

**Submission  
No 223**

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

**Name:** Mrs Jennifer Dumbrell

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Jen Dumbrell

The Hon Emily Suvaal, Committee Chair,  
Standing Committee on State Development  
Parliament House  
6 Macquarie Street  
SYDNEY NSW 2000

Date: 7<sup>th</sup> July 2023

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

Dear The Hon Emily Suvaal MLC,

Thank you for the opportunity to make a submission to this important inquiry into the feasibility of undergrounding transmission infrastructure for renewable energy projects.

I have been involved in the ongoing battle: Landholder vs Transgrid in my role as Co-Chair of the Humelink Action Group Inc. The Humelink Action Group Inc. is an Association which was formed in May 2020 as a response to represent landholders and communities impacted by the proposed Humelink Project.

Fast forward three and a half years later, myself and all of the committee members that make up HAG – Humelink Action Group have had an enormous continual emotional and mental drain spending countless hours fighting this in front of a computer usually around work commitments late into too many nights to remember or even want to, time away from our families to attend meeting after meeting, having countless discussions with Transgrid and politicians, landholder and community meetings at different locations along the corridor, fundraising ventures and it goes on and on.

Personally, our family were directly impacted with the initial proposed corridor traversing straight through the middle of our property and my family property where my mum still lives out her life as a widow on my dad's legacy – Rose Hill. After numerous publicly announced route revisions by Transgrid since receiving the first letter from them in March 2020 we are no longer directly impacted with it going through our land but will be impacted visually with the proposed line completely ruining 180 degrees of our million-dollar view and without a cent of compensation. Further, if we were ever to be in a position to have to sell in the future – at no fault of our own but total detriment financially, our property value would be significantly less if Humelink was to go ahead and be built overhead.

We built where we did on our property for the magnificent view we have of the beautiful Tumut Valley. This is our forever home as we subdivided land from my parents to build a home and raise our family here. We spent extra money to do this and make this a reality even down to ironically running our mains power from the pole and transformer which we got installed 200m down the hill on our front boundary fence away from our house due to the visual impact poles and wires have. We ran the power underground from the bottom of the hill where the one single pole stands all the way up to our house eliminating the visual eyesore completely.

There are a lot of unsuspecting people in the community that I have spoken to that are not aware that the towers can rise to 80m high, which is close to double the height of what most people around this area are familiar with if you go for a drive up into the high country around Long Plain for example. For most of the community the raw reality of this project if it is to be built overhead will truly be felt when it is *there* and it is too late to do anything about it and they will have to live and work around this monstrosity infrastructure.

Tumut is a tourist town; these proposed overhead towers would be a blight on the landscape and obstruct and detract from the many positive aspects of our rural landscape and scenery and our reputation as a top tourist destination. This project is proposed to cross over four major roads leading into Tumut – Batlow Road, Snowy Mountains Highway, Gocup Road and Brungle Road. For the tourist town that we are, what a welcome to Tumut that will be!

If anything is to be said about the last few years of this fight is that a precedence has been set. Don't mess with people and their land and livelihoods. This type of resistance is a predictable outcome that will only be further reinforced and repeated with the next High Voltage Project that is pushed onto landholders. Changes must happen if there is change *to* happen. We all agree about new transmission lines being needed but they need to be done in a progressive way that is the least impact to landholders and communities. The obvious best fit for all solution was always to go underground.

It is 2023, Transgrid need to come up to speed with the rest of the world in delivering underground power transmission and the Government needs to push for this and make this happen for the benefit of everyone into the future to prevent further delays in bringing the vast amount of planned renewable power online. The logic and benefits to landholders, communities and environment of undergrounding will last for generations.

### **The costs and benefits of undergrounding**

- Internationally, governments are choosing undergrounding based on analysis of all costs, including environmental and social costs and conclude that undergrounding transmission is the cheapest long-term solution.
- HVDC underground transmission, proposed for undergrounding HumeLink, has less transmission losses than AC overhead lines, and so has offsetting energy efficiency benefits over the life of the project.
- Undergrounding is also chosen due to its benefits including:
  - 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.
- Our governments are telling us that renewable energy, like solar and wind, will reduce the cost of electricity. Given this, it's critical that a better environmental option for transmitting electricity, like undergrounding, isn't rejected on the basis of cost.

## Existing case studies and current projects domestic and international

- In Australia, private companies are putting transmission underground.
  - Existing projects
    - Murraylink, 180km
    - Directlink
    - Powering Sydney's Future Project - Transgrid 330kv underground 20km (Potts Hill to Alexandria)
  - Current Australian projects
    - Marinus Link, 90km
    - Star of the South, 60-80km
- International Projects
  - SuedLink, 750km 525kV – renewables Germany
  - SuedOstLink, 500km 525kV
  - California burying 10,000 miles of powerlines to reduce wildfire risk.
  - Champlain Hudson Power Express (CHPE), renewables Canada - New York

## Any impact on delivery timeframes

- Undergrounding will grant Transgrid 'social licence'. There will no longer be community opposition as concerns will be resolved with an underground solution. The community will work with the government and Transgrid to assist in any way possible to ensure delivery timetable is met. Farmers at Tumut have said: *'If HumeLink goes underground, Transgrid can start tomorrow, and we'll even dig the trench for them'*.
- The planning for HumeLink was done assuming Snowy 2.0 would be available in July 2025. Snowy Hydro has now announced that Snowy 2.0 won't be complete until December 2029. This four and a half year delay means HumeLink can be delivered when needed as an underground solution.
- AEMO's own modelling, even before significant delays to the completion of Snowy 2.0 were announced, said the optimal timing of HumeLink was 2028-29 in the Step Change scenario; and 2033-34 in Progressive Change scenario.
- If undergrounding HumeLink is rejected, because it will take longer to build, Transgrid will be solely to blame, and must be held to account. Transgrid has been continually working against the community on Undergrounding HumeLink – stalling and misleading government for the last 3 years.

## Environmental impacts of undergrounding

- Greatly reduced environmental impacts in comparison to Overhead infrastructure.
  - 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 impacts, plus no interruption to new technologies like precision agriculture that improve the productive efficiency of agriculture.

I urge the Standing Committee to recommend that undergrounding is the best way forward for renewable energy transmission in NSW. As we transition to net zero emissions, we need environmentally responsible transmission as well as generation.

Yours sincerely,

Jen Dumbrell

**Co-Chair Humelink Action Group**



Humelink Action Group



STOP Humelink Towers



<https://www.stophumelink.com.au>

