

Submission
No 50

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

Name: Name suppressed
Date Received: 10 November 2023

Partially
Confidential

The Select Committee on the Feasibility of Undergrounding
Infrastructure for Renewable Energy Projects

Parliament House,
Macquarie Street,
SYDNEY NSW 2000

By email: undergrounding.infrastructure@parliament.nsw.gov.au

10 November 2023

Dear Select Committee,

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

Thank you for the opportunity to make a submission to this critical inquiry. I write this submission to reiterate my support for undergrounding transmission infrastructure and I refer the committee to my initial submission to this inquiry (number 237) and request that both be read in conjunction.

My family has been living and farming in the Tumut and Adelong area for over 180 years. Our property is located on the proposed corridor between Maragle and Wagga, immediately northwest of the Green Hills State Forest radiata pine plantation and east of Yaven Creek and Oberne Creek.

Figure 1

We operate a cattle stud and a sheep stud, in addition to commercial cattle and sheep herds, with total numbers of around 3000 sheep and 800 cattle. All three of my sons aspire to follow in the footsteps of their grandparents and continue the family agricultural business, as the 7th generation of local farmers. This is a rare thing in this age of globalisation, economic rationalism, and uncertainty.

As long-term residents since the 1830s, we have a proven and enduring relationship and attachment to our land. This would have been evident to the four members of the Standing Committee on State Development who visited us at Westwood on their second site visit on the 27th of July 2023 and listened to our concerns and those of our neighbours.

Figure 2

The proposed Humelink overhead project in its current design would have a major impact on our local environment, on our agricultural business, and on our lives. Below is a map supplied by Transgrid, showing the location of the project footprint as it dissects our property, running 3.5 km through the middle of it, and passing less than 400 metres from the main house and even closer to much of the other main infrastructure.

Figure 3

HomeLink has continued to ignore our requests for consideration of route refinement options that would eliminate or lessen the impact on several properties in our area, by using more public land, and locating transmission lines along boundaries and at the maximum possible distance from houses and sheds.

Figure 4. Alternate route option – rejected by Transgrid in April 2023

New Developments and Issues with the HumeLink Project

There have been many new developments that raise very serious questions about the HumeLink project and the project assessment process. As a result, I ask that the following points are considered in addition to my initial submission.

The release of the **Amplitude Consultants Review of the GHD/Transgrid HumeLink undergrounding** report shows that undergrounding HumeLink is both engineeringly and economically feasible and that the alleged cost of undergrounding HumeLink was VERY exaggerated in the previous study by GHD. This Select Committee will be the last chance for the truth to be told, the truth that on meaningful, accurate measures, building HumeLink as an underground project will deliver many economic, environmental, and community benefits, and the cost may be only 1.5 times to 1.1 times the cost of the overhead option. The project delivery time of an underground HumeLink may also fit within the required timeframe. Please read the Amplitude report and consider these revised costings and time frames.

The new Amplitude Review also highlights the inconsistent and incorrect information still being provided to the public and politicians and potentially to the Select Committee. Putting cost discrepancies aside, another simple example is that, when interviewed or making submissions during the previous inquiry, Transgrid officers and others with vested interests in HumeLink being built as an overhead project, failed to ensure there was a clear distinction and comparison made between underground HVAC and underground HVDC, as the outcomes can vary a lot in terms of environmental impacts, costs, and system resilience. Because this distinction was not adequately made, misrepresentation and the use of outdated information in assessing costs and technical solutions were able to occur.

Could the Select Committee investigate how this and other examples of incorrect, continuous, misleading, and/or out-of-date information are still being provided to the public and to decision-makers and how it would be possible to stop this from happening again? Politicians and electricity consumers are not usually subject matter experts on rapidly evolving and complex fields of electricity infrastructure and the generation of renewables, nor should they have to be. Would it be possible for the Select Committee to obtain the services of a suitable subject matter expert to guide them through the huge amounts of available information and assist them in coming to the best possible outcome for this inquiry?

Decisions about significant infrastructure projects such as HumeLink MUST be made carefully and after consideration of the best and most accurate information. Not made lightly, not made by people who do not fully understand the issues, and not made by people who are primarily motivated by money, political expediency, self-interest, or ideology.

The **Stop Rethink HumeLink Report** clearly explains some of the significant and ongoing costs of overhead lines that have not been included in the assessment of the overhead design HumeLink project. These include:

- Damage to and loss of natural regional landscapes for current and future generations
- The destruction of habitat for many threatened and endangered species.

- Difficulty managing and controlling fires in the vicinity of overhead lines and infrastructure due to obstruction and life-threatening danger to firefighters from arcing during fires
- Impacts on local industries, including agricultural, tourism, and plantation forestry
- Mental health and wellbeing impacts on local communities

If all these costs were included and added to the capital, operating, and maintenance costs of overhead HumeLink, plus losses of the environment through construction and operational damage and damage bushfires, plus losses to the community through impact on businesses and the mental health, undergrounding could be considered the overall least-cost option. But we have been repeatedly told that the assessment of this type of cost is “not required” so Transgrid refuses to consider it.

Public exhibition of the HumeLink Environmental Impact Statement (EIS) has taken place

The HumeLink EIS has been exhibited and Transgrid is currently preparing responses to the submissions. Unfortunately, the EIS was found to be deficient in many serious aspects and I strongly request that the Select Committee investigates how such a major project as HumeLink can present a study of such poor quality. I and many other people have multiple concerns about major aspects Issues of the EIS but will mention just a couple of examples about Traffic and Transport Assessment and Groundwater and Erosion assessment (see Tables 1 and 2 in Appendix 1). Both assessment reports included incorrect information, superficial treatment, unsuitable, inadequate, and/or faulty methodology, unsubstantiated assertions, and flawed conclusions. Neither these nor many other reports are adequate for the purpose of assessing the true impact of HumeLink and I beg the Select Committee to ask for the EIS to be closely scrutinised.

In support of my assertions above, I would also like to draw the Select Committee’s attention to submission number 0076, submitted to the initial standing committee undergrounding inquiry by Shana Nerenberg. Shana is a botanist and an accredited native vegetation assessor, with professional experience in environmental impact assessment and expert knowledge in assessing impacts on threatened species and threatened ecological communities, including those impacted by the HumeLink project. Her concerns about the quality and adequacy of the EIS mirror those of me and many other people. Shana stated: “My professional opinion is that the environmental impact assessment for HumeLink to date has been inadequate for the scale of the impacts proposed. The impact assessment does not comply with requirements under the EPBC Act to avoid and mitigate impacts on protected matters. The EPBC referral and associated impact assessment contain errors in assessing habitat requirements for some threatened species suggesting external expertise is required to review the assessment.”

I would also like to draw the Select Committee’s attention to Shana’s response to the HumeLink Environmental Impact Statement (EIS), which has a comprehensive focus on Section 8 - Biodiversity and on Technical Report 1 - Biodiversity Development Assessment Report (BDAR). Shana “objects to the HumeLink EIS on the grounds that the EIS and associated BDAR fail to meet the requirements of the EPBC Act Environmental Offsets Policy. As a result of this failure, the impacts of Humelink on threatened species and endangered communities are clearly unacceptable and cannot be approved by the Minister.” She noted the following fundamental failings of the EIS which would “result in HumeLink contributing to biodiversity loss and/or extinction”.

- The EIS fails to satisfy the requirement to ‘avoid and minimise’ impacts on MNES
- The biodiversity offsets strategy (BDAR Chapter 16) fails to secure any biodiversity offsets
- The EIS and BDAR fail to acknowledge that biodiversity offsets are costed at one-third of the total capital expenditure for the project, or up to \$1.34 billion

- The EIS and BDAR provide entirely inadequate levels of detail for how this unprecedented quantum of offsets will be identified and secured and fails to acknowledge that a realistic timeframe to achieve this is at least 10 years
- The EIS fails to undertake any risk assessment of securing this unprecedented number of biodiversity offsets for grassy woodland, which means the project is unlikely to secure the required offsets.

Please take the time to carefully review Shaya's submissions and the EIS. If the HumeLink EIS is taken at face value, there is a serious failure in the assessment of the true impact of above-ground transmission lines versus an equivalent underground project.

Other significant developments since the original inquiry into the feasibility of undergrounding include a request made to the Australian Energy Regulator (AER) for the reapplication of the regulatory investment test for transmission (RIT-T) to the HumeLink project for the material changes in circumstances for the project. Another development of significance is Transgrid is continuing to finalise the HumeLink Contingent Project Application – Stage 2 (CPA-2) plus AEMO undertaking the feedback loop on the HumeLink overhead option. This is despite the current inquiry being underway - Transgrid is pushing along relentlessly, in the belief that nothing will stop their project, even in its current, unsuitable form.

In the interests of avoiding unnecessary duplication, I would like to draw the Select Committee's attention to the excellent submission from HumeLink Alliance Incorporated, (representing a large number of stakeholders), where these matters are set out with a high level of detail and accuracy. Please consider the points raised and support us in making Transgrid comply with both the approval system requirements AND the intent of the requirements, so the best outcome for the environment and the people of NSW and Australia can be achieved.

I would like to clarify what I feel may have been a misunderstanding that arose during the initial inquiry when a lot of attention was placed on the relationship between overhead high-voltage powerlines and the ignition of bushfires. Once the evidence was presented that suggested that while high voltage powerlines can ignite bushfires, many bushfires started from other sources, the relationship of HumeLink to bushfire risk seemed to be dismissed. I would like to clarify that it is more the issue of how HumeLink would make it more difficult and dangerous to fight and contain fires that concern my family, our neighbors, and many other sensible and experienced people.

Another issue is that during previous inquiry and the the whole course of the project, Transgrid has continually ducked and weaved around the bushfire issue, including saying they were not experts on bushfires, and they needed to seek guidance from the Rural Fire Service. Unfortunately, the levels of RFS management above the local brigade level, have also proved evasive on the matter of fighting fires and high-voltage transmission lines. Many RFS members in positions of authority have consistently refused to comment, saying that "the RFS must be seen to be neutral" that giving evidence or making a statement would be a "conflict of interest" and that they might lose their jobs if they commented or were perceived to be involved. To me, this is a sad indictment of our country, if people serving in a community-based, largely volunteer organisation feel too scared to give their opinion or speak the truth for fear of repercussions. Surely if people speak the truth, whatever that may be, we all win.

Thank you so much to all the members of the select committee for giving up their time to be part of this important inquiry and for trying to change the future of NSW and energy transmission for the better.

Yours sincerely,

Appendix 1

Table 1 TR16 | HumeLink | Traffic and Transport Impact Assessment (from EIS submission comments)

EIS Section & Reference	EIS Source Wording	Concern	Comment
TR16 HumeLink Traffic and Transport Impact Assessment	The lightly trafficked road network within the traffic study area reflects the largely rural nature of the locality except for a selection of roads located in urban areas. All roads are operating within capacity at Level of Service A or B under existing conditions	Discussing road operating capacity in terms of Level of Service A or B (under existing conditions) is irrelevant to the type of roads identified as being included as access and transport routes. Many are narrow dirt roads, others rough forestry tracks, others are little more than wheel tracks in the grass. The detailed figures supplied for each road about current traffic flow, the amount of equipment transported & number of daily vehicle movements compared to current, managing over-dimension vehicles, water transport routes, etc, have clearly been fabricated. How can any confidence be placed in a report, in consultants, and in an EIS where there are such major errors and fantastic information?	Using "road operating capacity" as a measure shows that the assessment has not been conducted by someone with an awareness of the actual nature of the roads. Examples from a small part of the project area are shown in Figure 6-2e
TR16 HumeLink Traffic and Transport Impact Assessment SEARs Requirements Key Issues - Transport page 5	(The SEARs) requires an assessment of the transport impacts of the project on the capacity, condition, safety, and efficiency of the local and State Road network and the rail network. Chapter 6 (of TR 16) outlines construction impacts, Chapter 7 outlines operational impacts and Chapter 8 outlines cumulative impacts.	My concerns are specifically related to a small part of the project, as shown in Figures 6-2e and 4e but if so many issues are apparent in the Report for this small area alone (6 km of the 360km of the footprint length or 1,5%), there may be a similar degree of error and lack of validity across the rest of the Traffic and Transport Impact Assessment. There are roads shown in Figure 6-2e that are not included in any of the TR 16 Attachments or Table. There are roads/routes shown in Fig 6-2e and 4e as "Local Classified Roads" or other titles that do not exist, that would be considered walking tracks only, that are private property farm tracks or are so steep and rudimentary they are not at all feasible to use.	The Traffic and Transport Impact Assessment appears in many sections to be a work of fiction. See pictures in Appendix 2

Table 2 TR8 | HumeLink | Groundwater Impact Assessment (from EIS submission comments)

EIS Section & Reference	EIS Source Wording	Concern	Comment
Table 8-20 Summary of biodiversity mitigation measures B7 Surface water 8-78 HumeLink Environmental Impact Statement soils and groundwater	ESCPs will be developed for the activities and areas that are considered higher risk. The plans will detail the processes, responsibilities, and measures to manage potential soil and water quality impacts in accordance with the principles and requirements in: "Guidelines for Controlled Activities on Waterfront Land (NRAR 2018)"	issue with methodology - the arbitrary decision that ESCPs will only be developed for "high-risk risk" activities and areas - where is the rationale for this?	There is no evidence presented to explain why only high rather than moderate risk-rated areas should have ESCPs developed. This looks like a shortcut to make the project appear to have less environmental impact in terms of erosion and decrease the compliance burden.
EIS Main Body 8-78 HumeLink Environmental Impact Statement	ESCPs will be developed for the activities and areas that are considered higher risk. As discussed in Section 5.4.3, detailed erosion risk information has been	Significant Issue with the erosion risk rating methodology applied -it is not in accordance with the principles and requirements of Best Practice Erosion and Sediment Control (IECA, 2008) as was stated would be used for the project. There is no explanation or justification provided to justify this. The use of arbitrary values to rate the level of	Best Practice Erosion and Sediment Control (IECA, 2008) provides a number of methodologies to use to rate erosion risk. Table

	<p>sourced, and erosion risk for the risk assessment has been categorised as the following:</p> <ul style="list-style-type: none"> ■ low: up to 200 t ha-1 yr-1 ■ moderate: between 200 and 1000 t ha-1 yr-1 ■ high: greater than 1000 and 3000 t ha-1 yr-1 <p>.</p> <p>This combined information can be used to determine the sensitivity of potential impacts at any location within the project footprint.</p>	<p>risk potentially invalidates the assessment and conclusions of this very important element of TR12 HumeLink Surface Water and Groundwater Impact Assessment and has led to non-supported, non-standard rating. The proportion of areas at high risk of erosion has been underestimated by this error.</p>	<p>4.4.3 shows the details for the one used in the EIS (Erosion Risk based on Estimated Soil Loss Rate (t/ha/yr)). These guidelines say: Moderate Risk is 225+ to 500 t/ha/yr and High Risk is 500+ to 1500 t/ha/yr. If these categories were applied, significantly more areas would be rated as high risk, thereby underestimating the areas requiring ESCPs, additional mitigation measures and additional potential project impact.</p>
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Appendix 2

Picture of an "access track"

Actual area circled in blue with red "frequently used" access track



Appendix 3 Photos of existing transmission line on steep, erodible hillside.

What will happen when Transgrid tries to cut a flat work pad measuring 50 by 70 metres into the hillside?