

08 April 2024

Objection - Restart of Redbank Power Station - SSD-56284960

NMI Inc objects to this proposal for the following reasons:

- The use of timber "trash" as fuel will create long-term environmental impacts for NSW communities.
- The proposed new fuel source for Redbank power station will create a market to destroy even more habitat.
- This project is an unnecessary distraction from real renewable energy solutions. It will not help, but hinder decarbonisation of the energy system.
- Burning cleared vegetation is not carbon neutral and the project would create a new source of greenhouse pollution.
- The proposal is to use cleared habitat and forest biomass from land that has been stripped for farming, not regrowth. This means there will not be any future carbon sequestration to theoretically reduce the power plant's emissions.
- A massive increase in truck movements to deliver fuel to Redbank is another source of emissions and a far-reaching disturbance for local communities.
- The proposal seeks to exploit NSW land management rules currently under review that are unequivocally failing the environment and surrounding communities.
- The burning of biomass has negative and unjust health impacts including releasing dangerous air pollution including sub PM2.5 particles that cannot be filtered from stack emissions.





1) Current Research

The impacts listed above have been verified by recent peer reviewed research (Leturcq)¹ that found the following:

"A common idea is that substituting wood for fossil fuels and energy intensive materials is a better strategy in mitigating climate change than storing more carbon in forests. This opinion remains highly questionable for at least two reasons.

Firstly, the carbon footprints of wood-products are underestimated as far as the "biomass carbon neutrality" assumption is involved in their determination, as it is often the case. When taking into account the forest carbon dynamics consecutive to wood harvest, and the limited lifetime of products, these carbon footprints are time-dependent and their presumed values under the carbon neutrality assumption are achieved only in steady-state conditions.

Secondly, even if carbon footprints are correctly assessed, the benefit of substitutions is overestimated when all or parts of the wood products are supposed to replace non-wood products whatever the market conditions. Indeed, substitutions are effective only if an increase in wood product consumption implies verifiably a global reduction in non-wood productions.

When these flaws in the evaluation of wood substitution effects are avoided, one must conclude that increased harvesting and wood utilization may be counter-productive for climate change mitigation objectives, especially when wood is used as a fuel".

Leturcq's research demonstrates that use of timber trash as a "green, net zero fuel source" is inherently flawed and in fact creates unacceptable impacts to the environment and the long-term health of surrounding communities.

¹ Leturcq, P. GHG displacement factors of harvested wood products: the myth of substitution. *Sci Rep* **10**, 20752 (2020). https://doi.org/10.1038/s41598-020-77527-8



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2) Green House Gases Emissions

According to the UK Govt's GHG Conversion Factors for Company Reporting² if up 850,000 tonnes of timber trash is burnt/year then burning this to produce power would create 40.58kg of CO₂/tonne of timber trash burnt or **34,500 tonnes** of GHGs per year. This directly contradicts the NSW Govt's Net Zero Policy and in reality, the ever-increasing demand for power will drive the quantity of GHGs generated ever higher contributing to the impact of GHGs on the environment.

3) Truck Movements

Assuming a bulk density for wood chips of 250kg/m³ (30% moisture)³ and transport by B doubles using 2x40foot "high cube" containers with a usable volume of 76m³ each (152m³ total) then to transport 850,000 tonnes/annum of timber trash would require at least 22,400 B-double truck trips/year (see below).

V(m³) of wood chips = <u>850000000kg</u> 250kg/m³ = 3,400,000 m³ Total no of trips required to transport 850,000 tpa = <u>3,400,000 m³</u> 2 x 76m³

22,368 truck trips/year (minimum)

Note: This estimate is a minimum as the bulk density of wood trash would be less than processed wood chips.

This number of truck movements 24/7, 365 days of the year will have a severe impact on the environment and the quality of life for surrounding communities.

³ UK Forest Research, Typical calorific values & general data for various fuels



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² UK Govt - GHG Conversion Factors for Company Reporting



4) Conclusion

Current research and the calculations above unequivocally demonstrate that while burning wood trash instead of fossil-based fuels is NOT a "net zero" environmental option and will still cause significant long-term health effects and loss of amenity to surrounding communities wishing to reside peacefully in the NSW countryside.

No More Incinerators Inc therefore strenuously opposes the restarting of the Redbank Power Station or licencing it to burn wood trash and/or wood chips.

Yours sincerely

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