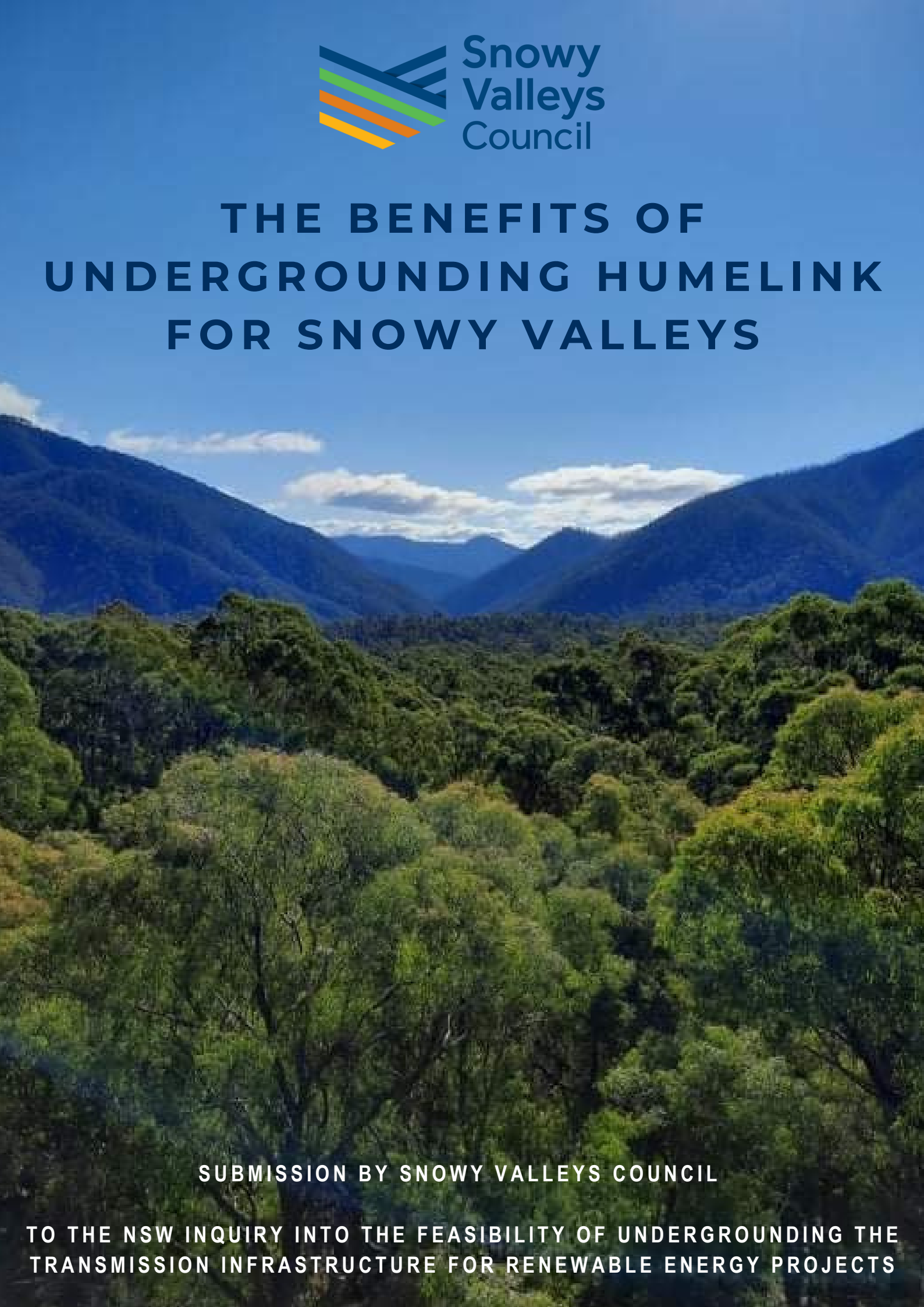
Snowy Valleys Council

THE BENEFITS OF UNDERGROUNDING HUMELINK FOR SNOWY VALLEYS



SUBMISSION BY SNOWY VALLEYS COUNCIL

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

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Scope of this Submission

Snowy Valleys Council (SVC) is providing in this submission information pertaining to item (a) the costs and benefits of undergrounding transmission infrastructure using the example of HumeLink, with reference to other renewable energy projects.

COMMITTEE TERMS OF REFERENCE
1. That the Standing Committee on State Development inquire into and report on the feasibility of undergrounding the transmission infrastructure for renewable energy projects, with particular reference to:

(a) the costs and benefits of undergrounding,
(b) existing case studies and current projects regarding similar undergrounding of transmission lines in both domestic and international contexts,
(c) any impact on delivery timeframes of undergrounding, and
(d) any environmental impacts of undergrounding.

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The Benefits of Undergrounding HumeLink for Snowy Valleys Submission by Snowy Valleys Council to the Inquiry

Executive Summary

The Snowy Valleys Council contends that the overhead electricity transmission infrastructure planned for HumeLink will impose excessive and unfair costs on our people, our visitors and on future generations of Australians. The lines will cause degradation of beautiful and unique assets of the Snowy Valleys that is irreversible and which is likely to be multiplied over time as additional lines are constructed.

The overhead lines impose costs on Snowy Valleys that include visual amenity losses to locals and visitors, interruption to modern agricultural practices and losses to environmental condition of the Local Government Area. These costs are non-market costs but they also materialise as market costs, for example, as lost asset value and lost profits over time. Reduced land values, reduced tourism expenditures and reduced farm profits will be hard financial consequences above and beyond important non-market value losses.

The non-market and market costs of overhead infrastructure are avoided by undergrounding.

- The **benefits** of undergrounding are the **avoided costs** of building above ground.

There is insufficient evidence to choose overhead infrastructure and thereby dismiss undergrounding.

- No one has done the analysis to estimate the dollar value of the avoided costs by undergrounding.
- The net triple bottom line – social, economic and environmental – benefits of undergrounding have not been included in assessing undergrounding or above ground lines in either a qualitative or quantitative way.

However, net triple bottom line Cost-Benefit Analysis PLUS assessment of the distributional impacts of costs and benefits for capital projects is required by NSW Treasury and has been committed to by Transgrid in its published submission to the EIS process.
HumeLink, Scoping Report, TransGrid, prepared by Aurecon Australasia Pty Ltd, Reference: 507179-160522-REP-NN-001
https://pp.planningportal.nsw.gov.au/major-projects/projects/humelink Accessed February 2023

- Is there regulatory and policy confusion about how important it is to assess the full set of costs and benefits and distributional impacts of a major infrastructure project like HumeLink?

The only piece of substantive evidence comparing overhead to undergrounding is from GHD, which was hired by Transgrid to assess the costs of undergrounding. GHD provided a detailed professional engineering expert evaluation regarding the magnitude of the avoided costs. GHD, states that undergrounding avoids costs that when added to the financial costs of overhead lines, could make undergrounding more cost effective.
https://www.transgrid.com.au/media/y0mpqzvw/humelink-project-underground-report-august-2022-final.pdf pg iii

SVC is of the strong view that undergrounding transmission lines is the most appropriate and cost-effective option considering the externalities as outlined in this Submission

Snowy Valleys Council Position and Conclusions

1. Based on all available information, SVC is of the strong view that undergrounding transmission lines is the most appropriate and cost-effective option considering the externalities affecting farming, residents throughout the Local Government Area, forestry, the tourism industry, visitors and the environment including the reduced risks and costs of fires, as outlined in this Submission.
2. Snowy Valleys plans for the future depend on maintaining the natural beauty of our Local Government Area – visual amenity and environmental values.
3. Our future depends on our attractiveness and environmental condition and sustainability.
4. Growth in the tourism industry and maintaining a desirable location to reside in and farm are paramount and depend on there being no losses in our natural assets from building overhead.
5. We need scenic drives from population centres elsewhere that encourage people to come our way today and in the future to stay here and fully enjoy what we have to offer.
6. NSW tourism policy and Forestry Corporation NSW and Snowy Hydro are investing in our future growth in values for local residents and visitors. This investment should not be wasted by a landscape marred and scarred by overhead lines.
7. What we have is a wealth of near natural assets to share while these are becoming more and more scarce elsewhere and therefore more valuable to all Australians.
8. Visual amenity losses, natural environment losses, farming losses have both negative non-market and material market consequences.
9. No one should minimise the consequences of 'industrialising' Australia's iconic locations – would we build powerlines above Bondi Beach?
10. No one has enough information to know which is the better option.
11. The decision to build overhead is premature given the lack of non-market and market analysis of the costs of overhead lines compared with undergrounding.
12. GHD points out that 'ground truthing' their cost estimates is necessary but not yet done at all.
13. Expert analysis by GHD on Transgrid's behalf points to the very real likelihood that amenity losses alone could make undergrounding the better choice, all things considered.
14. GHD's estimates are compared to Transgrid's overhead estimates – this is not best practice – risking overestimating the cost difference even without non-market values.
15. It is bewildering to us that forest fire potential risk and magnitude should be weighted by GHD to be as low as '40' given what we lived through in the recent fires and their devastating aftermath. A weight of 100 for areas of very high Indigenous significance makes sense but not 40 for bushfires or 20 for unlicensed airstrips, which are vital to our farming community. https://www.transgrid.com.au/media/y0mpqzvw/humelink-project-underground-report-august-2022-final.pdf pg 7
16. The huge capital cost of overhead lines plus short and long-run loss of benefits of undergrounding for such an irreversible project with irreversible costs cannot be justified.
17. Besides the inefficiencies that we risk by building overhead, it is inequitable for externalities of transmission to fall on regional people when so many benefit from a modernised grid. That's inequitable.
18. We are onboard for modernising the grid but not with bearing an unfair share of the costs. There is an alternative – undergrounding.
19. Governments must represent future generations who lose out as well.
20. Renewable energy significantly reduces the cost of electricity production thereby providing the capacity to absorb any increased costs of transmission while maintaining visual amenity and environmental condition.

Snowy Valleys Council – Bottom Line

Based on the only expert advice on undergrounding available to us for HumeLink, which is from GHD, and our own considerations, Snowy Valleys Council contends that –

The best solution is to avoid the overhead transmission externalities by undergrounding lines.

We can be reassured that we are following best practice of others worldwide. Undergrounding is a proven technology commonly adopted elsewhere in the world where communities, such as ours, will not tolerate overhead infrastructure and policy makers see the wisdom of planning infrastructure for long-run resilience to future climate events that threaten the security of supply of electricity through overhead lines, as they do here as well.

If undergrounding infrastructure costs more than overhead, then the cost gap will reflect real, tangible experiences felt today and overtime of all those who would be otherwise negatively affected by overhead lines.

- The extra cost is not lost to Australians.

As a final thought regarding our conclusions, we would like to ask the following –

What value is to be gained from Nation Building projects such as Snowy Hydro and the transition to renewable energy if we merely transfer industrial pollution from energy production to energy transmission?

This question is illustrated best, given our submission and our concerns, with GHD's report cover. The choice seems obvious, does it not? Do we want to further industrialise our rural landscape?

https://www.transgrid.com.au/media/y0mpqzvw/humelink-project-underground-report-august-2022-final.pdf Cover

Are the externalities of overhead lines materially important for Snowy Valleys?

Our Perspective

The Snowy Valleys is our home. Our valleys are rich with landscape diversity, natural beauty and the region holds historical significance for First Nations peoples as well as Australians collectively since settlement.

In the remainder of this Submission we provide you with an overview of Snowy Valleys as both a place of natural environmental beauty and as a vibrant socio-economic community.

We document our vision for the future. We then tell the stories of our champions who agree that our natural beauty is worthy of investment.

We follow the stories with an inventory of hard facts: the itemised pros and cons of the effects of overhead lines.

Our Assets and Our Aspirations

We have survived the 2019 bushfires and we are rebuilding our homes, businesses and our farms with an emphasis on regenerating what we had before the fires and also on diversifying the basis for economic growth. Timber production is affected by forestry supply losses but new investment in trails and forest tourism assets will help keep Snowy Valleys' growth going.

- We value our renewed Snowy Valleys.

And we know that what we have is valued by others. We are committed to sharing our natural and built assets with more and more visitors. Elsewhere people are losing what we have here. Intensification of development in urban and peri-urban Australia is altering their natural surroundings. What we have is a wealth of near natural assets to share.

- What we have here now is becoming more and more scarce elsewhere and therefore what we have is becoming more and more valuable to all Australians.
- Our proximity to major population centres makes us an ideal destination for even a weekend of renewal for visitors.

Importantly, all Australians value Kosciuszko National Park as an icon of perpetual and stunning natural beauty filled with flora, fauna and priceless natural habitat.

Nature and Tourism

The diversity of the natural environment and experiences on offer in the Snowy Valleys drives visitation to the region. The Snowy Mountains Highway, Alpine Way, Hume Highway and majoring touring routes (i.e. Snowy Valleys Way & the Great River Road) traverse the region.

Parts of the Snowy Valleys act as the western gateway to the Australian Alps including Mount Kosciuszko National Park and ski fields at Thredbo, Perisher Valley and Selwyn e.g., Tumbarumba to Thredbo (238kms 3+hrs), Tumut to Thredbo (250kms 3+hrs), Talbingo to Selwyn Snow Resort (70kms 1+hr) and Khancoban to Perisher Valley (240kms 3+hrs).

The Snowy Valleys offers the best nature has to offer with beautiful scenery that is revealed through tracks and trails such as the Tumbarumba to Rosewood Rail Trail, Bicentennial National
Trail, Hume and Hovell Track, Tumut River and Wetlands Walk, Adelong Falls Gold Mill Ruins and the Snowy Valleys Sculpture Trail. It's a great place for mountain biking with hundreds of kilometres of trails winding through native, plantation forests and open country.

The Snowy Valley Region Between the Mountains and the Plains

Snowy Valleys Council (SVC) covers some 8,958 square kilometers with a population of 14,891 (ABS 2021). We are in the western foothills of the Snowy Mountains bordered by Kosciuszko National Park and the Murray River.

We are close to major centres – 200 kms W of Canberra and 400 kms SW of Sydney.

The Wiradjuri, Ngarigo and Wolgalu (Walgaloo) people are the Traditional Custodians of the land on which the SVC is located.

Tumut is the largest town smaller townships are at Adelong, Batlow and Tumbarumba with villages at Brungle, Jingellic, Khancoban, Rosewood, Talbingo and Tooma.

Agriculture, softwood timber production and processing, health care and social assistance, retail trade, tourism-related

business, viticulture, hydro- electrical generation and horticulture support the region.

.

Tourism Values

While tourists generate market values estimated by Tourism Research Australia to be about $1.78M (2020), non-market values to recreational visitors far exceed the market values. (https://www.snowyvalleys.nsw.gov.au/files/assets/public/reports-amp-strategies/202223-ipampr/snowy-valleys-community-strategic-plan-2042_adopted_web.pdf pg 19

- There are various estimates that, with more time available for a literature search, could be provided here for other comparable regions of scenic beauty, with bike trails and water sports and fishing.
- $57 million is the estimate of only the non-market recreation values at the Coorong - about the same as ABARES' estimated value of profits for dairy that year for the whole of the Murray-Darling Basin.
  https://publications.csiro.au/rpr/download?pid=procite:9f5079ad-92ca-4e7a-9ed7-8a852ba5e10d&dsid=DS1

Snowy Valleys Vision in Our Own Words

"We enjoy and are proud of our beautiful scenery, clean waterways and natural landscape and recognise and respect the environment and First Nations people of the country.

We value community, encourage belonging, and support one another.

We have an excellent standard of living with infrastructure and services that support us through all stages of life.

We are free to enjoy the peace and quiet regional life and remain well-connected through technology and high-quality transport accessibility.

Our communities enjoy diverse employment and education opportunities, and we continue to innovate and promote our area to ensure we prosper in the future."

Snowy Valleys Council, Snowy Valleys Community Strategic Plan 2042
https://www.snowyvalleys.nsw.gov.au/files/assets/public/reports-amp-strategies/202223-ipampr/snowy-valleys-community-strategic-plan-2042_adopted_web.pdf

Externalities imposed by overhead transmission lines are in conflict with our aspirations for the following:

- Welcoming and encouraging visitors to our region and supporting development of new and diverse tourism experiences as a way to boost our economy.
- We need sustainable tourism initiatives that contribute to a thriving economy.
- We need to boost income from our visitor economy that has been $1.78M.
- We need our natural environment to be cared for and protected to ensure future generations can experience and enjoy its beauty.
- Embracing sustainable practices to protect our natural environment and resources and ensure we are resilient to a changing climate.
- We intend to work collectively to manage our environmental footprint and respect and preserve the beauty of our landscapes.
- We plan for sustainable growth, that protects and enhances the local character and amenity.
- We are improving our tracks, trails and paths provide the community and visitors with sustainable transport and recreational opportunities.
- We plan for providing and maintaining a safe local transport network.
- We plan to extend our community facilities and spaces that cater for active and passive recreation and are well maintained, safe and accessible.

In a nutshell, our strategic vision is to promote all the following that will be impeded, compromised and/or prevented by overhead infrastructure.

- Maintaining and improving collective wellbeing
- Being attractive for new residents without noises and views of transmission
- Increasing economic diversity through increased tourism
- Maintaining the wealth of natural assets
- Offering valuable experiences to visitors
- Increasing visitation to Snowy Valleys
- Reducing forest fire risk for all and eliminating the costly recoveries

Snowy Valleys Regional Economic Development Strategy (2023)
https://www.snowyvalleys.nsw.gov.au/files/assets/public/reports-amp-strategies/snowy-valleys-reds-2023-update-final-2.pdf

Snowy Valleys' four current priorities are affected by the choice to put lines overhead.

1. Support the growth of the forestry and timber processing industry through direct support during the bushfire recovery phase and sustainable diversification of industry in the long-term.
    a. The forestry and timber industry are affected by fire risk, which is greater with overhead lines.

2. Increase value-add opportunities in the agriculture sector, in particular horticulture and viticulture, through improved access to and reliability of digital and transport infrastructure.
    a. Agricultural practices such as aerial spraying, irrigation, drone use are impeded by overhead lines and fires are devasting to infrastructure, farming and particularly perennial viticulture that takes years to recover production.

3. Expand and diversify the Snowy Valleys region's visitor economy by growing the region's agritourism and adventure tourism offerings.
    a. Reduced visual amenity and environmental condition reduce both visitor total values of enjoyment – important and large non-market values – but also tourism dollars when visitors do not come at all or stay for shorter times because of their disappointment with the amenities.

4. Boost and sustain the supply of skilled workers for the region's core industries with regional skills development and initiatives to attract new residents.
    a. People value views. Moving to regional Australia would not be expected to involve a move to an industrialized landscape. Land values can be affected by impeded views and transmission vibration and noise.

Source: Department of Regional NSW, Snowy Valleys Regional Economic Development Strategy – 2023 Snowy Valleys Regional Economic Development Strategy (2023)
https://www.snowyvalleys.nsw.gov.au/files/assets/public/reports-amp-strategies/snowy-valleys-reds-2023-update-final-2.pdf

Who is on Board for Supporting Snowy Valleys' Vision for Recovery and Growth?

Our Champions

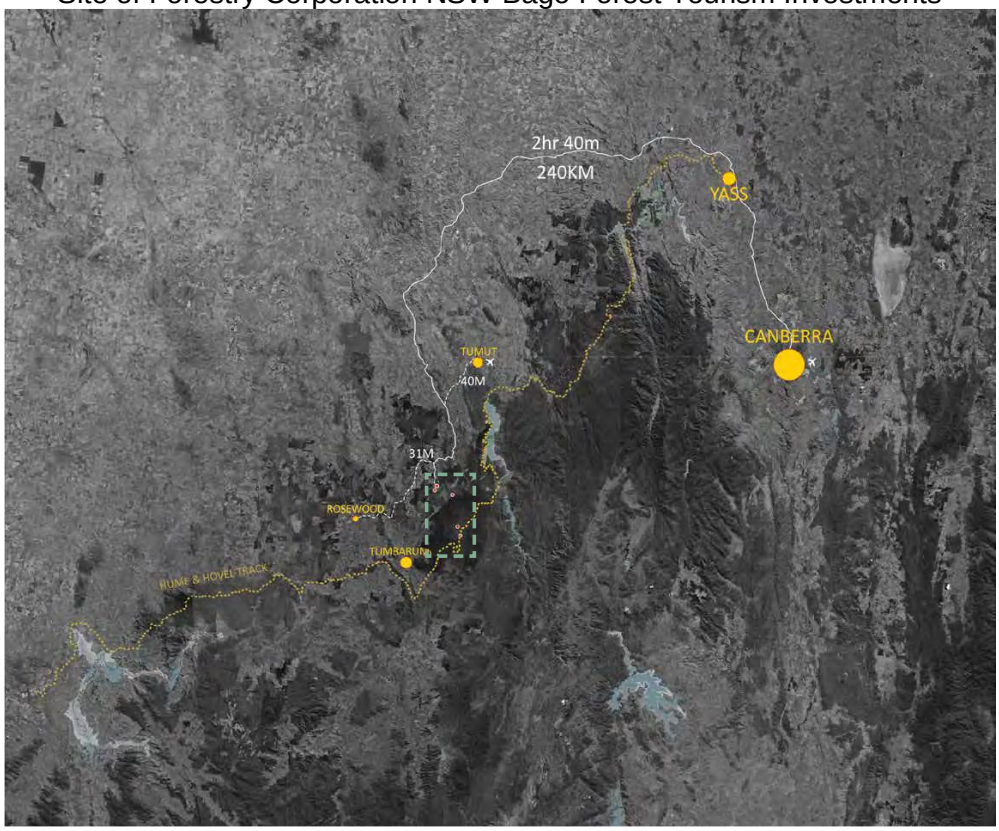
Forestry Corporation NSW

Forestry Corporation NSW is already actively upgrading sites in the Bago Forest to attract visitors. The works respond to the loss of timber resources for Forestry with a creative and positive approach to generating sustainable growth for Snowy Valleys.

- The Snowy Valley Tourism Upgrade Program is a project made possible with support from the NSW Government's Regional Growth Environment & Tourism Fund grant. The master plan presents a series of concept designs which will inform future works at each of our five major visitor areas within Bago State Forest.
- The project will upgrade amenities and supporting infrastructure at each site, feature art and sculpture, embrace Traditional Owner culture and heritage, showcase beautiful hardwood and softwood timber and deliver improved environmental outcomes, particularly for the sensitive Montane Peatlands in the area.
- Overall the project will deliver a visitor experience that honours local memories, heritage and connection to country.

https://www.forestrycorporation.com.au/__data/assets/pdf_file/0020/1453232/bago-state-forest-masterplan.pdf

Site of Forestry Corporation NSW Bago Forest Tourism Investments



https://www.forestrycorporation.com.au/__data/assets/pdf_file/0020/1453232/bago-state-forest-masterplan.pdf pg 23

Their words mirror the vision of the people of the Snowy Valleys for protection and enjoyment of the Local Government Area.

> “State Forests occupy a unique position in the recreation and tourism arena in NSW, providing for a wide and distinct blend of leisure and visitor experiences. Our sustainability ethos means we can manage and provide for the biggest variety of recreation activities of any NSW public lands.
>
> FCNSW's Recreation & Tourism Policy recognises our role as a land manager, a member of local/regional communities, and as a stakeholder in the NSW tourism industry. The policy commits Forestry to providing safe and enjoyable recreation for visitors, tourism marketing, visitor data collection and supporting the visitor economy, and is supported by a Forestry Tourism Strategy.
>
> When it comes to State Forests of the Snowy Valleys, we understand the importance of forests as places for people to play, especially following the extraordinary 2019/20 bushfire season and advent of COVID. It's never been more important to be able to walk the Hume & Hovell, mountain bike, pitch a tent and camp, travel with horses, embrace nature and enjoy stunning scenery.” Pg 8

Release of the Plan this year in 2023 brought accolades.

> Dr Joe McGirr MP, Independent Member for Wagga Wagga, noted that the announcement was important for the Bago State Forest and for the local community as a whole. “The investment made here is going to greatly bolster tourism opportunities, leading to more jobs and economic benefits for the community.”
>
> “This is a particularly special project in the wake of the 2019/20 bushfires. I hope it will help in the ongoing recovery of community – not only financially through tourism, but also emotionally through a regenerated, accessible landscape,” said Mr. McGirr.
>
> “I am greatly pleased to see First Nations practices, culture and heritage being placed front and centre of the masterplan; an important consideration of respect, and leading to improved environmental, educational and cultural outcomes.”
>
> Duty MLC for Wagga Wagga Wes Fang said the $300 million Regional Growth - Environment and Tourism Fund has backed projects that activate iconic tourist

attractions, grow destinations, and drive economic growth by increasing overnight visitation and business activity in regional NSW.

“The Regional Growth - Environment and Tourism Fund is delivering tourism projects and infrastructure that unlock growth in our regions by attracting more visitors and tourists to our beautiful regional towns,” Mr Fang said.

“The program has funded over 60 projects across regional NSW and this project is a great example of what the fund is designed to deliver, I look forward to seeing the economic benefits it will produce for the region.”

Member for Albury, Mr Justin Clancy MP, said “This region was impacted in a devastating way by the bushfires, and much was lost, including the much-loved Sugar Pines,” said Mr. Clancy.

“I’m excited to see this masterplan launched, as the iconic Sugar Pines were a feature of tourism in the area. This collaboration with Sculpture by the Sea will literally see another iconic tourism project rise from the ashes.”

“This is how we come back from disaster. It has had an ongoing effect on the community as well as the forest, and this program and Masterplan will support sensitive environments whilst backing local tourism and hospitality businesses as they work hard to attract visitors and promote economic development and growth.”

- The Bago State Forest Snowy Valleys Tourism Upgrade Program is made possible through $1,910,988 in funding from the NSW Government Regional Growth Environment & Tourism fund.

https://www.forestrycorporation.com.au/about/releases/2023/bago-masterplan#:~:text=Developed%20under%20the%20NSW%20Government,and%20wellness%2C%20and%20environmental%20projects.

NSW is a Champion of Snowy Valleys Tourism Growth

According to the NSW Visitor Economy Strategy 2020 – A Roadmap for Growing the NSW Visitor Economy, the NSW Government's investment attraction strategy targets industries that grow the economy and leverage NSW's natural endowments.

- Planning is well advanced for the first tourism Special Activation Precinct (SAP) in the Snowy Mountains, creating Australia's premier alpine and adventure tourism playground.

The NSW Government will plan, coordinate and deliver the SAP by making land ready for investors and building enabling infrastructure. NSW Visitor Economy Strategy 2030 (destinationnsw.com.au)

NSW has also designated the Snowy as one of its 'Hero' Destinations and Experiences meaning that it is a world class, iconic and unique destination. 'Heroes' are accessible, have appropriate infrastructure and developed world-class products and experiences that are available all year round.

- The role of the 'hero' destination is to attract visitors and provide them with outstanding unforgettable experiences that keep them coming back and encourage them to travel further and explore less well-known destinations.
- They have high brand awareness themselves, and also define the essence of the country they are located in.

Snowy Mountains are right up there with Sydney as a 'Hero' currently with Tumbarumba and nearby Gundagai on the list for the next set of heroes. Besides the snow sport focus the Snowy focus is also on regional festivals in Snowy Valleys towns. Snowy Mountains Highway to Talbingo and Tumut and the Batlow Road from Tumut to Tumbarumba for apple country, cool climate wines, many vineyards, cellar doors & restaurants. Hiking and bike trails are not forgotten.

https://www.destinationnsw.com.au/wp-content/uploads/2019/02/nsw-statewide-destination-management-plan.pdf

Snowy Hydro – Another Champion

Snowy Hydro states that it is committed to supporting the local communities in which we live, work and serve…. Snowy Hydro has invested millions of dollars into not-for-profit organisations and initiatives that align with our company values. We also contribute funding to local infrastructure projects which support regional growth and bring economic investment.

Also, stated is that Snowy Hydro and its people are committed to the local communities of the Snowy Mountains region where the Snowy story began more than 70 years ago. We see a bright future for the region, where we will continue to grow and support the communities we live and work in, and the areas we serve. While our operations continue to expand beyond the

original Snowy Scheme, the communities in which we operate in the mountains remain critical to our success.

- We aim to form partnerships to assist the sustainability and success of towns.

One of the major ways in which we achieve this is through supporting and partnering with different regional events and initiatives that not only benefit the local economy but encourage people to come and experience the best the Snowy region has to offer.
https://www.snowyhydro.com.au/community-2/

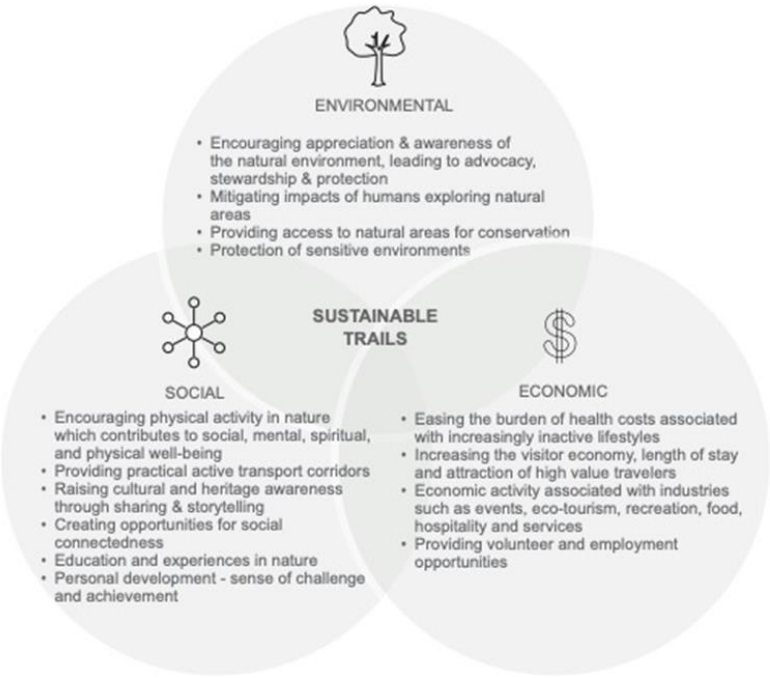
Snowy Valleys' Vision and the Reality

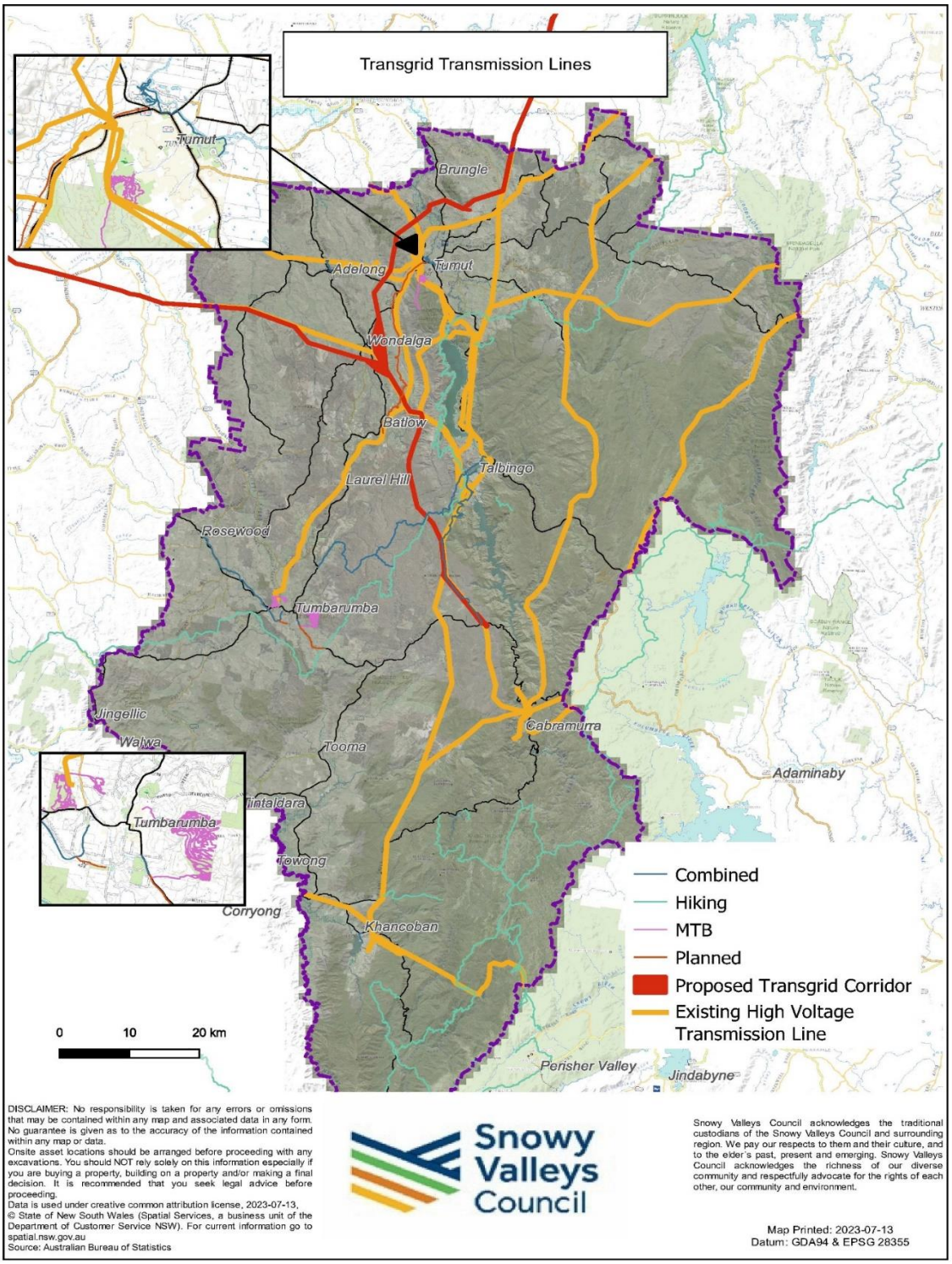
We are on track with implementation of our plans for the future.

For example, a special program of works is our 'Developing Tracks and Trails' which is a major initiative for the enjoyment of residents and visitors.

We are now implementing our sustainable trails network plan that facilitates a wide range of benefits for both local people and visitors now and into the future across the triple bottom line incorporating positive environmental, economic and social outcomes.

- The Masterplan for Bike Trails and tracks was adopted by SVC in March 2023 after extensive consultation, expert input, analysis and planning while ensuring the Plan coincided with all related local, state and Commonwealth strategies and plans. https://yourvoice.svc.nsw.gov.au/regional-tracks-and-trails-masterplan pg 8





Map1. Walking Trails and Bike Tracks.

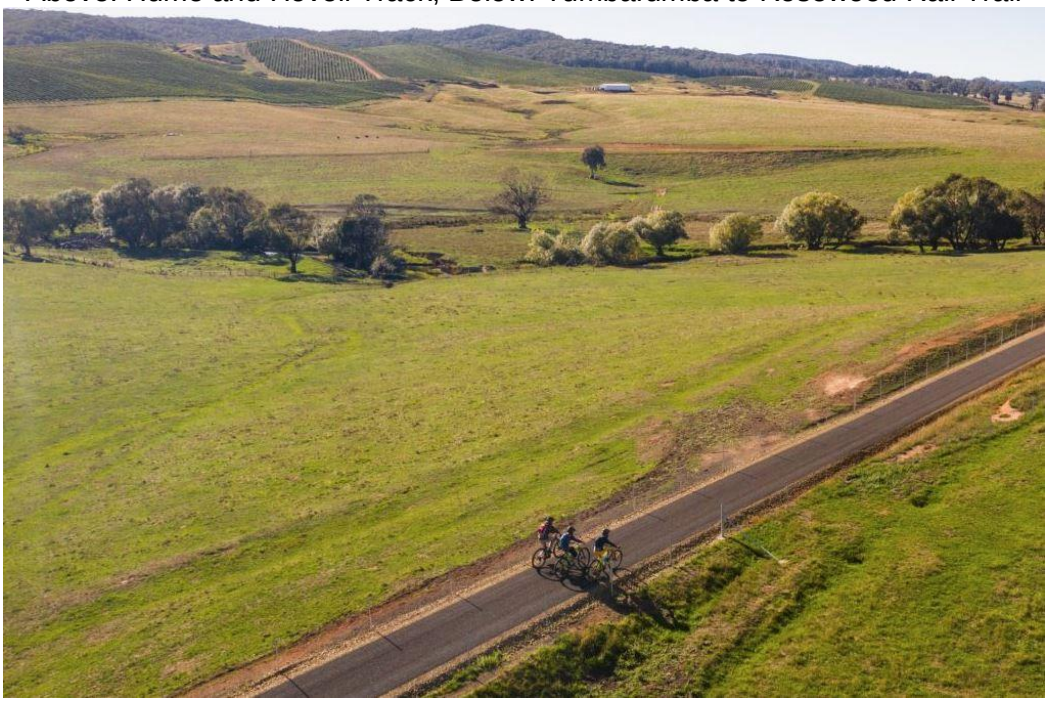
Map 1 shows the Snowy Valleys Councils Master Plan Map of Walking Tracks and Bike Trails – Adopted by Council May 2023. This Map shows the existing extent of trails and tracks as well as those that are planned to be built for the next 10 years. It also shows the overlay of the existing and proposed Transmission Line Corridors (Yellow lines = Existing Corridors) Red lines = the new proposed "Hume Link Corridors".

The lines depicted in “Black” on the map are both the existing and planned “Hiking” and “Mountain Bike” (MTB) Trails that Council is committed to maintain and build over the next 10 years.

The lines depicted in “Green” on the map are “Hiking” Trails only that Council is committed to maintain and build over the next 10 years.

The lines depicted in “Magenta” on the map are Mountain Bike (MTB) Trails only that Council is committed to maintain and build over the next 10 years

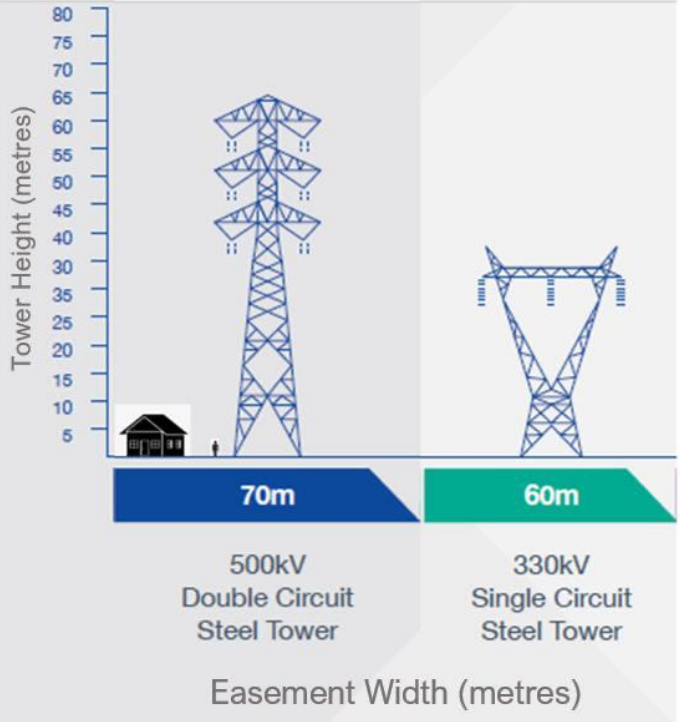
Above: Hume and Hovell Track, Below: Tumbarumba to Rosewood Rail Trail



The Consequences of HumeLink for Snowy Valleys

We understand that the increasing NSW and wider Australian population and inevitable future economic growth means greater demand for energy and that greater demand for renewables is the way to go given global warming risks to wellbeing. Australia is well endowed with sun and wind with important hydro sites here in the Snowy Mountains. Security of energy supply is crucial.

- We are onboard.
- But we are not onboard with bearing the large majority share of the significant and long-lived costs of the planned overhead HumeLink transmission lines in NSW. And we all know that these will soon multiply manifold.
    - We are not onboard either with any other of the regions being left to bear the majority of costs of transmission of renewable energy generated by wind or solar.



Height of HumeLink 500kV double circuit tower relative to the existing 330kV towers, a house with an 8m roofline and a 6'6" person

Source: Undergrounding HumeLink - Reducing impacts on the Upper Lachlan region, Villages of ULSC, Resist HumeLink, 23/9/2021 based on information provided by Transgrid

Visual impact is not trivial. The diagram below may in fact underestimate the visual impact with some estimating that the new towers will reach 80m, as illustrated in the second diagram below.

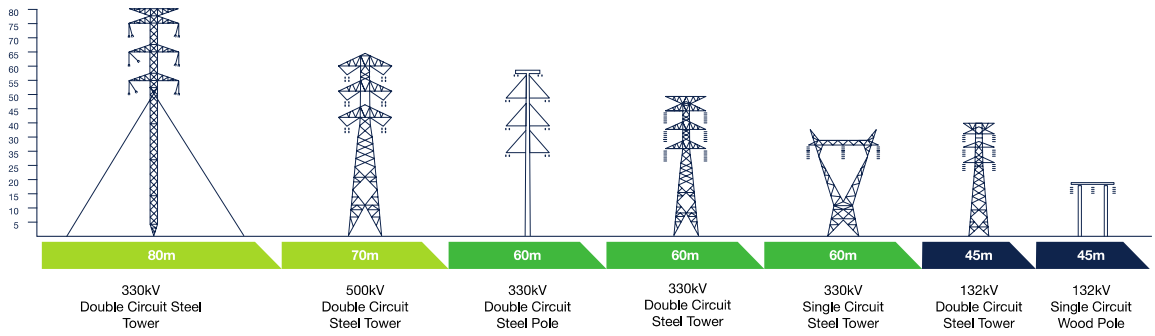
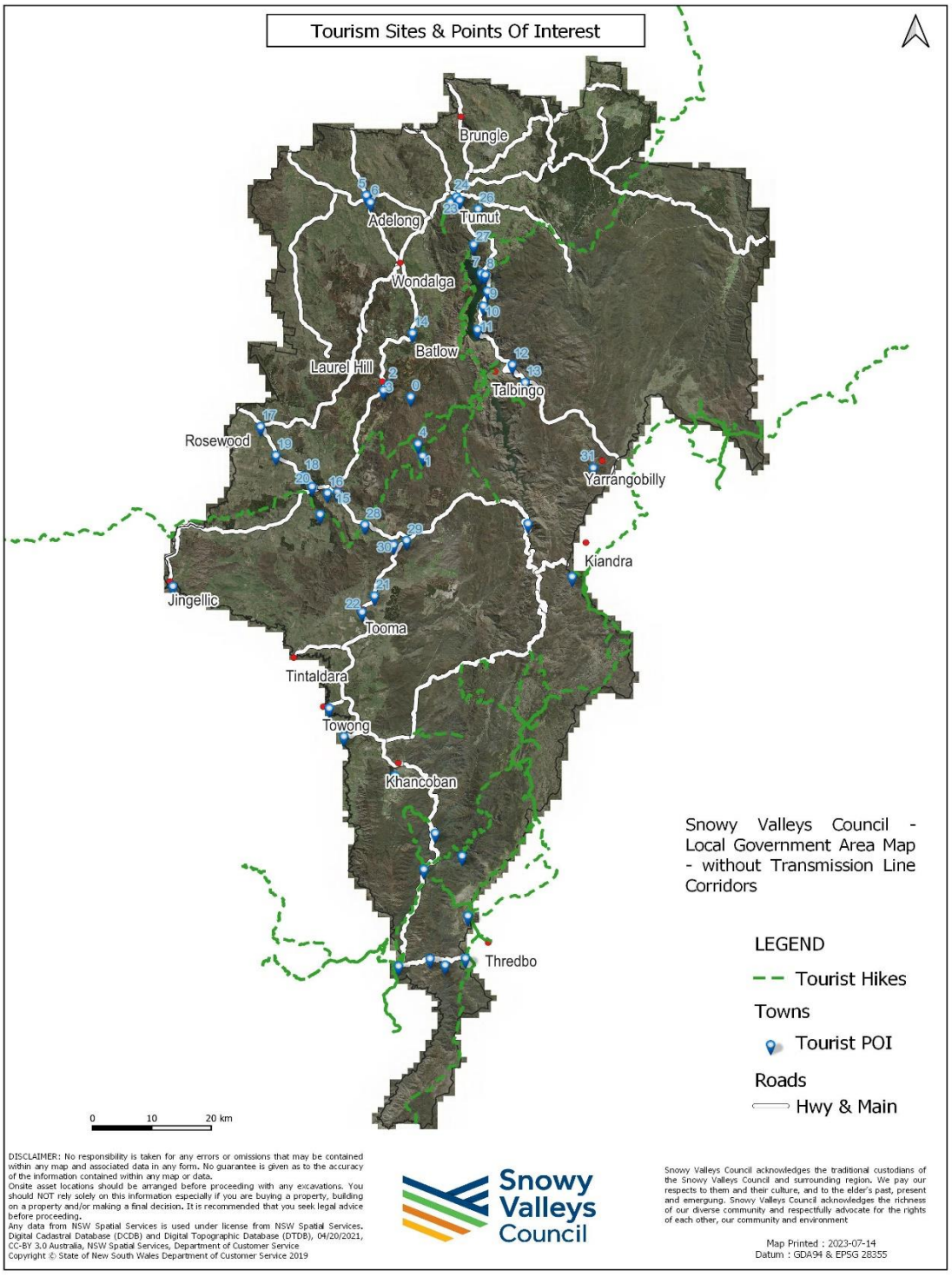


Figure 1: Figure not to scale. Typical easement widths only, may vary on a case by case basis.

Transgrid, Easement Guidelines - Living and working with electricity transmission lines, pg 3
https://www.transgrid.com.au/media/3tkdd5lr/easement-guidelines.pdf

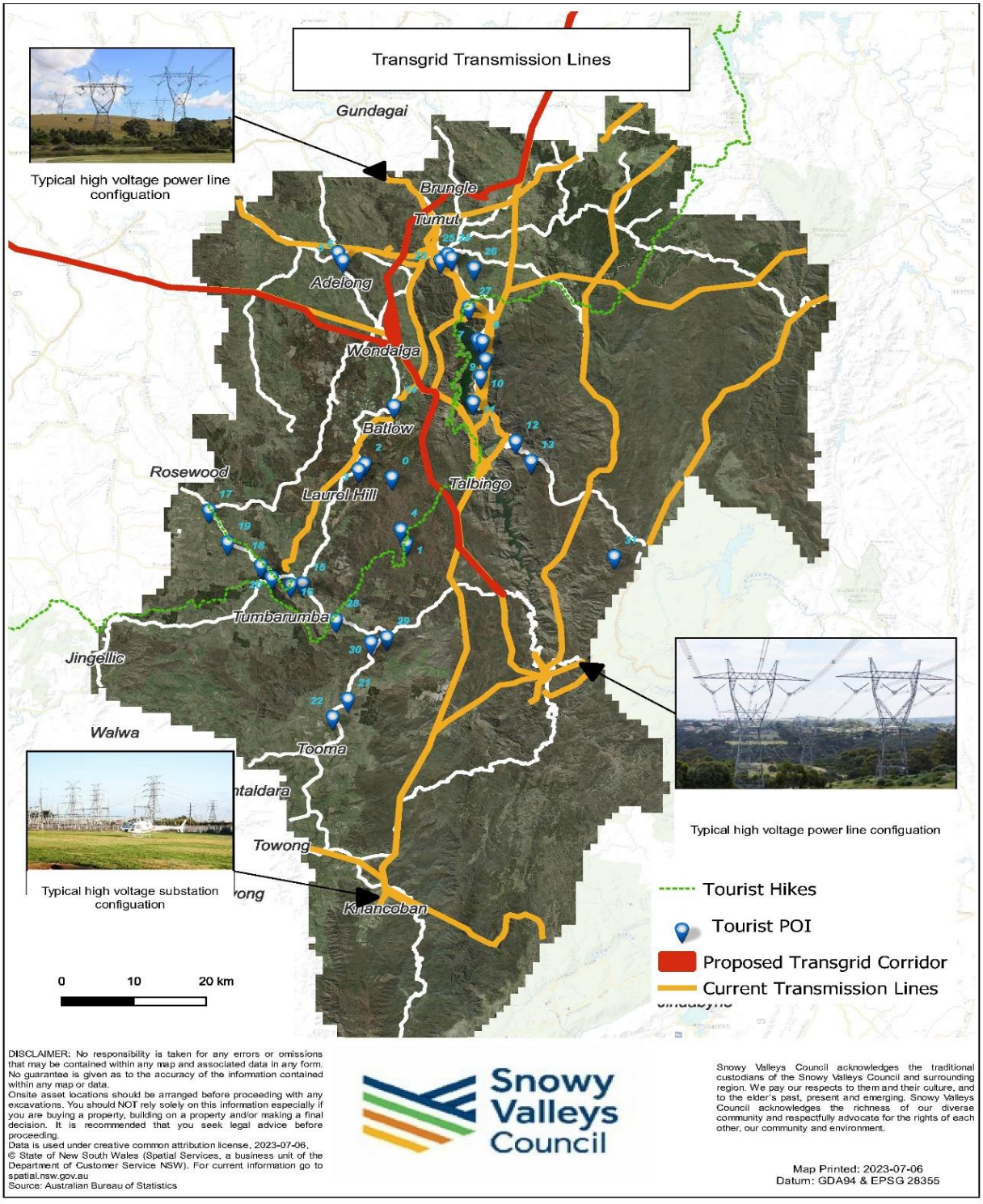
Above: Photo of typical existing transmission line corridor in Snowy Valleys Local Government Area.

Transmission infrastructure already negatively impacts our region, limiting our plans for the future. Our natural environment without any overhead lines would be far more valuable to all and less at risk of forest fires. Our current values including forestry and visitor market and non-market values would be much higher without overhead lines. The following map (Map 2) shows our valleys in a pristine state without transmission infrastructure above ground.



Map 2. Snowy Valleys Tourism Sites and Points of Interest without Transmission Lines

Our expected reality is much different with existing lines in place and much higher lines with massive towers with HumeLink. This is dramatically illustrated with the following map (Map 3) that shows existing and new lines that interfere with our natural assets and built recreational and cultural assets.



Map 3. Snowy Valleys Tourism Sites and Points of Interest with the Transmission Line Corridor overlay of existing Transmission Line corridors – depicted in Yellow and the new proposed Hume Link in Red

Number	Point Name
0	Pilot Hill Arboretum
1	Paddys River Dam Campground
2	Sugar Pines 2.0 Walk and Picnic Area
3	Lochinvar Rest Area
4	Paling Yards
5	Adelong Falls
6	Snowy Valleys Sculpture Trail - Adelong
7	Log Bridge Creek Picnic area
8	Blowering Cliffs Pinic Area
9	The Pines
10	Humes Crossings
11	Yatching Point
12	Jounama Creek Campground
13	Black Perry Lookout
14	Snowy Valleys Sculpture Trail - Batlow
15	Snowy Valleys Sculpture Trail - Tumbarumba
16	Tumbarumba Rosewood Rail Trail - Tumbarumba
17	Tumbarumba Rosewood Rail Trail - Rosewood
18	Tumbarumba Rosewood Rail Trail - Glenroy
19	Tumbarumba Rosewood Rail Trail - Woolsey Park
20	Tumbarumba Rosewood Rail Trail - Sawpit Creek
21	Southern Cloud Lookout
22	Snowy Valleys Sculpture Trail - Tooma
23	Tumut Lookout
24	Billa Park
25	Pioneer Park - Labyrnth
26	Junction Park
27	Jones Bridge Campground
28	Henery Angel Campground
29	Paddys Flat Campground
30	Paddys River Falls Picnic area
31	Yarrangobilly Caves

Hiking Trail
Tumbarumba Rosewood Rail Trail
Hume Hovel Track

Legend to Map 2 and 3 **– List of Tourism Sites and Points of Interest in the Snowy Valleys Local Government Area.**

- We are adamant that the future does not repeat the past.

There are alternatives to above ground infrastructure that interferes with natural and built assets reducing values and marring and scarring the landscape.

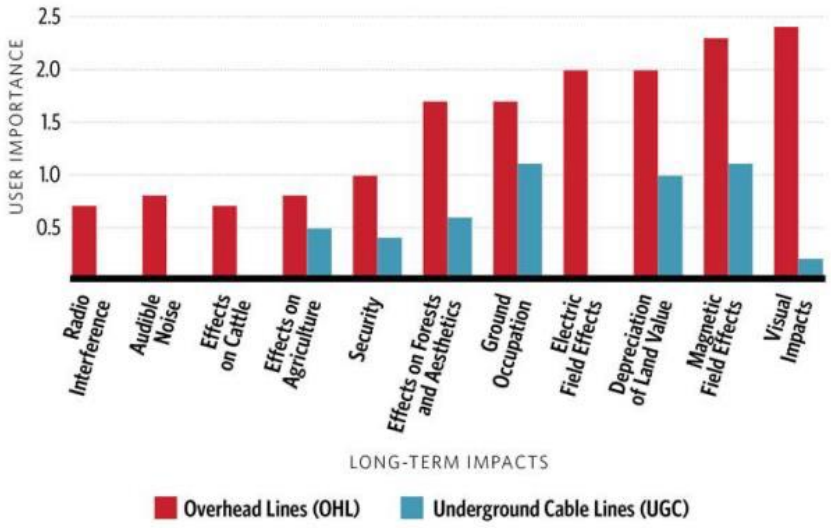
- The real alternative is to underground infrastructure.

How do we Account for the Impacts of Overhead lines versus Undergrounding?

International work pointed out by HumeLink Alliance shows that Visual Impacts are of greatest user importance.

- Where are the data for Snowy Valleys? We have not been surveyed so there is none.

A study by the International Council on Large Electrical Systems, or CIGRÉ, shows the relative environmental impact of overhead and underground lines. In all cases undergrounding reduces impacts.



Source - CIGRÉ as referenced by HDR https://www.hdrinc.com/insights/top-5- reasons-use-underground-transmission-lines (As identified by HumeLink Alliance)

If there were a survey undertaken of the effects here in Snowy Valleys and other affected regions, the next step would be analysis to estimate the dollar value of the effects.

- It is important, as the ones to bear non-market and market costs, that our views and values should be assessed and included in decisions that affects us now and into the future.

What are the benefits of undergrounding to Snowy Valleys?

The benefits of undergrounding are equal, for the most part, to the costs avoided by not going with overhead infrastructure. These are provided in the table below along with benefits that are derived for Snowy Valleys if lines are undergrounded. In order to maintain consistency in comparing various inputs to the issue, this table mostly replicates a similar table provided by GHD in its report to Transgrid. We have added material and commentary in the last column in order to reflect the impact on the Snowy Valleys.

Benefits

Pros and Cons of overhead verses underground lines/cables are listed in the table below along with our assessment of the Benefits to Snowy Valleys of Undergrounding.

Pros and Cons of Underground and Overhead Transmission Infrastructure				**Snowy Valleys Benefits**
		Undergrounding Effects Compared to Overhead	**Overhead Effects Compared to Undergrounding**	**Benefits that flow from Undergrounding versus Overhead**
1	Environmental Effects	– Less land disruption following construction – Less easement width required for ongoing access for maintenance and repair – Post construction lower ongoing vegetation clearance for underground easements reducing impacts on fauna – collision with wires – and less habitat impacts esp. no habitat fragmentation	- Potentially less vegetation clearing during construction - Shorter construction time and less overall disturbance and disruption	- Less environmental damage so less tangible impact on Snowy Valleys assets - Less impact means less cost in terms of visitation values and local recreation values and therefore greater benefits. - Higher existence and bequeath values. - In general, higher use and non-use values.
2	Productive efficiency of agriculture and communities	– Reduction in visual impact to agricultural and community land with undergrounding – Possible conditional agriculture activity directly above the buried cable circuits – No risk for aerial spraying activity – No risk of tall machinery or equipment impacts to buried cables	- Potential future land use allowed which includes agriculture and digging (i.e., mining, dams, bores) if minimum clearances to overhead lines maintained	- Overhead means costs to the productive efficiency of agriculture and therefore reduced profits - Modern farming practices are increasingly rely on technologies like

				drones and GPS to improve productive efficiency. These technologies can't be utilised and many other activities, like aerial operations and irrigation, can't be performed in close proximity to overhead transmission lines. Therefore, transmission lines reduce the efficiency and therefore profits of neighbouring agricultural operations.
3	Electromagnetic fields (EMF) and Electromagnetic compatibility (EMC) Implications	- Magnetic field reduced quickly with distance from the cable centre line - No electric fields	- Magnetic fields are 20% of their allowable limit at their maximum.	- Residents and visitors experience less impact on human wellbeing and on their communications abilities. - Avoided cost is benefit.
4	Community Benefits – Visual Amenity, Audible Noise, etc.	- Lower visual impact - No operational noise with AC undergrounding options but there is with underground DC options - Lowest density of sensitive receivers (residences) along preferred route that will be subject to air quality, noise, light and traffic impacts. - Preferred route least likely to impact areas of high indigenous values or known historical heritage items. - Negligible impact to public and wildlife activity and safety following construction – avoids	- All negative and costly.	- All non-market and market costs of overhead avoided – loss in visual amenity and irritating noise, reduce wellbeing, visitor values, SV property values - Avoided costs support SV vision. - Overhead transmission infrastructure is

		accidental contact with energised infrastructure		destroying areas as desirable places for lifestyle farmers – a growth sector for regional economies located two to three hours from major cities. Lifestyle farmers have invigorated and brought prosperity to many regional and local businesses. By not considering environmentally sensitive transmission infrastructure solutions such as undergrounding, this important economic stimulus for rural areas is being lost.
5	Bushfire Risk	- Negligible potential for bushfire ignition - No restricted access for bushfire fighting - Power transmission unlikely to be affected during bushfire - Negligible potential for above-ground bushfire to impact and damage underground assets	- Potential for power transmission loss or reduction during bushfires	- According to the Australian Energy Market Operator (AEMO), "good engineering design will ensure that any new infrastructure does not lead to unsustainable deterioration in grid resilience. Building additional transmission lines along a bushfire prone transmission corridor would be an example of resilience

				deterioration". To help defend Australia's communities, economy and the environment against extreme weather events especially expected with global warming and future-proof critical energy infrastructure, the Government, network planners, and operators need to adopt best planning practices and design resilience into the grid by avoiding or undergrounding bushfire prone regions and heavily forested corridors. Routing critical transmission infrastructure away from bushfire prone areas or underground, would enable our energy networks to better withstand extreme weather events and build increased network resilience. (Quoted from EGA Submission to this Inquiry. See EGA for details.)

6	Construction Effects for community and environment	- Potential to underground only sensitive sections - Negligible impact to public and wildlife living in the area following construction and remediation - However, disruption during construction greater than for overhead.	The following are all Short Run Construction benefits of overhead - Smaller construction footprint - Lower potential for exposure of contaminated soil due to no trenching - Less interruption to community activities during construction - Lower dust and noise generation during construction - Less impact to land use during construction - Lower disturbance to roads and infrastructure during construction	- Long run benefits of undergrounding are important to Snowy Valleys.
7	Operation and Maintenance work along the cable route	- Lower ongoing operation and maintenance costs, due to lower likelihood of faults occurring. - Less likely to require upkeep due to external factors – falling trees, wildfire, bushfires, vehicles, etc. - Minimal ongoing regular access along cable route required - Overall less maintenance activity required compared to overhead lines	- Quicker and easier to locate faults along the line - Potentially less outage time if fault occurs	- The benefits here imply greater reliability for SVs and everyone.
8	Human Safety – aerial operations	- Uninterrupted power transmission during extreme weather conditions	- Permitted digging on agricultural land with approved machinery	- Benefits here are critical to the grid.

	personnel, agricultural machinery operators, line workers at heights and the public	- Unlikely for asset damage to occur due to falling trees, passing vehicles, etc. - Conditional opportunity to use land for cropping within the easement - No interruption with aerial operations such as crop dusting - Lower interference with radio, television and other communications signals - Substantially reduced working at heights requirements along cable route - But necessary to 'Dial before you Dig'	- Permitted use of land for cropping with easement	- By providing a safe environment supports the growth goals for Snowy Valleys. - Agriculture less impacted. - Less intrusion for repairs on private land and public lands where locals and residents will be. - Less risk of injury for residents, farmers and visitors. - Safety for outdoor activities in our plans for tracks and treks.
9	Reliability of power supply	- Higher reliability and performance - Uninterrupted power transmission during extreme weather conditions - Negligible chance for power transmission interruptions due to vehicle accidents, falling trees, wildlife, etc. - Negligible chance of power transmission interruptions due to lightning strikes and other severe weather conditions - Flooding risks need to be managed in construction and design choices.	- Normally high due to design criteria	- These seem to be tremendous benefits for all in region and consumers. - Supports economic growth goals and tourism attractiveness of Snowy Valleys according to our plans.
10	Resilience to Climate change Impacts (EGA submission to this Inquiry provides extensive	- Underground transmission, which require a higher upfront outlay than above-ground systems, can significantly reduce potential damage from climate impacts and save recovery costs. - Transmission lines above ground tend to be more vulnerable to climate hazards such as	- Vulnerable with damage likely then lengthy repairs and outages.	- Valuable. - Less risk of fire damage and disasters affecting the short run and longer run wellbeing of residents and visitors as well as

	important input on this)	high-speed winds, wildfires, floods, and landslides, than underground systems. -		businesses including forestry. - Less intrusion for repairs on private land and public lands where locals and residents will be. - Less risk
11	Snowy Hydro	- We consider climate risk/hazards under different credible scenarios, such as increased fire, drought, storm and high rainfall events in our asset plans. - We ensure that procurement and supply strategies incorporate whole-life evaluation of risks, costs and performance. - https://www.snowyhydro.com.au/sustainability/	- Whole of life is +50 years, which will expose overhead infrastructure to expected extreme climate events.	- Undergrounding eliminates the exposure to fire, drought, storm, high rainfall, etc. as expected by Snowy Hydro. - Tangible benefits of costs avoided. - Undergrounding would meet Snowy Hydro's goals here more than overhead.

The first two columns of this table largely replicate the table provided by GHD in its commissioned report to Transgrid on the options and costs of undergrounding HumeLink (Page ix) with additional information inserted from Tables 6.1 – 6.10 (pages 74 – 83).
https://www.Transgrid.com.au/media/y0mpqzvw/HumeLink-project-underground-report-august-2022-final.pdf

Inadequate Accounting of Non-Market Costs of Overhead Lines and Regulatory/Policy Confusion

Transgrid has acknowledged GHD's assessment that amenity value losses associated with overhead lines may be large enough to make undergrounding cost-effective. However, Transgrid has not gone on to heed this advice and conduct valuation studies to assess the dollar value of the avoided costs. They effectively dismiss the advice and continue to favour overhead lines.

> In its February 13 2023 letter of reply to The Community Consultative Group representatives on the HumeLink Undergrounding Steering Committee (CCGSC) Transgrid argues that CCGSC is not justified in suggesting that the GHD Report highlighted the negative aspects of undergrounding whilst downplaying the positive aspects. Transgrid says:
>
> "We note that the <GHD> Report states that "A significant benefit of undergrounding cables is the reduction in visual impact. In certain areas, such as protected landscapes, this benefit could be a primary consideration and outweigh disadvantages of undergrounding such as restrictions on land use and the impact on ecological and archaeological sites.
> https://www.Transgrid.com.au/media/e0jmnsdp/Transgrid-response-to-undergrounding-feasibility-study-2023-final.pdf
> https://www.Transgrid.com.au/media/mwafmnbb/ccgsc-position-on-HumeLink-undergrounding-study_20220824.pdf

Transgrid does not highlight visual amenity loss because they say this cost is included in the overhead option with the payments to landowners, which is an included item. However, landowners themselves have been vocal in challenging the size of these payments and importantly, all other non-market values are excluded namely the total of use and non-use town and other community and national social, environmental, bequeath and existence values in the short and long runs.

> Transgrid states "Based on our assessment of the <GHD> Report, where possible, these benefits (referred to as non-market benefits) have been accounted for within the cost for both underground and overhead solutions where the non-market benefits are tangible costs to the project. This includes accounting for the environmental impact (via biodiversity offsets) and the impact on land use and agriculture (via payments to landowners)."
> (Excerpted from the Transgrid reply letter. Our underlining added for emphasis.)
> https://www.Transgrid.com.au/media/e0jmnsdp/Transgrid-response-to-undergrounding-feasibility-study-2023-final.pdf

Biodiversity offsets do nothing to minimise costs in the HumeLink corridors given they represent payments for preservation elsewhere.

- It is worth noting, however, that if the cost of biodiversity offsets is one estimate of one portion of the environmental costs borne by Snowy Valleys of overhead lines. Undergrounding with have its own costs, of course.

- Note: GHD includes Biodiversity offset costs: $2,090,000 / km (70 m easement). (Scaled for the easement on each option) and Land costs: $475,000 / km (70 m easement). (Scaled for the easement on each option)

GHD, exercising due diligence, documents an extensive list of non-market effects of the alternative options in Section 6 of their report including negligible impact to public and wildlife activity following construction, better performance during a bushfire, and higher reliability of supply all of which are benefits above and beyond the benefits of maintaining visual amenity.

GHD admits theirs is a desktop study and needs 'ground-truthing' before decisions are made regarding undergrounding.

- Without ground-truthing, how do we know that overhead lines are best?

While GHD expert engineering advice is very useful, and the best there is to date, there are two significant faults with this analysis that could materially alter even their preliminary desktop cost balance in favour of undergrounding.

1. It was Transgrid that did the costing for overhead lines so GHD estimates for undergrounding are not, in fact, comparable.
2. GHD ranked the underground options using a mechanism that introduces bias.
    - Their Multi-criterion Analysis (MCA) tool called InDeGO, ranks undergrounding options.
    - GHD identified constraints facing the undergrounding options as a whole.
    - Then GHD sets numerical weights for each constraint according to what GHD assessed as the likelihood and magnitude of the constraint for each category of impact for each underground option.
    - The weights were applied to the conditions they could identify with their desktop study of alternative undergrounding options.
    - The ones with the lowest total score were identified using InDeGO and then this short list went on to be costed in comparison to Transgrid's overhead costing.
    - Buried in this final short list of options are the weights chosen by GHD for the importance of each constraint.
    - Note: weights are *chosen* by the assessor - GHD.

The weights used by GHD are the following rankings of importance and all options are first ranked by these weights and then the highest ranked options – the lowest total weighted score – were costed using standard engineering methods but including biodiversity offset costs and easement payments.

GHD's Identified Constraints and Weights Used for Ranking Underground Options

Constraint	Total rating
Areas of very high indigenous significance (AHIMS sites)	100
Slope (>50%)	999
National Park / nature reserve	100
Endangered ecological communities (CEEC and EEC)	80
Wetlands (RAMSAR site)	100
Commonwealth land	20
Native title	80
Heritage areas (State and local)	80
Residences	60
Unlicenced airstrips	20
Bushfire risk (bush fire prone land)	40
Forested areas (State Forest land)	60
Agricultural land (BSAL land)	60
Industry (industrial land use zone)	60
Waterway crossing (> 800m)	100

https://www.transgrid.com.au/media/y0mpqzvw/humelink-project-underground-report-august-2022-final.pdf
pg 7

It is bewildering to us that forest fire potential risk and magnitude should be weighted by GHD to be as low as '40' given what we lived through in the recent fires and their devastating aftermath. A weight of 100 for areas of very high Indigenous significance makes sense but not 40 for bushfires or 20 for unlicensed airstrips, which are vital to our farming community.

This is the source of bias; the weights rank what is important at the very start of the analysis. Importantly, the weights will be different depending on the person setting them and their scope of concerns whether they be electricity consumers, farmers, residents of Snowy Valleys, etc.

- Setting MCA weights is a powerful input to comparing options that Snowy Valleys Council does not think should be provided only by engineers but inclusive more broadly of the input of affected groups and individuals.

- NSW Treasury does not recommend reliance on MCA for assessing alternatives –

"A CBA <Cost-Benefit Analysis> with valuations is preferred over MCA. At an early stage some understanding of cost and the primary outcome should be known, hence <Cost Effectiveness Analysis> CEA may also be preferred to MCA or at least complementary. MCA may be useful where it is not possible or practical to value all costs or benefits in monetary terms in an efficient and timely manner before undertaking a CBA or CEA to assess the long-listed options. MCA has some advantages relative to informal and undocumented judgment but does not substitute for CBA or CEA. MCA can provide a degree of structure to the early-stage assessment process. It can be open, explicit, relatively simple, require less detailed information than CBA or CEA and permit the assessment process to be documented for future reference.

https://www.treasury.nsw.gov.au/sites/default/files/2023-04/tpg23-08_nsw-government-guide-to-cost-benefit-analysis_202304.pdf Pg 102 – 103

It is worthwhile noting that this version of the Treasury Guide very recently replaced a previous version that included in its website the following requirements:

"Who needs to know and/or comply with this?

- Advisory Entities (including Boards and Committees)
- Councils under the Local Government Act
- State Government Departments
- Federal Government Departments
- Executive agencies related to State and Federal Departments
- Separate agencies
- State Owned Corporations
- Statutory Authorities/Bodies
- Subsidiaries of the NSW Government established under the Corporations Act
- Universities
- Other Compliance Organisations

The mandatory requirement for compliance no longer meets anyone seeking the Guide and guidance. Why? Is the Treasury advice not applicable in all cases? Why not?

New website: https://arp.nsw.gov.au/tpg23-08-nsw-government-guide-to-cost-benefit-analysis/
Previous website: https://arp.nsw.gov.au/tpp17-03-nsw-government-guide-cost-benefit-analysis
and https://arp.nsw.gov.au/assets/ars/attachments/TPP17-03_NSW_Government_Guide_to_Cost-Benefit_Analysis_archived.pdf

Given GHD advice and Treasury direction, why are the non-market and market costs still not included in overhead line costings?

1. Is it because financial costings of isolated projects are in the domain of engineers while economists consider wider social and environmental implications and have the tools to cost non-market and downstream market dollar values?

    - Why were experts in non-market valuation not included in costings?

2. Transgrid itself hired GHD to provide expert advice.

    Why did Transgrid not act on the findings that amenity costs alone could tip the balance in favour of undergrounding?

Transgrid's apparent position on these questions is reflected in their statement that asserts that it is basically impossible to include non-market values for the following reasons. In its own words, TransGrid writes the following:

> "Furthermore, there are no applicable mechanisms to quantify the non-market benefits of undergrounding as compared to overhead. The comparison and consideration of non-market benefits is based on qualitative and subjective assessments.

> Based on the findings from the <GHD> report, undergrounding HumeLink will not be consistent with the rules that require TransGrid to propose the most efficient option for consumers based on the capital cost of the solution, the ongoing operational costs, the market benefits, the expected reliability, and the costs associated with the impact on landowners, the community, and the environment."
> https://www.transgrid.com.au/media/e0jmnsdp/transgrid-response-to-undergrounding-feasibility-study-2023-final.pdf

These comments by TransGrid are either (1) uninformed regarding the advanced and accepted state of economic non-market valuation techniques, especially by Australian practitioners, as outlined and recommended by NSW Treasury; (2) unknowing of the relevance of these techniques (3) dismissive of the best practice non-market valuation expertise of any and all practitioners both at Australian consultancies, the CSIRO and universities, 4) officially excused from Treasury guidelines. https://arp.nsw.gov.au/tpp17-03-nsw-government-guide-cost-benefit-analysis

HumeLink is a huge and long-lived project with significant public costs and benefits involved. This is exactly the class of project that must ensure non-market values are included in a full social Cost-Benefit Analysis. This is the kind of project that no doubt would have motivated Treasury to draw up its Cost-Benefit guidelines in the public interest in the first place.

Why is this matter so confused given Transgrid has already Committed to Evaluation of Non-Market Impacts?

TransGrid has specifically reported that it would be assessing costs and benefits of non-market effects, as part of the EIS process, and following the NSW Treasury Guide to Cost-Benefit Analysis. Aurecon for TransGrid states:

> **7.5.3. Approach to assessment in the EIS**
>
> A detailed economic impact assessment will be undertaken for the proposal.
>
> The economic impact assessment will:
>
> - Identify and quantify the potential significant impacts (costs and benefits) including use of land (land capability), construction, recurrent costs, benefit of electricity amplification and any other relevant impacts. Ways to quantify these impacts will be considered, such as opportunity cost of the land (land value impacts), construction costs, marginal recurrent costs such as maintenance and security, and the benefit of electricity amplification (wholesale revenue or gross value added / gross domestic product)
> - Consider impacts to businesses (including agriculture, horticulture and forestry), which will be checked for consistency against the agricultural impact assessment
> - Assess economic impacts from construction including quantification of job generation resulting from construction and post construction
> - Consider intergenerational benefits and equitable distribution of electricity amplification, once operational, assuming a 50-year design life.
>
> The methodology for the economic impact assessment will be guided by the *TPP17-03 NSW Government Guide to Cost-Benefit Analysis*.

Excerpts from - HumeLink, Scoping Report, TransGrid, prepared by Aurecon Australasia Pty Ltd, Reference: 507179-160522-REP-NN-001
https://pp.planningportal.nsw.gov.au/major-projects/projects/humelink Accessed February 2023

However, TransGrid revokes its commitment to evaluating costs and benefits, that include non-market values, in its other public comments and especially its response to CCGSC criticisms, as outlined above. https://www.transgrid.com.au/media/e0jmnsdp/transgrid-response-to-undergrounding-feasibility-study-2023-final.pdf

- The reason non-market values cannot be assumed to be zero, as TransGrid has done, for HumeLink, is because they are likely to be large enough to make or break an option.

- GHD says this, as noted earlier above when they say undergrounding could be the best option from a cost-benefit comparison if the non-market costs and benefits were valued and included.

Why does there seem to be an inconsistency of policy direction that disadvantages affected regions and future generations?

On the one hand, we are not clear about whether NSW policy has specifically excluded non-market costs and benefits from project evaluations for electricity transmission during this critical stage of upgrading the grid.

- Does Australian Society forfeit due diligence when a project is designated as 'State Significant Infrastructure'?

- While non-market costs and benefits may be removed from evaluations, this does not remove the costs from the lived experience of Snowy Valleys people.

- These costs remain as externalities – costs external to the infrastructure itself and the owners of the infrastructure and all beneficiaries of the infrastructure – that are nevertheless experienced by others as a direct consequence of building the infrastructure.

On the other hand, we know that NSW Treasury Guidelines are clear on the treatment of externalities for project evaluation.

- Especially when externalities are expected to be large and long lived, Cost-Benefit Analysis (CBA) needs to include them.
- A Triple Bottom Line – Social, Economic and Environmental – analysis for the net benefit of society requires all market and non-market values to be included in the CBA.
- Externalities can be market or non-market, tangible or intangible.
- Treasury outlines the non-market valuation tools that should be used to estimate the costs and benefits in Appendix 2.

Is there an inconsistency of NSW policy on non-market valuation that needs to be clearly communicated along with consequences?

In its own defence for not including non-market values, TransGrid goes says that, in fact, it is not allowed to assess the non-market values, including visual amenity values.

> "Other non-market benefits such as visual amenity are currently not able to be accounted for in the rules for the economic regulation of transmission infrastructure. We

> acknowledge the importance of these non-market benefits, and we appreciate that most landowners do not want a new transmission line on their property, and we are committed to minimise impacts to landowners wherever feasible."
>
> (Excerpted from the TransGrid reply letter. Underlining added for emphasis. https://www.transgrid.com.au/media/e0jmnsdp/transgrid-response-to-undergrounding-feasibility-study-2023-final.pdf)

If this is accurate, that the economic regulation of transmission infrastructure does not allow for accounting for what could be the majority of the non-market values, then this is not only goes against a governmental public duty of care but also runs contrary to other requirements for TransGrid reporting according to its own submission to the EIS process as described above.

Policy has been confused further by the fact that in the plan Transgrid submitted towards its Environmental Impact Statement, as noted above, Transgrid has already committed to following Treasury Guidelines.

The Value of Expanding the Grid

We know we will enjoy the valuable security of supply along with everyone in NSW but the majority of the beneficiaries are elsewhere.

We understand that keeping electricity prices affordable it paramount. We want this too.

- But it is not equitable to have a regressive policy that imposes unreasonable costs on some to benefit others, at least not in modern democracies.

Importantly, it is not just those in the Snowy Valleys who will bear the burden of unreasonable costs but visitors to the region and Kosciuszko today and forever including all those who never come but want to know this land is protected and not further degraded.

What value is to be gained from Nation Building projects such as Snowy Hydro and the transition to renewable energy if we merely transfer industrial pollution from energy production to the energy transmission?

Snowy Valleys Council Position and Conclusions

1 Based on all available information, SVC is of the strong view that undergrounding transmission lines is the most appropriate and cost-effective option considering the externalities affecting farming, residents throughout the Local Government Area, forestry, the tourism industry, visitors and the environment including the reduced risks and costs of fires, as outlined in this Submission.
2 Snowy Valleys plans for the future depend on maintaining the natural beauty of our Local Government Area – visual amenity and environmental values.
3 Our future depends on our attractiveness and environmental condition and sustainability.
4 Growth in the tourism industry and maintaining a desirable location to reside in and farm are paramount and depend on there being no losses in our natural assets from building overhead.
5 We need scenic drives from population centres elsewhere that encourage people to come our way today and in the future to stay here and fully enjoy what we have to offer.
6 NSW tourism policy and Forestry Corporation NSW and Snowy Hydro are investing in our future growth in values for local residents and visitors. This investment should not be wasted by a landscape marred and scarred by overhead lines.
7 What we have is a wealth of near natural assets to share while these are becoming more and more scarce elsewhere and therefore more valuable to all Australians.
8 Visual amenity losses, natural environment losses, farming losses have both negative non-market and material market consequences.
9 No one should minimise the consequences of 'industrialising' Australia's iconic locations – would we build powerlines above Bondi Beach?
10 No one has enough information to know which is the better option.
11 The decision to build overhead is premature given the lack of non-market and market analysis of the costs of overhead lines compared with undergrounding.
12 GHD points out that 'ground truthing' their cost estimates is necessary but not yet done at all.
13 Expert analysis by GHD on Transgrid's behalf points to the very real likelihood that amenity losses alone could make undergrounding the better choice, all things considered.
14 GHD's estimates are compared to Transgrid's overhead estimates – this is not best practice – risking overestimating the cost difference even without non-market values.
15 It is bewildering to us that forest fire potential risk and magnitude should be weighted by GHD to be as low as '40' given what we lived through in the recent fires and their devastating aftermath. A weight of 100 for areas of very high Indigenous significance makes sense but not 40 for bushfires or 20 for unlicensed airstrips, which are vital to our farming community. https://www.transgrid.com.au/media/y0mpqzvw/humelink-project-underground-report-august-2022-final.pdf pg 7
16 The huge capital cost plus short and long-run loss of benefits for such an irreversible project with irreversible costs cannot be justified.
17 Besides the inefficiencies that we risk by building overhead, it is inequitable for externalities of transmission to fall on regional people when so many benefit from a modernised grid. That's inequitable.
18 We are onboard for modernising the grid but not with bearing an unfair share of the costs. There is an alternative – undergrounding.
19 Governments must represent future generations who lose out as well.
20 Renewable energy significantly reduces the cost of electricity production thereby providing the capacity to absorb any increased costs of transmission while maintaining visual amenity and environmental condition.

Snowy Valleys Council – Bottom Line

Based on the only expert advice on undergrounding available to us for HumeLink, which is from GHD, and our own considerations, Snowy Valleys Council contends that –

The best solution is to avoid the overhead transmission externalities by undergrounding lines.

We can be reassured that we are following best practice of others worldwide. Undergrounding is a proven technology commonly adopted elsewhere in the world where communities, such as ours, will not tolerate overhead infrastructure and policy makers see the wisdom of planning infrastructure for long-run resilience to future climate events that threaten the security of supply of electricity through overhead lines, as they do here as well.

If undergrounding infrastructure costs more than overhead, then the cost gap will reflect real, tangible experiences felt today and overtime of all those who would be otherwise negatively affected by overhead lines.

- The extra cost is not lost to Australians.

As a final thought regarding our conclusions, we would like to ask the following –

What value is to be gained from Nation Building projects such as Snowy Hydro and the transition to renewable energy if we merely transfer industrial pollution from energy production to energy transmission?