A submission for Deadline 6 by James E Hewitt Interested Party 20032086

Critique of Draft Overarching National Policy Statement for renewable energy infrastructure (EN-3)

Summary *(specific critique presented on subsequent pages below)*

The following has been prepared in response to ExQ2: 19 April 2023, item PPL2.3.

If introduced, the *current* draft "Overarching National Policy Statement for Energy (EN-3)" would make it difficult for the applicant to substantiate its claims concerning the sustainability and carbon debt of the imported woody biomass which is (and would be) burned at the heavily subsidised Drax power station. It would also reveal vulnerability concerning what happens to the captured and compressed CO_2 (if any) which leaves the site of the power station.

The applicant's own Independent Advisory Board recommends that the applicant "*should reassess its criteria for determining carbon neutrality*."[1]

In a previous publication[2], that Independent Advisory Board recommended that "*it would be useful to consider what metrics to use for counterfactuals to demonstrate the outcome if Drax had not taken that fibre for biomass*." Much of what the applicant imports from its leading supplier would still be providing valuable ecosystem services in addition to sequestering CO_2 – as trees!

[1] "Drax's Independent Advisory Board – H2 2022 update"

[redacted]

[2] "Drax's Independent Advisory Board – H1 2022 update"

[redacted]

Specific critique

The following comments (in numeric sequence, rather than in order of merit) further question the draft's relevance to the applicant's proposal.

3.4.4 Biomass generating stations may be proposed for coastal or estuarine sites where climate change is likely to increase risks from flooding or rising sea levels, for example.

3.4.5 In such cases applicants should, in particular, set out how the proposal would be resilient to:
• the effects of rising sea levels and increased risk from storm surge;

• increased risk of flooding;

• impact of higher temperatures; and

• increased risk of drought affecting river flows

These clauses do not consider the very evident current position - that the site of the applicant's proposal (by far the largest burner of woody biomass for power in the UK) is neither coastal nor estuarine. As such the draft does not seem relevant either to the applicant's proposal or to the current power station at Drax.

3.5.2 *Proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity, opportunities for co-existence/co-location with other marine uses, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage.*
The applicant insists that its application should ignore all works upstream and downstream of the Drax power station site – concerning the supply of biomass and the conveyance and storage of captured CO_2.

3.6.2 *Where flexibility is sought in the consent as a result, applicants should, to the best of their knowledge, assess the likely worst-case environmental, social and economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed.*
Compliance with this clause would be difficult for the applicant particularly if obliged to demonstrate compliance the upstream concerning its supply of biomass fuel.

3.7.1 The combustion of biomass for electricity generation plays an important role in meeting the UK's energy needs and supports the decarbonisation of the sector. It also has a potentially significant role in supporting delivery towards the UK's net zero target when combined with carbon capture and storage.
However, that role is based on false (but convenient) assessment of the great majority of the biomass which is currently combusted within the UK for electricity generation. Further, the burning of biomass does not help meet the UK's energy needs (and it increases the UK's greenhouse gas emissions, rather than decarbonising the sector). It does however help achieve flawed accounting targets – but targets are not needs.

3.7.5 *Biomass is material of recent biological origin derived from plant or animal matter. The biomass used for heat and power usually falls into one or more of three main categories:*
• biomass derived from forest residues as co-products of conventional forestry management. This includes forest products generated during thinning, felling and coppicing of sustainably managed forests, parklands and trees from other green spaces. It also includes sawmill residues (often processed to produce wood pellets), other wood processing residues and parts of trees unsuitable for the timber industry;

The wording of that bullet point portrays an idealistic description of the sort promoted by the woody biomass pellet industry. It presents a false or misleading description of the reality concerning the great majority of the biomass which is (and according to proponents will be) burned. Conventional forest management has failed to prevent forest land switching from being a carbon sink to a source of carbon emissions. "Conventional" implies unfit to cope with the collapsing climate.

3.7 *Carbon capture readiness*
The applicant's proposal, colloquially referred to as a unicorn, seems intent on furthering an unholy alliance with government. Doing so by answering government prayers – concerning (i) generation of negative emissions (but how much, when and ignoring leakage?) and (ii) capturing 95% of the annual post-combustion CO_2 emitted by two generating units (not one and possibly two, as currently proposed). The applicant already answers some of the government's prayers by giving the false impression that (i) no carbon debt is associated with its imports of wood pellets and (ii) those pellets derive from sustainably managed tracts of woodland. The applicant benefits by securing subsidies sufficient to keep its otherwise loss-making business commercially viable.

3.7.14 *The government recognises the need to prioritise biomass use to applications where it can deliver GHG emission reductions in hard-to-decarbonise sectors, without other viable alternatives, to comply with our net zero and wider environmental goals. One of these priority applications is the use of biomass to deliver negative emissions through Bioenergy with Carbon Capture & Storage (BECCS).*
The application pertains only to carbon capture and compression. It washes its hands of everything which happens to that CO_2 downstream of the power station at Drax. The applicant should be required to prove how much of the CO_2 which it discharges is being permanently stored. That amount should directly influence the amount by which the proposal is carbon negative (if, contrary to reality, its biomass fuel had no carbon debt). The applicant has demonstrated desperation and fundamental weakness in its attempts to oblige the UK government to treat it favourably as a special case – including by breaking rank from its partners in Zero Carbon Humber scheme on which the applicant's proposal is entirely dependent.
BP is said to have acquired the interest of National Grid concerning the pipeline network of the Zero Carbon Humber project. Being better aware of the difficulty of injecting and permanently storing the very large, variable quantities of CO_2 which the proposal now claims it will supply by 2030, BP might be more reluctant than National Grid to accommodate the applicant's CO_2 (at a price which the applicant (/ indirectly the UK electricity consumer) would accept.[3]

3.7.17 *CCR is relevant to proposed biomass plant at or over 300MW of generating capacity, but not to EfW plants.*
If the energy penalty of the carbon capture and compression facility rises above about 50% (as it might when intermittent operation coincides with high financial penalties if demand is not met), then the generating capacity of the two units to which that facility is to be connected affect whether CCR is relevant.

3.7.22 *In assessing the GHG emissions, applicants should take account of emissions associated with cultivation, processing, and transport of biomass for electricity*

[3] The amount of CO2 which would need to be both captured from the two biomass generating units and stored by 2030 would considerably exceed the five million tonnes per annum required to meet the target (for all engineered greenhouse gas removals) referred to in the Department for Energy Security and Net Zero's "Powering up Britain – Energy Security" dated 04 April 2023.

generation and direct land use change. The criteria apply to both domestic and imported material.
Applying both to domestic and imported material, this clause contrasts with the apparent focus on UK sources of supply prevalent in this draft, that of (EN-1) and other relevant government publications. By referring to real emissions not "accounting emissions", this clause undermines the applicant's proposal and (concerning subsidies) the current zero rating for imported woody biomass.
If the criteria which apply to imported biomass are those referred to in the preceding clause (3.7.21), then together they also undermine the applicant's (and the government's) false interpretation of managing tracts of woodland sustainably.

3.7.23 *As a part of the Biomass Strategy government has committed to reviewing the UK's biomass sustainability criteria. Once final guidance is published, we expect that applicants for new installations to comply with any new requirements.*
If "new installations" does not refer to the proposed works, then the draft exempts the proposal. Doing so would presumably be implausible.

3.7.60 to 3.7.72 inclusive fail to require that pollutants, nuisance and harm which occur in the countries of origin of the biomass which the applicant burns – a particular concern expressed during the applicant's truncated Annual General Meeting on 26 April 2023.

3.7.77 *The sustainability criteria will apply to both new and existing generating stations to the extent that they claim renewable electricity support. The RO and CfD regimes (and any successor to them) are critical elements in the business case of most biomass and bioliquid plants, so that in any given case the incentive effect of linking the support to the satisfaction of sustainability criteria may constitute an entirely adequate control on the sustainability of a plant's fuel sources. However, it is possible that the support may not be available for the whole of a plant's operational life, and it is also possible in principle that plants may be able to operate profitably without them at certain periods.*
It is unclear whether this means that sustainability criteria applicable to specific subsidies which were designed in order to meet temporary expedient must apply in perpetuity regardless of their suitability – especially if their *de facto* interpretation has been diluted over time (or otherwise makes then unfit for purpose.

3.7.79 *The Secretary of State should not grant consent to a proposed biomass or bioliquid-fuelled generating station unless it is satisfied that the operator will (so far as it can reasonably be expected to do so) ensure that the biomass or bioliquid fuel it burns meets applicable RO, CfD or any successor incentive regime sustainability criteria, whether or not support is being claimed.*
The Secretary of State should take into account representations by stakeholders critical of the tactics which the applicant adopts when trying to demonstrate that the biomass it burns has no carbon debt, that the woodland tracts from which this derived have been and continue to be managed sustainably, that its proposal to capture and compress carbon is plausible rather than a ploy to secure subsidies and sustain its share price.

3.7.84 *Throughput volumes are not, in themselves, a factor in Secretary of State decision-making……*
The impact in supplying countries of the huge quantities of unsustainable biomass being burned by the applicant should be a matter for the Secretary of State. The applicant burns more wood than is produced in total across the UK.

3.7.86 *Given the importance which government attaches to CHP, for the reasons set out in EN-1 the Secretary of State will need to be satisfied that the applicant has provided appropriate evidence that CHP is included or that the opportunities for CHP have been fully explored. For non-CHP stations, the Secretary of State may also require that developers ensure that their stations are configured to allow heat supply at a later date as described in Section 4.7 of EN-1 and the guidance on CHP issued by then DTI in 2006.*
The applicant seems to have no intention of making any of the waste heat produced at Drax power station available to others.

3.7.89 *Although a carbon assessment will be provided as part of the ES, the policies set out in Part 2 of EN-1 will apply. As set out in Section 5.3 of EN-1, the Secretary of State does not need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and our international climate commitments.*
The Secretary of State should certainly not assume that the applicant's own assessments are credible and comprehensive, especially concerning carbon payback periods – unless of course consideration of carbon debt is prohibited (which would presumably be subject to question in a court of law). All such assessments should report actual emissions as a separate calculation from accounting emissions. Both should take loss of soil carbon, foregone sequestration and evidence of how, where and when the CO_2 emitted at by the power station will be sequestered (bearing in mind that the sequestration capacity of the foreign countries from which the applicant imports woody biomass will be fully utilised in sequestering those countries own CO_2).