

## **FOREST BIOMASS: Opportunities for RED reform in the September 13 vote**

### **Key messages as of September 6, 2022**

On September 13<sup>th</sup>, the European Parliament will vote on proposed reforms to the biomass provisions in the Renewable Energy Directive (RED). At stake is whether heat and electricity generated from burning forest biomass, known as ‘primary woody biomass’ (PWB), will continue to be counted toward renewable energy targets. To preserve the EU’s ability to achieve its climate targets, as well as nature restoration goals of the Biodiversity and Forest Strategies, MEPs should vote to

1. **Stop counting** PWB/forest biomass toward renewable energy targets, and end all subsidies.
2. **Reject loopholes** in the definition of primary woody biomass and adopt the standard international definition by deleting exemptions for forests affected by fires, disease, pests, and natural disasters. PWB should be synonymous with ‘forest’ biomass (defined in the RED as “biomass from forestry”).
3. **Enact a strong delegated act on the cascading principle** allowing energy from secondary woody biomass (mill residues, etc.) to count as renewable **only if there is no higher use**.

This is in no way a ‘ban’ on wood-burning and would not affect anyone’s ability to burn wood.

### **Background**

Climate scientists and the EU’s climate legislation state that to avoid catastrophic climate warming, we must reduce emissions and take CO<sub>2</sub> out of the atmosphere, generally by increasing the amount of carbon stored in forests. However, burning forest wood for heat and power, which increases emissions compared to fossil fuels and degrades the forest carbon sink, has increased massively in the EU in response to renewable energy incentives ([slide 14](#)), undermining both climate and nature restoration objectives. Currently, about [half](#) the wood harvested in the EU is burned for energy, and more is imported from other countries. Almost all the wood burned in the EU, including for the most polluting residential heating, is counted toward member state renewable energy targets. EU citizens spend about [€17 billion per year](#) on subsidies for bioenergy as a whole, with wood-burning for heat and power receiving the majority of that support.

About half of the wood burned in the EU is primary woody biomass (PWB), meaning biomass sourced directly from forests (‘forest biomass’), and half is secondary woody biomass (SWB), meaning mill residues and post-consumer wood waste. Burning PWB/forest biomass provides around 20% of the EU’s renewable energy, and [around 3% of total energy](#), on an ‘energy input’ basis. However, because biomass energy is [extremely inefficient](#), it provides much less on an ‘energy output’ or ‘useful’ energy basis. The World Bioenergy Association has misleadingly claimed that energy from forest biomass exceeds that produced by wind and solar, but this is not the case, as demonstrated in a [critique](#) of the WBA’s recent communication to MEPs (also see [slide 16](#)). Replacing energy from burning trees and other forest biomass with truly zero-emissions renewable energy is not just achievable, it is essential for the EU to meet its climate and nature targets.

**Climate Impacts:** Because [bioenergy is inefficient](#), burning biomass [emits more CO<sub>2</sub> than fossil fuels](#) per unit energy generated. Current emissions from burning wood in the EU are now more than [400 million tonnes per year](#), similar to total reported emissions of Poland or Italy, and [~20x the emissions of major fires](#) this summer. The EC’s 2016 impact assessment [states](#) that net emissions from burning forest wood exceed those from fossil fuels for *decades to centuries* because combustion emits CO<sub>2</sub> quickly, while forests regrow slowly. This is obviously time we do not have.

The EC's Joint Research Centre's comprehensive review of bioenergy found that even burning 'coarse woody debris' – which includes much of the logging residues burned in the EU for energy – is ['high risk' for the climate](#) (and also for forest ecosystem function and biodiversity, as discussed below).

Intensive biomass harvesting appears to be a major driver for the total loss of the land carbon sink in Finland and Estonia. Estonia is a major wood pellet exporter, and all the large wood pellet plants there are certified under the Sustainable Biomass Partnership, but this has not prevented overlogging and loss of the forest carbon sink. It appears Sweden's land carbon sink is also in jeopardy. The EU's forest and land carbon sinks are getting weaker with every year ([slides 8 – 12](#)). [No 'sustainability' criteria](#) in the RED, not even [improved ones](#), are capable of mitigating the inevitable increase in CO<sub>2</sub> emissions when forests are logged for fuel, or lessening the extremely long period required to offset such emissions, if this occurs at all.

It is sometimes argued that as long as harvesting is maintained at a lower level than forest growth ('sustainable harvesting,' burning forest biomass is 'carbon neutral.' However, the EC's own scientists have emphasized that this is not the case. As the EC's 2016 biomass impact assessment [states](#), "*ensuring that the harvest level stays below the growth rate of the forest is not sufficient to ensure climate change mitigation.*" Likewise, the IPCC [states](#) that it does "*not automatically consider or assume biomass used for energy as 'carbon neutral', even in cases where the biomass is thought to be produced sustainably.*"

**Forest ecosystem and biodiversity impacts:** The 2021 JRC biomass study included a [comprehensive review](#) of the scientific literature, finding that removing even forestry residues for fuel is highly damaging to forest ecosystem function (reducing soil carbon and nutrient status and impeding regeneration) and biodiversity (because much of the food web depends on downed woody debris). Logging forests for fuel and converting natural forests to plantations is also devastating to biodiversity. There is ample evidence that forests are being logged for fuel in the [EU](#), and in wood pellet exporting countries such as the [US](#) and [Canada](#).

**Health impacts:** Wood-burning is a [major source of the air pollution](#) that kills over 1,000 EU citizens per day. Fine particulate matter (PM2.5) was responsible for around 379,000 premature deaths in 2018 (pre-covid). More than half of PM2.5 comes from residential solid fuels, mostly wood. Around 60% of the wood counted toward renewable energy targets is burned for residential heating. EU policy promotes renewable energy that sickens and kills people. Major health groups have [called for an end to treating biomass as renewable energy](#).

**Energy Security:** Burning wood and counting it toward renewable energy targets actually increases energy insecurity because it jeopardizes forests for a short-term energy benefit. Replacing just 10% of Russian fossil fuel imports with wood would [require a 60% increase in wood-burning](#), which would be disastrous for forests, the climate, and air quality. Beyond this, the EU's bioenergy policy actually [traps those who depend on wood](#) heating into energy poverty, since they are competing with subsidized power plants for fuel, and investments in clean heating are starved when bioenergy receives billions in subsidies.

**Position of NGOs and scientists:** More than 110 NGOs [endorsed a petition](#) to remove forest biomass from the RED. More than 500 scientists signed a [letter](#) warning it's time to stop burning forests for fuel. The youth are activated – a [recent op-ed](#) by Greta Thunberg and others, as well as an eloquent [short film](#), state the urgency of ending use of wood for renewable energy. The European Academies Science Advisory Council (EASAC) has [warned](#) for several years that the EU must restrict biomass burning to only those materials that deliver carbon benefits in a relatively short time.

**In summary:** With this upcoming vote, MEPs have a unique opportunity to help reduce CO<sub>2</sub> emissions, preserve forests, and reallocate billions in renewable energy subsidies toward truly clean, low- or zero-emissions energy. Scientists and NGOs advise that MEPs act immediately to take forest biomass out of the RED.

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