

Summary of Biofuelwatch's oral submission for the Drax
Bioenergy with Carbon Capture and Storage Project Open Floor
Hearing 18/1/23

1. Health impacts relating to use of amine solvents and impurities in the flue gas

- The proposal is not a sustainable development as defined in the National Planning Policy Framework, since it is not compatible with supporting communities' health due to concerns about the health impacts of the chemicals that will be used.
- There are no real-world examples on which to assess the release of amine degradation products from BECCS using woody biomass as Drax itself admits this is the first project of its kind globally.
- The flue gases are different to those of fossil fuel CCS. Drax is demolishing its flue gas desulphurisation plant because the lower sulphur levels released to the atmosphere from biomass flue gases are within legal limits. However, they are at a greater level than with desulphurised fossil emissions, which will lead to different degradation products within the carbon capture system.
- The presence of increased sulphur and other particles mean a direct comparison with CCS cannot be made in terms of the release of harmful amine degradation products (nitrosamines, nitramines and others).
- Drax acknowledges in its application that existing toxicological data indicates that most nitrosamines are carcinogenic. Moreover, although there is commercially available modelling software, these results cannot be validated due to there being no real world examples on which to test it.
- BEIS's Biomass policy statement 2021 states that research and updated regulation will also be required to understand and address any air quality impacts from BECCS, including emissions associated with carbon capture solvents. This was published in November of that year which was after levels were set for monoethanolamine (MEA) and N-Nitrosodimethylamine (NDMA) in September of that year following a consultation by the Environment Agency.
- The Environment Agency say in next steps: "We will also consider the need to develop British Standards for monitoring of emissions from carbon capture systems and in ambient air because, as to date, there are no certified standards for continuous emission monitoring (CEMS), periodic monitoring or ambient air quality monitoring" [REDACTED] This is not yet in place.
- In addition, there is a lack of transparency from Drax as to the particular solvents it intends to use with reasons of commercial confidentiality cited.
- There is a paucity of research on the health impacts of amines and their degradation products when released into the environment and given their limited use and monitoring there is a total lack of epidemiological data.
- The combination of these issues makes it very difficult to judge the accuracy of Drax's projections and therefore the likely public health impacts of the proposed scheme

- There is a widely-accepted principle of using the reasonable worst-case scenario in models - given all of the above it is difficult to have confidence that Drax's figures represent such a scenario.
- It is also of note that there is no reference in Drax's application to occupational exposure to amine degradation products.
- This is concerning given Drax is currently being taken to court by the Health and Safety Executive regarding exposing its workers to wood dust.
- The onus should be on Drax to transparently demonstrate it has adequately assessed these risks.

2. Biodiversity impacts of the proposed development:

- According to the Ecology Report [REDACTED], the proposed development is likely to lead to the disturbance and degradation of vital habitats and it risks harming a wide range of protected species.
- Drax's non technical summary of the Environmental Statement notes that: 'Likely effects from construction and decommissioning include disturbance and clearance of habitats, disturbance of protected species, and the risk of release of water-borne pollutants from plant and other machinery' [REDACTED] p.32)
- The proposed development will adversely impact nationally- and internationally-designated areas that cannot be adequately mitigated or compensated for.
- Areas close to the site that are likely to be impacted include ten international and 12 national statutory designated sites within 15 km of Drax Power Station and nine non-statutory designated sites of county importance within 2 km of the Proposed Scheme.
- These include the River Ouse which forms part of the Humber Estuary Ramsar Site, Special Conservation Area (SAC), Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI) and the River Derwent which is a Special Conservation Area close to the Power Station. [REDACTED]
- It is therefore not a sustainable development as defined by the National Planning Policy Framework because it fails to protect the natural environment or enhance biodiversity by 'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.' [REDACTED] 174,d)
- Moreover, the proposed development is incompatible with:
 - a) Commitments made in the Environment Act 2021 to support the "conservation and enhancement of biodiversity in England"
 - b) The aims of the Defra Nature Recovery Green Paper (March 2022) "to address the drivers of nature's decline including habitat deterioration, loss and fragmentation".

Risk of harming protected and notable species

- Drax's environmental statement also states that a large number of protected and notable species have been identified within 2 km of the proposed project site, including bats, badgers, otters, water voles, breeding and wintering birds, reptiles, fish and plants.
- Moreover, Drax's Ecology Report notes that habitats within and close to the project site are suitable to support protected and notable species and these areas will be impacted.
- The Government Circular 'Biodiversity and Geological Conservation - 06/2005' stipulates that: "The presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat".
[REDACTED] paragraph 98)

The application for consent is deficient in that:

- A) It relies on some outdated species surveys from 2018 and therefore does not properly assess the impact on biodiversity of the proposed development.
- The surveys that were only conducted in 2018 include the Reptile survey [REDACTED], the otter and water vole survey [REDACTED], the Breeding Bird Survey [REDACTED], the Bat building emergence survey [REDACTED] and the Bat tree roost Assessment survey [REDACTED].
- It is concerning that Assumption C of the Environmental Statement [REDACTED] states that: 'Unless otherwise stated, the ecological baseline pertaining to protected and notable species has not changed significantly since the ecological impact assessment within the Drax Repower Environmental Statement in 2018.'
- We believe that more evidence is required to prove that new surveys are not required, particularly as the worsening climate crisis means that the environmental conditions for species may have changed since 2018.
- As many of these species are mobile, there are concerns that the development could impact in some cases on populations of local or county value and the mitigation proposed may not be sufficient for all species.
- B) it does not pay sufficient attention to the potential for damage to watercourses by sediment and accidental release of chemicals.
- Given that there are multiple important sites for biodiversity, this should be taken into account when considering the applicant's request to begin construction before the relevant permits have been granted.

3. Imported fuel reliance:

- We are aware Drax has no intentions to expand wood sourcing from within the UK. This makes them reliant upon importing wood pellets to burn and continuing reliance upon imported fuel. This is contrary to government policy which aims to increase domestic supply of fuel due to issues of fuel security.