

Submission  
No 232

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

**Name:** Mark Boileau

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Dear The Hon Emily Suvaal MLC,

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

We are writing to you in support of undergrounding transmission infrastructure for the Humelink overhead powerlines.

Internationally, governments are choosing undergrounding on the basis that all costs, including environmental and social costs, is the cheapest long term solution.

HVDC underground transmission, proposed for undergrounding Humelink, has less transmission losses than AC overhead lines and as a consequence has energy efficiency offset benefits over the life of the project.

Undergrounding is also preferred due to it's benefits including:

- No risk of undergrounding causing a fire;
- No restriction or hazard on safe firefighting;
- Protection of the infrastructure from severe weather and fire events;
- Won't impede agricultural operations;
- No impact on landscape and amenity; and
- Significantly reduced impact on biodiversity.

As well as the above there are greatly reduced environmental impacts with UG compared with the overhead lines:

- Undergrounding requires a 15m easement compared with a 70m easement;
- Much reduced removal of trees and plants;
- Reduction in endangered species types being killed (82 species impacted by Humelink);
- Land above UG cable can be rejuvenated after construction;
- No towers and wires interfering with bird flight or climbing animals;
- Eliminates the risk of OH lines causing fires (see California 2018 - 84 dead and the town of Paradise destroyed - fire was started by power lines);
- Eliminates air and ground fire control hazards;
- Eliminates the risk of interruption to power transmission in severe weather and/or bushfires and improves transmission security and resilience;
- Minimal impact on public or private 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;
- Little or no electromagnetic field impacts, therefore less risk of serious health impacts;
- No interruption to new technologies like precision agriculture which improves the productive efficiency of agriculture.

Our government is 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 transporting electricity, like undergrounding, isn't rejected on the basis of cost.

The benefits to communities and the environment will last for generations.

Undergrounding will grant Transgrid social licence. There will no longer be community opposition. The community will work with the government and TransGrid to assist in any way possible to ensure the timetable is met.

In summary there is no doubt that the cheapest option is not the best option in the long term.

We must agree to the Worlds Best Practice and commit to undergrounding the transmission lines.

Yours sincerely,

Mark Boileau

RFS Captain Gurrundah Brigade