Biofuelwatch and Stop Burning Trees Coalition response to Transitional support mechanism for large-scale biomass electricity generators

We wish to respond to the consultation by the UK Department for Energy Security and Net Zero (DESNZ) to express our deep concern about, and to strongly object to the proposal to grant new subsidies for burning wood pellets in converted coal power stations - namely Drax and Lynemouth Power Stations - once existing subsidies expire in 2027.

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

No, we do not believe that any support mechanism should be developed. A new support mechanism would waste billions of pounds of public money on an energy technology that destroys forests, harms communities, and fails to deliver any emissions savings when it uses wood pellets made from trees. It is wrong that the Government has not consulted nor sought views on a do-nothing option.

There are a number of reasons why this consultation is premature and should be withdrawn.

- The Government must first undertake comprehensive due diligence. Given the UK Government has committed to a Biomass Sustainability Standards Review, with previous indication that it would strengthen the Standards, it would undermine the Standards themselves to award contracts before these criteria have been set.[1]
- The recent National Audit Office (NAO) report (published after this consultation began) was clear that a lack of evaluation of how effective sustainability criteria for existing schemes are means that government 'cannot demonstrate that its current arrangements are adequate to give it confidence industry is meeting sustainability standards'.[2]
- The ongoing Ofgem investigation into Drax's sustainability reporting results should be published and adequately considered before decisions on future subsidies are made.[3]
- There is also a lack of assessment of feedstock volatility in the consultation. Major supply chain risks and associated price spikes in feedstock are a real threat in the near term due to the financial predicament of the world's largest wood pellet producer, Eviva. It is unclear whether this has been accounted for.
- The Climate Change Committee has explicitly advised that the UK Government should 'ensure that large-scale unabated biomass power plants are converted to BECCS as early as feasible, and are not given extended contracts to operate unabated at high load factors beyond 2027'. The Government should explicitly outline their justification for contravening the CCC's advice before awarding contracts.

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1 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1178897/biomass-strategy-2023.pdf

2 The government's support for biomass - NAO report

3 Ofgem investigating Drax Power Limited's compliance with reporting requirements relating to the Renewables Obligation | Ofgem

Fundamental flaws in bioenergy carbon accounting

Assumptions around the carbon neutrality of bioenergy are not scientifically robust for the following reasons:

The consultation says “Biomass that is sourced in line with strict sustainability criteria can be used as a low-carbon source of energy. This approach is in line with that taken by major international institutions such as the Intergovernmental Panel on Climate Change.” Biomass being certified as “sustainable” has nothing to do with it being counted as carbon neutral. The carbon neutral classification is a carbon accounting convention to avoid any greenhouse gas emissions from forests possibly being counted twice. But this does not justify treating all forest biomass as automatically zero carbon and awarding it billions of pounds in low-carbon subsidies. Many countries do not properly count for emissions from their forests, so counting biomass as zero carbon in the UK energy sector wrongly assumes that there is no impact on the climate whatsoever.

Forest biomass used in the energy sector is only counted as zero carbon because it is assumed that the impact on the atmosphere will be properly counted under the forest emissions of the country where the biomass was harvested.

The IPCC says it is incorrect “to automatically consider or assume biomass used for energy [is] 'carbon neutral', even in cases where the biomass is thought to be produced sustainably”.[4] Many countries - for example Canada (which is a major supplier of biomass to the UK) do not properly account for their emissions from forests.[5]

Burning forest biomass increases carbon dioxide emissions with a long payback period, only becoming carbon neutral many years or decades later if trees regrow. But at the point when biomass is burned, when it is assumed to be instantly zero carbon, there is no way to be certain that forests will regrow in the future. The European Academies Scientific Advisory Council has stated that the current use of lots of forest biomass does not help to achieve net zero under Paris Agreement timescales .[6]

IPCC rules on accounting for changes in forest carbon lead to imprecise estimates. The IPCC advises countries to use the change in the carbon stored in the forest from year to year to calculate the amount of carbon the forest has absorbed or released. But this release or absorption does not happen instantaneously.

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[4] https://www.ipcc-nggip.iges.or.jp/faq/faq.html

[5] https://www.nrdc.org/bio/jennifer-skene/logging-one-canadas-greatest-climate-liabilities

[6] https://onlinelibrary.wiley.com/doi/full/10.1111/gcbb.12643 A statement from one of the Advisory Council’s papers is: “Biomass is treated as renewable because it is assumed that the CO2 emitted will be reabsorbed. However, burning forest biomass transmits the carbon from the forest stock to the atmosphere within minutes, and there is a carbon ‘payback period’ between this initial release and a return to forest carbon stocks through regrowth. This payback period may be of the order of years when forestry residues provide the feedstock. However, where additional trees are harvested *the payback periods depends on the species and conditions of regrowth which range from decades to centuries*” [our italics].

The IPCC states that “The approach of not including these emissions in the Energy Sector total should not be interpreted as a conclusion about the sustainability, or carbon neutrality of bioenergy”. Updated IPCC guidance in 2019 adds “the CO2 emissions from wood biomass burnt are not reported in either the Energy sector (burnt for energy purposes) or Waste sector (burnt or lost without energy recovery). This is to avoid the possibility of double counting these emissions in two or more GHG inventory sectors because they are already included in the AFOLU sector. When using inventory estimates to assess the CO2 emissions arising from energy use, including wood for energy purposes, *it is necessary to consider relevant emissions estimated in the Energy and AFOLU sectors*” [our italics].

The IPCC clearly states that when considering the true climate impact of wood used for energy, the emissions in the energy sector (i.e. those released at the power station) are relevant, and therefore that they should not simply be assumed to be zero. Even if they were not added to the UK’s formal accounts submitted to the UN, these emissions are important since they represent the impact on forest carbon and the true impact on the climate.

Climate, environment and community impacts

Wood biomass is neither clean, nor green. Burning wood pellets for energy emits more carbon than coal per unit of energy generated. Even burning fine woody debris, like shrub branches and roots, harvested from forests can be as carbon intensive as fossil fuels over a ten year period.[7] In reality, large-scale bioenergy companies operating in the UK harvest forest biomass that is far larger than this, including whole trees (from thinnings but also as a result of wider sustainability breaches whereby whole trees that could have been used in other ways are harvested for bioenergy).[8] Recent and repeated evidence suggests that there are links between wood pellet demand and increased hardwood forest harvesting and additional thinnings in the US southeast.[9] [10]

Moreover, woody-biomass would not meet the UK Government’s new GHG threshold and therefore should not be eligible for new CfDs, nor any other support that goes beyond 2027 (even if these are one-off contracts awarded outside allocation rounds). In 2018, the UK Government acknowledged that applying existing GHG thresholds would lead to GHG emissions ‘significantly above the projected UK grid average for most of the lifetime of any new CfD projects… as a result, biomass plants offered 15-year contracts from the early 2020s need to be subject to tightening emissions controls in order to meet the CfD scheme’s objectives of supporting low carbon electricity’.[11] **At this time, the Government set a revised GHG threshold of 29 kg CO2e/MWh for new biomass generator contracts**. **Drax’s declared emissions in 2022 were 96 kg CO2e/MWh**.[12] Even without accounting for

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[7] JRC Publications Repository - The use of woody biomass for energy production in the EU (europa.eu)

[8] BBC One - Panorama, The Green Energy Scandal Exposed

[9] Frontiers | When Biomass Electricity Demand Prompts Thinnings in Southern US Pine Plantations: A Forest Sector Greenhouse Gas Emissions Case Study (frontiersin.org)

[10] Southern Environmental Law Center (2022) Satellite images show link between wood pellet demand and increased hardwood forest harvesting. Online.

[11] https://assets.publishing.service.gov.uk/media/5b8669e4ed915d7e2f6ef18a/Part_B_Consultation_Response.pdf

[12] Drax_AR2022_single_pages.final_.pdf

carbon payback periods (i.e. that emissions happen now and trees regrow over time), nor uncertainty around supply chain sustainability breaches, any extension would be supporting electricity generation that is far more carbon intensive than BEIS deemed appropriate back in 2018.

The wood biomass industry has been repeatedly accused of driving environmental racism in the Southern US due to the harmful pollutants emitted from wood pellet production.[13] Research has found that wood pellet sites are twice as likely to be located in environmental justice communities.[14] The pollutants and VOCs emitted by wood pellet production cause serious health issues to local communities, including respiratory and pulmonary issues. Continuing subsidies for this industry mean continuing harm to these communities.

Whilst the UK is dependent on forest-biomass feedstock for biomass energy at scale, it leaves itself highly vulnerable to market volatility within the wood pellet supply chain. The existing financial precarity of the world's largest wood pellet supplier, Enviva, which is driven partly through its reliance on forest biomass and increasing wood prices, is indicative of this volatility.[15] [16]

Biomass subsidies are also an extortionate waste of public money that should be going to genuine renewables like wind and solar. In 2023, Drax (one of the two generators eligible for these subsidies) reported record profits (£731m) and yet still received £617m in public subsidies. Bloomberg further reported that Drax had exploited a loophole in the subsidy scheme, preventing an estimated £639m from being returned to bill payers who are already facing sky high energy bills[17]. This is clearly not value for money, and does a grave disservice to the public.

BECCS

We are concerned that BECCS will not materialise in the expected timeframe, leading to continued and prolonged Government support for unabated wood biomass burning. There have already been significant delays to the proposed UK BECCS schedule. Inherent uncertainties within the BECCS supply chain include:

- Volatility of feedstock supply
- Lack of CCS operationalisation in the UK and significant issues related to storage in existing projects globally[18]
- Lack of precedent for high carbon capture rates from CCS (and systemic over-estimation of capture rates)[19]
- Lack of transport and storage infrastructure

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[13] https://dogwoodalliance.org/2023/02/wood-pellets-and-environmental-justice-communities/#:~:text=The%20wood%20pellet%20industry%20is,This%20is%20an%20environmental%20injustice.

[14] https://www.liebertpub.com/doi/10.1089/env.2017.0025

[15] Amid losses, wood pellet company Enviva at risk of default | Coastal Review

[16] https://news.mongabay.com/2023/11/enviva-the-worlds-largest-biomass-energy-company-is-near-collapse/

[17] https://www.bloomberg.com/graphics/2023-uk-power-stations-avoided-paying-back-consumers/

[18] Norway's Sleipner and Snøhvit CCS: Industry models or cautionary tales? | IEEFA

[19] Carbon captured and stored since 1996 overestimated by 30% - EnvironmentJournal

- Uncertainties within the forest-biomass supply chain which make understanding whether negative emissions have been achieved highly challenging

The UK's use of biomass is not carbon neutral, and with carbon capture will not be carbon negative. The Government's consultation on extending support for bioenergy states that Power BECCS "can deliver negative emissions". A report (published alongside the 2023 Biomass Strategy) by the Department's Chief Scientific Advisor, states that "Biomass harvested from previously intact, unmanaged and relatively undisturbed forests with high carbon stocks is very unlikely to meet these conditions [that make it carbon neutral]".[20]

There is clear evidence that biomass being used in UK power stations is coming from forests with high carbon stocks, and satellite analysis shows that their carbon stocks have fallen since the construction of wood pellet mills. Even in plantation forests where wood pellets come from thinning, it can take over 40 years for biomass used for energy to be carbon neutral.[21] If biomass meets these conditions and is not carbon neutral, then the addition of carbon capture technology will not generate negative emissions.

As a result, even the addition of carbon capture technology does not prevent bioenergy from increasing climate change. This is because some emissions "escape" further up the supply chain, before the power plant. Some of these are in the processing and transport of the wood pellets. Some are the reduced absorption of carbon dioxide by the forest. In many cases this results in forests having lower carbon absorption for many years or decades, meaning overall higher concentrations of carbon dioxide in the atmosphere.

Bioenergy with carbon capture and storage certainly does not deliver "negative emissions". But the UK Government relies on assuming instant carbon negativity in order to make its calculations add up and ensure that, on paper, it will achieve the UK's carbon budgets. But the "negative emissions" that offset other sectors (like flying and farming) that continue to emit greenhouse gases are actually phantom - meaning that BECCS only allows the UK to achieve net zero on paper. In reality, the UK's reliance on burning wood from forests makes climate change *worse* because it damages the crucial role forests play in absorbing and storing carbon. Adding carbon capture will further do nothing to alleviate the harm caused to forests, biodiversity and communities by the wood biomass industry. This is additionally problematic, given there is a lack of evidence in the consultation in respect of the Government's conclusion that the UK's ability to meet CB6 would be negatively impacted if subsidies are not extended; there has been no assessment of whether additional unabated emissions may conversely undermine efforts to meet CB6.

For these reasons, we do not consider that unabated biomass in any form can rationally meet the definition of low-carbon electricity generation.

Moreover, BECCS is likely to be extremely expensive. New analysis shows that a bioenergy carbon capture plant could cost at least £43 billion over its 25 year lifetime[22] and research by

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[20] https://assets.publishing.service.gov.uk/media/64d4b25a5cac65000dc2dd1f/task-finish-group-report-ability-beccs-to-generate-negative-emissions.pdf

[21] https://www.frontiersin.org/articles/10.3389/ffgc.2021.642569/full

[22] Drax's BECCS project climbs in cost to the UK public | Ember (ember-climate.org)

the University of Oxford shows that relying on this carbon capture technology makes achieving net zero cost a lot more - $1 trillion extra per year, globally.[23]

If BECCS does not come online in the time-frame intended, or does not deliver negative emissions as the government appears to expect, then the UK risks missing its net zero target.[24] We are concerned that due to the absence of a sunset clause in the consultation document in this situation biomass subsidies would be extended beyond 2030, therefore locking UK households into continued higher energy bills relative to other cleaner technologies.

2. Do you agree with the success factors we have identified?
3. Are there additional factors we should consider?

No, we do not agree with the 'success factors' identified for a number of reasons.

Firstly, they do not include any environmental considerations, which is incredibly dangerous given the repeatedly proven devastating impacts on the environment caused by the wood biomass industry. Drax's and Lynemouth Power's largest sourcing region is the southeastern USA. There, one of the largest suppliers to both businesses, Enviva, regularly obtains wood from the clearing of extremely biodiverse coastal hardwood forests. In 2022, an Enviva whistle-blower confirmed what NGOs and investigative reporters had been documenting over many years:[25] "We take giant, whole trees. We don't care where they come from."[26] Most UK biomass from the US comes from the wildlife-rich southeast. This is a Global Biodiversity Hotspot. Logging for wood pellets in these forests puts at risk habitats for bird species that are endangered and protected.[27] In British Columbia, BBC reporters revealed in 2022 that Drax, who operated several pellet mills in the province, had itself cut down primary forest.[28]

In Europe the UK's biomass comes from countries such as Estonia. There, 5,700 hectares of forests that are of "Woodland Key Habitat" quality, but aren't formally protected, have been logged, including for wood pellets. Logging licences have also been issued for over 82,000 hectares of forests within Natura 2000 areas - which are supposed to be legally protected areas for nature. Estonia's land sector has recently started to release more carbon than it absorbs due to logging, and the Government predicts this will remain the case until 2050. In Estonia, culturally important "cross trees" which commemorate the dead, have also been impacted by logging.[29] The UK's sustainability criteria are supposed to include protections for customary and traditional land use.

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[23] Assessing-the-relative-costs-of-high-CCS-and-low-CCS-pathways-to-1-5-degrees.pdf (ox.ac.uk)
[24] https://www.wwf.org.uk/our-reports/beyond-beccs
[25] Global Markets for Biomass Energy are Devastating U.S. Forests, NRDC, Southern Environmental Law Center, Dogwood Alliance, June 2023 edition, cutcarbonnotforests.org/wp-content/uploads/2023/06/global-markets-biomass-energydevastating-us-forests-202306.pdf
[26] Whistleblower: Enviva claim of 'being good for the planet… all nonsense', Justin Catanoso, Mongabay, 5th December 2022 news.mongabay.com/2022/12/envivas-biomass-lies-whistleblower-account/
[27] https://www.cutcarbonnotforests.org/wp-content/uploads/2021/03/impacts-uk-biomass-birdlife-fs.pdf
[28] Drax: UK power station owner cuts down primary forests in Canada, Joe Crowley and Tim Robinson, BBC, 3rd October 2022, bbc.co.uk/news/science-environment-63089348
[29] https://www.cutcarbonnotforests.org/wp-content/uploads/2022/08/Biomass-Sourcing-in-Estonia.pdf

Since BBC Panorama and CBC Fifth Estate exposed Drax's logging of Old Growth forest in 2022, a new investigation has uncovered that throughout 2023 Drax regularly and repeatedly sourced whole trees from Old Growth forest. This included Big-treed Old Growth and Ancient forest identified as Priority Deferral Areas. It is clear from this investigation that Drax has continued sourcing logs from British Colombia's rarest Old Growth forests and is thus complicit in the destruction of Old Growth forest.[30][31] As noted in Q1, there is an ongoing Ofgem investigation into Drax's sourcing. With this new evidence, it is extremely premature for the Government to proceed with granting new subsidies and the lack of environmental considerations within the success factors is extremely concerning.

Burning wood pellets derived from trees is not any less disastrous for the climate than burning coal. As 500 scientists have said in a joint letter, *"The result of this additional wood harvest is a large initial increase in carbon emissions, creating a 'carbon debt', which increases over time as more trees are harvested for continuing bioenergy use...As numerous studies have shown, this burning of wood will increase warming for decades to centuries. That is true even when the wood replaces coal, oil or natural gas."*[32] The notion of carbon benefits is false, it takes 44-104 years to reabsorb the carbon emitted from burning wood biomass[33], which is time we do not have to meet climate targets.

The success factors only give 'certainty' to the operators of the power stations, who will have no obligations in relation to developing BECCS during the unspecified period of those subsidies and who will not have to repay the support received if they fail to implement BECCS in the future. The fact that there is no clear timescale nor concrete steps towards delivering BECCS required for these subsidies means that we could see indefinite business as usual, causing further devastating harm to forests, communities and the planet at huge cost to bill payers. Moreover, there is no sunset clause within any transitional support contract option, leaving the door open to prolonged extensions of subsidies for a 'transitional' form of energy generation. The consultation contains no requirements for annual reviews of the arrangements that allow the Government to amend or remove support if it deems it necessary.

We agree that "value for money and affordability" are one important consideration for subsidies, but they will not be delivered by any of these proposals. Wood biomass is extremely expensive - the current CfD strike price for Drax is nearly three times as high as that for the most recent offshore wind projects, and that for Lynemouth Power is even higher. Yet despite these generous strike prices, the two operators didn't find it worth their while to run the CfD-funded units more than 20% of the time in 2022/23[34] [35]. This is far from value for

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[30] https://www.bbc.co.uk/news/science-environment-68381160
[31] https://www.biofuelwatch.org.uk/2024/drax-bc-pellets-investigation/
[32] https://www.woodwellclimate.org/letter-regarding-use-of-forests-for-bioenergy/
[33] https://iopscience.iop.org/article/10.1088/1748-9326/aaa512/meta
[34] https://www.ref.org.uk/generators/view.php?rid=DRX&tab=sm&returnurl=https%3A%2F%2Fwww.ref.org.uk%2Fgenerators%2Fsearch.php%3FGeneratorName%3DDrax
[35] https://www.ref.org.uk/generators/view.php?rid=LYN&tab=sm&returnurl=https%3A%2F%2Fwww.ref.org.uk%2Fgenerators%2Fsearch.php%3FGeneratorName%3DLynemouth

money, particularly when compared to the cost of genuine low carbon renewable alternatives. And if pellet prices rise further - very possible as the world's biggest pellet producer, Enviva, is on the verge of bankruptcy - the amount of subsidies needed to ensure both plants keep operating will be astronomical. This is the opposite of value for money and affordability, instead passing increased costs on to bill payers.

Furthermore, a recent IEA report found that the Government's heavy subsidising of the wood biomass industry is undermining net zero targets, continuing this support will only further undermine climate targets.[36] As noted in response to Q1, a 2023 Bloomberg investigation found that Drax deliberately took advantage of subsidy loopholes to increase profit - this is far from providing value for money. The wood biomass industry puts a heavy strain on bill payers, wastes public money and emits huge amounts of carbon. This cannot by any means be considered value for money.

According to the government's Impact Assessment, the cost could be anything up to £2.5 billion a year. This is more than Drax and Lynemouth combined have been receiving in subsidies in recent years. This is money that will not be available to support a transition to genuinely renewable energy. Additionally, the government acknowledges in its Impact Assessment that it does not have the necessary information on pellets and thereby operating costs. They say that they will be seeking such information later. If pellets were to cost more than the government has assumed, the cost of the subsidies would go up further – possibly by a significant amount. As noted, Enviva, the world's biggest pellet producer, is on the verge of bankruptcy which could push pellet prices to record heights, thus further increasing the financial burden of the proposed subsidies.

It is noted that the Contract for Difference subsidies awarded to Drax and Lynemouth Power, were not 'generous' enough to convince those companies to operate their respective units for more than 14% and 20.4% in 2022/23.[37] This is despite the fact that the subsidy contracts guarantee both operators more than three times the price per megawatt hour than that provided to new offshore wind projects.[38]

The success factors also ignore the harmful impacts upon communities caused by the wood biomass industry. The impact assessment acknowledges that air pollution is more likely to affect low income communities of colour, and yet suggests this is irrelevant in this case. This notion is not only false, but dangerous. As community and environmental justice campaigners in the southeastern USA have demonstrated, Drax's polluting pellet plants in the region are located in communities with a high level of deprivation and a large proportion of non-white people, causing devastating health impacts, which is why Greenpeace has accused the company of 'environmental racism'.[39]

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[36] https://iea.org.uk/media/taxpayers-subsidising-carbon-emissions-highlights-new-iea-paper-on-wood-chip-burning/#:~:text=The%20wood%2Dburning%20emissions%20are,net%20zero%20by%202050%20target.

[37] ref.org.uk/generators/view.php?rid=DRX and ref.org.uk/generators/view.php?rid=LYN

[38] https://www.lowcarboncontracts.uk/our-schemes/contracts-for-difference/register/

[39] https://unearthed.greenpeace.org/2022/09/26/drax-accused-environmental-racism-further-pollution-claims-against-wood-pellet-mills-us/

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.

No, we do not agree with any of the options set out. It is far past time to end subsidies for burning wood because it results in forest degradation, loss of habitats and pollution in pellet producer countries, and harms the climate no less than burning coal does.[40] None of the proposed options even guarantee a transition towards BECCS. And, as stated under Q3 above, none of them guarantee value for money and affordability.

Furthermore, as noted in the consultation, the Climate Change Committee has clearly said there should be no new subsidies for unabated wood biomass burning and none of the options even guarantee a transition towards BECCS (which even if it was feasible, would do nothing to address harms to forests, communities and nature).

In 2018, the UK government decided that no new subsidies should be granted for biomass power stations unless the life-cycle greenhouse gas emissions are no more than 29 kgCO2/MWh. Otherwise, they warned, biomass would increase the carbon intensity of the grid.[41] Drax's life-cycle emissions were more than three times higher than that figure in 2022.[42]

The government's methodology is highly problematic in that it considers little more than fossil fuel burning during wood harvesting, processing and transport, yet new subsidies for Drax and Lynemouth do not even meet their own standards. The Committee on Climate Change has endorsed Bioenergy with Carbon Capture and Storage (BECCS), however, it has also warned that "no further policy support (beyond current commitments) should be given to large-scale biomass plants that are not deployed with CCS technology". The proposed subsidies of any of the options are thus not compatible with Committee on Climate Change advice.

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

The question here should not be whether operators will be overcompensated relative to the cost of burning millions of tonnes of wood in inefficient power stations. The fundamental concern is that the costs of operating those power stations are extremely high compared to clean, renewable alternatives (see above).

Energy bills are already extremely high, with many households struggling to heat their homes. Giving further subsidies to the wood biomass industry, which has already

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[40] https://ember-climate.org/insights/research/uk-biomass-emits-more-co2-than-coal/
[41] https://assets.publishing.service.gov.uk/media/5b8669e4ed915d7e2f6ef18a/Part_B_Consultation_Response.pdf
[42] https://www.drax.com/wp-content/uploads/2023/03/Drax_AR2022_single_pages.final_.pdf

significantly benefited from these bills, and exploited loopholes within the subsidy system to increase profits, is a grave disservice to the public.

7. Do you have any material comments relating to the mechanics of each option or the outline evaluation as articulated? If so, please provide details.

We are not responding to this question.

8. Do you agree that these options should be discounted and considered as nonpreferred? If not, please provide rationale and any evidence.

Paying Drax and Lynemouth Power to mothball their plants, until such time as they capture at least 90% of CO2 (which may never happen, given that existing carbon capture schemes worldwide have not achieved this), would be the most benign option for forests, climate and communities. However, those subsidies risk co-subsidising Drax's pellet production and exports. UK bill-payers could end up paying for pellets burned in Japan. There should be no new subsidies for these power stations.

One of the major problems with the preferred options presented in the consultation is that they could result in indefinite subsidies for biomass after 2027 and beyond 2030, and ongoing unabated burning of forest biomass. The lack of any finite time limit also means there is no incentive for power generators to work to develop BECCS because they would be able to rely on the ongoing transitional support indefinitely.

9. Do you agree with the eligibility criteria and assessment process set out? If no, how should they be adapted to be more suitable?

No, we reject plans for new subsidies entirely. Moreover, it is worth noting that the eligibility criteria do not require operators to take any actual steps towards implementing BECCS at all. See response to Q1.

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.

GHG criteria are based upon a deeply flawed methodology which ignores the lengthy carbon debt from burning wood and foregone carbon forest sequestration in forests. Changing the greenhouse gas threshold would therefore not reduce these power stations' negative impact on the climate. However, it is worth noting that Drax's supply chain emissions (currently self-reported at 100kgCO2e/MWh) are far beyond the GHG thresholds already set for newer biomass power generation (29kgCO2e/MWh). Drax's level of supply chain emissions is far beyond current Government GHG thresholds, and should not be allowed to continue past 2027.

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.

Drax's wood sourcing from clearcutting primary forest in British Columbia, exposed by the BBC in October 2022, was certified 'sustainable' by the Sustainable Biomass Program and thereby deemed to meet UK standards. Even if 100% of wood had to meet the standards it would do nothing meaningful for forests and the climate. Current sustainability criteria are ineffective, as clearly demonstrated by Drax's sourcing from Enviva, from Natura 2000 areas, and from Primary and Old Growth Forest in Canada.

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

Current sustainability criteria do not account for the length of relevant carbon payback periods. To quote a letter from 800 scientists to the European Parliament "*Even if forests are allowed to regrow, using wood deliberately harvested for burning will increase carbon in the atmosphere and warming for decades to centuries – as many studies have shown – even when wood replaces coal, oil or natural gas. The reasons are fundamental and occur regardless of whether forest management is "sustainable*."[43] While some types of biomass, other than forest wood, have a smaller climate impact, they are not available at anything close to the scale required for Drax and Lynemouth, and in any case, both power stations can only burn high-quality wood pellets. There should be no new subsidies for bioenergy after 2027.

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?

We do not think that transitional support should be awarded.

The eligibility criteria contain no binding obligation on generators to develop carbon capture and storage. Nor do they require planning consent, meaning that generators could receive transitional support for generating units even if they have no plans (nor planning permission) to install carbon capture on those units.

The Government can only amend the definition of an eligible generator if that generator receives support "for the purpose of encouraging low carbon electricity generation" (section 6 of the Energy Act 2013). As we have said, unabated biomass in any form cannot rationally be considered to be low carbon, so we do not believe that the Government has the power to amend the definition of an eligible generator in order to include unabated biomass generating stations, which are already generating electricity, as eligible generators.

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43 https://www.euractiv.com/wp-content/uploads/sites/2/2018/01/Letter-of-Scientists-on-Use-of-Forest-Biomass-for-Bioenergy-January-12-2018.pdf

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?

We do not think that transitional support should be awarded. Please see Q13 for further comments.

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?

The Government has stated that in 2024 it will consult on a new biomass sustainability framework. This will not be robust enough unless it introduces accounting for all sources of carbon dioxide, including foregone sequestration of logged forests.

The Government has already ruled that new CfD contracts should be subject to a new and lower GHG threshold of 29kgCO2e/MWh.[44] As stated in existing large-scale biomass generator company reports, biomass would not meet the new GHG threshold and therefore is not eligible for new CfDs beyond 2027.[45]

We are concerned that the Government appears minded to rush into a decision on transitional subsidies. One major concern is that new contracts could be agreed behind closed doors, very soon, and before the Government publishes a response to the consultation, leading to a lack of transparency. Given the Government has asked eligible generators to apply by the end of March, it is highly concerning that these subsidies will go ahead before proper scrutiny is given to responses to the consultation and results from the multiple investigations and reports noted in Q1 have been published. A critical Ofgem investigation on the sustainability of a bioenergy company remains unfinished, and the Government plans to consult on new biomass sustainability standards this year. However, it is rushing ahead with this consultation ahead of either of those key milestones. This seems to show that the Government has already decided to award new subsidies, and is doing so without critical pieces of evidence or new policies in place.

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 are not responding to this question.

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[44] https://assets.publishing.service.gov.uk/media/5b8669e4ed915d7e2f6ef18a/Part_B_Consultation_Response.pdf

[45] Drax_AR2022_single_pages.final_.pdf