

## Department for Energy Security and Net Zero:

### Transitional support mechanism for large-scale biomass electricity generators<sup>1</sup>:

#### Consultation Response

#### Background

The Local Authority Pension Fund Forum is a voluntary association of 87 local authority pension funds and seven LGPS pool companies, based in the UK with combined assets of approximately £350 billion. LAPFF funds have maintained substantial investment in equities. LAPFF exists to promote the investment interests of the funds, and to maximize their influence as shareholders to promote high standards of corporate governance and corporate responsibility amongst the companies in which they invest.

Climate change is a particularly important investment issue.

#### Summary of response

- The economics in the consultation appear broadly sound. In particular we note.

*“Based on the Electricity Generation Costs Report 2023<sup>6</sup>, there is a higher marginal generation cost of biomass compared to alternative forms of generation such as unabated gas or intermittent renewables. An intervention that incentivises biomass generation would cause the average marginal generation cost to be higher than would have been without intervention.”*

- However, in addition to that problem, it needs to be stressed that there are statements in the consultation about current biomass use (essentially Drax) which are incorrect from a carbon neutral basis.
- The consultation appears to address “energy security” but avoids a proper analysis of the matter of security of supply of imported wood pellets, or environmental sustainability. A matter that a former Secretary of State said there had been no work done on.
- In summary. Intervention support for Drax would not meet net zero policy objectives, there are significant risks to the security of supply, and there would appear to be a hard wired higher electricity cost due to the displacement of cheaper renewables. That is accentuated by proposals for BECCS, given that a time span of decades would be needed to recover capital expenditure on the carbon capture plant.

---

<sup>1</sup> <https://www.gov.uk/government/consultations/transitional-support-mechanism-for-large-scale-biomass-electricity-generators>

---

## Analysis

We structure this response around the primary stated policy objective of the Consultation Document being to consider support for biomass fired electricity:-

*“subject to **value for money** and taking account of **energy security** on the road to **net zero**.”*

Those objectives appear sound. However, we believe that the model of wood pellet supply of energy for biomass in the case of Drax fails each of these three objectives.

There are some fundamental flaws with the assertions in para 48 of the separate Impact Assessment document ('IA') which states

*“Unabated biomass is a low carbon method of producing electricity, with the burning of biomass feedstock categorised as carbon neutral, it is only the transportation and other administrative processes that cause greenhouse gas emissions.”*

Being “categorised” as carbon neutral is not carbon neutral if the categorisation is wrong.

The IPCC (Intergovernmental Panel for Climate Change) did originally state that burning unabated biomass was carbon neutral. But the IPCC is now more nuanced. It states the following where woody biomass is involved<sup>2</sup>:-

*Question: How is the long term storage of carbon in wood products treated?*

*Answer: This is covered by the Harvested Wood Products section. The default assumption is that the stocks are stable – which implies emissions are equal to harvest. In the guidelines there are a number of approaches to dealing with this where this assumption is not true. The UNFCCC has not yet decided which approach to use; “do not automatically consider or assume biomass used for energy as ‘carbon neutral,’ even in cases where the biomass is thought to be produced sustainably.”*

Also, is it incorrect to say ,

*“it is only the transportation and other administrative processes that cause greenhouse gas emissions”.*

That is wrong for at least two reasons where (as in the case of Drax) wood pellets are the fuel because:-

- the woody material for the pellets needs to be dried, an energy intensive process, usually using gas burning driers. There are also claims that this pellet production creates smog of volatile organic compounds.<sup>3</sup> That has led to fines on Drax in the USA..
- burning the pellets does cause greenhouse emissions. Indeed, the premise of BECCs (biomass energy with carbon capture) is to capture these emissions. The pertinent issue is whether the carbon dioxide from the

---

<sup>2</sup> <https://www.ipcc-nggip.iges.or.jp/faq/faq.html>

<sup>3</sup> <https://www.sierraclub.org/louisiana/blog/2019/02/after-sierra-club-other-groups-file-comments-louisiana-orders-wood-pellet>

burning of pellets in a power station, is offset in the places where wood is harvested in a similar timescale to the emissions from burning the wood.

We also note that the consultation refers to “energy security”, but that seems to be covering the output from Drax, without covering the security of supply of the imported pellets that feed Drax.

### **Drax the wood burning – former coal - power plant**

Neither the consultation document nor the IA document, refer to Drax power station by name. But it is clear that it is the underling generation asset being considered not least due to referencing it producing 7% of the UK’s electricity,

We raise Drax specifically, given that is the generating asset from an investment perspective, owned by Drax Group plc.

We also raise Drax given that some of the incorrect assertions on carbon neutrality in the Consultation Document match things being said by Drax, that we and others have challenged.

Drax’s claims to being carbon neutral relies on a regulatory quirk (and even then, only if the full extent of IPCC statements aren’t taken into account).

Drax actually states in its annual report that the accounting for carbon is an important business risk, i.e., current conventions might change.

That risk arises because Drax relies on the default accounting convention that the source of energy (power from ‘biomass’) compensates for the emissions.

Whilst the burning of annual crops – such as maize - may be carbon neutral, given that the capture of carbon and the re-emission from burning can occur in the same growth cycle. However, the same assumptions do not hold where trees are involved.

Tree’s don’t necessarily regenerate in the same time scale as their harvest, and the process of harvesting for burning removes an existing carbon sink. New trees take decades to grow back.

We cite some examples of misleading or distracting information.

#### **Example 1**

A BBC Panorama programme in October 2022, revealed contradictory evidence concerning Drax’s logging activities in British Columbia, Canada.

Panorama showed part of a cleared primary forest in Canada. Drax denied it still had the logging licences for that area but British Columbia records showed they still did.

Drax’s representative then claimed that the “Primary Forest” cleared wasn’t primary forest as it was near a road. It was 6 miles from a road, and the definition of Primary Forest depends on the ecology and management system of forests, not proximity to roads.

Canada uses proximity to roads as a statistical short-cut to estimate national coverage of primary forest - given the size of Canada - but that is not the same as designation on the ground.

The trailers with the logs on were then followed to the Drax pellet plant with no sawmill activity between, indicating that the pellet plant was not using wood that

was a by-product of sawing. Drax had asserted that it only used waste wood material.

Drax, said in its response after the Panorama programme:-

*“Demand for pellets is not driving deforestation. Canada has a 0% deforestation rate<sup>4</sup> .”*

However, the Canadian Government sets out what “deforestation” means: that is:-

*“Deforestation only occurs when forests are permanently removed so the land can be used for something else<sup>5</sup> .”*

But no one was suggesting that Drax is causing a change in land use that meets the test of “deforestation”. The issue was and is the felling of trees (removing an existing carbon sink), and then burning of that timber, because, even if trees are replanted, any compensatory benefit from regrowth falls too late in the context of the climate emergency and limiting warming to a 1.5C scenario.

Drax’s focus on “deforestation” gives the impression that that it is exonerated when when it is merely relying on something that superficially sounds similar (deforestation) but is altogether different.

## **Example 2**

For Drax’s activities to be carbon neutral in the context of a 1.5C warming scenario, Drax should be able to prove that carbon emitted by processing, transporting and burning wood is compensated for by an equivalent carbon uptake from Drax’s forest regeneration activities.

Proof of that fails in at least two respects.

### *2a – Catchment Area Analyses asking the wrong question*

Drax commissions independent Catchment Area Analyses (CAAs) in the regions from which it sources wood.

Page 44 of the Drax Group Annual Report states that the focus of these CAAs is to determine whether there is “not a *reduction in the sequestration rate of carbon*”. That is not the same as looking for and quantifying an increase in sequestration which is what is necessary to claim carbon neutrality.

There is a partial exception, in the CCA for Alabama, USA. That CAA states that there may have been an increase in sequestration, but that is due to the fact that native hardwoods had been replaced by pine.

In the case of Alabama, although a potential (unquantified) increase in sequestration may appear - superficially - to be a positive, it is a biodiversity and ecological negative. That is not sustainable forest management.

### *2b – catchment areas are liberally drawn*

Rather than quantifying compensatory carbon capture in the parts of forest disturbed by harvesting wood for pellets, Drax instead takes natural growth in whole

---

<sup>4</sup> [https://www.drax.com/press\\_release/a-statement-from-drax-group-ceo-will-gardiner-on-draxs-biomass-sourcing/](https://www.drax.com/press_release/a-statement-from-drax-group-ceo-will-gardiner-on-draxs-biomass-sourcing/)

<sup>5</sup> <https://www.nrcan.gc.ca/our-natural-resources/forests/wildland-fires-insects-disturbances/deforestation-canada-key-myths-and-facts/13419>

forest areas of hundreds and thousands of square miles for hypothecating its claims.

Adding up the catchment areas Drax takes credit for in the USA as offsetting its carbon emissions represents approximately 10% of all USA forest land.

As well as Drax not proving that Drax's wood burning is carbon neutral it might be assumed that at some stage the USA will have a view on why one power plant in Yorkshire is laying claim to 10% of its forests in attempting to justify its business model.

The IPCC is also clear that nature based solutions (trees) are for carbon mitigation for hard to abate sectors.

It would be foolish to lock in UK energy supply to a model that relies on non-pertinent assertions and clearly apparent regulatory quirks.

The long term supply of pellets would require the US government and, where applicable, US states being content with the status quo. Given what occurred with the position of BP with the US government regarding the Gulf of Mexico disaster it is unlikely that if up against the US government that Drax would fare any better.

That is not a hypothetical risk. There were a considerable number of US affected parties at the 2023 Drax AGM which shows that there is already considerable opposition to what Drax does in the USA. It is also clear that NGOs are highly critical of Drax.

We also note that following a Freedom of Information Act request, the Guardian reported:-

*“Greenpeace has accused the government of misrepresenting its stance on burning trees for electricity, giving a minister the impression of public support for the highly controversial practice in meetings with the power company Drax<sup>6</sup>.”*

### **Example 3 – cherry picking research**

Research cited on Drax's website when taken in its entirety undermines the part that has been selectively taken from it.

An extract on the Drax website states:-

*“The use of these forest residues as an energy source was also found to lead to net GHG greenhouse emissions savings compared to fossil fuels, according to Forest Research.”*

However, a full read of the paper from Forest Research reveals statements such as:-

*“It can be seen that in the scenarios where bioenergy use is unconstrained, or comes largely from imported wood (Scenarios B and C1), GHG emissions as a result of forest bioenergy increase over time, compared to the Reference Scenario A, and are significantly greater by 2040”.*

Drax cites science in its approach on page 5 of its 2022 annual report:.

---

<sup>6</sup> <https://www.theguardian.com/environment/2023/jan/24/greenpeace-accuses-treasury-of-distorting-its-stance-on-biomass-burning>

*“Our Responsible Sourcing Policy is informed by science, and the biomass we use to generate electricity is assessed against sustainable forest management principles.”*

However, scientific methods require considering alternative explanations for phenomena by looking at all the evidence, not excluding those that are inconvenient. Cherry picking parts of third party research that suit from a public relations and lobbying perspective is not consistent with scientific method.

Drax appears to be producing conclusion-based non-evidence, essentially a public relations exercise passing off as science, which is actually greenwash. Being “informed” by science, isn’t the same as being rigorous by scientific method. The wording lacks substance.

### **Sustainability of supply of wood pellets**

The Committee for Climate Change (‘CCC’) said on 9th March 2023:-

*“The UK should also shift from relying primarily on imported biomass for power generation to developing domestic supplies as much as possible. It is challenging to ensure that biomass imported to the UK meets the necessary sustainability standards, given the lesser regulatory oversight that is possible around land use and forest management in other countries. Internationally tradable sustainable solid biomass resources are also finite, so a substantial UK dependence on imports would risk taking more than a fair share of this valuable global decarbonisation resource. In turn, as countries pursue Net Zero, competition for finite sustainable biomass could drive up international biomass prices, meaning that biomass imports become increasingly expensive over the period to 2050.”*

Those are supply chain and security of energy supply issues not covered by the consultation.

That is strange not least because the then BEIS Secretary of State said of Drax, as reported in the Guardian on 11 August 2022:-

“The importing of wood to burn in Drax power station “is not sustainable” and “doesn’t make any sense”, the business and energy secretary Kwasi Kwarteng told a private meeting of MPs this week”.

“Kwarteng also admitted “we haven’t actually questioned some of the [sustainability] premises of it”.

“Kwarteng added: “I can well see a point where we just draw the line and say: This isn’t working, this doesn’t help carbon emission reduction, that’s it – we should end it. All I’m saying is that we haven’t quite reached that point yet.”

“Since 2019, when Kwarteng became an energy minister, Drax has received £2.5bn in subsidies for its power station, which previously burned coal. The subsidies are due to end in 2027, but Drax is hoping to gain new subsidies by adding carbon capture technology to its plant.”

“About 80% of the wood pellets burned by Drax come from North America. Kwarteng said: “There’s no point getting it from Louisiana – that isn’t sustainable ... transporting these wood pellets halfway across the world – that doesn’t make any sense to me at all.”

## Summary of why the intervention appears unsound

In short, Drax's claims and business model are not carbon neutral and there are significant issues with supply chain sustainability as well as environmental and ecological sustainability.

There is then the additional risk of displacing true renewables. Para 36 and 37 of the IA document states that:-

*“Conversely, it is more likely that in high generation scenarios, eligible biomass generators **are displacing intermittent renewable electricity**. In summary, the analysis in this section suggests that a higher biomass power generation level would increase total marginal electricity generation costs. The more intermittent renewable generation that is displaced by biomass generation, the greater the implied additional total electricity generation costs.*

## BECCS ('Biomass Energy Carbon Capture and Storage')

We have set out problems with the assertions that Drax is currently carbon neutral, as well as problems with security of supply.

However, the economics of carbon capture and storage (which is capital intensive) would incentivise, longer utilisation of Drax (more hours and days in a year in which to recover capital costs), essentially providing baseload electricity, rather than using it as an electricity supplier of last resort for dispatchable, peaking power.

That concern seems to be borne out in paras 33 the IA Document which states;-:

*“Based on the Electricity Generation Costs Report 2023, there is a higher marginal generation cost of biomass compared to alternative forms of generation such as unabated gas or intermittent renewables. An intervention that incentivises biomass generation would cause the average marginal generation cost to be higher than would have been without intervention.”*

By that anything that increases the marginal cost of generation (which adding carbon capture would add more to again) would do so alongside the displacement of cheaper and genuine carbon neutral sources of power.

There are already significant problems with Drax.

Adding to the cost of generation by adding carbon capture, would increase the risk of supply chain problems, given that the capital intensive plant would require decades of intervention and commitment to recover costs whilst not having clarity on decades long security of supply of imported pellets.

The problems flow from one company having the UK's largest power generating asset, rather than a diversified portfolio of generating assets.

Given that, industrial processes such as green steel require cheap electricity to be globally competitive, industry would be disadvantaged by any intervention to support Drax which increases generation costs.

It seems that with a large generating asset being difficult to replace before 2027 that it makes sense to keep options open until alternatives are on stream. We note that the consultation points out how far away BECCS would be were it to go ahead.

*“We therefore committed in the Biomass Strategy to facilitating the transition of appropriate biomass generation to power BECCS. As part of that process and in*

*light of the fact that it is unlikely that power BECCS could become operational until 2030 onwards, we are considering whether there is a case for providing transitional support for eligible generators which is a change from our previous position to end support in 2027.”*



---

## Questions

### 1. Do you think the government should intervene to create a support mechanism to help biomass generators transition to power BECCS?

We note the consultation says:-

*“The mechanism should be designed to manage the changing circumstances which may affect an eligible generator’s success in transitioning to a future power BECCS system. There is a risk that an eligible generator is subsequently unsuccessful in their bid to participate in any regulatory mechanisms for future power BECCS support, or indeed an eligible generator chooses not to take appropriate steps to seek to enable a transition to power BECCS. There will therefore need to be arrangements to wind down or put a time limit on transitional support efficiently. Any transitional arrangement should provide sufficient certainty to a participating generator to help secure operation, whilst retaining some flexibility of tenure to respond to the development of CCUS and be proportionate to provide value for money and affordability.”*

The question states “biomass generators” but the issue is an actual biomass generator, Drax.

For the reasons set out above, it is difficult to accept the premise that burning woody biomass is carbon neutral. The qualification from the IPCC which is **not to assume** that burning woody biomass is carbon neutral hasn’t been addressed by Drax, or this consultation.

That deficiency needs to be addressed before considering options for BECCS. The premise of BECCS is that it is carbon capture on top of something that is already - from a combustion perspective - carbon neutral. It is not the premise of BECCS that carbon capture is making up for something that isn’t really carbon neutral but is being promoted as if it were.

The security of supply, as well as international recognition of the UK’s real carbon emissions, can’t be assessed if the basic premise, that burning woody biomass is carbon neutral, is wrong.

### 2. Do you agree with the success factors we have identified?

### 3. Are there additional factors we should consider?

### 4. Do you agree with the options above being included as preferred options? If no, please articulate why the option is not suitable and provide evidence where appropriate.

### 5. Do you prefer one of the options as described above? If so, please provide your reasoning and any evidence to support.

The success factors can’t be assessed if the basic premise, that burning woody biomass is carbon neutral, is wrong.

### 6. Do you have views on approaches we should consider as part of our options to ensure generators are not overcompensated?

If the basic premise, that burning woody biomass is carbon neutral, is wrong, then generators are already being overcompensated for what is essentially greenwash.

- 7. Do you have any other material comments relating to the mechanics of each option or the outline evaluation as articulated? If so, please provide details.**
- 8. Do you agree that these options should be discounted and considered as nonpreferred? If not, please provide rationale and any evidence.**
- 9. Do you agree with the eligibility criteria and assessment process set out? If no, how should they be adapted to be more suitable?**
- 10. During a transition period from biomass electricity to power BECCS, do you think that the GHG criteria should be strengthened? If so, how? Please provide evidence to support your views.**

Greenhouse gas emissions don't merely need to be "strengthened" but overhauled as the basic premise, that burning woody biomass is carbon neutral, is wrong. The evidence is set out above. In particular the comments on the Catchment Area Reports set out above.

- 11. As part of the proposed transitional support arrangements for large-scale biomass generators that plan to transition to power BECCS, do you think that we should increase the minimum percentage of woody biomass that must be obtained from a sustainable source? If so, what should be the minimum percentage be set at? Please provide evidence to support your views.**

All woody biomass needs to be from "sustainable source". As set out above it is apparent to us that it is not.

- 12. Are there any additional sustainability criteria we should consider strengthening specifically as part of the proposed transitional support arrangements?**

Sustainability needs to be quantified on a properly scientific basis, as opposed to a public relations output. Sustainability needs to take account of the ecological factors as well as those communities affected by the production of pellets and the burning of the pellets. It is clear that Drax has been losing cases in the USA concerning the production of pellets.

- 13. Do you have any comments on the proposed amendment to the definition of an eligible generator to specify that generating stations which are already generating electricity are eligible generators?**
- 14. Do you have any comments on the proposed amendment to the definition of an eligible generator to specify that biomass conversion stations are an eligible generating station?**
- 15. Do you agree with the government's proposal to enable the Secretary of State to issue a direction to a CfD counterparty to modify any section 10 contract to reflect updated sustainability objectives?**

**16. Do you have any comments on the proposal to make amendments to Contracts for Difference legislation consequential to the design of the support mechanism?**

We do not have a view in the light of our other comments.