for export. Those are amongst the most biodiverse temperate ecosystems worldwide, home to nearly 600 species of birds, around 250 species of mammals, 200 species of reptiles, 170 species of amphibians and over 130 species of trees. Some of those are found nowhere else on earth (<http://www.seesouthernforests.org/discover-southern-forests/benefits/biodiversity>).

One of Drax's main suppliers, Enviva, has been shown to source at least part of their wood from the clearcutting of endangered swamp forests, as you can see on this video: <http://www.dogwoodalliance.org/2014/01/the-buzz-is-building-on-wetlands-up-in-smoke-video/> and in this report: <http://www.dogwoodalliance.org/wp-content/uploads/2013/05/Enviva-Mill-in-Ahoskie-Dogwood-Report.pdf>.

#### What are the impacts on the climate?

Because wood is less energy dense than coal, a lot more of it needs to be burned per unit of electricity. This means that carbon emissions from biomass electricity are higher than those from coal. Biomass proponents argue that those emissions should be ignored because new trees would re-absorb all that carbon in future. However, when wood is burned, particularly wood from whole slow-growing trees, it will take many decades before new trees can possibly re-absorb the carbon emitted from the power station. And climate science clearly shows that we cannot afford to increase carbon emissions even further for decades to come if we want to have any hope of avoiding the worst impacts of climate change.

Different studies estimate that it would take at least several decades before carbon emissions from biomass were no longer worse than those from fossil fuels (per unit of energy): <http://www.biofuelwatch.org.uk/resources-on-biomass/>. However, all of those studies are based on the optimistic assumption that forests will not be permanently destroyed for bioenergy. If carbon-rich forest ecosystems are destroyed permanently, including by being converted to monoculture tree plantations, the long-term climate impacts will be far worse still.

We appreciate that your group's foremost concern is to protect the countryside and environment in Ireland. But please do not advocate a false 'solution' at the expense of North American forests and the climate. We will be happy to share more information on biomass conversions and to discuss those issues with you, if you wish.

Best regards,

Almuth Ernsting, Biofuelwatch

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