

Submission  
No 224

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

**Name:** Mrs Jessie Reynolds

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*Jessie Reynolds*

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.

I am directly and indirectly affected to the transmission lines in 4 different areas along the Humelink proposed line. I am a mother to 4 girls, a 3rd generation farmer and work on my family farm in the Tumut area and live in the Darlow Bush Fire Brigade area on my husband's family farm.

My main points for your consideration,

- **Bushfire Concerns** – I am current a volunteering member of the Darlow Fire Brigade which I live and work, we were directly impacted in the 2019/20 Dunn's Road fire, where we lost 95% of my in-laws farm including the block we live on, and lost hundreds of head of livestock and countless amounts of trees shrubs not to mention wildlife and ecosystems.

Data shows that the bushfire risk is getting higher as the temperatures are rising with global warming, making towers and lines even more dangerous. [CSIRO](#)  
Outdated transmission tower technology significantly increases the risk of deadly bushfires and makes it harder to fight them, threatening lives, property and native animals.

Countries overseas are transitioning to net zero emissions by HVDC underground transmission projects.

Two such projects are listed below:

- Canada to NY 339 miles (546 km), Champlain Hudson Power Express [Canada](#)
- Off Shore North Sea wind/South solar Germany 750km, Suedlink [SuedLink](#)
- Other parts of the world are following best practice by bringing renewable energy into big cities like New York, with HVDC underground, such as the Champlain Hudson Power Express.

Powerlines are also being put underground overseas because of bushfire risk and to transform the natural beauty to places that have had the towers.

- In July 2021, California announced it will bury 10,000 miles of overhead power lines to reduce the risk of wildfires, at a cost of between \$US15 to \$US30 billion. When asked about the cost the CEO said "It's too expensive not to do it. Lives are on the line," [California](#)
- Going Underground- removing overhead to underground to enhance the landscape and to transform the views to show the natural beauty. [England](#)

Further, in Australia, private companies are putting transmission underground.

Two current projects Marinus Link and Star of the South, are being undertaken by private companies, are putting transmission underground.

- Marinus Link, the new interconnector between Tasmania and Victoria, and the first investment for Rewiring the Nation, has 90 km underground.
- Star of the South, Australia's first off shore wind farm, off the coast of Victoria with 2200MW of capacity – more capacity than Snowy 2.0, will have 60-80 km underground.

The reasons given by these companies for undergrounding transmission, when it costs more, are the community, the landscape and the environment benefits.

- **Environmental Concerns** - clearing of bushland and farmland ruining native flora and fauna and the ecosystems they live in while increasing the risk of erosion on farmland that has been looked after for by farmer over the years.
- **Agricultural farmland impacts** – reduced aerial application of fertiliser, sprays and seed,
- **Electromagnetic fields (EMF) Concerns**, which French courts recently recognised, are genuine health risks. [example of compensation in France](#).
- **Biosecurity Concerns** – The risks are a huge problem for all of the HumeLink project if the transmission lines are erected or buried, and considerations need to be taking into how the government will manage a huge outbreak of disease if caused from construction of the project. Eg Foot & mouth and Lumpy Skin.
- **Mental Health Concerns** – I am concerned that the mental health of people who have to live with, look at, work under 80m high transmission lines will be come of a high concern. I am a sufferer of depression and this imposed strain has had a huge impact on my mental health which in turns effects my relationships with children, husband and family.  
The underground option will not have the stress that aboveground has.
- **Cultural & Heritage Concerns** – the proposed line will be very close to Mudjarn Nature reserve, the reserve is also known locally as “Pine Mountain” due the locally abundant Black Cypress Pine (*Callitris endlicherii*), which gives the reserve a very dark appearance and makes it stand out from other high points in the area.

Mudjarn Nature Reserve protects areas of remnant native forest, including small pockets of Yellow Box and Red Gum woodland, a component of the endangered White Box - Yellow Box - Blakely's Red Gum woodland community. Nine species of mammal, four frogs, seven reptiles and 153 species of bird have been recorded in the reserve, including six threatened bird species.

Mudjarn Nature Reserve also protects Aboriginal cultural heritage sites, landscapes and other features that have high significance to the local Aboriginal community. Whereas the valleys were a focus for living, the high peaks and hills are associated with ritual. Initiations are known to have occurred within the ranges and hills until the 1920s.

The towers are proposed to be a mere 20-50 m from the boundary of this significant area.

The NSW government need to be protecting areas with such significance from extra fire risk, placing towers this close is a huge risk and moving away or undergrounding needs considering.

- **Visual impacts** - the Killimicat valley is one of the most picturesque areas in NSW. And we are very likely to call it home, as a child growing up I was told to look after the land, we have been here 25 years. The future is what I have strive for, over the years planting hundreds of tress for shade, erosion control and animal habitat. Just to watch them be cut down without any implementation of an offset to replace these trees that have taken hundreds of years to grow.  
Undergrounding of the transmission lines will see less habitat destruction as the easement is smaller leaving less scarring and visual amenity to the region.

In Conclusion, we can't put a value on the land, we are running a family farm, we work to live here, not work to sell the land. We work to be in a happy mindset, and undergrounding will allow this for us and the future generations preserving and protecting the land from future fires allowing us to make improvements.

I urge the Standing Committee to recommend that undergrounding is the best way forward for renewable energy transmission in NSW and Australia.

As we transition to net zero emissions we need environmentally responsible transmission as well as generation.

Governments overseas and private companies in Australia have come to the conclusion that when you take into account all the non-market costs of overhead transmission lines (bushfires, biodiversity, visual amenity, regional development, tourism, and agricultural productivity) for the next 80-100 years, undergrounding is the preferred option.

Yours sincerely,

*Jessie Reynolds*