

Supplementary
Submission
No 12a

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

Organisation: HumeLink Alliance Incorporated

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Dear Select Committee,

Supplementary submission to the Select Committee inquiry into the feasibility of undergrounding the transmission infrastructure for renewable energy projects

Following the final hearing of the Select Committee inquiry, February 16, 2024, into *Feasibility of undergrounding the transmission infrastructure for renewable energy projects* (the Inquiry), we have a number of comments as follows.

1. The Amplitude Consultants Review of the GHD/Transgrid HumeLink undergrounding study

The Hon. WES FANG: *Can you provide to me whether you believe that report is credible and where you believe that the report doesn't accurately indicate the costings for HumeLink to be undergrounded?*

JEREMY ROBERTS: *Sure. As per our submission that we provided to provide more information around that, I won't talk to the credibility of that on a like-for-like basis of what it was assessing. I'm not talking to whether it's credible or not. Where I would like to draw the attention to is the apples-with-apples comparisons of the transfer capability of the option that was assessed by Amplitude. We have a requirement with AEMO to ensure that the megawatts that we can transfer power through the option must be sufficient. **When we compare that to the Amplitude report compared to our GHD report that we worked on, it is 33 per cent less power transfer as opposed to what we would need to meet our needs and ensure that we have the adequate redundancy under electricity rules. By having 33 per cent less power transfer, that is a 25 per cent smaller cable. Obviously, that is***

reduced costs. That is a smaller trench. All those parameters factor into the price. I'm not talking to the credibility of the report itself.

This is an incorrect and baseless criticism of the Amplitude Review. GHD/Transgrid assessed 'option 4C' with equivalent transfer capacity and redundancy to the option assessed by Amplitude. This was the option considered by GHD as the most promising option to underground HumeLink

It was because GHD favoured this option, as the preferred HumeLink undergrounding option, that Amplitude Consultants assessed this option in their review.

2. Ability of RIT-T proponent to assess undergrounding

The Hon. WES FANG: *But in this circumstance, where I'll assume that—I think you've basically said it without saying it—the HumeLink proposal that is currently being assessed by you is effectively what has previously been put forward, without any analysis or assessment of undergrounding, how are you able to draw a comparison between the cost of interruption to supply from bushfires et cetera if you don't have those costings and a comparison between an overhead proposal and an underground proposal on the table?*

JIM COX: *The responsibility there is ultimately one that lies with Transgrid. They need to assess benefits and costs....*

JIM COX: *Yes. Just to clarify, we're not saying "no undergrounding". What we're saying is that the benefits and costs have to be weighed. I think the benefits—the sorts of things you are talking about; the views of the community—are relevant to be taken into account in such an assessment.*

Jim Cox, the Deputy Chair of the AER is stating that broader costs and benefits 'need to weighed' when assessing transmission options like undergrounding.

This broader, triple bottom line, analysis of transmission projects is what the community has been demanding. This is consistent with NSW government guidelines for cost-benefit analysis and is necessary for efficient outcomes in the electricity market. It is flawed policy to ignore certain costs, in particular community and environmental costs, when you're planning infrastructure investments. These are externalities and market failures and MUST be considered to get efficient outcomes.

The infrastructure is ultimately assessed by NSW Planning on the basis of public benefit and taking ALL costs, including externalities, into account, but as all costs and benefits haven't been considered early on at the planning stage, the wrong option is being put to NSW Planning for assessment.

Despite the AER saying the proponent should be doing this broader assessment, Transgrid takes a narrow view.

The Hon. WES FANG: *I asked this morning who is responsible, in effect, for looking at the project, not simply from the proposal that the constructor puts forward—that is, Transgrid, in relation to HumeLink, which is to be an overhead line—but who evaluates the other proposals, if there are any?*

For example, who is responsible for determining whether an underground solution might be feasible, suitable and more appropriate? Effectively, that seems to fall to Transgrid. Would that be fair?

JEREMY ROBERTS: *I would say, following the RIT-T process, we assess options and we put forward those options to the regulator. Through that RIT-T process, where we look at different options, different pricings and the different times it takes, **the option that is the most prudent and efficient is put forward.***

The regulatory investment test for transmission (RIT-T) cost-benefit analysis specifically excludes community and environmental costs. Although Jeremy Roberts says '**the option that is the most prudent and efficient is put forward**', this is incorrect. The most 'efficient' option isn't being established in the RIT-T. The option that is being established is the cheapest option to construct and operate, not the least cost option for the State as a whole taking into account all costs including:

- a. Increased risk of bushfires;
- b. Lost biodiversity;
- c. Reduced system security;
- d. Loss of visual and noise amenity;
- e. Undermined regional development;
- f. Disruption to the productive efficiency of agriculture;
- g. Lost tourism; and
- h. Increased exposure to EMF with associated risks to health.

Only by taking into account all these costs when deciding on transmission options will the correct, efficient, investment decision be made. If these wider costs and benefits are included, the efficient option will likely be the underground option.

Conclusion

A recent poll by the Guardian said that 70 per cent of people believed the transition to net zero shouldn't be at the expense of communities and the environment. Also 65 per cent of people were against overhead transmission lines. It is important to take the opinions of the people of Australia into account when developing policies about transmission infrastructure – underground or overhead. Overhead transmission lines cause enormous enduring harm to communities and the environment, that can be avoided with an undergrounding option.

The current rules of the NEM mean that transmission projects have large unaccounted for costs to communities and the environment. The rules of the NEM must be changed so the cost-benefit analysis of projects include all first round direct and indirect costs, consistent with NSW Government cost benefit analysis and consistent with ensuring projects have a State benefit. This is also necessary for efficient outcomes in the NEM.

The community has engaged with Transgrid on the HumeLink project in good faith, sitting on the Steering Committee for the HumeLink undergrounding study, and attending Community Consultative Group meetings for the last two and a half years. We understand the importance of

transitioning to net zero and have tried hard to work with Transgrid to deliver the HumeLink project, in a way that also maintains the liveability, workability and beauty of our regions.

At every point Transgrid has acted to shut down the underground option, exaggerating the costs in the GHD undergrounding study and misrepresenting the facts about undergrounding in the NSW government inquiries. Transgrid is doing considerable harm to the State by failing to present facts about undergrounding fairly.

It's one thing for our government to be making decisions about undergrounding on the basis of the facts. It's quite another for it to be making decisions on misinformation.

The cost of the underground option 1C-new in the Amplitude Review, that has enduring environmental and community benefits, is \$5.46 billion, only 10 per cent more than the overhead option, now costing \$4.92 billion.

Snowy 2.0 has been delayed. There is time to get HumeLink delivered underground, particularly with the shorter 1C-new option. As the overhead option is strongly opposed by the communities impacted, it risks facing lengthy delays. Undergrounding is likely the quickest option.

We ask that you rely on evidence given by the independent expert undergrounding engineers in this inquiry and the previous inquiry, when making recommendations on undergrounding transmission, and not the orchestrated misleading information given by Transgrid. We can't put the wind farms and solar farms underground, but we can, and should be putting the transmission lines underground. Wind farms and solar farms are islands of change for the rural landscape character of regions. Transmission lines industrialise rural landscapes for hundreds of kilometres along the entire route of the line. While it may not be possible to put all transmission underground there is a compelling case for putting 500kV transmission lines underground, the biggest bulkiest and most imposing of all transmission lines in Australia.

We urge you to recommend:

1. Undergrounding as the default with all new 500kV transmission lines, with undergrounding only dismissed if not feasible after an independent expert assessment of the triple bottom line. This is consistent with legislative requirements of the NSW Environmental Planning and Assessment Regulation and the Environment Protection and Biodiversity Act that mean the proponent is required construct the option with less impact on the environment;
2. The assessment of transmission options to include all first round direct and indirect costs and benefits of transmission when assessing options. This is consistent with NSW government cost-benefit guidelines and efficient outcomes in the national electricity market; and

3. Undergrounding HumeLink as the option with the least overall cost to the State of NSW.

Yours sincerely,

Andrea Strong
HumeLink Alliance Incorporated