

I welcome the initiative of bringing State aid guidelines for climate, energy and environmental protection (CEEAG) in line with the EU's climate and biodiversity commitments. I strongly believe that a new state aid regime is required to boost the EU's climate ambition and fulfil its commitment under the Paris Agreement to limit global temperature rise to 1.5°C, as well as to safeguard the EU's objectives under the Biodiversity Strategy. The revision of CEEAG can be a powerful tool if it has the right elements to incentivise rapid deployment of renewables, based on the energy efficiency first principle - as a horizontal guiding principle of European climate and energy governance. This also entails giving right signals for discouraging fossil fuel investments and halting support to unsound technologies such as nuclear or forest biomass, which will only create delays to the real energy transition needed to combat climate change.

The CEEAG proposal no longer mentions aid for renewable energy sources explicitly, but lists renewables as one of the greenhouse gas emission reduction and removal technology categories, among CCS/CCU, hydrogen, and cogeneration technologies. It is very worrying that the source of hydrogen production is not specified in the draft, as decarbonising the economy in line with the 1.5°C objective leaves no room for fossil fuels-based hydrogen. Any support for hydrogen must be given to renewable hydrogen projects only. The uses of CCS/CCU are referred to as mainstream decarbonisation technologies without explicitly excluding the energy sector. Energy savings and sustainable renewable energy technologies are the only options to replace climate polluting technologies in the energy sector. Investments in the energy system should transform it into a highly flexible system while grids, storage and demand response technologies should facilitate further deployment of energy savings and renewable energy. The EU needs to triple renewable energy investments in order to meet its 2030 RES target, fulfill its commitment to the Paris Climate Agreement, and climate neutrality target. There is no room for any subsidies for fossil fuels – including natural gas. Renewables should be given a separate chapter in the CEEAG. ‘Low carbon’ sources, often an euphemism for nuclear energy, must be excluded. While having less carbon emissions than fossil fuels, nuclear technology is prone to accidents, terrorist attacks and there is no solution in sight for the safe disposal of nuclear waste, which will remain highly toxic for generations. It is therefore imperative that support for this outdated technology is explicitly removed in order to give the governments the right signal to put in place enabling RES regulations, including special support to small renewables producers including energy communities.

### **The following comments pertain specifically to forest biomass:**

#### **Negative impact on climate change mitigation**

It is now widely understood that reliance on forest biomass is incompatible with the aim of phasing out net carbon emissions. Carbon emissions from power stations burning wood pellets made from forest biomass rival or exceed those from fossil fuels for decades or longer—far beyond timeframes relevant for stabilizing global temperatures at safe levels and averting the worst consequences of climate change.

In February of this year 500 scientists wrote an open letter to the EU <sup>1</sup>warning that “The burning of wood will increase warming for decades to centuries. That is true even when the wood replaces coal, oil or natural gas”.

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<sup>1</sup> <https://www.wwf.eu/?2128466%2F500-scientists-tell-EU-to-end-tree-burning-for-energy>

According to the Intergovernmental Panel on Climate Change, limiting global temperature rise to 1.5°C requires cutting global greenhouse gas emissions in half by 2030 and reaching net zero emissions worldwide by 2050. Thus, burning forest biomass for energy is not a climate solution.

### **Negative impact on protection and restoration of biodiversity and ecosystems**

Additionally, demand for wood pellets for bioenergy poses a threat to wildlife. Years of well-documented evidence from journalists and public interest organisations shows that wood pellets imported into the EU from the forests of the U.S. Southeast are sourced from clearcuts of mature hardwood forests, including biologically rich wetland forests. This region—the North American Coastal Plain—was recently recognized as the 36th global “Biodiversity Hotspot,” so designated because it contains at least 1,500 endemic species of plants and animals not found anywhere else in the world and has already experienced 70% habitat loss. These investigations have also underscored the vast quantities of whole trees and other large-diameter wood—biomass feedstocks known to be high-carbon—entering EU biomass supply chains.

The Lithuanian government now allows logging in regional and national forest parks to meet biomass demand, despite their protected status, impacting many bird species listed as endangered in Lithuania’s Red Data Book like the Pygmy Owl, White-Tailed Eagle, Black Grouse, and White-Backed Woodpecker.

Biomass demand is likewise adding pressure to log the last remaining old growth forests in Estonia and Latvia, which are critical for biodiversity conservation. The Estonian Fund for Nature states these forests have experienced few major human impacts over the years and are therefore unique local biodiversity hotspots, supporting species that cannot survive in actively managed forest landscapes like Flying Squirrels, Capercaillie, and Black Stork. Many of these species are protected under national and/or EU legislation.

### **1. The Communication uses a good framework, aiming to quickly decarbonize the energy supply and protect biodiversity, but fails to exclude forest biomass just when we need forests the most**

The Communication correctly identifies the “scale and urgency of the decarbonisation challenge”: as the recent accumulation of extreme weather events indicates, keeping global warming below 1.5°C is paramount to avoid runaway climate change. We have very little time, possibly between five and [ten years at most](#), for meaningful climate action.

Importantly, the Communication also sees that “to deliver positive environmental effects in relation to decarbonisation, the aid must not merely displace the emissions from one sector to another and must deliver overall greenhouse gas emissions reductions.” In terms of biodiversity protection, the Communication foresees that state aid “can contribute substantially to the environmental objective of protecting and restoring biodiversity and ecosystems, in several ways, including by providing incentives to repair the damage to contaminated sites, rehabilitate degraded natural habitats and ecosystems or undertake investments for the protection of ecosystems.”

However, biomass is incorrectly defined in EU law as a “zero carbon” energy source on the grounds that emissions are accounted for in the LULUCF Regulation. This loophole has caused **the EU to increasingly rely on forest biomass to achieve its renewable energy targets despite the fact that forest bioenergy’s emissions accelerate climate change for several decades**. Biomass burning has doubled since the early 2000s and has already surpassed projected levels. According to [a recent European University Institute report dedicated to state aids for solid biomass](#), “the available

literature suggests that there has been a clear correlation in the relationship between support schemes and deployment” of bioenergy.

Forest biomass burning generates levels of [atmospheric pollution that harm public health](#), in particular through fine particulate matter, for which biomass burning is now the largest source in the EU.. Fuelwood and other solid fuels are responsible for 39 % of the particulate matter in Europe’s air, with much of that coming from residential wood-burning. Air pollution kills around 500,000 people in the EU each year, or over 1,000 every day. The RED’s sustainability criteria for biomass fail to address air pollution and will do nothing to reduce the amount of wood being burned or the resulting air pollution. The EU’s Do-no-harm principle demands that the air pollution caused by wood burning must not be further exacerbated by subsidies.

Forest biomass extraction also destroys much-needed [biodiverse ecosystems](#). Dozens of coal-fired power plants in Europe are considering switching to biomass, which would cause an enormous increase in the demand for wood, destroying forests in Europe and abroad just when we need those forests to act as terrestrial carbon sinks. Many of these investment decisions depend on continued public subsidies. It is therefore essential to stop these subsidies that harm the health of EU citizens, undermine the EU’s climate targets, and demolish the EU’s already battered biodiversity further.

The Communication failed to exclude forest biomass from the list of energy sources eligible for state aid, ignoring recent [recommendations](#) by the Commission’s own scientific advisory bodies that point to the need to only grant public support to the types of biomass whose uses have a payback time compatible with the EU’s climate and biodiversity targets. With the sole exception of limited amounts of “Fine Woody Debris”, the European Commission’s Joint Research Centre [found](#) that using forest biomass for energy had a payback time that failed to comply with this imperative.

Unfortunately, the only safeguard included in the Communication is the Renewable Energy Directive’s sustainability criteria (Article 29): “Support for biofuels, bioliquids, biogas and biomass fuels can only be approved to the extent that the aided fuels are compliant with the sustainability and greenhouse gases emissions saving criteria in Directive (EU) 2018/2001 and its implementing or delegated acts”. However, when it comes to forest biomass, these criteria have fundamental weaknesses which render them practically meaningless. A recent [legal and technical analysis](#) shows that they fail to ensure that bioenergy is produced without harming forests, or in a way that helps tackle the climate crisis, and that only a limited number of EU wood burning facilities are required to abide by them. The Commission’s recently published [revision proposal of the Renewable Energy Directive](#) tweaked these sustainability criteria, but they still fail to protect forests [in Europe](#) and [abroad](#) against the threat of unsustainable logging for forest biomass energy. **The reference to the RED is therefore insufficient.** According to point 76. of article 4.1 “Aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy” of the proposed guidelines ‘Support for biofuels, bioliquids, biogas and biomass fuels’ can only be approved to the extent that the aided fuels are compliant with the sustainability and greenhouse gases emissions saving criteria in Directive (EU) 2018/2001 and its implementing or delegated acts.”

This limitation, however, is entirely insufficient. The Commission’s 2021 proposal for the review of the Renewable Energy Directive only stipulates that “Member States shall grant no support for: the use of saw logs, veneer logs, stumps and roots to produce energy...” However, the above-mentioned feedstocks are seldom burned for energy because of their high economic value (and in the case of roots and stumps because of the cost of extraction). This, however, leaves the door open for subsidies for the burning of the majority of trees that are low in economic value, but high in value for carbon sequestration, biodiversity and communities.

The RED also excludes wood from primary and old-growth forests. However, these only represent about 3% of Europe's forest, leaving 97% open to exploitation.

In order to avoid financing bioenergy that damages climate and wildlife **the state aid guidelines must exclude support for forest biomass burning.**

## **2. Additional considerations pertaining to the distortive effects of state aid on the forest biomass market**

A 2017 study<sup>2</sup> by Vivid Economics for the UK concludes that biomass electricity is now costlier than genuine zero-emission renewables like solar and wind, even when accounting for the full cost of grid integration. While the levelised costs of renewables like onshore wind, offshore wind and solar have fallen substantially in recent years, with scope for further reductions in the future, bioenergy applications, such as coal-to-biomass conversions, are mature technologies with extremely limited cost reduction potential. This is because biomass in the power sector relies on existing combustion techniques that are already achieving high efficiencies. Further, the cost structure of biomass conversion is also different to that of wind and solar, comprised of around 85% fuel costs. Renewables consume no fuel and as a consequence, have minimal operations and maintenance costs. The majority of the costs associated with building renewable energy projects are capital costs of construction.

As a result, even significant reductions in capital cost would have a smaller impact on the overall cost of biomass than capital cost reductions in wind and solar. In other words, the fact that biomass-burning plants require continuous subsidies to purchase wood pellets defeats the objective of reducing the amount of aid needed, while the costs of true renewables continue to fall rapidly.

Furthermore, Forest biomass is used by many economic sectors, from the most traditional such as construction, furniture, pulp and paper... to the most innovative, such as specialty chemicals produced from biomass instead of fossil fuels. There is increasing evidence that, in addition to increasing the overall demand for wood, the public subsidies granted by Member States to energy operators who burn forest biomass for energy production are giving these an unfair competitive advantage in accessing the raw material. In a context of historically high wood prices caused by the post-pandemic economic recovery, EU policy priorities favoring the use of wood in construction to act as a carbon sink, and rapidly increasing demand of biomass coming from the bioeconomy, several industry sectors ([wood using industries](#), [paper industry](#), [wood panels industry](#), [chemicals industry](#)...) mobilized to express either their concerns regarding the continuation of bioenergy subsidies, or/and their preference for a strict implementation of the cascading use principle for wood, leaving bioenergy the last possible use before disposal.

This was taken into account by the European Commission's proposal for the revision of the Renewable Energy Directive, which stipulates that "By 2026 the Commission shall present a report on the impact of the Member States' support schemes for biomass, including on biodiversity and possible market distortions, and will assess the possibility for further limitations regarding support schemes to forest biomass." (Article 3). The Communication itself sees that "the Commission will verify whether Member States took into account in the design of their support mechanisms the need to avoid distortions on the raw material markets from biomass support, in particular for forest biomass." Such a commitment indicates that the European Commission is at least aware of the

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<sup>2</sup> <https://www.nrdc.org/resources/money-burn-uk-needs-dump-biomass-and-replace-its-coal-plants-truly-clean-energy>

many problems caused by current incentives for burning of forest biomass for energy, and that it could be considering bioenergy as, at best, a transition source of energy towards cleaner renewables such as wind or solar. But, again, given the scale and urgency of the decarbonization challenge, and the looming prospect of dozens of coal-fired power plants switching to biomass in Europe, 2026 is too late to start acting on the problem.

### **3. Articles 99 and 107 of the proposed State aid guidelines**

Article 99 stipulates overall GHG emission reductions, not just displacement emissions from one sector to another. Especially in the context of coal being replaced by biomass, such a displacement effect is precisely what is taking place – a further argument to stop support for forest biomass.

According to point 107 of the proposed guidelines “incentives must not be provided for the generation of energy that would displace less polluting forms of energy. ... where biomass is supported, they must not receive incentives to generate electricity or heat at times when this would mean zero air pollution renewable energy sources would be curtailed.” In the case of subsidies for forest biomass burning, however, these compete directly with subsidies for solar, wind and geothermal energy, genuine low-carbon and zero emitting technologies. The most efficient and safest implementation of the spirit of this guideline would be to exclude forest biomass burning from state aid.

### **4. Recommendations to protect forests and the climate from the threat of unsustainable bioenergy**

- a. The Guidelines should recommend discontinuing state aid (and in particular operating aid) for the burning of forest biomass.** Further allowing operating aid for forest biomass for electricity and heating/cooling would run against the EU’s climate targets of reaching climate neutrality by 2050 and undermine biodiversity. Public support should be re-directed to facilitate the development of more innovative and cleaner technologies, that contribute to an energy transition for the long-term without accelerating global warming for the coming decades, such as improved batteries/storage; wind, solar and geothermal, including material improvements and efficiency improvements.
- b.** State aid rules should take a more holistic approach to aid for solid biomass and increase scrutiny of the potential external costs (in particular in terms of public health and environmental damage) and distortive effects of the projected increase in deployment. The revised state aid regime must take into account the European Green Deal’s cost-effective transition to climate neutrality by 2050 and a more circular, efficient use of limited natural resources in particular when support to biomass is considered.
- c.** The rules should differentiate conditions for granting aid depending on technological advancement and maturity. This would avoid locking in State aid that can structurally distort the market and form a barrier to cleaner alternatives and innovation. Concretely, the Commission should restrict the possibility for forest biomass to compete on an equal footing in open tendering procedures for as long as external costs are not adequately priced in. The Commission should also make access to (technology-specific) support schemes conditional to the level of maturity of the technology, the sizes and types of installations, or restrict schemes to overall capacity levels. Forest biomass is literally a centuries old technology – even pellets have been around for decades. Support is clearly not needed anymore and

represents a distortion of competition.

- d.** Increasing transparency and scrutiny of support through a variety of support mechanisms to avoid overcompensation. Support instruments for solid biomass are severely fragmented, which complicates the analysis the full scope of incentives and their effectiveness in achieving policy objectives. More transparency and scrutiny for support instruments is needed to avoid that forest biomass can benefit from a proliferation of support options, which could lead to further distortions in the renewables and raw material markets.