

# **North Coast Environment Council submission in opposition to the Restart of Redbank Power Station and Use of Biomass (Excluding Native Forestry Residues from Logging) as a Fuel – SSD-56284960 Verdant Earth Technologies Limited**

April 2024

## **Background**

The North Coast Environment Council formed in 1976, we are the umbrella environment group in northern NSW. We cover the area from the Hunter to the Tweed and west to the New England Highway. We receive no government funding and have no paid staff or central office. Our members and office-bearers work around the region, often travelling large distances to assist others as we organise in our defence of the environment and the communities it sustains. The NCEC has a long-standing interest in forest management, in particular the forests of north-east NSW.

We also have a long-standing interest in the use of wood as a fuel in power stations. We made submissions and have followed the impacts of what is now known as Cape Byron Power (formerly Delta Energy). Cape Byron Power operate 2 x 30MW generators on the north coast that burn sugar cane waste for half of the year and wood for the other 6 months. Their original proposal was to burn weed species such as camphor laurel. We warned at the time they would burn wood and that is what has happened. Their operation remains cloaked in secrecy and they have refused to disclose where they get their wood and the volumes they are burning.

One of those power stations is currently flagging its intent to change its fuel source. A recent letter to residents said: *'Wood-based waste materials are becoming less viable, and Cape Byron Power is seeking to change the non-crush season fuel source for the power station from various wood-based waste materials to recovered timber. The proposed recovered timber waste comes from sources such as building and construction sites and would be otherwise be placed in landfill.'*

'The NSW Environment Protection Authority (EPA) has strict requirements around the use of recovered timber waste as fuel. Cape Byron Power will need to seek an approval from the NSW Government before making changes to the plant's systems and operations. An Environmental Impact Statement (EIS) will be prepared to describe these proposed changes and assess their impacts.'

Cape Byron Power has been taking logs straight from the clearing of failed MIS scheme plantations, sub-divisions, a new dam site, and highway construction clearing. Once cleared, those sources are of course no longer available and are 'one-off' opportunities. They now propose to source wood from building sites, demolitions and other mainly urban sources.

Earlier iterations of the Redbank proposal were to burn 850,000 tonnes of wood mostly directly from native forests and native forest sawmill 'waste'. Since then the federal government has ruled out native forest biomaterial being used as a fuel source that, if burnt, can be counted as a renewable energy. The federal government recognised: that currently native forest logging is not sustainable as threatened species habitat is being logged and changes need to be made (this is in process with the forthcoming EPBC reforms); that burning material that would not regrow the following year, cannot be counted as renewable; that combustion and the generation of greenhouse gases is not the sort of energy that should be promoted as a climate change solution.

The latest iteration of the Redbank proposal is to burn mostly native vegetation along with some other imaginative suggestions. As with the previous iterations, the numbers don't add up.

### The numbers don't add up

The proposal for the first years of operation, Stage 1, is to use biomass 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.

In year 1, they propose to burn 50,000 tonnes from purpose grown crops (although no evidence is provided in the EIS as to what and where these might be), 500,000 tonnes of invasive native species and 150,000 tonnes from approved land clearing.

Appendix M-Fuel Supply Characteristic Study says "Verdant have been working with Western LLS and a local business organisation Western Regeneration Pty Ltd, based in Cobar to enter into a supply agreement for up to 500,000 tonnes per annum of biomass from their approved INS clearing. Verdant Earth are also in discussion with in the Central West LLS towards establishing similar supply agreements with local landowners in their area."

This is particularly interesting because according to the Australian Securities and Investments Commission database, Western Regeneration Pty Ltd was deregistered in 2018.



Australian Company

WESTERN REGENERATION PTY LTD  
ACN 158 867 773

Extracted from ASIC's database at AEST 19:17:50 on 17/03/2024

Company Summary	
Name:	WESTERN REGENERATION PTY LTD
ACN:	158 867 773
ABN:	39 158 867 773
Registration Date:	07/06/2012
Next Review Date:	07/06/2019
Status:	Deregistered
Date Deregistered:	04/11/2018
Type:	Australian Proprietary Company, Limited By Shares
Locality of Registered Office:	
Regulator:	Australian Securities & Investments Commission

Extracted from ASIC's database at AEST 19:16:38 on 17/03/2024

Search Filters
Keyword:western regeneration Category:Organisations & Business Names

-A maximum of 100 results are displayed on the result list-

Name (*indicates former name)	Number	Type	Status	Address
WESTERN REGENERATION PTY LTD	ACN 158 867 773	Australian Proprietary Company	Deregistered	
WESTERN REGION REALTY PTY LTD	ACN 132 529 205	Australian Proprietary Company	Registered	CANTERBURY VIC 3126
WESTERN REGION URBAN ENVIRONMENT ADVISORY CENTRE INC.	VIC A0015434R	Association	Deregistered	
WESTERN REGION REAL ESTATE PTY. LTD.	ACN 613 617 977	Australian Proprietary Company	Registered	MELBOURNE VIC 3000
WESTERN REGION ROOFTILES		Business Name	Cancelled	
WESTERN REGION REMOVALS PTY LTD	ACN 099 603 380	Australian Proprietary Company	Deregistered	
WESTERN REGION ARTS NETWORK INC.	VIC A0048698N	Association	Deregistered	

As the second extract shows, there is no company listed with a similar name. So it's not clear when or who Verdant Tech were actually talking to and who they are proposing to enter into a supply agreement with. It would be highly inappropriate for LLS to be brokering supply of native vegetation, 'invasive' or otherwise, as the danger of a serious conflict of interest would arise regarding their statutory obligations to regulate land clearing activities. And satellite monitoring suggests there is already way more land clearing occurring than is authorised.

But let's just imagine for a moment that Verdant are going to get 500,000 tonnes of biomass from out near Cobar. Where will it be chipped? Where will it be stockpiled?

Invasive native species by definition are shrubby, they have grown since the land was cleared a few years earlier presumably. There will be a lot of leaf matter and fine twigs. This material is considerably lighter and bulkier than the wood Verdant was using in their previous calculations of truck numbers, (it will also produce more ash and will have more contaminants).

A quick survey of the literature suggests that hardwood woodchips are in the order of 0.23 tonnes/m<sup>3</sup> while shrubby material is more in the order of less than 0.18 t/m<sup>3</sup>, probably less. This would mean at least 33% more trucks movements would be needed to supply the required tonnage than proposed. That is, at least 70 truckloads/day, probably more.

The distance from Cobar to Redbank is 590km and takes at least 6.5 hours. According to NSW Legislation ([Heavy Vehicle \(Fatigue Management\) National Regulation \(NSW\) \(2013 SI 245a\)](#)) Heavy vehicle drivers are required to rest for 15 min after every 5.25 hours of driving. Thus it would take at least 6hrs 45minutes for the one way trip, 30mins to unload and then another 6hrs 45

minutes to return making it a 14 hour day minimum. Heavy vehicle drivers are only allowed to work 12 hour days. From an occupational health and safety perspective the proposal is untenable. Let alone the madness of using diesel fuel to clear a paddock, using diesel to push it into piles, using diesel to chip it into pieces, using diesel to load it into trucks and take to a storage site and then using diesel to load it into trucks that then drive a 1200km round trip to take it to Redbank, where machines use diesel to load it into hoppers where it can be put on a conveyor to the point of combustion... and then we are to believe it will “deliver near net zero CO2”!!! Who are they kidding?

And after all of the above inputs are considered, what would be the cost of a delivered load?

The fuel plan contains other ludicrous suggestions such as growing elephant grass at mine sites. Again the bulk density of grass is significantly less than hardwood woodchips and would require many more truck movements.

The different densities/volumes of the various fuels have not been quantified. This means that the truck movement figures are a serious understatement.

A quick search for elephant grass revealed:

<https://weeds.brisbane.qld.gov.au/weeds/elephant-grass>

“Elephant grass (*Pennisetum purpureum*) is regarded as an environmental weed in Queensland, Western Australia and north-eastern New South Wales. It is also seen as a potential environmental weed or "sleeper weed" in other parts of Australia.”

Claims by Verdant that they will contract farmers to grow crops on marginal land, that Verdant will then burn, are risible. Farmers can barely guarantee an income from high yielding valuable crops such as wheat and canola. Why would they gamble on a potential weed species and invest time and energy when the returns are dubious.

The bulk of the fuel volume Verdant propose to use is coming from land clearing. Either INS or supposedly approved land clearing projects. When the biomass for electricity concept was initially classed as renewable, it was looking at cases of annual crops such as rice husks and other agricultural 'waste' products. The logic was, that the crop residues could be burnt and then the following year, those same crops would remove the carbon from the atmosphere so this could be seen as a carbon neutral outcome.

But as some of the proponents of that original position have now clarified, it was never intended to be about wood. Tim Searchinger, a senior research scholar at Princeton University and Bill Moomaw, professor emeritus at Tufts University are both recognised as forest biomass experts. They have been [warning governments](#) that forest biomass generation transfers standing carbon into the atmosphere increasing emissions. In 2021, they were among more than 500 scientists and economists who wrote to world leaders about this issue. In part the letter read:

*“We the undersigned scientists and economists commend each of you for the ambitious goals you have announced...[They didn't write to the then Australian Prime Minister]..to achieve carbon neutrality by 2050...Forest preservation and restoration should be key tools for achieving this goal and simultaneously helping to address our global biodiversity crisis...We urge you not to undermine both climate goals and the world's biodiversity by shifting from burning fossil fuels to burning trees to generate energy.”*

Decision-makers on this DA are encouraged to read the letter. It can be found here:

<https://www.documentcloud.org/documents/20482842-scientist-letter-to-biden-van-der-leyden-michel-suga-moon-february-11-2021>

Land clearing in NSW is poorly regulated. This is not our contention but the findings of the NSW Auditor General. 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*”, being fraught with problems of weak processes, poor assessments, inadequate protection, limited monitoring and poor enforcement. Leading her to conclude (in part):

‘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. Responses to incidents of unlawful clearing are slow, with few tangible outcomes. Enforcement action is rarely taken against landholders who unlawfully clear native vegetation.’

Tens of thousands of hectares are being cleared in NSW each year without explanation and without regulatory oversight. Creating a market for this would be a travesty.

A 2021 report by the World Wildlife Fund *Deforestation Fronts: Drivers and Responses in a Changing World* (Pacheco et al. 2021) found that the extent of deforestation in eastern Australia was the worst in the developed world. We are one of 24 'active deforestation fronts' in part due to large scale logging and land clearing.

We know that our most iconic animal, the Koala is hurtling towards extinction in the wild, and yet governments seem unable to take the most basic action to protect them. The NSW Parliamentary Inquiry into koalas found that **'Based on the evidence received, the committee believes that the regulatory framework for private native forestry does not protect koala habitat on private land.'**

The extent of logging and clearing has serious implications not just for our biodiversity but also for our greenhouse emissions.

*In 2010, New South Wales had 11.8Mha of natural forest, extending over 15% of its land area. By 2019, it had lost 910,000 ha of natural forest, equivalent to 247Mt of CO<sub>2</sub> of emissions.*

*From 2001 to 2019, New South Wales lost 1.66Mha of tree cover, equivalent to a 13% decrease in tree cover since 2000, and 441Mt of CO<sub>2</sub> emissions.*

This development will see a perverse cash incentive for trees, of any diameter and species, to be fodder for a power station with an insatiable appetite. Landholders short of cash, will be able to clear their paddocks and have a ready market for wood that is unsuitable for sawmilling but that as living vegetation provides priceless ecological services such as holding the soil together, providing habitat, lowering the water table, sequestering carbon from the atmosphere.

Once the millions of trees and shrubs have been cut, they have to be transported to the Warkworth site and somewhere along the line they need to be chipped.

Redbank is clearly not “near net zero” as claimed. Not only will the fuel not be regrown the following years, in many instances it will never be regrown as the sites are permanently cleared. The enormous fuel cost of piling, chipping, transporting, stockpiling, handling, trucking and

stockpiling has not been included in the proposal or the calculations of emissions and the trucking component has been underestimated by at least 30%, and likely much more than that.

These emissions from the clearing, chipping, handling and transporting are known as Scope 3 emissions. They have not been assessed. In fact the proponent, in their Greenhouse Gas assessment has not provided any detail on how their scope 3 emissions are calculated. They provide a figure. We say they are wrong. The figure they have suggested is probably only 20% of the Scope 3 emissions they will actually produce. In order to provide a figure they must have details of locations of fuel, and haulage distances. These should have been provided to us all in the interest of transparency and so we can see on what they have based their calculations.

The case of *Gray vs Minister of Planning (the Anvil Hill case)* [2006] NSWLEC 720 (27 November 2006) could be relevant here. In her judgement Pain J, found for the applicant, that decision-makers need to have the information about, and consider the Scope 3 emissions. The difference in this case is that they are 'upstream' emissions rather than 'downstream emissions'.

No information has been provided in the EIS or Appendices as to exactly where the trucks full of biomass will be coming from. We don't know which roads they will be using. How then can there be a proper assessment of the haulage routes?

All they have concluded is that a particular intersection can cope with the number of truck movements. If that it is all that is required to be called an assessment of traffic impacts for well over 20,000,000 truck km of traffic, (70 trucks travelling 1200km, 310 days/yr x 5/8 of the volume plus 70 trucks travelling 400km x 310 days x 3/8 of the volume) then our environmental assessment and planning system is very broken indeed. And that doesn't count the truck traffic to the storage depots!

The material at the stockpiles will then need to be covered to ensure it stays dry. At the Broadwater power plant the fuel stockpiles are covered by enormous tarps and held down by hundreds of tyres. The Redbank plant is 5 times larger than Broadwater. If the pile of biomass at the site itself is only a few days worth of supply, then the stockpiles at the as yet unknown locations will be huge. These will probably each require an EIS as there will be problems with leaching and potential fire hazard from spontaneous combustion.

The employment numbers also don't add up. No detail has been provided as to how the assertions have been arrived at. Would appear to be hot air.

Burning wood in a power station actually produces more carbon dioxide emissions than burning coal (for equivalent electrical energy produced). It leads to habitat destruction of species that are already threatened with extinction, it takes investment from genuine renewables projects that would actually lead to a net decrease in emissions and it removes trees that if left in place would continue to remove carbon dioxide from the atmosphere.