



Department of Climate Change, Energy, the Environment and Water

21 October 2022

Submission from Coastwatchers' Association in response to September 2022 consultation document on Native Forest Wood Waste in the Renewable Energy Target

As Coastwatchers is a member group of ZeroSE this is an identical submission to ZeroSE

ZeroSE, a citizen's alliance dedicated to reducing carbon emissions in southeast NSW, strongly supports the proposal that native forest biomass is declared <u>ineligible</u> for electricity Large-scale Generation Certificates (LGCs) under the Renewable Energy Target (RET).

Our arguments are three-fold, viz:

A. Contravenes all four Objectives of the Renewable Energy (Electricity) Act 2000 (REEA)

REEA Objective (a) To encourage the additional generation of electricity from <u>renewable</u> resources.

Native wood biomass is <u>not renewable</u> within a timeframe that is meaningful to the overall objective of the REE Act, namely, to generate electricity from resources that are easily replaced and cheap in order to replace the use of fossil fuels as our primary energy source, and to do so within the net zero target timeframe. While not defined in the Act, "renewable energy" is generally considered as that which is replenished as fast as it is consumed. Since the trees contributing to native forest biomass would take an average of 100 years to replace (in size alone), they cannot be reasonably described as "renewable" within the context of the REEA's intent.

REEA Objective (b) To <u>reduce emissions</u> of greenhouse gases in the electricity sector.

Burning wood <u>generates</u> carbon emissions. In fact, it emits 150% the CO_2 of coal and 300 – 400% the CO2 of natural gas, per unit energy produced [1]. **Biomass burning does** <u>not</u> <u>reduce</u> emissions of greenhouse gases: <u>it increases them</u>.

REEA Objective (c) To ensure that renewable energy sources are ecologically sustainable.

Native forests are complex ecosystems that involve a myriad of fauna and flora species, some of them at threat of extinction, especially so after the 2019-2020 bushfires. The critical importance across the globe of forests in protecting environmental values such as biodiversity, carbon storage, water catchments, indigenous culture and human health is well-researched and documented (see review led by Australian forest scientists [2]. Logging of Australia's native forests leads to destruction of the many flora, fauna and microbe species that depend on these trees for habitat and other ecosystem services. Forests also store carbon in soils, sequester carbon into trees, maintain biodiversity in soils and capture water. To fully repair the ecosystem after logging would take an extremely long time. Therefore, logging in native forest ecosystems is <u>not ecologically sustainable</u>.

REEA Objective (d) To contribute to the achievement of Australia's greenhouse gas <u>emissions</u> <u>reduction</u> targets.

Logging of forests means forgoing carbon sequestration performed by live trees. Rates of sequestration rates in large trees – the ones targeted for logging for 'high-value' product (see below) - are much faster than in small trees. Destroying these trees thus erodes the vital 'negative emissions' function that they perform. **Moreover, burning wood 'waste'** generates positive emissions. Thus, logging has a <u>negative</u> 'double whammy' <u>effect on emissions reduction</u>.

B. Contravenes Regulation 8 subregulation 1(e) and subregulation 2 of the *Renewable* Energy (Electricity) Regulations 2001 (REER).

Note that subregulation 1(e) requires that all biomass meets all of the requirements in subregulation (2) below.

REER Regulation 8 subregulation 2 requirement 1. It <u>cannot be harvested primarily for use in</u> <u>energy production.</u>

Since most of the biomass of trees logged for 'high value' products is 'waste' and <u>the harvest</u> is primarily for energy production. According to the 2019 NSW Environmental Protection Authority's report on NSW Forestry ([3], Table 7 and Figure 4), and our own calculation based on Forest Corp's 2022 data on active state forest logging compartments in the South East [4], approximately 60% of the total mass of trees harvested are used for sawlogs. These sawlogs are used to make high value products such as flooring, veneer, poles, piles, girders). The remaining 40% automatically goes to 'waste product' (wood chips, biomass, firewood). Since, after milling, only one-third of the sawlog mass is usable as product, and the other two-thirds (offcuts from the milled logs) goes to 'waste', the proportion of wood that ends up as high value product is just 20%. This figure is an over-estimate since where clear-felling is practised, there are many trees that are unsuitable (e.g., too small) for sawlogs and thus go to 'waste'. (The cartoon at the end of this submission illustrates this point). **Thus, since the large majority of the trees in a harvested stand ends up as 'waste', the <u>forest is being harvested primarily for use in energy production.</u>**

REER Regulation 8 subregulation 2 requirement 2. It must be either <u>a by-product or a waste</u> <u>product of</u> a harvesting operation <u>intended for high-value</u> processes (sawlogs, veneer, poles, piles, girders, wood for carpentry or craft uses, or oil products). A high value process is one where the relevant product has a higher financial value than other products of the harvesting operation.

As outlined above, the vast majority of harvested product goes to 'waste' while the small minority is used for high value products. Tree 'waste' products have substantial commercial value and thus represent a sizeable economic incentive to log. Depending on market forces, which vary, there are many situations where earnings from waste exceed those from high-value products. In such cases, it is the high-value product that is the <u>by-product</u>, not the other way around. It is the 'waste' tail that is wagging the 'high-value' dog.

Regulation 8 subregulation 2 requirement 3. OR it must be <u>by-product</u> of a harvesting operation that adheres to <u>ecologically sustainable</u> forest management principles.

As addressed above under REEA Objective (c), the harvesting for wood from Australia's fragile and unique forest ecosystems cannot be considered ecologically sustainable given that these ecosystems cannot be repaired or replaced within any meaningful timeframe, if ever.

C. Credibility risk

PM Albanese, in 2015, said in relation to this matter that native forest wood as a fuel was "<u>neither clean, nor renewable</u>". He was right. As argued above, burning biomass will increase carbon emissions and reduce sequestration: therefore it is not 'clean'. Since it involves burning a natural resource that cannot be replaced within the relevant time-frame, it is not 'renewable'.

By allowing power stations to burn precious native forest biomass as a (less efficient) replacement for coal biomass will <u>completely undermine the credibility</u> of any action this government is taking on clean energy and zero emissions targets.

Right now, the government has the opportunity to easily reverse the damage done by Tony Abbott by simply restoring the Gillard government's regulation which <u>excluded</u> <u>native forest biomass as a source of renewable energy</u>. By doing so, it will stop the industry of biomass burning taking hold while also protecting and restoring our most effective (and free!) carbon storage and sequestration system – forest trees – and the irreplaceable ecosystems that they host.

Conclusion

Thus, in answer to the question posed on page 10 of the Consultation Paper 'Should the eligibility of native forest biomass be removed?', we say 'Yes' for the reasons given above, and others too (see Addendum). **We ask the government, as a matter of urgency, to:**

- 1. Reinstate the Gillard government regulation that excluded native forest biomass from the definition of renewable energy under the Renewable Energy Act;
- 2. Remove all 'native forest waste' as eligible wood waste for use by accredited power stations that apply for Large Scale Generation Certificates.
- 3. Ensure all Emissions Reduction Find (ERF) methods that allow the substitution of coal with wood are amended to prevent the use of any native forest biomass for this purpose.
- 4. Make it clear to the Australian public that you do not support logging and wood-chipping of Australia's forests for energy production, and that our forests should be protected for their biodiversity and climate change mitigation values.

Yours sincerely

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References

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- 2. Watson J, Evans T, Venter O, Williams B, Tulloch A, Stewart C, et al. The exceptional value of intact forest ecosystems. 2018. doi:/doi.org/10.1038/s41559-018-0490-x
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- 4. Forestry Corporation of NSW. Coastal IFOA Native Forest Plan of Operations Map (12 Months). https://planportal.fcnsw.net/

Addendum – Supporting arguments

1. Maintaining the forests of southeast Australia in order to store and sequester carbon is a highly effective use of our land resources to achieve net zero

An inventory of carbon storage and drawdown opportunities for regional LGAs in the South east Region of NSW <u>shows</u> that their forests <u>store</u> 300 times the annual emissions from domestic electricity, industry and transport, and can <u>avoid</u> 55 times the annual emissions and <u>draw down</u> 1.3 times the annual emissions if managed differently. In other words, our forests are an effective weapon against climate change.

2. Science on the climate impacts of logging versus protecting forests is clear.

The myth that logging is carbon neutral has been promoted through a carbon accounting sleight of hand that <u>allows</u> emissions from areas logged in any year to be netted out by sequestration in the entire forest estate.

Unlogged forests store 40% to 55% more carbon than logged forests.

<u>Peer reviewed evidence</u> shows native forest logging makes forests more flammable and leads to elevated fire severity.

Allowing forests to grow old, known as 'proforestation', is the fastest and lowest risk pathway to increase sequestration in forests, given that they <u>sequester</u> more carbon, more securely in the last two thirds of their life than in the first third.

Protection <u>offers</u> the highest total and per hectare climate mitigation value of any climate action in forests.

3. Markets influence the intensity of logging.

Markets have <u>always</u> determined which forests are economical to log.

By providing a market for trees that would otherwise have no commercial value (a flexible concept used to define waste), wood bioenergy will inevitably lead to an intensification of logging of native forests.

The viability of commodity production is <u>dependent</u> upon maximising volume and minimising costs. Clear-fell logging, which is encouraged by the creation of a market for wood to generate power, maximises volume and lowers unit costs.

The introduction of woodchip markets provides a perfect example of the radical change in area, age and type of forests logged to supply that market. As demand for Australia's native forest woodchips wanes, new markets based on high-volume, low-cost products are sought to cross-subsidise native forest logging.

4. The entwined nature of the climate and biodiversity crises.

The biodiversity crisis is as serious a threat to life on Earth as the climate crisis.

At a joint workshop last year, the scientific advisory bodies to the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, IPCC and IPBES respectively <u>concluded</u> that each crisis amplifies the other and that neither crisis can be solved unless they are solved together.

The workshop identified priorities for synergistic action – the top two being the protection and restoration of carbon and species-rich ecosystems such as forests.

Given the parlous state of biodiversity in Australia and escalating risks of species loss from a range of interacting threats including logging, fire and climate change, it is imperative we shift the focus of managing native forests to ecological recovery in order to increase their stability and resilience.

Cartoon. "Most of the forest is waste". Credit: Bev Dick

