A submission to the proposed 'Restart of Redbank Power Station' SSD-56284960

This latest attempt to salvage the ill-fated Redbank experiment should have signalled the need to examine the proposal very closely, however, the Assessment Report fails to properly respond to the concerns raised by the many submissions, and largely accepts the assertions of the proponent's reports without critical analysis.

The Recommended Conditions of Consent would allow operations to proceed that have not been adequately demonstrated likely to comply, and to use a fuel that the Applicant specifically disavowed.

The application
The 250805_Redbank Restart_Applicant presentation, and related documents specifically state: '*Verdant will not and has not requested government approval to use these residues for power generation at Redbank'*.

The Verdant website states *'No native forestry residues*
Native forestry residues have been excluded from Redbank's fuel plan and will not be used at the plant. (https://verdantearth.tech/redbank-power-station/)

The Redbank Submissions Report is titled, in part, *'(Excluding Native Forestry Residues from Logging)'* and states *'The Applicant recognises that native forest logging is a contentious industry in Australia. As a result, the biomass used to create power at Redbank explicitly excludes all waste from native forestry logging and sawmilling operations. Verdant will not and has not requested government approval to use these residues for power generation at Redbank.'*

In contrast, the Recommended Conditions of Consent, at section B4 Biomass fuel management, allow '*Only Eligible Waste Fuels as defined in the NSW EPA Eligible Waste Fuel Guidelines (EPA, 2022), or Standard Fuels as described in the Protection of the Environment Operations (Clean Air) Regulation 2022 are permitted to be used in the development.'*

Although the burning of Native Forest to produce electricity is said widely to be prohibited by these guidelines and regulation, they specifically allow generous exemptions for 'Forestry and sawmilling residues'. (excerpt below)

Should this project be allowed to proceed, the allowance of 'Eligible Waste Fuels' and 'Standard Fuel' must be eliminated from the conditions of consent, and a specific Resource Recovery Order or Exemption be created, allowing access to only those fuel sources identified in the 'Fuel Plan', and specifically disallowing the combustion of forest wastes. Otherwise, a market for even more extensive low-quality logging of native forests than presently occurs would be created.

Higher Order Use Study
The Eligible Water Fuel Guidelines requires:-
6. Higher order reuse opportunities
6.1 How is the material currently being managed (e.g. landfilled, other reuse, recovery option)?
6.2 Demonstrate that there are no practical, higher order reuse opportunities for the waste in the region.

The study recognises 'The Waste Hierarchy' in the Waste Avoidance and Resource Recovery Ac as:
I. avoidance and reduction of waste
II. re-use of waste

III. recycling, processing or reprocessing waste
IV. recover energy
V. treat waste
VI. disposal of waste.simply tabulates existing use

The PoEO Regs 2021 identify higher value uses thus:-
127 (3) In this clause—
higher value use includes the use of timber as mulch or wood chips for the purposes of—
(a) erosion and sediment control, or
(b) landscaping the land from which the timber was obtained.

These uses are clearly step II in the hierarchy, whereas the Study would have us drop through to step IV.

The soils of the region from which this 'INS' would be taken are generally deficient in nutrients, and the areas typically endure long spells of low rainfall. These higher value uses should surely prevail, rather than carting away the nutrients, and leaving the soil barren and prone to dessication and erosion.

Further, the Study considers only current market conditions, rather than the demonstrating that there are no practical, higher order reuse opportunities for the waste in the region.

<u>Fuel 'Plan'</u>
The Fuel Plan is a fantasy, designed to cover this Trojan Horse proposal, recycling and concealing the earlier failed attempt to burn forest wood. The volumes claimed to be available from distant Invasive Native Scrub are most unlikely to be economically deliverable.

The Rural Fire Service publishes a guide to Vegetation Fuel Loads, informed by CSIRO and university sources. This authoritative source finds only 9 to 14.5 Tonne/Ha in mature Western Woodlands, in stark contrast to the unsubstantiated 49 Tonnes/Ha claimed for 'weedy regrowth'. The 'Invasive Native Scrub' that is to be the fuel for this project is by definition, far from mature woodland, so the yield would be very much less.

The supplied video presentation makes it clear that the 'Invasive Native scrub' that would be cleared is substantial and relatively mature Western Woodlands. Mature trees with 3-400mm stem diameters are shown as the 'target' of these operations.

The notion that 50,000 Tonne of Elephant Grass can be grown in the first year is plainly ridiculous.

<u>Combustion modelling</u>
The 'Boiler & Power Plant Services' reports results of theoretical modelling of the emissions and combustion efficiency of three samples from just one bush fire damaged tree trunk. At likely moisture levels, this is projected to result in 20% higher emissions than those already notoriously high, produced when this experimental plant was operating on its design fuel, coal tailings. No convincing explanation is given on how this coal burner might be adapted to the dirtier and much less energy-intense native vegetation.

The scant data on these few samples are unlikely to meet the requirements of the EPA for combustion. It is presently unknown whether any of the proposed fuels can be burnt in compliance. Modelling is all very well, but approval should not be granted until real testing is conducted.

Also, the amount of wood fuel to produce a given amount of energy also rises dramatically with increasing moisture content, as any home wood burner knows well. A 75% increase is hidden away in the modelling. Should any processing to reduce the moisture levels be found, this will require the burning of yet more diesel fuel, not accounted for in the proposal. The summary dismissal of the modelled increase in Carbon Dioxide emissions of both fails to account for any of the above, and is directly contradictory to NSW Greenhouse Gas emissions planning.

As the hypothetical processing plants for the conversion of this contaminated Invasive Native Scrub' do not yet exist, and planning for them is nowhere detailed, it is difficult to accept predictions for the consequences of their combustion, or the extra amounts of diesel fuel that will be required in the process.

The Greenhouse Gas section of this report continues with the fiction that the emissions at the point of combustion should not be counted, rather they be 'balanced' against the expectation that the INS will regrow promptly. This is not the expectation of the graziers from whose land this 'fuel' is to be removed. They do it as only one part of a larger plan hopeful to return their mismanaged land to profitable grazing.

The express commitment of the NSW Government to net zero emissions is evident in the The Climate Change (Net Zero Future) Act 2023. Regrettable that some departments (here DPIE) seem to be captured by their clientele, continuing to defend such environmentally damaging activities as here proposed.

The repeated trivialisation of the CO2 emissions by that department should be seen against recent research *"The study shows that as global temperatures increase, the amount of carbon dioxide released through plant respiration will increase significantly," said Professor Atkin from the Research School of Biology and the ARC Centre of Excellence in Plant Energy Biology at ANU.* So it is more than likely that the 1.3MTonne released annually by the combustion will never be sequestered by regrowing 'INS'.

The Air Quality Assessment by Jackson Environment and Planning tells us that 'Air toxics were estimated using fuel specification reports provided by Verdant Earth'. As that specification is not tabled, we may assume that this theoretical modelling does not include the inevitable soil and other foreign matter that will accompany the projected land clearing by bulldozer and chain.

Employment

It is claimed that the project will fill an 'energy market gap', but the Marsden Jacobs report is nothing more than a pamphlet making general assertions about the electricity market. Nothing specific to Redbank, its cost of operation or services to be delivered is presented.

The claim that the project will create hundreds of new jobs is unexamined, and hardly credible, given the typically high employment rates in the Hunter Valley. If the project does open more attractive job opportunities, some may choose to change, but nowhere do we see evidence that overall employment will increase. Skilled and reliable workers are the constraint, there is not a limitless pool waiting to be employed.

The Traffic Report trivialises the impact down to a turning lane at the entrance to the Redbank site. No assessment of the thousands of Tonnes of microplastics shed into lungs, soils and waterways from the tyres of the 24 hour-a-day B-Double trucks, nor of the damage to roads necessitating more frequent repairs and re-sheeting, both highly energy-intensive and expensive for the rural communities through which this torrent would pass.

Every report examined has similar unsubstantiated assertions, almost all unexamined in any detail by the Department.

If the Planning Commission is to improve upon the previous superficial assessment by DPIE , critical re-analysis of all of the proponent's assertions, and thorough response to the matters raised in submissions is required. Unless and until this is conducted, this project should not proceed.

Should such a proper analysis be conducted, it is highly unlikely that the proposed Conditions of Consent could be maintained.

Gregory Hall
for The Rainforest Information Centre, Inc.
-

Excerpt from 'Protection of the Environment Operations (General) Regulation 2021 [NSW] Chapter 8 Miscellaneous' showing the wide-ranging exemptions allowing burning of forest wastes for electricity generation.

Eligible waste fuels will be managed under specific resource recovery orders and exemptions (SRROEs) managed by the NSW EPA and Verdant Quality Control and Quality Assurance Plan. Page 9 of 250805_Redbank Restart_DPHI presentation.pdf

127 Exception to prohibition on burning native forest bio-material to generate electricity
(1) An occupier of premises who causes or allows native forest bio-material to be burned in any electricity generating work in or on those premises is not guilty of an offence under clause 126 if—
(a) a licence authorises the carrying out of scheduled activities in or on those premises, and
(b) the premises are nominated by the EPA, by notice published in the Gazette, for the purposes of this clause, and
(c) the native forest bio-material was obtained from—
(i) trees cleared from land in accordance with—
(A) development consent or any other approval under the Environmental Planning and Assessment Act 1979, or
(B) any authority or other approval issued by another State or Territory that corresponds or is similar to any development consent or other approval under that Act, or
(ii) the clearing of trees that is declared to be exempt development within the meaning of the Environmental Planning and Assessment Act 1979, or
(iii) trees or other vegetation removed or lopped by a roads authority in accordance with section 88 of the Roads Act 1993, or
(iv) land lawfully cleared as part of recovery or clean-up works in an area declared to be a natural disaster area for the purposes of any disaster recovery funding arrangements administered jointly by the Commonwealth and the States and Territories, and
(d) the native forest bio-material does not comprise timber suitable for milling or other higher value use.
-