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Biomass sustainability: RSPB supplementary evidence to EAC oral evidence session 25/11/21

Forest biomass sourcing scenarios

A report by the European Commission's JRC found that the only scenario identified as enabling 'short term' carbon risk (i.e. 10-20 years of increased CO₂) and low risk for biodiversity is burning fine woody debris (twigs and low diameter branches) provided adequate debris are also left in the forest to maintain soil health and biodiversity.¹ This is incompatible with the scale currently envisaged by Drax or the CCC. According to Drax's own reports, more than half of the wood used in their pellets is from roundwood and thinnings (i.e. whole trees).

Evidence of harmful harvesting practices

We conclude that a UK reliance on biomass imports at this scale means that monitoring and verification of supply chains is unmanageable, regardless of the quality of UK or Drax sustainability regimes. On-the-ground evidence suggests that incentives to source woody biomass for pellet production has led to widespread instances of harmful sourcing, despite voluntary wood pellet certification and existing sustainability standards in UK policy. The following pellet producers supply a substantial proportion of Drax's pellets and have been found to undertake harmful practices:

- **Graanul Invest:** logging within Natura 2000 sites; logging of Woodland Key Habitats; logging on peatland soils and new drainage of peatland soils; logging within the protected buffers around rivers and streams; harm to culturally important trees.²
- **Pinnacle Renewable Energy:** sourcing whole trees in order to manufacture its wood pellets. Pellets are 'likely' being made with wood from threatened species habitat.³
- **Enviva:** sources a significant proportion of its feedstock from whole trees (including from biodiverse hardwood forests in North Carolina) and clearcutting and complete elimination of all standing trees is a common practice.⁴

Forest carbon stocks

We offer evidence that overall forest growth does not in fact mitigate the carbon emissions associated with burning harvested wood.

- The potential loss or forgone growth potential of forest carbon stocks in the US is not accounted for by Drax, or UK standards.
- With specific reference to the south eastern US, one paper provides evidence that such market-driven forest management assumptions resulting in climate benefits from forest-based bioenergy systems "are too optimistic, at times outright unrealistic."⁵
- A recent paper projected that forest carbon stocks showed a consistent reduction in both forest and wood products carbon stocks under a bioenergy (thinnings) scenario vs. the baseline (no thinnings) scenario. While individual trees typically show an increased growth

¹ JRC (2021) The use of woody biomass for energy production in the EU. [Online](#).

² Van der Wal (2021) Wood pellet damage: How Dutch government subsidies for Estonian biomass aggravate the biodiversity and climate crisis. SOMO for Greenpeace Netherlands. [Online](#).

³ Stand.earth (2019) Investigation: Canada's growing wood pellet export industry threatens forests, wildlife and our climate. [Online](#).

⁴ NRDC, Dogwood Alliance and SELC (2019) "Global Markets for Biomass Energy are Devastating U.S. Forests" [Online](#).

⁵ Giuntoli et al. (2020) Carbon accounting of bioenergy and forest management nexus. A reality-check of modeling assumptions and expectations. *Renew. Sustain. Energy Rev.* 134:110368. doi: [10.1016/j.rser.2020.110368](https://doi.org/10.1016/j.rser.2020.110368)

rate following a thinning, net primary productivity and therefore carbon sequestration for the entire stand decreases.⁶

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⁶ Buchholz et al. (2021) When Biomass Electricity Demand Prompts Thinnings in Southern US Pine Plantations: A Forest Sector Greenhouse Gas Emissions Case Study. <https://doi.org/10.3389/ffgc.2021.642569>