



## EXHIBITION OF STATE SIGNIFICANT DEVELOPMENT APPLICATION

### Restart of Redbank Power Station

Application: No SSD-56284960

Location: 112 Long Point Road West, Warkworth (lot 450 DP 1119428)

Applicant: Verdant Earth Technologies Limited

Council Area: Singleton Shire

Consent Authority: Minister for Planning and Public Spaces or Independent Planning Commission (IPC).

No Electricity from Forests (NEFF) formed in 2018 in response to large scale forest clearing occurring in our Mid North Coast forests, threatening vital biodiversity values, and other important environmental factors such as water and soils quality. As a group we were determined to stop the extent of virtual clear fell and provide through better regulation, protection for our forests. Fuelling our concerns, was a DPI report Nov 2017 <https://www.dpi.nsw.gov.au/forestry/north-coast-residues-project-proposing-to-use-forest-residues> – hence the name for our group. [https://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0006/747672/North-coast-residues-report.pdf](https://www.dpi.nsw.gov.au/_data/assets/pdf_file/0006/747672/North-coast-residues-report.pdf)

Verdant has lodged a development application seeking approval to restart the existing decommissioned Redbank Power Station, *“using biomass (excluding native forestry residues from logging) as a sustainable fuel to produce near net zero CO<sub>2</sub> emissions and green electricity.....Once operational, Redbank will become Australia’s largest modern bioenergy generator, providing 24/7 renewable electricity into the National Energy Market”.*

### OUR OBJECTIONS

No Electricity from Forests strongly objects to this Development Application.

- An objection to recommissioning an old coal fired power station. converting it to use wood biomass as fuel to produce electricity.
- And objection to what we consider are serious inadequacies and shortcomings in the proponent’s application, the assessment procedures and processes applied, the false claims made to justify the proposal based on the concept that wood biomass is a renewable energy source with near net zero emissions, and that the fuel source is sustainable.
- The proponents claim, *“The proposed development will also drive significant progress towards the NSW Governments Net Zero Plan Stage 1: 2020-2030, the foundation for NSW action on Climate Change and goals to reach net zero emissions by 2050.”*

The Environmental Impact Statement (EIS) fails to properly assess and demonstrate this development will assist the NSW government meet their emission reduction targets. The development application relies heavily, if not entirely, on this claim to justify recommissioning the power station.

We ask that the development application be rejected.

## Climate Change

The world is facing a climate emergency. It is becoming widely recognised by the scientific community and the community at large, including sections of government and business, that a global catastrophe is in the making. There are clear signs of changing adverse climatic conditions demonstrating its here. A rapidly heating planet, with noticeably shorter and shorter time frames to effectively curb the rapidly rising level of emissions and temperature. We need to stay **below** the 1.5 degrees increase, with effective mechanisms to drawdown sufficient CO2 to ensure safe levels.

The current targets for emission reductions set by the Federal government and the NSW State government are far too low to be safe. We are dangerously exposed to dangerous “tipping points” with irreversible catastrophic consequences that threaten life as we know it, on this planet. Urgent action is needed now. The level of emissions reduction needed to ensure a safe level to meet must be achieved by 2035, not 2050.

This is the firm view of the Climate Council who recently published a report, ‘Seize the Decade: How can we cut climate pollution by 75% by 2030’ (from 2005 levels). Australia should aim to reach net zero by 2035. The current federal government has set a target of achieving this by 2050, - a goal our Prime Minister says is his preference – this is far too late.

The Climate Council’s report concludes: “The pathway we choose now will either put us on track for a much brighter future for our children, or lock in escalating risks of dangerous climate change. The decision is ours to make. Failure is not an option” (Will Stephen, Emeritus professor, Fenner School of Environment and Society, ANU and Councillor with the Climate Council of Australia)

Ref: latest report [Seize the decade: How we empower Australian communities and cut climate pollution 75% by 2030 | Climate Council](#)

The International Energy Agency (IEA) published a similar report, [Berlin, 18 May 2020](#), from biogenic fuel lobby promoting the idea that burning wood pellets and releasing the CO2 emitted to the atmosphere, can be done with net zero effect, claiming that it is a renewable energy source with the CO2 being offset by the trees and plants sequestering the carbon dioxide emitted to produce electricity, over their life cycle. Nothing can be further from the truth. This lobby group has had a dangerous influence which fortunately is now being recognised and called out around the globe.

Ref: [New IEA Roadmap is flawed: swapping burning wood for coal won’t save the climate | Environmental Paper Network](#)

Burning wood biomass goes straight to the atmosphere, remaining in the atmosphere for hundreds of years. And it emits 50% more CO2 per MWh of energy than coal. The time needed for trees to

grow is many decades, much more time than is needed to meet current emission reductions goals. Older trees sequester more CO<sub>2</sub> than young trees overtime. We only have very a very narrow time frame to reach net zero, which must quickly become zero emissions with serious efforts to drawdown CO<sub>2</sub> from the atmosphere. The worlds forests are the ideal instrument to make a major contribution to this effort.

## **LAND CLEARING AND HABITAT LOSS**

Industrial clearcutting and massive areas of clearing of vegetation is an inevitable consequence of harvesting of wood biomass and pelletising it to burn as fuel in producing electricity. It is a disastrous outcome for both climate and biodiversity.

The forests of eastern NSW are part of one of the worlds biodiversity hotspots because of their exceptional endemism and extensive habitat loss. The DA's proposal is to use of wood pellets, a projected total of 850,000 tonnes to meet the supply needed to meet the fuel requirements of the Redbank Power Station. This is a large volume of wood from trees and plants.

This quantity will inevitably create a new market to clear land that would otherwise not be cleared. Industrial clearcutting is profitable for forestry companies. Hectares of forest, one after the other, can be cut down to produce pellets. It is interesting to note that in the first 4 years of operation they will likely be using mainly wood from trees, when you examine the figures for a staged uptake of other sources over 6 years and onwards.

The alternative suggestion of purposely grown wood and plant biomass sources is risky and full of uncertainties, with no guarantees of supply. It is unlikely to be profitable and seems very ill-defined and uncertain to be practicable. It seems from overseas experience not very likely to work. When used by companies supplying power stations wood biomass in the form of 'other 'wood residues', plantations, and plant alternative as fuel sources, the biogenic industry quickly exhausts these sources permitted by the original development consent and they move quickly to seeking permission to use an expanded range of forests woods. This typically involves using whole small trees and results in cumulative areas of clearcutting and land clearing, on a large scale.

Small trees are more easily managed and preferred to reduce handling and cartage costs. Also, the chipping processes and accounting verification of standards are more easily implemented and applied, and ultimately there burn more easily producing more heat.

Carbon stored in the soil is also being released. It certainly isn't ecologically sustainable. The effects on the soil releasing CO<sub>2</sub> are significant no matter what supply type you nominate. Up to 40% of carbon found in forests is held in the soil.

There is a large quantity of wood biomass to be collected and burnt which will have many significant cumulative adverse impacts on climate, biodiversity, water, soils, flora and fauna and ecosystems generally not examined in any serious way by this DA.

**Ref:From a summary of the estimated fuel potentiality available for use annually at the Redbank Power Station Table 4.10 page 62**

*“To summarise, recommissioning of the Redbank Power station would occur in two distinct stages:*

**Stage 1:** *The first stage will involve the start-up of operations using biomass (with no higher order uses) sourced primarily from*

*approved land clearing operations (from existing civil and road works),*

*biomass from invasive native species on agricultural land as approved by Local Land Services NSW*

*and potentially a limited amount of purpose grown biomass; and*

**Stage 2:** *The second stage will involve the introduction or increased use of purpose grown biomass which will be further increased over a period of two to four years from approval, and, if approved and declared an eligible waste fuel by the NSW EPA, the introduction and use of DBF.*

*16 Subject to EPA approval as an eligible waste fuel”*

**Ref: 4.6 Table 4.10 Summary of Available Fuel, Feedstock Supply and Characterisation Study – Restart of Redbank Power Station (p62)**

Verdant says that in the first stage of a staged approach 500,000 tonnes per annum can potentially be harvested – for so called ‘invasive native species control’ (INS) – (essentially native forests or native forest regrowth, potentially important habitat for plants and animals).

Although they do say this will be reducing incrementally over the first four years from 500K annually to 180K by year four, to use energy crops and purpose grown wood biomass, they also say that 500,000 tonnes of wood biomass from INS sources can be supplied through to year 6 and beyond, presumably indefinitely.

One thing we can be certain of is that this will involve clear felling large areas of land most of it agricultural for at least 3 of the 4 years allowed for stage 1 and likely to continue. Being agricultural land it is most unlikely the vegetation will be allowed to grow back.

The remainder from land clearing operations “as approved existing civil and road works” for agricultural purposes.

All within a 300km radius of the Redbank Power station, which is likely to impact heavily on the Hunter and Tablelands – There is very little information on actual source areas, other than landscape wide desk top audits probably from space.

The Thimble and Pea trick being performed by an expert conjurer is what comes to mind here when trying to make sense of these multilayered and ill-defined fuel source and volumes lists.

Who knows which thimble the pea is under: what proportion of which category, what conditions apply under what regulation or Act and who is going to be checking in in any case?

There are severe logging impacts including threats to vulnerable animals such as Koala, and other threatened and endangered species through accelerated habitat loss.

This provides an 'unregulated' source of trees and plants, poorly assessed, and monitored, to fuel power generation that is neither 'clean' nor 'green'.

Of course, this is exactly where we require forests to play an important role in mitigation of our excesses, drawing down CO<sub>2</sub> – allowing trees to live out their normal growth cycles are what is needed.

Our best mitigation measure, recognised by the IPCC in its latest report, recommends an urgent need to protect the world's forests, by preventing any further large-scale clearing and degradation of them. Protecting the best life sustaining mechanism, we have for drawing down carbon.

### **OVERSEAS EXPERIENCE IS INFORMATIVE**

Wood Biomass as Fuel to Produce Electricity is a Worldwide Issue: What we can learn from examining European experience as wood biomass user countries and those countries supplying the fuel.

Unfortunately, European nations and the UK, and other places now in Asia like Japan, have succumbed to a powerful self-interested IEA lobby group pushing biogenic sources as clean green energy sources. They are well organised and have been actively promoting using wood biomass. Sixty percent of the EU's 'renewable energy' now comes from wood biomass source.

However, there is now a worldwide movement opposing the use of wood biomass to generate electricity. The promoters of such schemes, including the government regulators responsible for their approval, are coming up against the inexorable laws and rules of science which are exposing the lie at the heart of this burgeoning worldwide industry -burning wood as so-called renewable energy source doesn't fit their strict EU rules on the need to rapidly decarbonise energy systems to reduce emissions within the necessary timeframes to stay within the targets set for their reduction.

Again, from overseas experience this critique prepared by Partnership for Policy Integrity (PFPI), it says "the volumes of wood are now at a totally unsustainable level, using up many tens of millions of tonnes a year of forest wood on a worldwide basis. They go onto say further:

*"The model underpinning the EU's bioenergy projections forecasts a large increase in bioenergy dependence, including for use as Bioenergy with Carbon Capture and Storage (BECCS).*

*However, the output of a model is only as good as the data and assumptions that go into it. These unrealistic forecasts should be deeply alarming to policymakers, because what they actually predict is continued degradation of ecosystems and the EU missing its emission reduction targets".*

Ref: [PFPI-critique-of-RED-impact-assessment-May-17-2021.pdf \(forestdefenders.eu\)](#) Mary S. Booth, PhD Partnership for Policy Integrity May 16, 2021

Overseas experience tells us if we are not careful, Australia will follow to its detriment and the worlds cost.

Verdant mentions in their Scoping report that this project will be a model for others to follow in NSW, if not Australia- the first of many it seems.

***Ref: Scoping Report and SEARs Application Restart of Redbank Power Station and Use of Biomass (excluding native forestry residues from logging) as a Fuel. Verdant Earth Technologies Limited.***

The intention couldn't be clearer. The plan is obviously to recommission more coal fired power stations and swap or supplement wood biomass for coal, claiming it is 'renewable energy', as has been done in the EU, UK, United States and Asia.

We will face the same problems now confronting the major biomass user countries, along with timber source countries. That is, increasing numbers of people now joining a worldwide movement, protesting at the rate their forests and vegetation cover are disappearing and being degraded - all for what is very much a zero-sum game. Rising GHG's emissions, temperature and its adverse effects and higher levels of 'dirty' atmospheric pollutants supported by some very dodgy corporate interests exploiting the market selling snake oil solutions.

***"Verdant Earth Technologies – SSD Scoping Report – Redbank Power Station | 28  
2.3.3 NSW Government's Net Zero Plan Stage 1: 2020 – 2030***

*The Net Zero Plan Stage 1: 2020-2030 is the foundation for NSW's action on climate change and goal to reach net zero emissions by 2050. It outlines the NSW Government's plan to grow the economy, create jobs and reduce emissions over the next decade.*

*The plan aims to enhance the prosperity and quality of life of the people of NSW, while helping the state to deliver a 35% cut in emissions by 2030 compared to 2005 levels. The plan will support a range of initiatives targeting electricity and energy efficiency, electric vehicles, hydrogen, primary industries, coal innovation, organic waste, and carbon financing.*

*As part of the plan, the NSW Government has set as their top priority is to drive the uptake **on proven emissions reduction technologies** that grow the economy, create new jobs, or reduce the cost of living. The NSW Government's priority is to provide a pathway to deploy those technologies at scale over the next decade".*

***"2.4.3 Social benefits***

*The project will also deliver educational and demonstration opportunities for the promotion of green electricity generation and sustainable waste management practices.*

*In addition, the Redbank project can pave the way for a sustainable bioenergy industry in Australia providing the solution to delivering 24/7 reliable dispatchable power and assisting to deliver net zero by 2050. The proposed development will also provide additional opportunities for synergies with the agricultural and resource recovery industries."*

**No it can't -The key words here are" proven emission reductions technologies".**

Where is the proof. Certainly not demonstrated or discussed here in this DA. The proof should be determined by the regulatory authorities with a thorough and honest appraisal of **the case for not using wood biomass for burning to produce electricity.**

It is critical to examine the case for using alternatives: a proper case benefit analysis, namely, truly clean renewable and sustainable sources with zero emission derived from solar energy from the largest thermonuclear source we have – the Sun.

It is available now to supply unlimited power within the short time frames, for quick urgent reduction of CHG emissions demanded by the science of mitigating global heating, now approaching dangerously high temperature levels. This could again be supported by referring to overseas experience:

*“The model underpinning the EU’s bioenergy projections forecasts a large increase in bioenergy dependence, including for use as BECCS. However, the output of a model is only as good as the data and assumptions that go into it.*

*These unrealistic forecasts should be deeply alarming to policymakers, because what they actually predict is continued degradation of ecosystems and the EU missing its emission reduction targets.*

Ref: [See the full report here.](#)

[PFPI-critique-of-RED-impact-assessment-May-17-2021.pdf \(forestdefenders.eu\)](#) Mary S. Booth, PhD  
Partnership for Policy Integrity May 16, 2021

The DA should require the models to be re-run using realistic assumptions about how this proposal can reach its emission reduction goals.

Or you could save yourselves the time and money and save the planet, by using truly renewable energy sources with zero emissions as alternatives and earn the undying gratitude of a grateful public no longer from being hoodwinked by the ‘made up’ science employed here with this proposal.

NSW has some fine ambitions in the regulations and policies presented here in this Scoping study.

*“As part of the plan, the NSW Government has set as their top priority is to drive the uptake on proven emissions reduction technologies that grow the economy, create new jobs or reduce the cost of living. The NSW Government’s first priority is to provide a pathway to deploy those technologies at scale over the next decade.*

*“To do this, the NSW Government will remove unnecessary barriers to entry for those technologies and make co-investments to address the high upfront capital costs that may stand in the way of their take-up.”*

However, you must take the right pathway to get there.

**Another significant impact not properly addressed by the DA is the use of trucks to deliver the fuel - wood biomass- to the site** with concomitant impacts on traffic, roads, bridges, and towns. with associated increased air pollution and CO2 emissions, this coupled with a 50% increase in CO2 emissions from the plant with total emissions likely to be 1.3 million tonnes per annum. To which should be added,

- the increased emissions from harvesting and collection of biomass, and processing.
- detrimental environmental effects on air quality of pollutants very different to using coal. These are significant.

## CONCLUDING COMMENTS:

There has been little serious attempt to quantify the CO<sub>2</sub> emissions, especially the critical wood biomass that relates to the climate emergency we now face and the timeline now apparent of under two decades to cut emissions to net zero. – no proper accounting or demonstration that confirms wood biomass is a renewable, sustainable energy source, apart from assertion that it is and some very dodgy assumptions about the life cycle of trees and their sequestration of carbon.

We need a proper accounting of the carbon burnt and the CO<sub>2</sub> emissions. We believe it is not possible for this development to meet its intention to provide renewable and sustainable electricity supply and help NSW meet their emission reductions targets in an ecological sustainable manner.

None of the options offered in the DA addressing the sustainability criteria address the two main problems with forest biomass:

1. That burning wood for energy emits more carbon pollution than burning fossil fuels per unit energy, and there is no mechanism that can turn this increase in emissions into a rapid and significant emission reduction within a timeframe compatible with the climate mitigation targets of NSW government 2030 and 2035. Nor the revised figures suggested by the Climate Council climate scientists of a 75% reduction by 2030 to net zero by 2035.
2. That harvesting forest wood for fuel – even when it is so called “forestry residues” – not only instantly converts ‘forest’ (wood) carbon into atmospheric carbon, but profoundly damages ecosystems and biodiversity, even to the point of destruction, as when mature, complex forest ecosystems, are clear felled and land cleared for fuel.

Any serious attempt at describing ‘renewable and sustainable fuel sources’ would address these two issues. Unfortunately, the DA has not made this attempt, as shown by its frequent repetition of the false concept that “sustainably” harvested wood has lower emissions than fossil fuels and is a clean, green renewable energy source, with net zero emissions, a concept that has been roundly debunked by the scientists, now examining these claims more critically.

The only option that is really going to reverse the climate and ecosystem impacts of the forest wood harvest going up smokestacks, is a policy that removes eligibility for forest wood biomass of any type in the regulations governing their use today.

Excluding forest biomass completely would be an extremely simple and inexpensive solution compared to other approaches that are less effective and more difficult to enforce.

None of the negative and damaging impacts of carbon pollution, air pollution and forest damage can be reversed unless there is an actual decrease in forest biomass use.



## **References Relevant to Overseas Experience with Wood Biomass as Fuel Burnt to Produce Electricity.**

1. Letter from Scientists to the EU Parliament regarding Forest Biomass, January 9, 2018, To Members of the European Parliament.  
<https://empowerplants.wordpress.com/wp-content/uploads/2018/01/scientist-letter-on-eu-forest-biomass-796-signatories-as-of-january-16-2018.pdf>
2. [New IEA Roadmap is flawed: swapping burning wood for coal won't save the climate | Environmental Paper Network](#)
3. [PFPI-critique-of-RED-impact-assessment-May-17-2021.pdf \(forestdefenders.eu\)](#)
4. [Japan's thirst for biomass is having a harmful impact on Canada's forests - The Japan Times](#)
5. [Ecocide due to biomass burning? — Stop Ecocide International](#) (June 19, 2021 Voor Nederlands klik hier)
6. [Chatham House Study Debunks Biomass Carbon Neutrality \(nrdc.org\)](#)
7. [2019-08-08\\_FINAL\\_Biomass\\_Factsheet\\_Drax\\_SIG\\_Report\\_Updated1.PDF \(southernenvironment.org\)](#)

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**9th April 2024**

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