

Submission to the Department of Climate Change, Energy, the Environment and Water

Native forest biomass in the Renewable Energy Target: consultation paper

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Foreword

Fusion thanks the Department for the opportunity to make a submission to the consultation paper. This document will respond to the key questions asked at the conclusion of the paper.

In summary, we argue that native forest biomass (and indeed, biomass in general) should be removed from the RET.

Fusion represents over 1500 members who are deeply concerned about the impact of climate change and the protection of Australia's biodiversity.

Q1. Should the eligibility of native forest biomass be removed from the RET?

Burning of native forest biomass should not be eligible for the RET. It is only logical fallacy that enabled burning native forest biomass to be made RET-eligible.

RET-eligible activities are activities that aim to reduce net greenhouse gas concentrations by either:

- sequestering carbon dioxide; or
- reducing net emissions.

In contrast, burning of native forest biomass releases carbon dioxide with a promise of recapturing it over decades. There is no overall decrease in greenhouse gas emissions or concentrations.

Further, this submission provides evidence that at best only a portion of the carbon is re-sequestered and so overall, burning native forest biomass becomes a net *source* of greenhouse gases.

Native forest biomass should never be considered a renewable energy source. Its original inclusion in the RET is based on incorrect assumptions and failure to apply fundamental accounting concepts used for projecting assets.

A global ban on using forest biomass for industrial scale bioenergy is urgently needed given its negative impacts on climate mitigation, forest ecosystem integrity, and other environmental and social outcomes.

False assumptions disguise perverse outcomes from burning native forest biomass

The emissions from burning biomass are instantaneous; however, their removal from the atmosphere requires many decades. We rightly recognise that coal and gas are not renewable even though they will be recreated over millions of years.

Furthermore, our native forests are being degraded rapidly, and there is no indication that they will quickly regrow over the coming decades to sequester carbon dioxide. Along with other measures, to be eligible for the RET, the risk of *not* recapturing the carbon in full would need to be accommodated into the accounting.

Due to future risk of non-recapture, carbon in an intact forest today is worth more than a potential re-sequestration in the future, adding further weight to the argument that burning native forest biomass cannot be considered renewable over decades.

Further weight to the risk of non-recapture is that when trees that live for hundreds of years are harvested on a 40 year cycle, the “forest” becomes a carbon *source* as opposed to carbon neutral, because carbon is oxidised from roots, soil, undergrowth etc.

In addition, a global analysis of 403 tropical and temperate tree species found that on average, every year trees put on more mass than they put on the year before.¹ Therefore, realistic accounting would need to capture not only the future risk to recapturing the lost carbon, but also the lost *potential* for carbon capture.

This is compounded by the fact that global heating is happening now and that positive feedback loops are speeding up warming, further reinforcing the value of that carbon sequestered today. Forests are at ever greater risk of drought, fire, and disease.

Other key reasons to exclude native forest biomass burning from carbon accounting toward the RET are:

- Biomass burning power plants were found to emit 150% the CO₂ of coal, and 300–400% the CO₂ of natural gas, per unit energy produced.²
- Native forest logging and canopy disruption increases the severity at which forests burn, beginning roughly 10 years after logging and continuing at elevated levels for another 30+ years.³

¹ [Rate of tree carbon accumulation increases continuously with tree size](#). N.L. Stephenson *et al.*, Nature, 2014.

² [Carbon emissions from burning biomass for energy](#). Partnership for Policy Integrity, 2011.

³ An [expert review](#) of published scientific research by The Bushfire Recovery Project – a joint project between Griffith University and the Australian National University to provide the Australian community with a scientific understanding of bushfires.

- Allowing logged forests to regrow across NSW and Victoria would be equivalent to avoiding emissions of 136 Mt CO₂ per year for the next 100 years. This represents a decrease of 24% in emissions for the reference year, 2005.⁴

Proforestation (allowing forest to regrow and expand) is the only plausible stance relevant to carbon accounting.⁵

Logging native forests causes poor ecological, environmental and health outcomes

Aside from flaws in the carbon accounting, there are far more important ecological and safety reasons to cease any further degradation of native forests and adopt a proforestation approach.

Direct and indirect impacts of global heating (such as increasing bushfire) and ongoing native logging have already devastated the integrity of our native forests, with flow on effects for ecological health and quality of life in Australia's rural, regional and urban areas.

Australia is the only OECD nation on the world list of deforestation hotspots.⁶ We also lead the world in mammal extinction due to habitat loss. Many studies show the negative impacts of intensification of logging on biodiversity including loss of habitat resources for threatened species such as the Southern Greater Glider and Koala.⁷

Moreover, there is no such thing as "residue" biomass in a forest ecosystem, which biomass projects might claim to use, as the residue is integral to the ecosystem health of the forest.⁸

A number of studies also point to the increased risk of severe bushfires in regrowth, as opposed to mature forests. This is thought to be caused by lowered ability to retain moisture once the canopy is disturbed and regrowth increasing the fuel load closer to the ground. Mature trees are also more likely to survive a bushfire.⁹

In addition, mature forests are vital for the health of water catchments so their detriment is the detriment of harvested water.

⁴ [Green Carbon: The role of natural forests in carbon storage](#): Part 1. A green carbon account of Australia's south-eastern Eucalypt forests, and policy implications. The Fenner School of Environment & Society, The Australian National University, 2008.

⁵ [Burning forest biomass for energy](#): Not a source of clean energy and harmful to forest ecosystem integrity, Griffith University, 2022.

⁶ [Australia the only developed nation on world list of deforestation hotspots](#), The Guardian.

⁷ [Burning forest biomass for energy](#): Not a source of clean energy and harmful to forest ecosystem integrity, Griffith University, 2022.

⁸ [Burning forest biomass for energy](#): Not a source of clean energy and harmful to forest ecosystem integrity, Griffith University, 2022.

⁹ An [expert review](#) of published scientific research by The Bushfire Recovery Project – a joint project between Griffith University and the Australian National University to provide the Australian community with a scientific understanding of bushfires.

Q2 and 3.

Regarding questions 2 and 3 (*If it should be retained, do the REE Regulations adequately ensure, and provide the public confidence, that electricity generation from native forest biomass is from ecologically sustainable sources? If it should be retained, how could the REE Regulations be amended to provide greater certainty and public confidence that native forest biomass comes from ecologically sustainable sources?*):

Native forest biomass cannot be sourced in an ecologically sustainable way, for the reasons noted above.

Q4. Are there proposals for new native forest biomass power stations that are likely to be eligible under the RET and have potential adverse impacts?

As in the response to Q1 above, any burning of native forest biomass has adverse impacts.

The Consultation Paper notes that many submissions to the relevant Senate inquiry raised concerns about incentivising native forest logging. It then offers the following two points in response:

- Only one power station so far has sought and received accreditation to burn native forest biomass for power; and
- The RET will expire in 2030, making it unlikely that another generator will be approved to burn native forest biomass

This seems to be an admission that burning native forest biomass is a bad idea.

One power station burning native forest biomass is one too many; and the 2030 expiry date of the RET is not a reason to avoid removing native forest biomass from the RET. It is a harmful policy to retain.

The allowance to burn native forest biomass (per Regulation 8(2) of the Act) is the most egregious misuse of the RET. Additionally, using any biomass for energy production should be regarded with skepticism. Regulation 8(1) regarding the use of other plant sources of carbon is also prone to perverse incentives.

Q5. If the Government removes the eligibility of native forest biomass under the RET, what transitional provisions could provide appropriate support to affected registered power stations?

Including native forest biomass in the RET was a mistake for which power generators are not responsible. The single power station currently accredited to burn native forest biomass should be given a reasonable timeframe to find a suitable alternative. If none can be found, government compensation may be appropriate.

