



Getting rid of state support for big biomass: What are we asking policy-makers to do?

Summary

With a new government due to be sworn in soon, we're asking our supporters and those concerned about the impacts of biomass electricity on communities, forests and the climate, to take the opportunity to lobby their MPs and parliamentary candidates. The biomass electricity industry in the UK is entirely dependent on state support – to stop the serious impacts that are being caused by it, we have to end this support.

Fundamentally, electricity generated from burning biomass in power stations must be excluded from official definitions of renewable energy, and therefore rendered ineligible to receive renewable electricity subsidies or supports of any kind from the UK government. In recognition of the fact that biomass is neither a low-carbon, nor a sustainable source of energy, Biofuelwatch calls for:

· *The withdrawal of all government subsidies which support electricity generated from burning biomass in power stations;*

· *The removal of all public loans which support the biomass industry and the burning of biomass in power stations.*

Subsidies and support measures which should be withdrawn

1. Biomass must be excluded from all renewable electricity subsidies, i.e. from the Renewables Obligation (RO) and from Contracts for Difference (CfD). This should include dedicated biomass electricity, biomass and waste combined heat and

power, and coal-to-biomass conversions.

2. Generating electricity from biomass must be excluded from public loan guarantees and from the remit of the Green Investment Bank.

Background

Current renewable energy subsidies are heavily biased in favour of biomass. Over 70% of all energy classed as renewable in the UK currently comes from bioenergy (including waste), with biomass power stations being by far the biggest technology contributing to this, and this proportion is set to increase [1]. Currently, Government support for electricity from onshore wind and solar power is being curbed, whilst support for biomass electricity is being ramped up. Substantial support has already been awarded to 3 huge, inefficient and import-reliant biomass power stations. In addition, the first public loan guarantee under the UK Treasury Guarantee Scheme was awarded to Drax power station to invest in biomass, and since then this guarantee, as well as one more for a biomass power station in Moray, Scotland, remain the only two awarded to energy generating projects. [2] Because of the above

decisions by policy-makers, the UK now burns more biomass in the form of wood pellets than any other country in the EU, the vast majority of which are burned in power stations [3] [4].

Contracts for Difference awarded so far for burning biomass are:

· **Drax, Drax Plc (Yorkshire):** now the world's biggest biomass power station (and still the UK's largest coal-burner), could earn up to £250 million a year from a CfD for one of 6 units, as well as receiving ROCs for two more units, and a Capacity Payment for 2 of 3 remaining coal units. Drax could be looking a grand total of £660 million every year. These subsidies are directly responsible for keeping Drax open beyond 2016. Drax has also attracted a

Treasury Guarantee (where financial risk is taken on by the Treasury instead of the energy company) and a Green Investment Bank loan. It will burn almost 1.5 times the UK's annual wood production, almost all of which will be imported, and its sourcing is already having serious impacts on forests;

· **Lynemouth, RWE (Northumberland):** This coal-fired power station has planning permission to convert to biomass, and has been awarded a CfD, but it's still unclear whether RWE will push ahead. If they do, this 420MW power station would burn more than 3 million tonnes of wood a year and earn up to £170 million for it;

Why subsidies must be withdrawn

1. Burning biomass to generate electricity can be worse for the climate than burning coal.

Per unit of energy produced, smokestack CO₂ emissions from biomass power stations are, on average, 50% higher than those from coal power stations. This is because wood is less energy dense than coal. The Government's own analysis reveals that burning biomass can be worse for greenhouse gas emissions than the fossil fuels they are seeking to replace. [5] [6] [7] [8]

2. Burning biomass to generate electricity poses a growing threat to forests globally.

The UK Government estimates it will have to import at least 80% of biomass burned in the UK by 2020. Current industry plans would, if fully realised, see over 65 million tonnes of wood being burned in UK power stations every year, while the UK's total annual wood production is only 11 million tonnes. [9]

Sensible Subsidies

Ending subsidies for biomass would free up substantial amounts of funds which could instead be directed into schemes which genuinely reduce energy consumption and

· Tees Renewable Energy Plant, MGT Power (Teesside):

This plant has been guaranteed around £190 million a year for building a planned new 295 MW biomass power station. It would burn around 3 million tonnes of wood a year. DECC and MGT Power class the proposed plant as 'Combined Heat and Power', even though no heat customer has been confirmed, MGT has no plans to invest in district heating and the plant may not achieve more than 35% efficiency levels. We're particularly concerned that the Green Investment Bank will step in to help finance this plant.

3. Burning biomass to generate electricity releases harmful pollutants and worsens air quality.

Pollutants emitted by biomass power stations include nitrogen dioxide, carbon monoxide, sulphur dioxide, heavy metals, dioxins and furans, and small particulate matter. All of which have significant impacts on human health, according to Environmental Protection UK. [10]

4. Burning biomass to generate electricity is bad for the economy.

Generating electricity from biomass requires high levels of capital investment compared to the employment it generates. A 100 MW biomass power station, for example, can attract around £51 million in subsidies under the Renewables Obligation, but typically only create 40 direct full-time jobs. This means that a single job costs £1.2 million. Far more jobs could be created if these subsidies were redirected, for example towards home insulation or installing solar panels. [11][12]

carbon emissions, such as, home insulation, wind and solar energy generation, waste minimisation, and recycling.

[1] DUKES Renewable Energy Statistics 2014,

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338750/DUKES_2014_printed.pdf, Chart 6.1

[2] <http://www.nao.org.uk/wp-content/uploads/2015/01/UK-Guarantees-scheme-for-infrastructure.pdf>

[3] http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Biofuels%20Annual_The%20Hague_EU-27_8-13-2013.pdf

[4] <http://www.biofuelwatch.org.uk/wp-content/maps/uk-biomass.html>

[5] http://www.rspb.org.uk/images/biomass_report_tcm9-326672.pdf

[6] <http://www.biofuelwatch.org.uk/biomass-resources/resources-on-biomass/>

[7] [https://www.gov.uk/government/publications/life-cycle-impacts-of-](https://www.gov.uk/government/publications/life-cycle-impacts-of-biomass-electricity-in-2020)

[biomass-electricity-in-2020](https://www.gov.uk/government/publications/life-cycle-impacts-of-biomass-electricity-in-2020)

[8] <http://www.pfpi.net/carbon-emissions>

[9] <http://www.dogwoodalliance.org/wp-content/uploads/2013/05/Biomass-Scientist-Letter-to-EU-Government.pdf>

[10] http://www.iaqm.co.uk/text/guidance/epuk/biomass_guidance_scotland.pdf

[11] http://www.wpif.org.uk/Make_Wood_Work_News.asp

[12] More Jobs, Less Waste. Anna MacGillivray of URSUS consulting (primary author), September 2010. Available from: http://www.foe.co.uk/resource/reports/jobs_recycling.pdf