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Our ref: MCB2020/36120

25 November 2020

**FALSE** / **MISLEADING** / **TRUE**

Dear Tommy,

Thank you for your letter of 6 November to the Rt Hon Alok Sharma MP, regarding the UK Government subsidies that are currently going to biomass production. I am responding on behalf of the Department.

The UK only supports biomass which complies with strict sustainability criteria, and companies only receive a subsidy for compliant biomass. This criteria takes into account a range of social, economic, and environmental issues including protecting biodiversity, land use rights, sustainable harvesting, and regeneration rates. They ensure that the carbon stock of the forest from which the pellets are derived is not decreased, by requiring that biomass fuels are from forest waste wood and residues and the forest owner adheres to the relevant legal requirements, to protect biodiversity and the environment.

Current regulations also, over time, increase the stringency of the ceilings and thresholds, for greenhouse gas emissions from producing the feedstock.

Sustainable bioenergy is helping us move to a low-carbon energy mix, increase our energy security, and keep costs down for consumers. However, as we decarbonise, it is right to continually review our approach to ensure that we are using the lowest carbon sources of electricity. We have pledged that this will be the first generation to leave the environment in a better state than we inherited it.

We are reviewing the air quality impacts of biomass to ensure that our energy policies can jointly tackle climate change and improve air quality. In addition, all support for coal-to-biomass conversions will end in 2027.

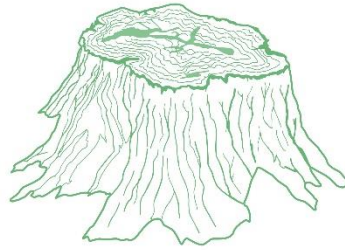
We have no plans to remove support for biomass generating stations that are already supported, under the Renewables Obligation (RO) and the Contract for Difference (CfDs) prior to 2027. Such generators undertook their investments in establishing their stations under these schemes and have a statutory right to their existing support, as set out in the schemes' implementing legislation.

Thank you for taking the time to write, I hope you find this response useful.

Yours ever,

**RT HON KWASI KWARTENG MP**  
Minister of State for Business, Energy and Clean Growth

# CUT CARBON NOT FORESTS



## FACT CHECK: WHY IS THE GOVERNMENT HIDING THE TRUTH ABOUT BIOMASS SUBSIDIES?

In a letter responding to a MP's inquiry on the government's subsidies for biomass electricity generation, BEIS made multiple statements that were either **FALSE** or **MISLEADING**. We take a look at the facts.

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**MISLEADING STATEMENT:** The UK only supports biomass which complies with strict sustainability criteria...

**FACT:** Biomass burned for electricity in the UK relies overwhelmingly on imports of wood from overseas forests, and nearly half comes from logging of whole trees.<sup>1</sup> In key supply regions, such as the U.S. Southeast, the Baltics, and Canada, wood harvested to supply the UK energy market is routinely sourced using damaging logging practices, including clear-felling of mature and highly biodiverse forests.<sup>2</sup> This biomass is known to be high carbon and its sourcing contributes to forest degradation, yet it is accredited as meeting the UK sustainability criteria.

Moreover, sustainability is not a proxy for carbon benefits, and the UK's sustainability criteria do not account for the full carbon impact of burning biomass for electricity.<sup>3</sup> Carbon dioxide (CO<sub>2</sub>) is emitted throughout the entire biomass supply chain, yet the UK's sustainability criteria only accounts for the process and transport related emissions. This means that the carbon emitted at the time the biomass is burned in the UK—an amount that exceeds emissions from coal, per megawatt hour of energy produced—is ignored.<sup>4</sup> Further, on the landscape, replacing older trees with saplings after harvest reduces the amount of carbon stored in the regrowing forest, even under the best-case scenario in which trees are replanted and regrow immediately; the latter represents a separate and significant source of emissions that is also ignored under the UK criteria.

Finally, only 70% of biomass burned in a power station in one month has to meet the sustainability criteria. That means 30%—equal to more than 2 million tonnes of pellets a year in the case of Drax Power Station alone—does not have to meet the sustainability requirements at all.

**MISLEADING STATEMENT:** This criteria takes into account...regeneration rates.

**FACT:** Neither the UK sustainability criteria nor the forest harvesting laws in the southeastern U.S., where a majority (65%) of the UK's biomass is harvested, require a forested area to be regenerated (i.e., regrown) after being harvested for biomass. Furthermore, the conversion of natural and biodiverse forest ecosystems to monoculture tree plantations is often classified as "regeneration."

**FALSE STATEMENT:** [The sustainability criteria] ensure that the carbon stock of the forest from which the pellets are derived is not decreased...

**FACT:** The sustainability criteria do **not** address the forest carbon stock of areas harvested for biomass and therefore do not ensure that forest carbon stocks are maintained.

The carbon stock of a forest is the amount of carbon that has been sequestered from the atmosphere and is being stored within the forest ecosystem (in both the trees and soil). Cutting down trees to be used as biomass reduces the amount of carbon stored in the forest, even under the best-case scenario in which trees are replanted immediately.<sup>5</sup> These carbon emissions, however, are not considered in the UK's sustainability criteria.

**FALSE STATEMENT:** [The sustainability criteria]... requir[e] that biomass fuels are from forest waste wood and residues...

**FACT:** The sustainability criteria do **not** require woody biomass (i.e., wood pellets) to be sourced from wastes or residues and, in fact, most of the UK's biomass imports from the U.S. Southeast and nearly half of all biomass imports into the UK energy market come from whole trees. Further, "residue" is an imprecise term that could include everything from sawdust and bark to whole trees (i.e., low-grade roundwood and thinnings). "Waste," "residue," or otherwise "low-value" or "low-grade" wood are terms associated with traditional forest products markets (e.g., lumber, pulp and paper, plywood, etc.)—these types of materials still emit CO<sub>2</sub> when burned as fuel for electricity generation.

**MISLEADING STATEMENT:** [The sustainability criteria] ensure that...the forest owner adheres to the relevant legal requirements, to protect biodiversity and the environment.

**FACT:** There is nothing in the UK sustainability criteria that prohibits woody biomass from being sourced from primary forests (i.e., natural/undisturbed forests), important natural areas, wetlands, or other highly biodiverse areas. And although the UK sustainability criteria may require that biomass be harvested legally (according to the laws of the source country), such a designation does little if anything to protect biodiversity or ensure that biomass harvest and burning does not exacerbate climate change.

For example, wood pellet harvesting in the southeastern U.S. occurs primarily within the North American Coastal Plain Global Biodiversity Hotspot<sup>6</sup> and relies mostly on whole trees, often harvested using clear-felling practices that can lead to the degradation of critical habitats for

many at-risk species.<sup>7</sup> These forests are owned almost exclusively by private landowners who are under no legal requirement to protect biodiversity, nor to prevent harm to hundreds of species of conservation concern that are not protected by the U.S. Endangered Species Act.

**MISLEADING STATEMENT:** Current regulations also, over time, increase the stringency of the ceilings and thresholds, for greenhouse gas emissions from producing the feedstock.

**FACT:** Although the UK's greenhouse gas (GHG) thresholds do increase in stringency over time, as already noted these thresholds only apply to the biomass supply chain emissions (i.e., processing and transport) and do not consider the large amount of carbon emitted at the smokestack when the biomass is burned or foregone sequestration in forests.

Additionally, the tightening of the GHG emissions intensity threshold in 2018 only applies to new biomass electricity projects, of which there are few, if any, planned. In 2018, the government tightened the biomass supply-chain GHG intensity threshold such that essentially none of the wood pellets currently imported into the UK would qualify. Existing biomass plants, however, were 'grandfathered' in and thus able to continue operating under the old GHG intensity thresholds.<sup>8</sup> This is despite the government's own admission that "[c]ontinuing to apply the existing GHG threshold would lead to GHG emissions [for biomass electricity] significantly above the projected UK grid average[.]"<sup>9</sup>

**FALSE STATEMENT:** Sustainable bioenergy is helping us move to a low-carbon energy mix...

**FACT:** Calling biomass "sustainable" does not mean that it is helping to reduce CO<sub>2</sub> emissions within timeframes relevant to climate action under the Paris Agreement. The UK's sustainability criteria contain critical gaps in carbon accounting for foregone sequestration (i.e., the loss of carbon sequestration in the forest after it is logged), and thus inappropriately ignore all CO<sub>2</sub> emitted at the smokestack when biomass is burned as a replacement for fossil fuel. This is despite the fact that biomass-burning power stations emit more CO<sub>2</sub> than coal plants to generate the same amount of power. Even biomass power stations admit as much—In 2019 alone, Drax reported that it emitted almost 13 million tonnes of CO<sub>2</sub> from burning what it calls "sustainable" biomass.<sup>10</sup>

**FALSE STATEMENT:** Sustainable bioenergy is helping us... keep costs down for consumers.

**FACT:** Subsidies to large biomass power plants cost UK energy billpayers more than £1 billion per year—or almost £3 million a day.<sup>11</sup> This figure is all the more extraordinary considering wind and solar generation is now effectively subsidy free and guarantees real emissions reductions.

**TRUE STATEMENT:** We are reviewing the air quality impacts of biomass to ensure that our energy policies can jointly tackle climate change and improve air quality.

**FACT:** The entire biomass supply chain emits harmful local air pollution. A recent consultation sought input on the government's decision to close subsidies for *new* coal-to-biomass conversions, a decision that was originally articulated in the government's 2019 Clean Air Strategy as means to reduce harmful fine particulate matter (PM2.5) emissions. This policy change, however, would not apply to *existing* biomass plants—the source of today's pollution.<sup>12</sup>

**MISLEADING STATEMENT:** [All] support for coal-to-biomass conversions will end in 2027.

**FACT:** Although subsidies for biomass conversions are set to expire in 2027, under the existing support scheme, UK billpayers will spend an additional £13 billion in direct support to large biomass plants through 2027 (£10 billion of which will go to Drax alone).<sup>13</sup>

Moreover, Drax and others are lobbying for a continuation of biomass subsidies past 2027 to support an unproven technology called bioenergy with carbon capture and storage (BECCS), which they champion as a means to produce 'negative emissions.'

There is no scientific basis for assuming that BECCS can deliver negative emissions after fully accounting for the entire biomass carbon lifecycle. In a scenario using BECCS, the stack emissions at the power plant would *in theory* be captured and stored. **But it is critical to note that process/transport emissions and the foregone sequestration on the landscape are uncapturable.** These offsite emissions are released to the atmosphere regardless of on-site efforts in the UK to capture stack emissions at the power plant. Further, to date, BECCS pilot projects have only been able to capture 1 tonne of carbon per day, which is then released to the atmosphere.<sup>14</sup>

**MISLEADING STATEMENT:** [Biomass] generators undertook their investment in establishing their stations under [the Renewables Obligation (RO) and Contracts for Difference (CfDs)] schemes and have a statutory right to their existing support, as set out in the schemes' implementing legislation.

**FACT:** The bulk of subsidies for large biomass power plants are paid out under the RO scheme. The Secretary of State has relatively broad power to amend the RO, including the sustainability criteria under which RO support is granted (for example, applying the new GHG emissions intensity threshold for CfDs to biomass subsidies under the RO scheme) and may apply such changes to existing facilities.<sup>15</sup> In fact, the government has exercised this power before in a similar context.<sup>16</sup>

In 2018/2019, the UK's RO program distributed nearly £1 billion in subsidies to biomass plants.<sup>17</sup> Reduced spending on biomass electricity subsidies would free up increased funding for new subsidies for wind, solar, and other truly clean renewable electricity sources. Doing so would be in the public interest. Significant evidence now establishes that burning biomass for electricity exacerbates climate change and harms forests, whereas wind and solar energy offer guaranteed emissions reduction at a fraction of the cost.

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