

Biofuelwatch Deadline 3 comments on any other responses received by deadline 2

Comments on Habitat Regulations Assessment Volume 1 REP2-101

In section 5.9 of the applicant's responses to issues raised at Deadline 1, Drax claims that 'No significant adverse effects on internationally and nationally designated sites are expected.' However, section 3.3.20 of Drax's Habitat Regulations Assessment Volume 1 lists a number of potential biophysical changes from the proposed development that could lead to effects upon biodiversity and European Sites. These include:

- a) 'Permanent or temporary loss and disturbance of habitats to facilitate construction or decommissioning activities and installation of BECCS and supporting infrastructure;
 - b) Disturbance of species using habitats lost or disturbed during construction or decommissioning;
 - c) Emissions of dust from construction or decommissioning activities;
 - d) Increased sediment loading of aquatic habitats receiving drainage from construction or decommissioning areas;
 - e) Accidental releases of water-borne pollutants such as hydrocarbons affecting water quality of aquatic habitats receiving drainage from construction areas.'
- We do not believe that these impacts comply with the requirement set out in section 1.3.5 of the Habitats Regulations Assessment Volume 1: "Maintaining a coherent network of protected sites with overarching conservation objectives is still required in order to: a. Fulfil the commitment made by government to maintain environmental protections; and b. Continue to meet our international legal obligations, such as the Bern Convention, the Oslo and Paris Conventions (OSPAR), Bonn and Ramsar Conventions."
 - Moreover, section 3.3.33 of the Habitats Regulations Assessment volume 1 notes that the proposed development could lead to harmful impacts on European sites and wildlife during the operation phase. These impacts include:
 - a) 'increased concentrations or deposition rates of chemical species onto European Sites surrounding the Proposed Scheme' due to emissions of treated flue gases into the atmosphere;
 - b) 'Disturbance of species as a result of noise generated by operation of the Proposed Scheme; and
 - c) Accidental releases of water-borne pollutants, for example effluent sludge treated or stored at the Carbon Capture Wastewater Treatment Plant. This could affect water quality of any aquatic habitats affected by such a release.'

Comment on responses to issues raised at deadline 1 REP2-067

- At 5.15 the applicant refers to *BAT Review for New-Build and Retrofit Post-Combustion Carbon Dioxide Capture*¹ This in turn refers to *Towards Zero Emissions March 2019*² In which a literature review was conducted including an examination of the two large-scale CCS projects that were operating at the time the Boundary Dam and PetraNova where it states that 90% of the CO₂ is captured from the flue gas directed to the capture plant.
- As we have already commented in our deadline 2 written submission REP2-073, Boundary Dam failed to realise these high capture rates. The only other large plant mentioned in this literature review is PetraNova. PetraNova, a Texas coal-fired CCS plant was mothballed in 2020. Overall, Petra Nova captured 662,000 fewer metric tons of CO₂ than projected during its first three years of operation - 16% below its 90% target. The plant was closed for financial reasons.³
- We request that the ExA asks the applicant to provide evidence that is not theoretical of 90-95% carbon capture rates being achieved in real life and at scale.

Comments other consents and licenses REP2-020

- We note that in document REP2-020 'other consents and licenses' Drax is applying for a Greenhouse Gas Permit. We request that the ExA asks Drax why it needs to apply for a Greenhouse Gas Permit, given this scheme is supposed to reduce Greenhouse Gas Emissions.

Comments on Drax's Planning Statement Addendum REP2-019

- Finally, we challenge Drax's assertion at 1.6.4 of its planning statement addendum REP2-019: "*The Proposed Scheme will ensure the continuation of an existing source of renewable power whilst reducing the carbon emissions associated with the process, thereby directly responding to the challenge of climate change.*"
- In fact the scheme would reduce a source of what is considered to be renewable power with a promise of reducing the carbon emissions associated based on a technology which has not been used at scale, and of which all real world evidence points to achievable carbon capture rates being much lower than predicted.

¹ Gibbins, J., Lucquiaud, M. (2022) *BAT Review for New-Build and Retrofit Post-Combustion Carbon Dioxide Capture Using AmineBased Technologies for Power and CHP Plants Fuelled by Gas and Biomass and for Post-Combustion Capture Using Amine-Based and Hot Potassium Carbonate Technologies on EfW Plants as Emerging Technologies under the IED for the UK,*

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² *Towards Zero Emissions CCS in Power Plants Using Higher Capture Rates or Biomass, IEAGHG Technical Report 2019-02 March 2019. International Energy Agency Greenhouse Gas Research and Development Programme*

³ *IEEFA (2020a). Petra Nova Mothballing Post-Mortem: Closure of Texas Carbon Capture Plant Is a Warning Sign. Dennis Wamsted, Analyst/Editor David Schlissel, Director of Resource Planning Analysis August 2020 Institute for Energy Economics and Financial Analysis*