Submission No 190

INQUIRY INTO FEASIBILITY OF UNDERGROUNDING THE TRANSMISSION INFRASTRUCTURE FOR RENEWABLE ENERGY PROJECTS

Name: Mr James Bell

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14 July 2023

The Hon Emily Suvaal, Committee Chair,
Inquiry - Feasibility of Undergrounding the
Transmission Infrastructure for Renewable Energy Projects
Standing Committee on State Development
Parliament House
6 Macquarie Street
SYDNEY NSW 2000

Dear Ms Suval

Re: Feasibility of undergrounding the transmission infrastructure for renewable energy projects

You will have received many erudite scientifically based submissions which I will not try to emulate.

I wish to provide a different perspective, namely of a nearby landholder who is already affected by major transmission lines.

I own a property of approximately 2,000 acres through which run two lots of 330KVA Snowy Mountains transmission lines, one 130KVA transmission line and numerous local lines. When the Snowy Mountains lines came through at the time of construction of the Snowy Mountains Scheme in the 1960s, my recollection is that my father received a very modest one-off monetary compensation. I think it was £60.00. And we were given some wooden spools on which the cables were delivered. Almost like eighteenth century explorers giving some beads to the natives.

We now have Transgrid coming through regularly, pruning shelter trees, undertaking maintenance work and disrupting farming operations.

But it is the effects on the amenity and value which are most significant. It greatly diminishes the amenity value of rural property because of a number of factors:

- First the towers tend to be on the hills which also tend to be the favoured house sites.
- Second, they interfere with radio and television reception.
- Third, they create areas of electromagnetic radiation. For instance, fences under the towers "ring"
- Fourth they destroy the tranquil views

- Fifth these new towers which are to be twice as high as the towers built in the 1960s, will be a threat to aviation, particularly rural aviation such as for spraying and fertilising.

Undergrounding

I am pleased the government is examining the alternative of "undergrounding" these tranmission lines. That would solve many of the problems so long as the cables are buried deep enough so as not to interfere with deep ripping.

As well as the transmission lines I have the NexGen cable running though my property. It is buried but contractors engaged to undertake deep ripping refuse to work anywhere near these cables because they are worried the cables are not buried deep enough and are fearful of the massive fines which apply if the data line between Sydney and Melbourne is cut.

So subject to that, clearly the solution is undergrounding of these transmission lines. Transgrid are of course raising every objection they can think of because it is apparently more costly to bury lines. But the benefits in the long run must outweigh any short term cost disparity. It is being done elsewhere in the country so it is possible.

Another objection is that it will take longer to bury the lines. Witbnout the need to constrtuct thousands of massive towers I wonder if that is correct, but in any event my particular interest is in the Hume Link project which is to connect to Snowy Hydro 2.0. We now know that apart from costing a multiple of the amount originally announced, it is not going to be ready before 2030 at the earliest. So time is not an issue.

As I said you will have received many sophisticated submissions and I wanted to provide a different perspective.

However, I would like to set out some of the benefits of undergrounding to reinforce my submission:

First there will be greatly reduced environmental impact and with High Voltage Direct Current (HVDC) there will be lower transmission losses that with Alternating Current (AC) overhead lines.

Also undergrounding has these direct benefits:

- no risk of underground cables causing a fire;
- no restriction or hazard on safe firefighting;
- protection of the infrastructure from severe weather and fire events;
- will not impede agricultural operations;
- no impact on the landscape and amenity; and
- significantly reduced impact on biodiversity as a much smaller easement is required

Further undergrounding will encounter much less opposition in rural communities who fear their properties being criss-crossed with thousands of kilometres of transmission lines.

Finally may I point out how undergrounding avoids so many of the detriments which will otherwise flow from the transmission lines as envisaged:

- Undergrounding will result in at an estimate 15m easement in comparison to a 70m easement with overhead lines;
- Much reduced removal of trees and plant flora;
- Reduction in endangered species types being killed. 82 threatened species are impacted by HumeLink;
- Land above underground cable infrastructure can be rejuvenated after construction;
- No towers and wires interfering with flight of birds or movement of climbing animals. No bird or climbing animal deaths will result. Thus eliminating concern for protected birds e.g. Wedge tailed eagles.
- Eliminates the risk of overhead lines causing bushfire. The black summer cost the nation $230 billion and killed almost 3 billion koala, kangaroos and other animals.
- Eliminates air and ground fire control hazards;
- Eliminates the risk of interruption to power transmission in severe weather events and/or bushfires and therefore improves transmission security and resilience as required under the SLACIP Act;
- Minimal impact to private or public land after construction is complete;
- No overhead lines impeding agricultural operations, machinery use, irrigation, drones, or aircraft operation;
- No visual impact from the transmission lines and so no loss of visual and rural landscape character of regions;
- Little to no electromagnetic field impacts. Therefore, less risk of serious health

If these lines are going to be built, please mandate them being put underground.

Yours sincerely

James R G Bell