

Biofuelwatch comments on revised draft NPS EN-1

Increasing electricity generation capacity, affordability and security of supply

There is an overarching emphasis on increasing electricity generation capacity (2.3.3, 2.36, 2.3.7) – the application for applying BECCS to Drax is not compliant with this because as stated in previous representations the energy penalty from the carbon capture process will significantly reduce the electricity output to the grid from Drax. Security of supply is also highlighted, (2.33, 2.36, 2.5, 3.3.1), reducing capacity is not compatible with this. Affordability is also highlighted, (2.33, 2.36) – BECCS at Drax is not compatible with this as the energy penalty will increase the per unit cost of electricity, and will also be heavily reliant on public subsidy.

Reducing reliance on imports

Reducing reliance on imports is mentioned in relation to fossil fuels (2.5.6) *so as to ensure a **domestic** supply of clean, affordable, and secure power as we transition to net zero* (emphasis added). Drax's current business model is heavily reliant on imported woody biomass so is not compatible with this.

Weighing impacts and benefits

4.1.5 *"In considering any proposed development, in particular when weighing its adverse impacts against its benefits, the Secretary of State should take into account: • its potential benefits **including its contribution to meeting the need for energy infrastructure...**"* (emphasis added) BECCS at Drax reduces its contribution to meeting the need for energy infrastructure so this should be considered as an adverse impact.

Minimum capture rates

4.8.3 *"Carbon capture rates achieved will depend on the application and a minimum capture rate may be required."* This demonstrates that the policy framework does not yet exist for consenting the application of the technology. Consent should only be granted at a point where there is a clear framework in place to set minimum capture rates, with clear guidelines for both the Applicant and the ExA.

Demonstration projects yet to be realised

4.8.5 The government has made its ambitions for CCS clear - committing to providing funding to support the establishment of CCS in at least four industrial clusters by 2030 and supporting, using consumer subsidies, at least one privately financed gas CCS power station in the mid-2020s. 123 In October 2021, the government published its Net Zero Strategy which reaffirmed the importance of deploying CCUS to reaching our 2050 net zero target and also outlines our ambition to capture 20-30Mt of CO₂ per year by 2030.

4.8.6 The barriers to CCS deployment to date have been commercial rather than technical, and the business models, which may evolve over time, aim to support the deployment of the technology.

This is quite different from the last published version of EN-1, where at 3.6.5 it says: “*The Government is leading international efforts to develop CCS. This includes supporting the cost of four commercial scale demonstration projects at UK power stations. The intention is that each of the projects will demonstrate the full chain of CCS involving the capture, transport and storage of carbon dioxide in the UK. These demonstration projects are therefore a priority for UK energy policy. The demonstration programme will also require the construction of essential infrastructure (such as pipelines and storage sites) that are sized and located both for the purpose of the demonstration programme and to take account of future demand beyond the demonstration phase. The IPC should take account of the importance the Government places on demonstrating CCS, and the potential deployment of this technology beyond the demonstration stage, in considering applications for consent of CCS projects and associated infrastructure*”

This was published 12 years ago and yet these 'demonstration projects' have yet to be realised. This supports our concerns raised previously that CCS, and even more so BECCS, is not advanced enough to be considered as a relevant technology for addressing the climate crisis now. This strongly relates to our concerns about carbon payback periods – the longer it is before BECCS become a reality, the less time is available for carbon sequestered via BECCS to be re-emitted to the atmosphere through sequestration from new tree growth within the time frame available/relevant for the UK to meet its Net Zero by 2050 ambitions.

Lack of information in the application on CO₂ transport and storage

4.8.21 However, development consent applications for power CCS projects should include details of how the captured CO₂ is intended to be transported and stored, how cumulative impacts will be assessed and whether any necessary consents, permits and licences have been obtained.

4.8.29 Government envisages that the technical feasibility study for retrofitting CCS equipment will take the form of a written report and accompanying plant designs which:

- make clear which capture technology is currently considered most appropriate for retrofit in the future to the power station*
- provide sufficient detail to enable the EA or NRW to advise the Secretary of State on whether the applicant has sufficiently demonstrated there are no currently known technical barriers to subsequent retrofit of the declared capture technology.*

4.8.30 The assessment of technological feasibility could be against either:

- an appropriate reference document;*
- or • by the provision of sufficient technical detail by the applicant in their submitted plans and discussions with the advisory body.*

4.8.31 Applicants should conduct a single economic assessment which encompasses retrofitting of capture equipment, CO₂ transport and the storage of CO₂. Applicants should provide evidence of reasonable scenarios, taking into account the cost of the capture technology and transport option chosen for the technical CCR assessments and the estimated costs of CO₂ storage, which make operational CCS economically feasible for the proposed development.

Drax has not completed all of the above, and in light of it not being successful in receiving Track 1 funding for its carbon captures plans, the ability of Drax to transport and store its carbon is cast in yet further doubt

Biofuelwatch comments on revised draft NPS EN-3:

As with EN-1 the draft revised EN-3 has a focus on increasing electricity generating capacity 2.1.1. with, unsurprisingly, an emphasis on renewable electricity generation (2.1.2, 2.1.3, 3.3.16). Biomass is considered as renewable. Although our position is that biomass is not renewable, for the purposes of considering the application against the draft revised EN-3 our previous representations remain relevant – that the energy penalty of adding BECCS to the Drax plant would reduce the UK's renewable electricity generating capacity, so the application is incompatible with the draft revised EN-3

The draft revised EN-3 does refer to BECCS, and mentions the need for carbon capture readiness but this is in relation to new projects, so is not relevant for Drax which is an existing electricity generating project.

It also states at 3.7.15 The Biomass Strategy will establish the role which BECCS could play in reducing carbon emissions across the economy and set out how the technology could be deployed which again highlights that this application is premature in terms of the policy framework by which the ExA can assess it.