17th August 2025

Submission addressing the 'Restart of Redbank Power Station'

Application number: SSD-56284960

I strongly object to the application:

We are in a climate emergency with less than a decade to act. According to climate scientists we must stop burning carbon and clearing native forests and land for agriculture. Verdant plans to do the opposite; burn carbon in the form of biomass, predominately supplied by so called woody weeds from western NSW, at Redbank in the Hunter. This proposal will increase greenhouse gas emissions in NSW. It will not supply clean green renewable electricity as claimed by Verdant.

This proposal is not even close to carbon neutral as claimed.

The close to carbon neutral claim is based on the eventual reabsorption of the emissions from the smokestack that have conveniently been counted as zero. Yet Arup in its final report concludes that Verdant's operation will only have '*a small negative environmental impact'.* They accept Verdant's claim that biogenic uptake will reabsorb the smokestack emissions from the burning of the woody weeds.

Worse than coal

While biomass is not a fossil fuel, burning it is still burning carbon and releasing carbon dioxide. In fact burning 850,000 tonnes of biomass will release over one million tonnes of carbon dioxide annually at Redbank. Other potent greenhouse gases, methane and nitrous oxide, will also be released. There will be additional emissions from the fossil fuels used in harvesting, processing and transporting of the biomass. Emissions from the 1200 km return B-double trips from Cobar to Redbank will be major – hardly a near-zero project. In general, burning biomass emits up to 50% more carbon dioxide than burning coal per unit of electricity produced, due to the lower energy density and higher moisture content.

I quote from the scientific paper published in the last month by

B. G. Mackey, D. B. Lindenmayer, H. Keith, J. de Bie
First published: 30 July 2025
https://doi.org/10.1002/cli2.70015

While eliminating fossil fuels is critically important to meet global climate targets, we contend that there is sufficient evidence to reliably conclude that replacing fossil fuels with forest biomass for energy generation results in an increase in CO_2 emissions and atmospheric concentrations of CO_2 over climate-relevant timescales

Woody weeds will not regrow

A major proportion of Verdant's fuel will be sourced from the clearing of invasive native species in the Cobar district. As the stated purpose is to open up 'invaded' agricultural land the woody weeds will not be allowed to regrow to reabsorb the carbon released when they were burned as claimed by Verdant.

Even if the woody weeds are allowed to regrow in less than ten years, there is no acknowledgement of the **time lag for regrowth** to absorb the carbon dioxide emitted at the smoke stack, nor the loss of carbon from the soils of harvest sites

To combat climate change the world must rapidly transition away from burning carbon in less than ten years. .

No assessment of impact on biodiversity

One of Verdant's main sources will be 'biomass from invasive native species on agricultural land as approved by Local Land Services NSW'. So-called invasive native species are often high conservation value remnant vegetation, critical habitat for threatened species such as the koala. Verdant has conveniently ignored the impact on biodiversity in the Cobar district. Instead they have only assessed the impact on the largely cleared Redbank site which is not their source of biomass.

In the Cobar Biogeographic Region, there are currently 114 entities listed under the NSW Threatened Species Conservation Act including 62 vulnerable species, 31 endangered species, 4 critically endangered species, 1 endangered population and 4 endangered ecological communities.

Ecology Prof. at Charles Sturt Uni Prof. Watson, referring specifically to INS clearing in Western NSW, writes: **'These shrubs have huge value for wildlife, for soil stabilisation and erosion mitigation. Clearing them for biomass energy production would be devastating for wildlife, including many threatened species found nowhere else.'**

NSW a hotspot for land clearing

NSW is a hotspot for vegetation clearing internationally. The dramatic increase in recent years is due to the relaxing of regulations for private land clearing in NSW. The Auditor General in 2019 concluded that the Invasive Native Species criteria are so vague, and regulation so poor, that large areas have been inappropriately approved for land clearing. This weakness has yet to be rectified.

The June 2019 Auditor General report on Managing Native Vegetation found that:
''The clearing of native vegetation on rural land is not effectively regulated and managed because the processes in place to support the regulatory framework are weak. There is no evidence-based assurance that clearing of native vegetation is being carried out in accordance with approvals. "

The 2025 State of the Environment report has confirmed that the extent of native vegetation, the condition of wildlife habitats and the number of threatened species is worsening. The top clearing areas in 2023 by a long shot are those around the Cobar/Bogan shires – they account for over 2/3 of the land clearing in NSW and this is the area from which Verdant proposes to get much of its feedstock. To get the volume of wood required there would be a three-fold increase in the acreage cleared annually currently.

No access to forest waste and residues

Since 2016, the NSW DPI has been putting out media releases on the benefits of burning 'pulp logs' for electricity – small trees that are unsuitable for higher order use. This is happening now at Cape Byron Power on the far North Coast, despite the original plan to burn camphor laurel and bagasse. Considering the expensive and unrealistic nature of their proposed sources it is quite likely Verdant

could turn to hardwood from state and private forestry as is happening at Cape Byron Power. This needs to be explicitly ruled out in any conditions of approval.

Hunter air pollution

The Hunter already experiences dangerous levels of air pollution, as illustrated by its above average occurence of childhood asthma related to NO2 emissions from power generation**.** Overseas experience has found biomass burning to be worse for air pollution than burning coal. A wide range of hazardous air pollutants are emitted from burning wood for energy, including volatile organic compounds, particulate matter and dioxins, that are harmful to human health.

'Dispatchable' sources of generation in critical need?

Verdant claims that biomass is the only renewable source of dispatchable energy, due to wind and solar's inadequacies. It ignores the existing use of batteries of various sizes, including the very successful large one in South Australia. Pumped hydro is also not mentioned as are the microgrids with batteries and innovations such as molten salt storage.

Unsustainable according to parliamentary inquiry

The 2020 NSW parliamentary inquiry into 'Sustainability of energy supply and resources in NSW' found that the burning of forest biomass for power generation is '*not economically or environmentally sustainable, and it generates significant carbon emissions'.*

Discredited overseas

Burning biomass for electricity is increasingly discredited overseas. In 2021, *more than 500 top scientists and economists sent a letter to leaders in the US, EU, Japan, South Korea, and the UK, urging them to stop burning forests to make electricity in converted coal burning power plants. They emphasised the false carbon accounting used in calling biomass burning 'carbon neutral'. In the same letter they said* forest preservation and restoration should be key tools for achieving (carbon neutrality), while simultaneously helping to address our global biodiversity crisis.

Verdant's proposal if approved would see Australia beginning to go down this highly discredited path – one that is not decarbonising our economy. Surely, we owe present and future generations genuine, proven, cheaper, cleaner renewable energy such as solar, wind, battery store and pumped hydro, not an industry that increases emissions.

Yours sincerely

Tom Ferrier

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