

10th April 2024

Mr Joe Fittell

Team Leader
Energy & Resource Assessments, Planning & Assessment
Dept of Planning, Housing & Infrastructure
NSW Govt
Sydney, NSW 2000 Australia

Dear Joe,

Redbank Power Station re-opening Submission

Thank you for the opportunity of making a submission, in relation to this proposed project.

I'm astonished that this absolutely first-class asset is still idle, despite a very willing and funded proponent, and given the rather adverse outlook in Australia (and most countries) for reliable baseload energy going forwards.

For example AEMO just recently, foreshadowed that next year, NSW gas-turbine plants might need to be temporarily fuelled with "diesel", given anticipated shortages of domestic gas. If so, it's likely impossible to say just how long this might continue, in such uncertain times! Nor how costly this might become, for example should the Straits of Hormuz close during ongoing escalations of the Middle Eastern and overall geopolitical situation, driving up the price of oil.

Apparently there's still some controversy about the biomass fuel sourcing for this project, and whether or not this might include any waste residue from native forests.

As I understand, the proponent instead proposes using waste residues from invasive species, and where available, from road clearings. Longer term, I understand they plan to grow their own quick rotation crops, as well as using invasive species.



No doubt, we can't even envisage all the potential sources of suitable biomass fuel which might be readily available or developed over time, as the need arises ... for example, cotton and/or wheat wastes from agri-business in northern and central-west NSW, which might be amenable to bio-char and pelletising processes. Other "leafy and/or woody" priority crops such as sorghum, encouraged by NSW *DPI*, and being exported in increasing volumes to China (for animal feed). There must be many alternative, eminently suitable and environmentally acceptable biofuel sources over time (analogous to the use of sugar-cane wastes in QLD, for recycling as bio-fuels), in addition to those initially proposed or foreseen for the immediate re-opening? Beneficial re-use of agricultural wastes (for example) is appropriately encouraged by the relevant Government agencies.

Despite the current strong global focus on renewable energy, a robust system intuitively requires multiple diverse energy sources to mitigate risk ... just as now Australia is a world-leader in "climate-resilient" public water-supply, with some of the world's largest desalination plants in most state capitals. Without this timely diversification at the end of the so-called *Millenium Drought*, it's not unlikely that we'd have seen a major city "run dry" at times of severe drought. Same for energy ... for a strong economy, and to maintain lifestyle, cater for population growth (currently quite steep with unprecedented immigration), we need a range of energy types, and should not allow ourselves to become dependent on just one or two.

Wind and solar alone will likely prove inadequate, and it seems we're a long way from having robust, affordable solutions for storing the energy from these intermittent sources. Nor for managing the increasingly evident fire-risks associated with lithium batteries, small and large (and consequent polluting emissions). Nor does there seem to be adequate long-term planning for economically managing the future environmental impacts of "end-of-life" waste solar panels and wind-turbine components.

I've seen reported that to provide all the wind and solar infrastructure envisaged long-term for Australia, a four-fold increase in mining output is likely required. If so, are the related environmental impacts and "hidden-costs" being properly evaluated and weighed when considering alternative energy-development proposals like the *Redbank Power Station* re-opening?

Again, I am astonished by the ongoing resistance to a proposal which attempts to re-purpose available good assets in a more environmentally responsive and sustainable way (than just "burning coal").

I <u>strongly support</u> this well thought-through project, and can only conclude that we absolutely need more of them, to hedge the significant risks of an increasingly uncertain world!



Sincerely,

David Murdoch BE, MBA(AGSM)

Managing Director, H2AU Pty Limited

www.h2au.com, https://ropur.h2au.com/, www.rorentals.com.au, david.murdoch@h2au.com

call +61 2 9037 2218, mobile +61 414 389 200, fax +61 2 9475 5416

About H2AU

We're an Australian team of reverse osmosis specialists. Working with the world's best RO brands, innovative technologies, and design backed by science, we understand and solve the water treatment challenges faced by our clients.

Since 1996 we've been working locally and globally, with diverse experience in applications from small-scale to the most complex; even at some of Australia's largest desalination plants.

We stand for deep expertise, technical excellence, quality, and responsive service.