



# CONVERSION OF MOTHBALLED LYNEMOUTH POWER STATION TO BIOMASS THREATENS FORESTS AND AGGRAVATES CLIMATE CHANGE

**Biomass scheme another reason for banks to blacklist controversial energy corporation EPH**

Lynemouth Power Station in Northumberland is now owned by EPH. The company is rapidly becoming notorious for buying dirty fossil fuel and nuclear power stations, and coal mines, and extending their working lives. Lynemouth will be EPH's first foray into biomass and one of its first projects in the UK. It is set to run on imported woodchips from clearfelled wetland forests in the southern US.



Lynemouth power station. Photo Alan Murray-Rust, CC BY-SA 2.0.

## WHAT IS PROPOSED?

Lynemouth Power Station is a former coal power station which was closed at the end of 2015 because it does not comply with EU emissions regulations. It is in the process of being converted to burning imported wood pellets in order to avoid long-term closure. Owned initially by Rio Tinto Alcan and then briefly by RWE, Lynemouth is now owned by Energetický a průmyslový holding (EPH), [a Czech company that has recently acquired many coal, gas and nuclear power stations](#)

and opencast coal mines across Europe. Lynemouth was created to power an aluminium smelter, but since the smelter's closure in 2012, it has exported power to the National Grid.

To run the 420 MW power station on biomass EPH will burn an estimated 1.5 million tonnes of wood pellets a year, made from 3 million tonnes of green (freshly cut) wood. The UK's total annual wood production (across all industries) is 11 million tonnes,

and the country already burns more than this amount in power stations. Burning wood on this scale relies on wood imports and cannot be sustainable.

Lynemouth is just south of [Druridge Bay](#), an area already under threat from a proposed open cast coal mine. The area is also subject to various licences for fracking and Underground Coal Gasification.



## WHAT STAGE IS THE PROJECT AT?

The conversion of Lynemouth Power Station has started and it expects to open as a biomass power station in 2017. It is currently closed while the conversion takes place.

Lynemouth has been awarded a Contract for Difference (CfD) by the UK government, which is a very lucrative renewable electricity subsidy. The CfD guarantees EPH [£105 per megawatt hour](#) generated, which will increase with inflation (that's more than onshore wind energy gets). This means that Lynemouth

Power Station is guaranteed £309 million for selling electricity every year. This includes the wholesale price for electricity plus a subsidy of £189 million a year<sup>1</sup>. CfDs are not paid out of general taxation, but by electricity companies – often the same ones receiving the funds! Electricity suppliers then pass on this cost through additional charges on electricity bills, so electricity consumers unwittingly fund fake renewables simply by paying their bills.

EPH has announced that from 2018 it will be purchasing

800,000 tonnes of pellets a year (and a smaller amount in 2017) from [Enviva](#), a US pellet company responsible for well-documented forest-destroying activities in the southern United States, including passing off whole trees as 'forestry residues'. See below for more detail.

See [Biofuelwatch's page](#) on coal to biomass power station conversions for more information.

## WHAT IS EPH?

EPH is a Czech energy company with fingers in many pies. Founded in 2009, it has rapidly expanded through securing massive bank loans ([over €3 billion in 3 transactions alone from 2012 to 2014](#)) to purchase energy infrastructure including mines and power stations. EPH is two-thirds owned by Czech businessman Daniel Křetínský and Slovakian businessman Patrik Tkáč, and the remaining one third is owned by investment company J&T, which is also owned by Patrik Tkáč. It

has been reported that "[leaked documents from Panama law firm Mossack Fonseca show the Czech buyers are linked to suspicious offshore holdings.](#)"

German NGO Urgewald has described EPH as "[a kind of wrong-way driver on the European energy market](#)" due to its practice of buying up coal mines and power plants that would otherwise be under pressure to close. A recent example of this is its acquisition of some of Germany's dirtiest and most carbon-intensive

opencast lignite (brown coal) mines in Lusatia from the Swedish government-owned company Vattenfall, in 2016. These mines have been the subject of many protests locally and internationally. Vattenfall was under intense public pressure – in Sweden and Germany – to divest from these mines and clean up its act. EPH is less easily influenced by this type of pressure as it has no shareholders or government ownership, so the lignite mines are likely to stay open longer under their new owner.



Germany's Ende Gelände climate change protest in 2016 focussed on the lignite mines now owned by EPH. Photo by Rikuti, CC BY-SA 4.0.



## EPH IN THE UK

As well as Lynemouth Power Station, EPH owns the coal-fired Eggborough Power Station in Yorkshire. That plant was due to close, [but has secured a deal to stay open until at least March 2017](#) by making 775 MW available for back-up power for the winter of 2016-17. The former owners of Eggborough Power Station had obtained planning permission to convert to biomass but failed to secure a Contract for Difference subsidy. EPH appears to have no plans to pursue this.

Currently Lynemouth and Eggborough Power Stations are EPH's only UK assets. However, the company has expressed interest in acquiring further coal and gas fired power stations, and is seeking contracts to build new gas-fired power stations. It also plans to launch Energy Scanner, an online marketplace for small and medium-sized enterprises to interact with electricity suppliers, in 2016. EPH has stated that it has a particular interest in the Italian and UK gas markets

because "[they are at the end of the transmission and transactional value chain; they're discrete, and have got some very interesting characteristics around supply, demand and policy.](#)" This means that EPH could play a similar role in the UK as it has in other European countries, extending the life span of fossil fuels with no accountability to the people affected by air pollution and climate change.



Wetland forest, North Carolina. Photo Dogwood Alliance



Enviva's pellet-making plant, North Carolina. Photo Dogwood Alliance.



Swainson's Warbler. Photo US Fish and Wildlife Service Northeast Region.

## FUELLING FOREST DESTRUCTION

Despite being classed by the government as renewable energy, large-scale biomass electricity is anything but green. Over half of the pellets that will fuel Lynemouth will be provided by Enviva, the largest pellet manufacturer in the US. There is compelling evidence that [Enviva uses whole trees from clearcut biodiverse coastal forests](#). Research by conservation organisations Dogwood Alliance and the Natural Resources Defense Council reveals that Enviva has been logging rare wetland forests in North Carolina. Wetland forests provide [critical habitat for many species](#) in the southern US, such as the black bear, various reptiles and amphibians, songbirds such as the Swainson's warbler and

yellow-throated warbler, as well as economically important species such as fish and shrimp. Mature wetland forests are also important stopover habitats for migrating birds.

The vast majority of coastal wetland forests in the region have been destroyed already, in the past mainly for paper production. Now the remainders are facing the axe, increasingly to produce wood pellets for the EU. The UK is the largest customer of pellets from the US, and we already burn significantly more than we can ever produce. Drax power station in Yorkshire alone burns more wood a year than the UK produces in total. This wood comes from highly biodiverse forests as well as from

monoculture plantations which have taken their place.

The southern US has [no effective regulatory framework](#) to protect forests.

A 2013 [Freedom of Information request](#) by Biofuelwatch revealed that coal to biomass conversions rely on slow-growing trees from the northern hemisphere that are low in bark, and that residues like straw, or short-rotation coppicing such as miscanthus, are unsuitable because of how different kinds of biomass affect the boilers of converted coal plants. By converting coal fired power stations to run on biomass, we are effectively locking ourselves in to a future of forest destruction.

## CLIMATE CHANGE

Per unit of energy produced, smokestack CO<sub>2</sub> emissions from biomass power stations are higher than those from coal power stations. This is because burning wood for electricity is less efficient than burning coal. Companies and policy makers ignore this carbon, claiming that new trees will grow back and reabsorb the carbon emitted from cutting down and burning mature ones. However, it can take decades before that happens, and even longer for the forest to return to its undisturbed state – if it does at all. When forests are destroyed and turned

into monoculture plantations much of that carbon will stay in the atmosphere and never be reabsorbed. [The UK government's own analysis](#) shows that burning wood, especially whole trees, can result in far greater carbon emissions from logging than the carbon emitted by burning coal. At a time when we know that we need to be vastly reducing our CO<sub>2</sub> emissions, investing in energy that will do the opposite makes no sense.

Aside from the carbon emitted when biomass burns, and the

carbon lost from forests and forest soils as a result of logging, importing biomass from across the world produces emissions from transporting and processing the fuel. Healthy forests also play a major role in regulating the rainfall cycle, storm tracks and the nitrogen cycle, all of which are vital for a stable climate. Finally, mature forests sequester a large amount of carbon from the atmosphere. When they are cut down, less of the carbon emitted from fossil fuel burning will be sequestered by forests, making climate change even worse.

## AIR POLLUTION

Biomass power stations emit a [variety of pollutants](#) into the atmosphere, including nitrogen dioxide, sulphur dioxide, particulate matter and heavy metals, all of which have negative impacts on human health and our environment. [According to Environmental Protection UK](#), biomass is considered to be as bad for air pollution as burning oil and worse than burning gas.



Enviva Facility in Southampton, VA. Photo Dogwood Alliance.

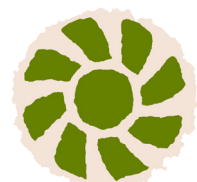
## CONCLUSION

Investment in biomass detracts from funding for genuine renewable energy. Biomass subsidies contribute to fuel poverty as consumers are forced to pay for this unsustainable energy through increased electricity bills. Lynemouth Power Station should not burn coal or biomass because both are bad for the climate, communities and our environment. We need to move towards genuine renewables and empower communities to make informed decisions about where their power comes from and who profits.

EPH has no shareholders and is 100% privately owned, so it is not susceptible to shareholder pressure or government influence. It sells electricity to the wholesale market, so is not a household brand that can be influenced by consumer pressure. The best way to influence EPH's activities is therefore through the banks that fund it.

A group of European NGOs has already written [an open letter](#) to a selection of the banks that finance EPH, including HSBC and RBS, calling on them to blacklist

the company because of its continued investment in fossil fuels. We echo this call: banks should not fund EPH because its operations are damaging the climate, communities and ecosystems around the world. The conversion of Lynemouth Power Station will only make matters worse.



**biofuelwatch**

[1] The wholesale electricity price was £40.75 per MWh in 2015 ([ofgem.gov.uk/data-portal/wholesale-market-indicators](http://ofgem.gov.uk/data-portal/wholesale-market-indicators)), so a 420 MW power station operating 7000 hours a year can expect £120 million a year from selling electricity. The remaining £189 million of the strike price constitutes a subsidy.