

**Submission  
No 260**

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

**Name:** Mrs Jan Lucas

**Date Received:** 15 July 2023

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*Jan Lucas*

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.

HumeLink is a 360 km, 500kV transmission line that extends from Bannaby in the Southern Tablelands, to Maragle near Kosciusko National Park, and to Wagga Wagga in the Riverina. It is described by Transgrid as the “largest capital project since construction of our existing network”. Will be running through Killimicat Station where we run as an farming family angus stud. The property is now over 1000ha in size.

HumeLink will connect Snowy 2.0 pumped hydro to the load centres in eastern NSW. Snowy 2.0 is said to be “the largest renewable energy project in Australia” [Snowy 2.0](#)

Killimicat is set to have close to 4km and potentially 13 towers up to 80m high with 500kV lines run directly through the middle of the property, they will completely dominate the landscape. Eurabbie is also effected on another location on the Brungle Creek Road. These towers are the bulkiest and tallest and will absolutely desecrate the landscape which will impose enormous costs to the environment and all communities involved.

Countries overseas are transitioning to net zero emissions by HVDC underground transmission. 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](#)

To bring renewable energy into big cities like New York, HVDC underground, such as the Champlain Hudson Power Express, is world best practice.

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 all over the UK. [England](#)

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

Two current projects Marinus Link and Star of the South, 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.

Engineers tell us that there have been major advances in underground cabling technology, it is entirely feasible and the world is looking on in disbelief as Australia builds more overhead transmission lines.

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.

Undergrounding HumeLink will be the least cost option for the people of NSW, when all the environmental and social costs of overhead lines are taken into account. Therefore, undergrounding HumeLink is in the public interest.

We urge the Standing Committee to recommend undergrounding HumeLink. As we transition to net zero emissions, we need environmentally responsible transmission as well as generation.

Yours sincerely,

*Jan Lucas*

Date: 14 July 2023

Killimicat







Eurabbie







Example photomontage



Highlighted to reference project location

Figure 1 From Transgrid webpage

