

A submission for Deadline 6 by James E Hewitt Interested Party 20032086
Critique of Draft Overarching National Policy Statement for Energy (EN-1)

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

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

The current draft “Overarching National Policy Statement for Energy (EN-1)” conspicuously does not advocate the use of woody biomass as fuel for power stations – and refers only hypothetically to BECCS. This tends to confirm that the applicant’s current business and its proposal do not warrant support (/subsidy).

The draft also conspicuously fails to distinguish between annual crops and the woody biomass which accounts for the great majority of the biomass currently burned in UK power stations - which has a prohibitive carbon debt (/payback period). The draft also conspicuously fails to define “sustainable biomass”. Contrary to what industry-driven certification schemes imply, a substantial proportion, perhaps the majority, of the wood pellets which the UK imports does not derive from sustainably managed tracts of woodland.

As such, it lacks public and (thinking of judicial review) legal credibility.

The draft tends to weaken the untenable arguments of government and the woody biomass power industry that woody biomass power generation should be eligible for subsidy (including through Contracts for Difference or special variants thereon).

Contextual information

Publication of the draft coincides with the expression of senior politicians’ unease about *de facto* policy concerning the burning of imported woody biomass in UK power stations.

The following are abstracts from an article dated 28 March 2023 by Helena Horton and Fiona Harvey of The Guardian entitled “*Net zero tsar and senior Tories among those urging biomass subsidies rethink.*”¹

Now senior Tories have asked the government to rethink its subsidies for Drax, which are paid for the supposed environmental benefits of burning wood. Ed Miliband, the shadow climate change and net zero secretary, also said a Labour government would review the subsidy scheme.

The former business and energy secretary Jacob Rees-Mogg told the Guardian he was “concerned about the environmental benefits of Drax”.....

The former transport secretary Chris Grayling, who chairs the all-party parliamentary group on deforestation, said “we now need to start looking very hard” at the subsidies.

Chris Skidmore, the MP for Kingswood and chair of the net zero review, said: “I think we probably need a new taxonomy for biomass...”

¹ [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.

2.4.6 For Power CCUS, we will introduce the Dispatchable Power Agreement Business Model, to incentivise power CCUS to play a role in the electricity system which complements renewables.

This implies that the draft does not envisage CCUS for fuel from "renewables" (regardless of whether these have been produced sustainably and without prohibitive carbon debt).

3.3.18

Our understanding of what the electricity system will need to deliver during the transition to 2050 and the best way of delivering it will evolve over time. For example, the level of demand it will need to meet will depend on the approach and pace of decarbonisation in other sectors, and the mix of infrastructure and technology that can deliver this in line with our energy and climate objectives will be affected by the different characteristics of existing and new technologies, their relative costs and deliverability. It will also be informed by the costs and availability of GGR technologies, such as Bioenergy with Carbon Capture and Storage (BECCS)

This clause (and the draft) fails to consider demand reduction. BECCS is generally regarded as much the most costly mode of generating dispatched electricity

3.3.43 Bioenergy could provide either baseload or dispatchable low carbon generation.⁵¹

The need for negative emissions to offset residual emissions through BECCS, might provide a case for baseload deployment. In addition, the amount of bioenergy for generating electricity will be constrained by the availability of sustainable biomass...

This recognises that BECCS might not be needed even if sufficient biomass will be available. It excludes the use of BECCS for intermittent power generation – intermittent generations being central to the Applicant's proposal.

3.3.56 All the generating technologies mentioned above are urgently needed to meet the government's energy objectives by:

- providing security of supply (by reducing reliance on imported oil and gas, avoiding concentration risk and not relying on one fuel or generation type)*

Power BECCS in the UK (in the unlikely event that it ever succeeds) would be wholly reliant on a single – imported – fuel, namely woody biomass.

Neither the applicant nor the UK power industry expect to burn substantial quantities of woody biomass from the UK in the foreseeable future.

Imported woody biomass, in the form of pellets, comprises almost all the biomass burned in UK power stations. As the following suggest, there is reason to question the security of supply of that biomass.

A large majority of that biomass derives from North America, primarily USA (whose exports (and production) of wood pellets are dominated by a single supplier, Enviva, whose share price has fallen by two thirds during the last year or so, not least as a consequence of a class action lawsuit based on allegations of fraud by Blue Orca Capital. “Sustainable Aviation Fuel” (presumably mainly for sale in USA at greater profit than exporting wood pellets) is increasingly displacing wood pellet exports in Enviva’s rhetoric. This contributes substantial risk to the UK’s supplies of wood pellets from USA.

Currently, export markets are not paying supplying countries for:

- (i) causing or bringing forward in time CO₂ emissions from the latter’s woodlands from clear-cutting and opportunistic logging to maximise supply and profit – regardless of harm; the export of pellets which derive from sawdust or from what sawmills reject (not necessarily by chance), boosts the commercial viability of sawmilling, thereby increasing pressure on the most valuable woodland.
- (ii) the loss of sequestration caused by that clear cutting or logging.
- (iii) the consequent harm to the soil, to biodiversity and to ecosystem services (for example increasing not only the risk of flooding² and, by changing the albedo, causing increased temperatures, affecting rainfall and, especially if the land is subsequently afforested with fast growing trees, drought.
- (iv) increasing the risk of fire if clear-cut natural forest is replaced with wood plantations (which are increasingly risky by being less resilient than natural forest against pest disease, drought, fire, etc – which will be increasingly exacerbated by the collapsing climate - and which might in any case not be optimised to suit to the soil characteristics).
- (v) the additional sequestration required to make up for (i) to (iv) above – USA and Canada, currently being net emitters of CO₂, should seek to sequester their own natural and anthropogenic emissions before they donate their capacity to sequester foreign countries.

The price of imported wood pellets will rise sharply when the fuels used in shipping are taxed – jeopardising the false “solution” of importing woody biomass to burn in power stations. This would particularly affect exports from Canada (the applicant is the dominant supplier in British Columbia, the province which produces the most wood pellets and where forest exploitation is most controversial) and USA (whose pellet exports are in affect supplied by a duopoly - the applicant’s share being the smaller of the two).

Supplies from the Baltic States are risky not least due to those states’ proximity to Russia. Most of the UK’s other imports of wood pellets derives from wood plantations in Portugal (which are especially vulnerable to fire) and Brazil.

The UK government’s objectives neglect the most obvious and assured way to not exceed an equitably allocated share of the rapidly diminishing global carbon budget – a substantial but equitably apportioned and priced reduction in demand.

² “Severe drought torments British Columbia, a year after devastating floods” Leyland Cecco for The Guardian (19 October 2022)

“A tipping point’: how poor forestry fuels floods and fires in western Canada” Leyland Cecco for The Guardian (16 November 2021)

[REDACTED]

[REDACTED]

[REDACTED]

4.8.1 CCS is a technology that enables carbon dioxide that would otherwise be released to the atmosphere to be captured and permanently stored. It can be applied to any large point source of carbon dioxide, such as thermal generating power stations or other industrial processes that are high emitters.

Use of the present tense is misleading (and presumably intentional). The quantity sent to supposedly permanent storage globally remains derisory. There is no permanent storage of CO₂ captured post-combustion from UK power stations.

The draft ignores basic matters of governance. In an article (on his personal website) entitled “Energy” dated 31 March 2022³, Dieter Helm, a well-respected Oxford energy economist, notes that “... CCS remains largely on the drawing board. It requires a regulatory and licences framework, a liability insurance regime, a pipeline system, and a price of carbon sequestered.”

4.8.8 Gas-fired power CCS stations may still emit residual CO₂ and so will be required to comply with any Emissions Performance Standards (EPS) that might be applicable, but this is not part of the development consent process.

Section 4.8 explicitly refers to carbon capture and permanent storage. It makes no reference to BECCS. This implies that government does not consider BECCS as a viable option. Indeed, the industrial sector (which has for more than a decade remained no more than embryonic) is increasingly anxious not to be tarnished by proposals for biomass power with carbon capture and permanent storage given the controversy which biomass power generates.

4.9.7 In addition to avoiding further GHG emissions when compared with more traditional adaptation approaches, nature-based solutions can also result in biodiversity benefits and net gain, as well as increasing absorption of carbon dioxide from the atmosphere (see also Section 5.11 on the role of green infrastructure and Section 4.5 on environmental and biodiversity net gain).

The proposal is premised on a false nature-based solution. It depends on continuing to ignore the harms caused by the woody biomass supply chains on which the applicant relies; This presumably reflects that those harms occur in foreign countries. The applicant seems to operate an “out of sight, out of mind” (/ “see, hear, speak no evil”) policy either forbidding or not instructing relevant Directors to see for themselves what all the fuss is about. Spokespeople from affected communities in North America travelled to the applicant’s truncated AGM in order to convey the reality – the only way they would otherwise be heard. Wood from trees which are felled opportunistically to feed pellet mills is deemed “waste”, “unmerchantable” and the like simply because sawmills do not currently wish to buy it and without a credible long-term obligation to replace the clear-felled tract like-for-like or even as a monoculture plantation. My remarks concerning clause 3.3.56 further question the view that the UK’s current imports of wood pellets are a nature-based solution.

³ [REDACTED]

5.3.4 All proposals for energy infrastructure projects should include a GHG assessment as part of their ES (See Section 4.2).

Clause 5.3.4 seems to allow the very substantial greenhouse gas emissions which occur in the countries whose woody biomass the applicant burns to be ignored.

5.4.33 Applicants should consider any reasonable opportunities to maximise the restoration, creation, and enhancement of wider biodiversity, and the protection and restoration of the ability of habitats to store or sequester carbon as set out under Section 4.5.

Drax and its suppliers do not do this – including because almost all its woody biomass derives from foreign sources where there is no such requirement to restore like-for-like or to sequester emissions either immediately or ever. My remarks concerning clause 3.3.56 highlights that the applicant makes no payment or compensation in this regard.

*5.4.56 The Secretary of State should refuse consent where harm to the habitats or species and their habitats would result, unless the benefits (including need) of the development outweigh that harm. In this context the Secretary of State should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance or **the climate resilience and the capacity of habitats to store carbon**, which it considers may result from a proposed development.*

The purported benefits of the proposal are illusory. Its harms are not. The Secretary of State should consider this clause in relation to the supply chains of the wood pellets which the applicant imports – and should not rely on fundamentally flawed industry-driven certification schemes such as the Sustainable Biomass Program.

5.7 Dust, Odour, Artificial Light, Smoke, Steam, and Insect Infestation

Dust, odour, noise and other pollution are a major (health and environmental justice) concern in the vicinity of a number of the pellet mills from which the applicant sources the pellets which it and its clients burn. Complaints have led to fines and out of court settlements paid by the applicant to the states of Mississippi and Louisiana, but not to affected communities, typically poor. The sum of those payments amounts to roughly the same as the 2022 remuneration of one of the applicant's executives.