To: The Department for Energy Security and Net Zero

Date: 30 January 2024

Re: Consultation on a transitional support mechanism for large-scale biomass generators

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We are writing to express our concern regarding the Department's proposal for new financial support for large-scale biomass electricity generators beyond 2027. Bioenergy is an emerging and growing threat to biodiversity and our climate that must be stopped — not extended and facilitated — if we hope to avert climate disaster and biodiversity collapse. For this reason, we oppose extending subsidies to the biomass industry past 2027, when they are currently set to expire.

Up to one million species are at risk of extinction by the end of the century, primarily due to habitat fragmentation and loss. Forests are among the most biodiverse places on the planet, providing habitat for countless species. They are also often referred to as the "lungs of the earth" due to their capacity to absorb nearly a third of all the emissions released by burning fossil fuels.

Troublingly, because it has wrongly been deemed "carbon neutral," many countries are increasingly relying on forest biomass to meet net zero goals. This is harming our world's forests when we need them most. Many of the wood pellets burned at power stations for bioenergy are coming from whole trees — not wastes and residues from logging, as the industry claims. For example, nearly half of all biomass burned at the UK's Drax Power Station comes from whole trees.

Also disturbing is the fact that many of these trees are coming from old, biodiverse and/or climate critical forests. For example, we know that wood pellets burned in the UK come from clearcuts of mature hardwood forests in the U.S. Southeast's North American Coastal Plain Biodiversity Hotspot; protected forest ecosystems in the Baltics that are critical habitats for imperilled birds and mammals; and primary forests in Canada, including the boreal forest, one of the world's last remaining intact forests and a stronghold for global bird populations. Rare species such as the prothonotary warbler, the boreal woodland caribou, and the black stork, are already declining due to the loss and degradation of these forests. Forests will become even more important for biodiversity in the future as vital havens for species impacted by climate change, especially if these species' ranges shift due to a changing climate. Wood used for biomass energy is routinely logged using harmful practices like clearcutting.

On-the-ground investigations show that two of the world's largest pellet manufacturers — Enviva and Drax — make pellets from wood clearcut from forests. Clearcutting to provide timber for wood pellets in the EU and UK is even occurring in reserves designed to protect forests and rare and threatened species (e.g. European Union's Natura 2000 network). Studies in tropical forests have shown that once a forest has been clearcut, it takes decades, if not centuries, before it can regrow to recover its original level of ecosystem productivity and biodiversity. While trees may be replanted after logging for bioenergy, they are sometimes replaced with monoculture plantations, which are not nearly as valuable when it comes to biodiversity or ecosystem productivity. In some places — such as Brazil's Rio Grande do Sul region — monoculture tree plantations have completely taken over existing, natural ecosystems, leading to local extinction of species and other environmental impacts.

The scale of this logging is alarming. For example, in 2019, approximately 5.7 million metric tons of wood pellets were exported from the United States to the UK, requiring the clearing of an area larger than the UK's New Forest. And between 2001 and 2019, Estonia's Natura 2000 areas lost an area more than twice the size of Manhattan, due in part to biomass production.

Unfortunately, these devastating impacts are only projected to increase as many countries plan to scale up bioenergy use by adding carbon capture and storage or "BECCS" to meet net zero goals. This is despite the serious questions over whether BECCS power would even remove carbon dioxide from the atmosphere by 2050 and high risks that all the supply chain emissions and efficiency losses would merely make matters worse. If BECCS did become widely subsidised, countries would have to significantly ramp up planting of bioenergy crops, which would diminish the land available for wildlife and natural ecosystems, and jeopardize global food security. Indeed, some projections estimate that worldwide use of BECCS to achieve net zero would require up to 1.2 billion hectares of land — the equivalent of about 80% of all current global cropland. Converting this much of the world's land to bioenergy crops would leave little room for wildlife, preventing us from halting and reversing biodiversity loss (and risking global food and water security).

In addition to its impacts on wildlife, the Intergovernmental Panel on Climate Change (IPCC) noted the critical role that forests play in keeping their stored carbon out of the atmosphere. Harvesting for bioenergy seriously harms forests and their ability to sequester and store carbon.

In sum, the best thing for the climate and biodiversity is to leave forests standing — and biomass energy does the opposite. For this reason, we oppose granting any further financial support to bioenergy post-2027.

Sincerely,

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Endorsement represents the signatory's own view and does not represent their institution.