



## What is BECCS?

The idea behind BECCS, *Bioenergy with Carbon Capture and Storage*, is in part quite similar to CCS, *Carbon Capture and Storage*. However where BECCS goes a step beyond CCS is that Drax<sup>1</sup> and other biomass burning companies proposing to use the technology argue that if they can capture the emitted CO<sub>2</sub>, burning biomass can become carbon negative and a climate solution! (This is based on the false premise that burning wood is carbon neutral) In 2019, Drax announced<sup>2</sup> its ambition to become a "carbon-negative" company by 2030. Drax proposes that it will continue burning biomass and that with BECCS technology it will be able to capture up to 16 million tonnes of the CO<sub>2</sub> it emits through its wood burning per year.

## Unproven technology

These proposals are very worrying as they are based on unproven technology which Drax itself has admitted it has no real world evidence to show the effectiveness of<sup>3</sup>. All new technologies go through certain stages or levels before they can be scaled up commercially. There are nine such levels, according to a UK parliamentary briefing<sup>4</sup>. CCS linked to biomass burning is between levels 4 and 5. Drax claim they can jump straight to level 9 overnight, with no further work in between. There's no precedent for such a technology jump!

## False solutions = false sense of security



Yet climate policies and targets are starting to build BECCS into their modelling - thus putting real emissions reductions further off into the future. Allowing the continued inclusion of BECCS in climate modelling presents a very real risk that the government will continue to subsidise biomass burning at Drax in the hope that BECCS will one day work allowing the continuation of all the negative impacts currently

associated with biomass burning on forests, biodiversity, human health, communities and the climate.

1 [banktrack.org/company/drax\\_group#\\_](https://banktrack.org/company/drax_group#_)

2 [www.drax.com/press\\_release/drax-sets-world-first-ambition-to-become-carbon-negative-by-2030/](https://www.drax.com/press_release/drax-sets-world-first-ambition-to-become-carbon-negative-by-2030/)

3 [biofuelwatch.org.uk/2021/drax-plcs-carbon-capture-claims-not-based-on-any-real-world-evidence-company-reveals-to-campaigners/](https://biofuelwatch.org.uk/2021/drax-plcs-carbon-capture-claims-not-based-on-any-real-world-evidence-company-reveals-to-campaigners/)

4 [publications.parliament.uk/pa/cm201011/cmselect/cmsctech/619/61913.htm](https://publications.parliament.uk/pa/cm201011/cmselect/cmsctech/619/61913.htm)

## Pie in the sky subsidy scam

While it is extremely unlikely that Drax will be technologically able to fulfil its promise, there is a very real risk the company will use it to secure more funds to keep burning biomass beyond 2027, when its current subsidies will run out. Drax has in fact already submitted evidence to parliament<sup>5</sup> indicating that this is exactly what it is proposing by saying 'We believe that for a BECCS power project the most efficient mechanism to achieve this would be a dual power CfD and negative emissions payment' by which Drax means it wants different subsidies, one for business as usual biomass burning for electricity, regardless of capturing even a molecule of CO<sub>2</sub>, and another one in case it manages to capture some CO<sub>2</sub>.



*Drax power station in North Yorkshire*

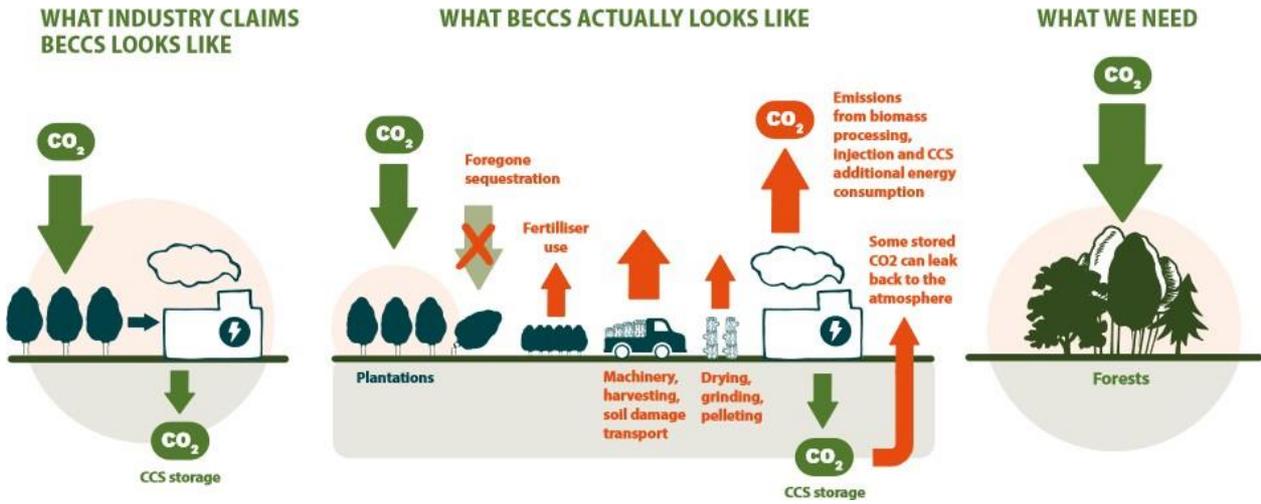
## CO<sub>2</sub> emissions

Drax Power Station in Yorkshire is currently the UK's single biggest carbon emitter. If BECCS is accepted and subsidised as a climate solution, Drax will continue to be responsible for releasing vast amounts of CO<sub>2</sub><sup>6</sup>: even if it works, emissions associated with harvesting, transport and foregone sequestration (CO<sub>2</sub> that would have been sequestered if the trees were left standing) cannot be captured. *That's if it works*. So far, as already stated, Drax admits itself that BECCS is not technically anywhere near deployment. It is worth noting that the fossil fuel industry has been promising it will deliver on CCS for decades yet worldwide, there is currently only one commercial-scale CCS project<sup>7</sup> involving combustion of a solid fuel (coal): the Boundary Dam Power Station, owned by SaskPower, in Saskatchewan, Canada. That plant has fallen well short of its carbon capture target.

<sup>5</sup> [committees.parliament.uk/writtenevidence/40493/pdf/](https://committees.parliament.uk/writtenevidence/40493/pdf/)

<sup>6</sup> [nrdc.org/sites/default/files/bad-biomass-bet-beccs-ib.pdf](https://nrdc.org/sites/default/files/bad-biomass-bet-beccs-ib.pdf)

<sup>7</sup> [biofuelwatch.org.uk/wp-content/uploads/Biofuelwatch-response-to-Environmental-Audit-Committee-Call-for-Evidence-on-NETs-October-2021.pdf](https://biofuelwatch.org.uk/wp-content/uploads/Biofuelwatch-response-to-Environmental-Audit-Committee-Call-for-Evidence-on-NETs-October-2021.pdf)



Source: [fern.org/publications-insight/six-problems-with-beccs-57/](https://fern.org/publications-insight/six-problems-with-beccs-57/)

### Continued harm to forests, wildlife and communities



The increased global demand for wood created by subsidising biomass burning increases harm to forests resulting in increased biodiversity loss<sup>8</sup> Logging for biomass leads to negative impacts on Environmental Justice<sup>9</sup>: wood pellet mills are often sited in poor communities of colour and release significant amounts of wood dust and air pollution with associated harm to health.

Photo: Enviva Pellet Mill, SE USA, by Dogwood Alliance



*Cerulean Warbler – one of the many endangered species impacted by Drax's forest destruction*



*Louisiana Black Bears are another species threatened by biomass sourcing. All animals living in a forest cut down for biomass lose their home*

<sup>8</sup> [cutcarbonnotforests.org/wp-content/uploads/2021/03/uk-biomass-threatens-global-biodiversity-fs.pdf](https://cutcarbonnotforests.org/wp-content/uploads/2021/03/uk-biomass-threatens-global-biodiversity-fs.pdf)

<sup>9</sup> [huffingtonpost.co.uk/entry/biomass-energy-power-plants\\_n\\_61bcb6cae4b0a3722477d16a](https://huffingtonpost.co.uk/entry/biomass-energy-power-plants_n_61bcb6cae4b0a3722477d16a)

## **Harmful chemical by-products from carbon capture**

Specifically related to BECCS, the carbon scrubbers Drax plans to use, which use chemicals called amines, will release by-products which are known to be carcinogenic and will add to the air pollution that Drax contributes to the already highly industrially polluted Humber area.

## **Legitimising fossil fuel burning**

In addition, hype about BECCS legitimises more fossil fuel burning, because it promotes the false promise that the resulting CO<sub>2</sub> can be scrubbed from the air again one day.

## **BECCS – Business Enriching, Climate Collapsing Scam**

In sum it means that all the impacts of biomass energy that we have been campaigning against for the last decade will continue for longer into the future and Drax will continue receiving public money that could and should be spent on genuinely lower carbon and more sustainable energy instead. Biomass is as much of a threat as continued fossil fuel use and extreme energy extraction such as fracking, if not more so as it is being lauded as an environmental solution, with BECCS used to legitimise both biomass and continued fossil fuel burning. More information on BECCS can be found in Biofuelwatch's report BECCS: Last ditch climate option or wishful thinking: <http://www.biofuelwatch.org.uk/2016/beccs-report-hbf/>

## **The Humber Pipeline**

Drax's BECCs plans are predicated on the success of the Humber pipeline, part of a wider CCS project for the Humber area and which will involve pumping highly pressurised CO<sub>2</sub> out to sea with associated risks including pipeline rupture and explosions<sup>10</sup>. Drax's connection to the pipeline will necessitate CO<sub>2</sub> crossing a longer distance to reach the sea thus increasing these risks.

## **What you can do to help stop Drax's BECCS scam?**

Drax has applied for planning permission to build BECCS on two of its smokestacks at its power station in Selby. This has been accepted for consideration by the planning inspectorate and is open for people to register objections. It is essential that people object to this and call on the planning inspectorate to reject their application. If this is approved this opens the door for £billions more in subsidies for burning trees. You can go to our website to see how to do this and relevant objections. Contact us at **biofuelwatch@gmail.com** to get signed up.



10 [www.youtube.com/watch?v=JCibCIPbrsU](http://www.youtube.com/watch?v=JCibCIPbrsU)