Submission No 184

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

Name: Mr Geoff Casburn

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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

14 July 2023

Dear The Hon Emily Suvaal MLC,

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

Thank you for the opportunity to make a submission to this important inquiry into the feasibility of undergrounding transmission infrastructure for renewable infrastructure projects. There is no doubt there is an increasing need for the transmission of renewable energy and other services to connect regions of NSW and Australia.

As the population grows and development increases, the availability and suitability of land for transmission corridors is decreasing. While this is especially true on land leading into major cities and into so called 'hubs' of energy transmission, it is also becoming increasingly so in rural areas.

This growing need for transmission is having greater impacts on communities, agriculture and the environment. Wagga Wagga is a prime example of an energy hub connecting Victoria and regional areas of NSW and Sydney. The southern edge of Wagga's landscape is scared with 'spaghetti' of cables and towers crisscrossing valuable farming land and urban developments in an uncoordinated fashion.

This situation is only going to get worse as 'Snowy 2' is incorporated via a new substation being built just south of Wagga with more overhead power lines and towers linking Victoria, Sydney and other areas of NSW as well as feeding into Wagga.

Further, the initial Humelink proposal also included a transmission corridor from the new Wagga Substation through the Kyeamba Valley, a green field area containing high value agricultural land, significant Landcare environmental and biodiversity plantings and high density rural holdings. Thankfully this proposal did not go ahead.

Our farm was in the middle of this proposed corridor and is a prime example of the many others in the region and along the length of the Humelink project. The proposed towers (which were likely to be as high as 80 metres) carrying large cables were likely to be in close proximity of the house, right across our little valley, changing our vista from natural to industrial. The transmission corridor would need to be cleared with a 60 metre 'buffer' zone. This buffer zone would require the removal of trees greater than four metres, cutting right through our biodiversity plantations, breaking important protective movement corridors for native animals. The 60 metre buffer zone would also restrict the use of farming implements and machinery greater than four metres in height. This would have caused logistical problems moving machinery around the farm and potentially even resulting in the use of smaller crop and harvesting machinery.

The proposed transmission of high voltage above ground electricity is likely to have long lasting impacts along the whole length of the Humelink transmission project. If it was to go through my farm it would greatly impact my immediate family, my grandchildren and great grandchildren, our adjoining neighbours and their families, the environment and our agricultural production. Sadly there is greater than 500 rural properties directly under the Humelink transmission corridor and a tenfold increase when including adjoining neighbours also being impacted.

So this poses the question, 'how can we reduce these impacts. There is a wise saying which states 'if you do what you have always done, you will get what you have always got'!

Obviously a continuation of large overhead power transmission and the cleared buffer zones is not the answer as no one wants a spaghetti of cables and towers scaring the landscape, impacting on visual amenity, on the environment and on Agricultural production. We have to do things differently if we want a different result!

Simply put, underground transmission is the answer!

- **Significant reduction in visual impact .** Cables will be buried with only small inspection stations visible at strategic locations along the corridor. The corridor will have a much smaller above ground footprint with minimal disturbance to vegetation. There is no need for a 60 metre cleared buffer zone. During construction there will be some vegetation disturbance, however revegetation and regeneration will result in little impact in future years and for generations to come. Not only will this provide greater benefits to the landholder but also to thousands of neighbours and their communities along the corridor
- **Significant reduction in the impact to prime agricultural land and land with high conservation value.** Undergrounding enables transmission corridors to weave through the landscape, utilising existing areas of disturbance, such as along public roads and thoroughfares. Undergrounding enables careful avoidance of the many high value agricultural land, conservation areas and biodiversity plantings, which are located throughout the landscape. The actual footprint is significantly smaller than overhead transmission.
- **Significant reduction in the number of private landholders directly impacted.** Underground enables greater utilisation of publicly owned land such as along road verges and stock routes.
- **Reduced need for additional transmission corridors into the future.** Undergrounding provides significant opportunity to build in 'excess capacity' as cables can be closely aligned resulting in a much higher density of transmission
- **Opportunity for synergies between existing transmission and new transmission.** It is likely undergrounding will become increasingly feasible as synergies are found between the need to upgrade existing infrastructure networks along with the possibility to re-route and reconfigure utilising the new underground infrastructure and corridors. This could be especially true when considering the increasing likelihood of bushfires.

I urge the Standing Committee to recommend undergrounding as the best option for renewable energy transmission in NSW.

Yours sincerely,

Geoff Casburn