

Director for Energy Assessments,
Development Assessment,
Department of Planning and Environment,
4 Parramatta Square, 12 Darcy Street,
Parramatta NSW 2150

**SUBMISSION IN RESPONSE TO THE ENVIRONMENTAL IMPACT STATEMENT (EIS) OF THE
HUMELINK PROJECT (APPLICATION NO. SSI-36656827)**

Dear Sir/Madam,

I submit this response to the HumeLink Environmental Impact Statement report as tabled by the proponent, TransGrid.

I am writing to you as an impacted farm worker, volunteer for the Rural Fire Service, conservationist and safety specialist in NSW. I have family and friends who are directly impacted by the proposed Humelink project. I do not believe the Humelink Project in its current form meets the environmental standards of today and there are several flaws within the EIS that go against the *Environment Protection and Biodiversity Conservation Regulations 2000* as well as the *Planning Secretary's Environmental Assessment Requirements*.

I object to the HumeLink proposal on a number of grounds which I have outlined below with relevant examples.

1. **The proponent (TransGrid) have not accurately outlined the background to the action (Schedule 4(1e) *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations 2000)) within the scope.** That is, the multiple changed routes (at least five times) have more detrimental impacts on the environment traversing through high impact environmental areas and close to heritage sites and no longer follow any appropriate study corridor planning principles. The proponent are in breach of their own environmental and safety standards in relation to ensuring the most appropriate route and design of infrastructure has been chosen based on avoidance of Tier 1 and 2 areas mapping constraints.

The proponent outline Tier One and Two constraints in the EIS as:

Constraints considered were categorised as Tier 1, which are considered no-go areas, incompatible with new transmission lines. Tier 2 constraints were areas to be avoided or impacts minimised whenever possible. This approach comprehensively considers environment, social, engineering and cost factors.

Several areas were originally traversing low environmental impact areas, and now they are building transmission through high risk *Tier two* areas. Appendix A outlines images showing the changing route over two periods of time, both of which traverse through Tier Two areas and additional concern these have now been removed from the proponent's website and not viewable. The proponent has also failed to acknowledge the impact to these constraint areas that can be eliminated by placing the transmission underground, which is a feasible option.

The current route needs an urgent review to ensure it is meeting its purpose and planning modelling.

2. **The proponent has been misleading the community on the overall purpose of HumeLink.**

Consultation with communities over the past three years has focused on HumeLink being built to connect Snowy Hydro 2.0 to the grid. The EIS is the first-time communities are being informed of a secondary purpose to now connect Wagga and Tumut REZ zones, however there are several points that need to be made on this newly founded scope;

- a. Tumut and Wagga REZ zones are not currently being declared and are not part of the *NSW Network Infrastructure Strategy, A 20-year to transform the NSW electricity network* ([NSW Government, May 2023](#)). None of the current five REZ zones are within the HumeLink project footprint. AEMO had sought to identify NSW REZ zones back in 2018 with the five declared at that time. I have included the Tumut REZ review in Appendix B, which outlines no urgency for this additional REZ area.

Further to this, [AEMO reported in 2018](#):

*A new transmission line between Tumut and Bannaby, and an additional line from Tumut to Wagga to Bannaby with associated works on the line between Bannaby and Sydney West are developed in 2025. Taken together, these upgrades (referred to as "SnowyLink North") allow the Snowy 2.0 project access to the national market, **defer the need for other investment in generation**, and assist in providing reliable supply to New South Wales*

And in [2020 AEMO](#) reported,

*New South Wales: VRE development in South West New South Wales REZ supported by the Project EnergyConnect and VNI West (Kerang route)¹³, and Wagga Wagga REZ supported by the development of HumeLink, **and pumped hydro generation in Tumut REZ**, supported by the development of HumeLink.*

The 2022 AEMO report makes no additional comment on the expansion of the Tumut REZ zone, with renewable generated for this REZ being suggested as pumped hydro only.

The 2024 AEMO Integrated systems report is due in 2024. Further investigation should be made urgently in relation to the sole purpose of HumeLink, which has always been to connect Snowy Hydro (only) to the grid, which also means undergrounding a super transmission highway is a reality.

Further to this, it appears the Tumut REZ has still yet to be adequately assessed for possible wind and solar options therefore not relevant as yet, and specifically not relevant to HumeLink considering there is other existing infrastructure to service any renewables coming online.

- b. HumeLink's downgraded capacity will now be 2,200MW, equivalent to Snowy Hydro 2.0, therefore there is no further capacity to then connect REZ zones along it's path.
- c. Even if HumeLink could connect wind and solar within proposed future REZ zones, wind and solar proponents have committed to be connecting to 330kV lines, and **do not** want 500kV lines.
- d. Given the Tumut and Wagga REZ zones are yet to be declared and unlikely to need transmission linkage before 2035, as well as Snowy Hydro being at least 2030, we have time to redesign HumeLink.
- e. HumeLink was always explained to the local community as a superhighway to connect Snowy Hydro 2.0 to the grid, not for other transmission to 'plug in'. The EIS also fails to then outline, where in the Tumut region they anticipate the REZ zone and where further transformers may be placed to connect other renewables to the grid.
- f. The EIS appears to have little information about connecting Snowy Hydro 2.0 and if this is no longer its primary purpose an urgent independent review is needed.

3. **The proponent (TransGrid) has not accurately outlined ‘how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action background to the action’ (Schedule 4(1f) EPBC Regulations 2000).**

It is important for those reviewing the EIS to know the Project is currently under review by the NSW Government. A recent [Public Inquiry](#) outcome was against undergrounding however, following a review, a new [Upper House Select Committee](#) hearing has now been established with findings due to be released March 2024. It is imperative the EIS be placed on hold to ensure this project is reviewed in its entirety, that is, whether undergrounding is a more appropriate and environmentally socially acceptable pathway rather outdated above ground transmission, of which I strongly believe it is.

I submit to this EIS the outcomes of the [Public inquiry](#) and all those objections as listed on environmental grounds. (Note- only TransGrid were against Undergrounding transmission claiming issues on costs and timeframe which were debunked by several experts).

Although new information as of 9 October 2023, the Department should also take into consideration new reports on undergrounding and the reduced costs and improved benefits that far out way the proponents current route and design methods. A recent study by Amplitude Consultants place the Humelink Underground cost at \$7.3 billion, which is easily comparable to the ever increasing above ground cost of \$5 billion (Appendix C: The Australian Financial Review, *Transgrid hiked cost of buried cables: residents*)

4. **The proponent (TransGrid) has not accurately outlined ‘the consequences of not proceeding with the action’ (Schedule 4(1h) EPBC Regulations 2000).**

The proponent continues to push the motion that HumeLink needs to be built now, however delays on Snowy Hydro 2.0 and undeclared REZ zones will not be online until the 2030s at the earliest (and believed to connect to 330kV when they do). The proponent also continues to state undergrounding will take too long to build; however, we have time, and undergrounding has the backing of NSW communities and therefore would have social license to begin being built tomorrow.

It is also pertinent of the proponent to expect a completion date of 2026 given the lack of social license and limited resources in Australia for new infrastructure to be built- the estimate is unrealistic.

5. **The proponent has not provided sufficient and accurate information on feasible alternatives (such as Undergrounding transmission lines) under Schedule 4 (2.01 g(iii)).**

Underground transmission lines are the future. They are safer, more environmentally friendly and there is less power lost from point A to B when compared to overhead transmission. Underground transmission:

- a. Has a narrower easement of 15 metres, compared to 70 to 80 metres for overhead (less environmental footprint).
- b. Reduces the risk of bushfires, in turn, reducing risk to our threatened species and devastating effects on biodiversity and the environment.
- c. Poses no risk to our climbing and flying animals when compared to overhead transmission.
- d. Are a ‘reasonable avoidance and mitigating measure’ that can use horizontal directional drilling and trenching to minimise the need for biodiversity offset, which, according to the [EPBC Act Offset Policy](#) are meant to be a last resort (the proponent is using offsets over mitigating methods).

The undergrounding study as mentioned by the proponent in the EIS was not endorsed by the community, independent members involved in the study and experts in underground infrastructure.

Since this report was released there has been several independent revised costs associated with undergrounding by experts which is less than double the cost of overhead, with the most recent being 1.5 times the cost of overhead (Appendix C). With less environmental impact and need for billions also spent in offsets, underground options for HumeLink should seriously be considered. The bushfire costs alone should be enough to consider undergrounding as the preferred method of electricity infrastructure into the future. For example, the 2019/2020 bushfires were estimated at \$78–88 billion in property damage and economic losses, let alone the environmental destruction never recovered.

6. **The proponent has not provided accurate information in relation to consultation about the action, that is, Schedule 4 2.01 (h)(iii) results of consultation as well as 2.01 (i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.**

Since Humelink was revealed to the public three years ago, community members have continually raised concerns about the environmental impact, impact to agricultural activities and land, as well as the added bushfire risk with the current proposed route traversing Tier two areas which greatly expose communities to escalated fire events. (Refer Appendix A Tier two areas as originally provided by Transgrid, now deleted from their website).

With the newly proposed 'purpose' of connecting Wagga and Tumut REZ zones the communities have not been consulted at all on these matters. See all [Community Consultative Groups](#) (CCG) notes in relation to no mention of future REZ zones for Humelink connections.

The proponent have not accurately reflected the community questions and concerns raised, nor answered these over the past three years.

Examples of poor consultation/and lack thereof:

1. Tower locations have been asked for many times, with the proponent advising they could not provide this information, and yet, they have identified these within the EIS and appear to have had this information since 2022? How accurate are these locations if they could not provide these to the impacted landowners until they had to find out this information publicly?
 2. The proponent has only ever mentioned easements of 70-80metres however this EIS now outlines a 110-130 metre wide easement requirement for some areas. Where are these areas?
 3. The height of the actual towers has also been scrutinised with differing advice from differing proponent staff members. Originally community members were informed of a maximum height of 70m, however that was taken over by claims of 85m or more based on topography. And now within this EIS it is stating maximum of 76m.
- **The proponent has not accurately reflected the impact of the project on agricultural land (Schedule 4 (3.01 (a) (b))).**

The proponent state in the EIS, *'Overall, the impact of the project on agricultural production would be minimal during operation due to the small area affected relative to total size of agricultural enterprises within the surrounding LGAs'*.

This is a poor reflection on the feedback provided by landowners across the transmission footprint with high impacts which WILL lead to the loss of human life and environmental destruction.

The proponent also could not comment during a CCG meeting about whether or not their advice on agricultural impact was from an expert or someone with qualifications, suggesting they do not have the relevant skills to adequately determine agricultural impact. Further investigation should be undertaken to determine the TRUE impact on agricultural land to meet the EIS requirements in Schedule 4.

The following are a set of examples of what further information has been excluded from the EIS;

- A *Red Hat Review*¹ was undertaken in 2022 which advised 'All the options being considered in the Tumut area have a high degree of bushfire risk and recent bushfire history' to which the proponent continue to appear to disregard and discredit the undergrounding options that could eliminate this risk (and raised by landowners as a necessity to work the land and fight bushfires).
- Agricultural impacts are high and include (but not limited to) impediments on agricultural production such as operating machinery over 4.3m, aerial spraying leading to increased risk of biosecurity issues (weeds), use of drones (now seen as a safer alternative to operating quads and other vehicles in hilly terrain), and loss of precision agriculture.
- Humelink will also see a loss of carbon credit opportunities for land owners, removing their natural assets which are also habitats for wildlife.
- Undergrounding has the social license from land owners as it has smaller easements, and less ongoing need for clearing (less biosecurity risks).

7. The proponent has not adequately outlined long term impact when compared to alternative actions assessed, including underground lines. Schedule 4 3.01(b) requiring a detailed assessment of the nature and extent of the likely short term and long term impacts.

The clearing of easements under transmission lines has not been outlined in the EIS in terms of long term impacts when compared to undergrounding.

¹ Humelink Community Consultative Group 6th meeting, September 2022, Meeting notes on TransGrid website (Brendan Nelson)

If this occurred you would find the easement management of an underground is less, with a narrower easement also required, possibly 15m.

Cost is always a major factor in new infrastructure projects, with HumeLink being no different, that is, the cheapest cost as reported by the proponent. However, they have failed to outline the cost, both financially and environmentally in regards to the ongoing need for the clearing of easements and natural habitats, the ongoing loss of biodiversity and possibly endangered species. Underground lines would still need management, however less costs are involved.

8. **The proponent has not ensured the appropriate local agencies have been included under Schedule 4 4.01(e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program.** Consultation should occur with local communities and with the new proposed purpose of HumeLink connecting Tumut and Wagga REZ zones, the local Councils have not been consulted on this aspect to the best of my knowledge.
9. **The proponent has not met Schedule 4 4.01 (f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the proponent.** For example, they have not adequately assessed the impact to historic heritage. TransGrid write, *It is unlikely the project would impact the significance of ...[heritage sites].. because the historic items themselves are outside the project footprint, between 180 to 900 metres away.* And *'.....boundaries are approximately 80 metres from the project footprint. However, the indirect visual impact is expected to have a negligible impact on the heritage significance of these places'*. The project will directly impact valuable heritage items given the height of the towers and lines. 1000 metres is close proximity to an 80 m high 500kV line and will impact sites from a visual and bushfire risk angle. HumeLink is impacting 'Clear Hill' which is home of Millicent Armstrong Australian playwright, and part of 'Bellevale' with links to Hamilton Hume. Undergrounding is a feasible alternative to avoid and mitigate impacts.

Also having HumeLink 80 m from Australian Alps National Parks and Reserves is expected to seriously impact the heritage significant of these places.

Has there been assessment against the Heritage NSW Material Threshold policy?

Has this been assessed using the [Heritage NSW Material Theshold policy?](#)

The EIS outlines transmission will be 10 to 180 metres from the boundaries of six nature reserves/national parks, such as Minjary National Park (<10m), Kosciusko National Park (about 90m) and Tarlo River National Park (<10m) – this is too close and for a transmission line expected to be over 75m in height, a huge visual impact on our natural areas, as well as further exposure to heightened bushfire risk.

10. The proponent outlines threatened species within their EIS and adds '*However, given habitat for threatened aquatic species within the project footprint is generally in poor condition and mitigation measures would be implemented, impacts to aquatic species and habitats would be limited.*'

This is not correct. The project will significantly impact biodiversity by impacting threatened ecological communities and species. Where the threatened aquatic species is poor within the project footprint, this means the species is even more vulnerable.

Schedule 4(7) of the Regulations should be tested by independent assessment of the environment. Many land owners impacted by Humelink have sought expert advice through ecological reports that outline the impact on threatened species and the health of the habitats, most would oppose this statement from the EIS report.

11. Other report limitations include:

- a. Impact to environment in relation to access and egress to construction of the project for example, Yaven Creek Road, Adelong NSW widening project/s. Why are not ALL project costs included in this EIS?
- b. Lack of recognition of the implications aboveground transmission has on fighting bushfires and cause of bushfires in comparison to underground transmission. As well as the increased risk to personnel when attempting ground and aerial firefighting measures.
- c. Exposing communities to noise, the noise from Humelink, within certain weather conditions, will exceed the NSW Noise Guidelines night time criteria at 65 dwellings.
- d. Fail to adequately outline the other hazards including potential for electric and magnetic fields (and comparison with undergrounding), risk to public safety (and comparison to undergrounding) and how undergrounding can solve a lot of the social, environmental, cost and safety issues.

Transgrid has only provided 28 Public viewpoints, this is inadequate for a project of this size, it should be requested of Transgrid to provide more, honest and revealing viewpoints across the project footprint, and not viewpoints that do not reflect the 'real' impact as I have observed several known viewpoints are cleverly taken to 'hide' the impact. With a further example of this being the downplayed photomontages depicted on their [website](#) and one such image below. There were other photomontages provided in a presentation to CCG members which were quickly withdrawn due to the fact they were more realistic and more damning of what the towers will look like once built. What we see below is a faded, small and misrepresented view of what the 76-85 metre towers will look like.

Where have the real impact photomontages gone?

View from Yaven Creek

DRAFT



Example photomontage

DRAFT



Highlighted to reference project location

In conclusion, the Humelink proposal is incomplete and needs urgent review and assessment from independent authorities to ensure the community of NSW is being delivered the most environmentally friendly, safest and most **long-term** cost-efficient solution.

- I acknowledge and accept the Department of Planning and Environment's disclaimer and declaration.
- Declaration of political donations: Nil

Yours sincerely,

Appendix A:

Tier One and Two mapping constraints – concerns for high impact harm on the environment and bushfire risk with current route and design of infrastructure being limited to above ground only.

[Humelink website](#) – please note Tier 1 and 2 areas no longer available to be viewed on the website.

IMAGE 1: Showing original route avoiding Tier 1 and 2 constraints out of Maragle, but then through dense forestry (Tier 2 areas). The original route through to Wagga Wagga avoided Tier two areas and was a shorter route. **It remains unclear how the new overhead transmission re-routes through dense forestry and farming land is appropriate given the significance of Tier two constraints when undergrounding (particularly for these areas) will help reduce bushfire risk and help save lives while fighting fires.**

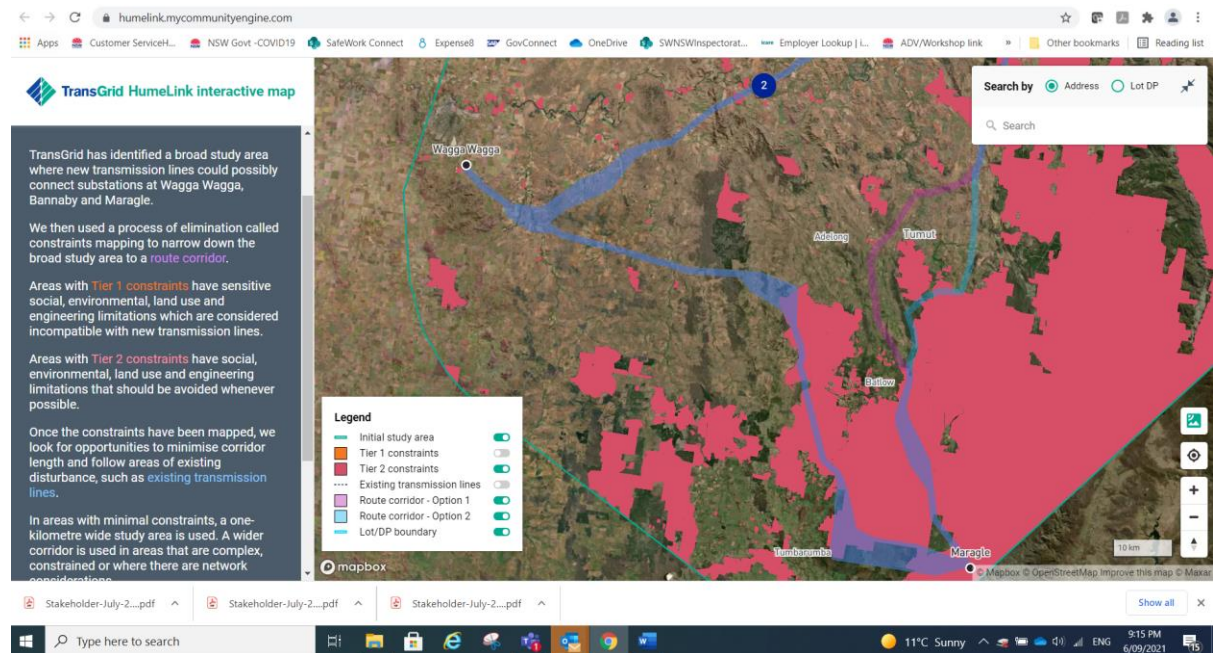


IMAGE 2: Showing map screenshot taken approximately June 2022, showing more line within Tier 2 constraints

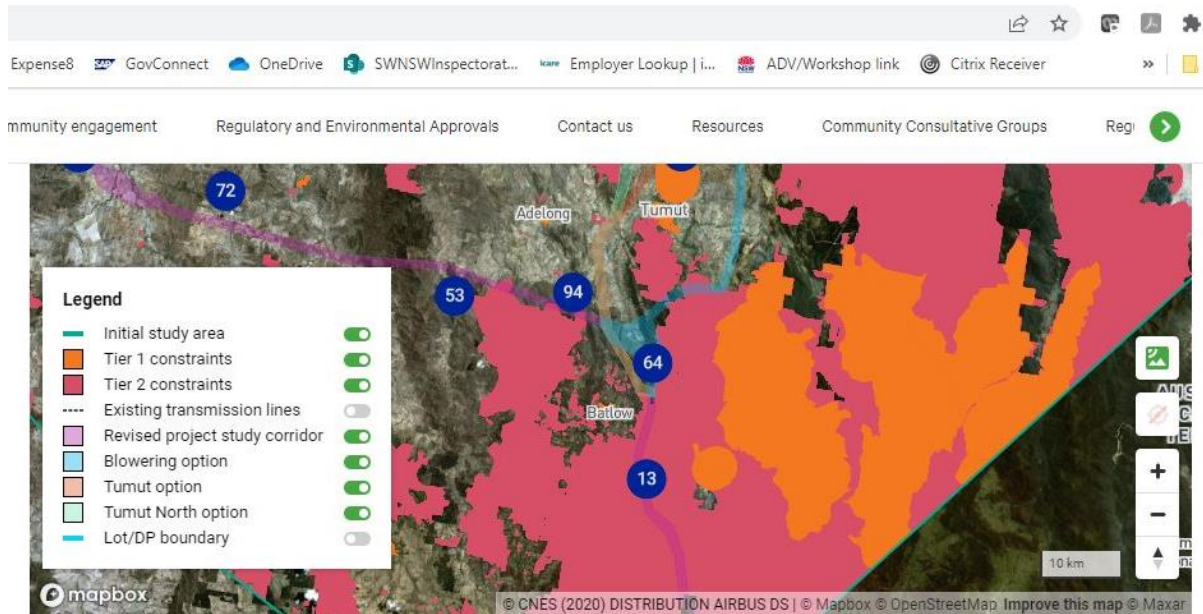
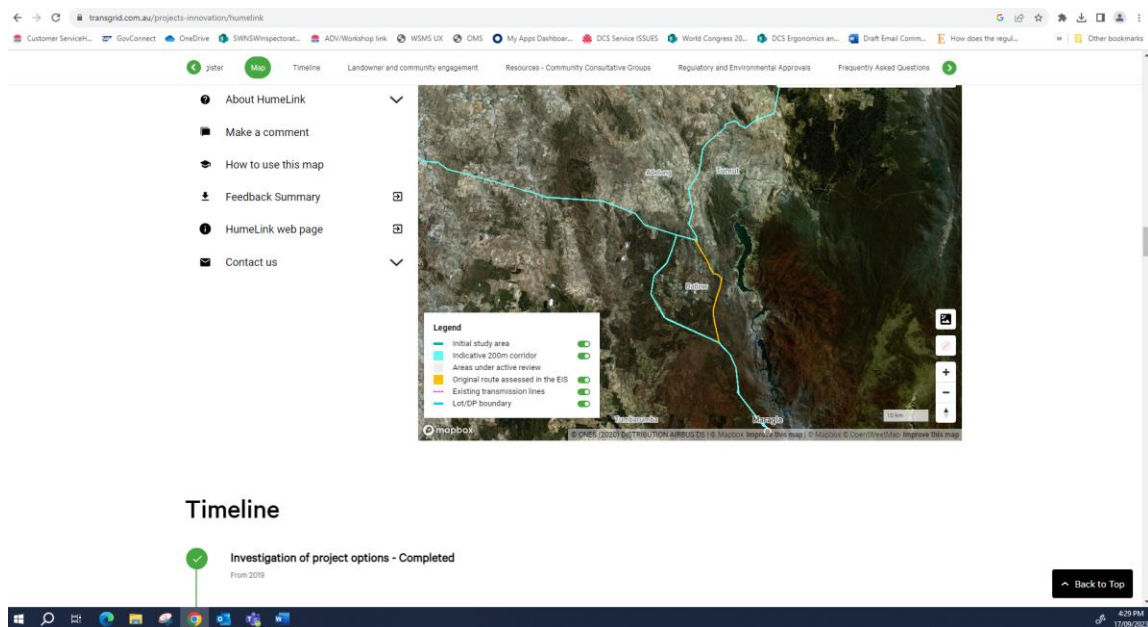


IMAGE 3: Map screenshot as of 17 September 2023. **Also shows legends do not work and no longer displaying Tier 1 and 2 areas of concern.** (Source: TransGrid <https://www.transgrid.com.au/projects-innovation/humelink> accessed 17 September 2023)



Appendix B:

[AEMO Integrated Systems Plan Report 2018](#)

Table 3 (page 56) depicting NSW REZ zones with Tumut REZ not being assessed for additional renewable (solar/wind)

Table 3 New South Wales REZ report card*

REZ Name	Solar quality	Wind quality	Spare Network capacity (MW)	Network losses †	Priority for generator connections	Network upgrade timing				
						Neutral	Neutral with storage	Slow	Fast	High DER
North West NSW	B	D	100	F (B)	3‡	2035	2035	>2040	2029	2037
New England & Northern NSW Tablelands	D	B	300	B	3‡	Initial upgrades could be considered in conjunction with identified interconnector upgrades (see Appendix D). Subsequent upgrade timing:				
Central NSW Tablelands	D	B	1,000	A	1	>2040	>2040	-	2023	>2040
Central West NSW	C	C	100	E (A)		2037	2039	-	2037	>2040
Southern NSW Tablelands	E	A	1,000	A		2036	2036	>2040	2036	2036
Broken Hill	B	B	100	E		>2040	>2040	>2040	>2040	>2040
Murray River (NSW)	C	C	0	E	2	Initial upgrades expected in conjunction with RiverLink project (see Appendix D). Subsequent upgrade timings:				
Riverland (NSW)	C	C	200	E		2033	2032	-	2024	2036
Tumut	N/A	N/A	0	A		-	2025	-	-	-
Cooma-Monaro	N/A	N/A	200	E		-	-	-	-	-

* In this table, a grading system has been used where "A" represents a very high grade, "F" represents a very poor grade, and "B", "C", "D" and "E" represent intermediate grades.

† Scores shown in brackets indicate the result following a major network upgrade.

‡ In the event of a major upgrade of the New South Wales to Queensland Interconnector, North West New South Wales is preferred over Northern New South Wales Tablelands. The New England REZ could be developed in conjunction with the Northern New South Wales Tablelands.

Transgrid hiked cost of buried cables: residents

Samantha Hutchinson

Residents protesting the construction of new poles and wires across regional NSW and Victoria argue energy giant Transgrid has overstated the cost of burying the cables by more than 50 per cent, and that putting them underground will be cheaper over time.

A new report commissioned by the community group Rethink HumeLink found the 360-kilometre transmission project could be built underground for \$7.3 billion, compared to the \$11.5 billion price-tag quoted by Transgrid's consultants GHD engineering. Transgrid has said the overhead option is expected to cost \$5 billion, up from an initial estimate of \$3.3 billion made three years ago.

"This report makes a complete nonsense of claims that undergrounding is too expensive and will add significant costs to

energy consumers," wagyu cattle farmer and Rethink HumeLink spokesperson Michael Katz said, of the report completed by Brisbane-based energy consultants Amplitude. "It is now time for the government to rethink Rewiring the Nation and implement undergrounding as a default like other countries such as Germany. Then we can get on with the job of making renewable energy a reality in this country – with community support."

The report comes after a NSW parliamentary inquiry into the feasibility of burying cables found it would be too costly and would delay the project, which is the central piece of infrastructure connecting Snowy 2.0 to the grid.

Amplitude also found that burying the infrastructure carried other advantages, including reducing fire risk and lowering maintenance costs and energy losses, compared to overhead wires.