

Drax 101

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What is Drax?

Drax Power Station in North Yorkshire was once the UK's largest coal-fired power plant. Starting in 2003, it was [gradually converted](#) to run on biomass, and it now burns millions of tonnes of imported wood pellets every year.

This was sold as a green alternative to fossil fuels, and Drax has already pocketed billions in government subsidies on that basis.

But in reality, Drax's green credentials are based on dodgy accounting – burning biomass for power in this way creates as much carbon pollution as coal or gas.

Drax is actually the [UK's single largest carbon emitter](#) and [world's biggest tree burner](#) (woody biomass burning power station). Drax's actions have been repeatedly linked to driving environmental racism and causing huge amounts of harm to communities, forests and biodiversity.

Now Drax is now pushing for even more public money to fund unproven carbon capture technology.

Where does Drax get its wood from?

Drax sources its wood pellets predominantly from North America (particularly Southeastern US and British Columbia), the Baltic States and Brazil. Drax owns their own pellet production sites in the US and Canada (including Pinnacle Pellets) and is also supplied by Enviva, the world's biggest pellet producer.

Drax has been found to be sourcing their wood pellets from primary forests in British Columbia, from protected forests in Estonia, and biodiverse forests in the Southern US. They also source from monoculture pine plantations in the US, and from waste wood or residuals from the timber industry. Drax's stats suggest that at least half of their pellets come from whole trees. Last year (2023) Drax sourced 8 million tonnes of biomass and burned 6 million tonnes of wood pellets - roughly equivalent to 27 million trees.

Surely it's still greener than burning fossil fuels?

Unfortunately, no. Alongside being the cause of huge amounts of clear felling, Drax emits huge amounts of carbon. Per unit of energy generated, wood

biomass emits as much or more carbon than coal. The carbon payback period (regrowth and reabsorption of carbon by trees) is estimated to be between 44-104 years. So even if you could guarantee that every tree taken was replaced (which of course Drax can't), carbon absorption in the future is no help in dealing with the emergency we are facing in the present.

Wood biomass is counted as carbon neutral under international carbon accounting rules, thereby allowing Drax and other tree burners to count this energy as carbon neutral. This is despite overwhelming scientific evidence that burning wood is just as bad or worse than burning fossil fuels.

What do scientists say about this industry?

"The goal to halt and reverse the global loss of nature could fail due to the growing pressure on forests from this industry" - From ['Scientists urge end to burning forest biomass for energy for sake of nature and biodiversity: Letter to work leaders ahead of COP27'](#) signed by over 670 scientists (2022)

The use of woody biomass for power "is not effective in mitigating climate change and may even increase the risk of dangerous climate change" - [European Academies Sciences Advisory Council](#) (2021)

"Assuming biofuels are carbon neutral may worsen irreversible impacts of climate change" - [Sterman et al. \(2018\)](#) Environmental Research Letters

"Old-growth forests in British Columbia are almost gone because of 70 years of logging to feed sawmills and pulp mills, and Drax is helping push our remaining ones off the cliff, along with our native biodiversity" - [Michelle Connolly](#), Ecologist (2024)

"IPCC Guidelines do not automatically consider or assume biomass used for energy as 'carbon neutral', even in cases where the biomass is thought to be produced sustainably" - [Intergovernmental Panel on Climate Change \(IPCC\) Taskforce on National Greenhouse Gas Inventories FAQs](#)

"To help manage uncertainties and risks associated with CO2 removal at large scales, our dependence on it should be limited by reducing emissions faster." - [The State of Carbon Dioxide Removal](#) (2023)

"By 1850, the use of wood for bioenergy helped drive the near deforestation of western Europe, even when Europeans consumed far less energy than they do today. Although coal helped to save the forests of Europe, the solution to replacing coal is not to go back to burning forests, but instead to replace fossil fuels with low carbon sources, such as solar and wind." - From ['Letter from scientists to the EU Parliament regarding forest biomass'](#) signed by over 770 scientists (2018)

"There should be no role for large-scale unabated biomass generation beyond expiry of existing subsidy support in 2027." - ['Delivering a reliable decarbonised power system'](#) Climate Change Committee (2023)

Who pays for this?

You are! Drax's polluting business is only viable with huge amounts of public subsidy.

Due to the classification of wood biomass as carbon neutral and a renewable form of fuel, this allows biomass power stations to receive huge amounts of renewable energy subsidies. Drax receives two types of subsidies - Renewable Obligation Certificates (ROCs) and Contracts for Difference (CfDs). A large part of these subsidies come from a surcharge on our energy bills, known as the 'green levy'. This is meant to subsidise real renewable energy, not Drax's dirty pollution.

In 2023, whilst making record profits for the second year in a row, Drax received around £690m in subsidies - nearly £2 million per day. This came on the back of Drax making record profits (£1.2bn - up from £731m in 2022, and £398m in 2021). In 2021 Drax received £893m in subsidies - the reason for the decrease in 2022 and 2023 is the sharp rise in energy prices.

Drax's current subsidies are due to expire in 2027, and by then it will have received a massive £11bn in green subsidies. A large part of these subsidies come from our energy bills, meaning we're all forced to foot the bill for Drax's tree burning.

The good news is - if we stop the subsidies we can stop Drax!

What's happening with the subsidies now?

Drax knows its dirty business isn't viable without huge amounts of public money; which is why it's currently lobbying the Government for billions more in tree burning business as usual subsidies.

In early 2024, the previous Government consulted on new 'transitional' subsidies which could cost the public up to £2.5bn per year. These subsidies would be for business-as-usual tree burning, with no clear end date in sight.

Drax claims that it needs these subsidies to, in the future, install unproven Bioenergy with Carbon Capture and Storage (BECCS) technology. However, regardless of the fact that BECCS doesn't exist at scale, won't solve Drax's carbon emissions, and will encourage continued harm to forests, biodiversity, communities and the climate, the current subsidies Drax is pushing for are for purely unabated tree burning.

What's the deal with BECCS?

Drax is now lobbying for subsidies, and have been granted permission to build BECCS on two of its generators. Due to the way wood biomass emissions are counted, Drax (and the Government) believe this will be able to deliver 'negative emissions' allowing them to offset other areas (fossil fuels, hard to decarbonise sectors etc). This is despite the fact that BECCS for wood biomass does not exist anywhere in the world, the few trials that have been done have been extremely small and there is no evidence that BECCS can work at scale.

Recent research shows that, “Drax will [keep raising the levels of carbon emissions](#) in the atmosphere until the 2050s despite using carbon capture technology.” This is because left to themselves, trees continue to grow, and would capture carbon faster than occurs on that land after harvesting, even if new trees are planted. Drax claims of negative emissions relies on fundamentally flawed carbon accounting loopholes which claim burning trees is already ‘carbon neutral’ – despite it emitting as much carbon as gas or coal. The new study found “that the intensive forest management needed to source 7m tonnes of wood pellets from forests in the US to burn as fuel every year would erode the carbon stored in the ecosystems of these pine forests for at least 25 years”.

We already have proven carbon capture – trees. Cutting them down, shipping them around the world and burning them in the UK destroys vital carbon sinks at the time when we need them most.

Four fundamental problem with Drax's plan to install carbon capture and storage:

- Billions have been spent across the globe on CCS but no one has succeeded in making the technology work at scale to benefit the climate. Spending billions of pounds betting on a technology that may not work, is not needed for power generation anyway and is not zero carbon makes zero sense.
- Because Drax burns trees and trees come from complicated ecosystems with complicated carbon cycles and regrowth patterns, carbon capture and storage won't solve Drax's (our) carbon problem even if it does work as a technology.
- CCS is wildly expensive. Even if it did 'work' the expense will be added to people's bills already the highest in Europe. CCS, such as it is, needs to be used only for essential cases and Drax isn't one of them.
- Building BECCS would do absolutely nothing to alleviate the impacts on forests, communities or biodiversity. In fact, the precise opposite would happen - it would continue driving the felling of vital forests, pollution of communities and biodiversity decline.

The Government is currently deciding on funding mechanisms for BECCS, with the proposed one being dual CfDs - giving one subsidy for energy production

and one for capturing carbon. This creates the very real possibility that Drax (and Lynemouth) could receive subsidies for business as usual without needing to capture any carbon. We expect a final decision on BECCS subsidies to be in 2027.

Land use

A recent report demonstrates that by 2050 the area of forest required for UK bioenergy plans (17.7m hectares) could be nearly as much land as the whole UK (24m hectares).

The world is experiencing a climate and biodiversity crisis. Each one a threat to the integrity and liveability of the earth system. To stop the devastating decline in biodiversity we have to stop encroaching on wild nature. To solve climate change we have to increase not decrease natural carbon sinks like forests. Given the UK already imports around 40% of its food its international land footprint is already huge.

Renewables like solar and wind require little or no forest or agricultural land and can be constructed in places where they have no or minimal impact on biodiversity. Even solar pv on farmland produces over [40 times more power](#) than the same land growing biomass for electricity. Using lots of land for bioenergy squeezes scarce agricultural and forestry land, pushing up the price of food and reducing the critical function of natural carbon sinks.

Energy Security

Labour makes a persuasive argument that importing oil and gas reduces the UK's energy security. The same argument can and should be made for Drax which imports around 99% of the wood pellets it burns. Drax mainly imports from countries allied to the UK but these imports still leave the country exposed to political change and shifts in the energy consumption, land use and climate patterns of other countries. This leaves the UK vulnerable to price shocks and sky high energy bills.

Rather than relying on imported energy, an electricity grid built on UK renewables and storage massively increases the UK's energy security.

What impact does this have on communities?

Drax has been repeatedly accused of driving environmental racism and climate colonialism.

A recent investigation found that Drax has broken environmental regulations [over 11,000 times](#) in the US. Making wood pellets emits huge amounts of VOCs and hazardous air pollutants (the worst quantified level in the US); including

PM2.5, PM10 and formaldehyde. These pollutants are linked to respiratory and pulmonary issues, and many of them are cancer causing. These pellet production sites are [twice as likely](#) to be located in [low-income communities of colour](#), putting the health of those already marginalised at greater risk.

Surveys of community members living locally to pellet production sites find that the majority of people living close to pellet mills experience dust every day and that air pollution and dust concerns [prevent them from regularly doing things outdoors](#). The majority (86%) of surveyed households reported at least one family member diagnosed with one or more diseases associated with wood pellet mill pollution. Forest degradation also [destroys natural barriers](#) that mitigate the most severe consequences of weather events; with the loss of forests leaving communities [more vulnerable to severe floods](#).

What is green colonialism?

Broadly speaking, green colonialism is the practice of appropriating and exploiting land and resources for environmental purposes in a way that results in unjust development, including harm to health, extraction of vital resources, exploitation of labour and displacement.

In the case of Drax, what we see is a UK corporation, funded by the UK Government, extracting resources (vital forests) from the Southern US and Canada (often from unceded indigenous land) to claim green credentials in the UK. The emissions from burning trees are not counted in the UK, nor are the devastating health impacts caused by the woody biomass industry primarily impacting people in the UK. Instead, the UK is exporting both emissions and the health impacts of the tree burning industry abroad, whilst claiming the so-called benefits.

When looking at the siting of wood pellet production sites in the Southern US, there is almost a direct overlap with historical sites of cotton picking and slavery. What we're seeing in these maps, is what US environmental justice campaigners have likened to 'modern day slavery' where instead of importing cotton, the UK is importing wood pellets. The communities being harmed by Drax's wood pellet production are primarily Black, low income communities that have been exploited, harmed and marginalised for centuries. This is now happening in the name of false green energy for the UK.

Drax cannot be trusted.

Drax has repeatedly demonstrated that it cannot be trusted by the public, bill payers or the government.

In 2024 Drax paid £25 million to Ofgem over misreporting of its sustainability data.

Drax's [own climate advisors](#) have called on Drax to stop describing burning woody biomass as 'carbon neutral' – disputing the whole claim that Drax's business model rests upon.

Following multiple investigations by BBC Panorama exposing Drax's sourcing from Primary and Old-Growth forests in British Columbia, it was [exposed in Drax's own internal emails](#) that they acknowledge it was 'highly likely' they had burnt wood sourced from old forest areas in Canada deemed to be environmentally important.

In 2024, Drax handed [£300 million to shareholders](#) from their half-year profits, whilst receiving £393m in public subsidies: our energy bills are funding Drax's shareholders.

There is nothing green, or clean about Drax's dirty tree burning. This is a company that has repeatedly demonstrated that it will take as much of our money as possible to burn trees, pollute communities and destroy our planet for the profit of its shareholders. It is past time that we end Drax's dirty scam.