**Submission No 95**

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

**Organisation:** National Parks Association of NSW

**Date Received:** 14 July 2023

NATIONAL PARKS ASSOCIATION OF NSW
protecting nature through community action

14 July 2023

The Standing Committee on State Development
Legislative Council
NSW Parliament

**Inquiry into the feasibility of undergrounding the transmission infrastructure for renewable energy projects**

Dear Standing Committee,

The National Parks Association of NSW's (NPA) mission is to protect nature through community action. Our strengths include State-wide reach, deep local knowledge, evidence-based input to policy and planning, and over 65 years' commitment to advancing the NSW Protected Area network and its professional management.

NPA welcomes this Inquiry as an opportunity to highlight the environmental impacts of transmission connections, especially overhead lines. We trust that the Inquiry will conclude that NSW must move to international best practice and use underground connections whenever passing through areas of high environmental, social, agricultural or economic value. Overhead transmission lines are last century's technology, and we need to move to the lower impact alternatives of trenching, directional drilling, and tunnels.

**Transmission connections and NSW Protected Areas**

NPA has a strong interest in the routing and construction of the next generation of transmission connections in NSW. We are particularly interested in situations where connections are proposed across Protected Areas (National Parks, Nature Reserves, Regional Parks, and State Conservation Areas) and other lands of high conservation significance.

The majority of NSW Protected Areas are located along the Great Dividing Range and coast. The generators in the Snowy Mountains, Hunter Valley and Lithgow, and the interstate connections to the north and south, all traverse Protected Areas on their way to the major load centres in Sydney, Illawarra, and Newcastle.

Most overhead transmission lines were constructed more than half a century ago, in many cases prior to the gazettal of the Protected Areas. They sit within easements that are cut and slashed to maintain clearance and reduce the potential for arcing during bushfires. The effect on the ecological integrity of the Protected Areas is substantial, removing thousands of hectares of habitat and causing fragmentation and loss of connectivity at a massive scale.

The *National Parks and Wildlife Act* makes provision for the issue of easements for transmission connections. NPA understands that TransGrid pays a nominal fee for these

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easements and has responsibility under a Memorandum of Understanding for the maintenance of vegetation and access roads.

The geographic relationship between the major urban and coastal load centres, the new Renewable Energy Zones, and lands of agricultural and community significance, guarantees that the Government will come under significant pressure to allow new transmission connections through Protected Areas.

This submission uses the example of the Snowy 2.0 transmission connection through Kosciuszko National Park to illustrate the severe environmental costs associated with overhead towers, lines, easements, and access tracks.

On a state-wide level it is important to note that the previous generation of transmission connections predate the offsetting arrangements that have applied in NSW since the 1995 *Threatened Species Conservation Act*, now replaced by the 2016 *Biodiversity Conservation Act*. It is extremely doubtful that TransGrid will be able to purchase sufficient 'like for like' offsets to cover the liabilities that would accrue if new transmission lines were routed through Protected Areas. The more likely outcome is that any large scale project would rely upon the financial compensation provisions in the *Biodiversity Conservation Act*, which is a fraught compromise environmentally and would come at a cost of hundreds of $millions.

**Kosciuszko National Park**

Kosciuszko National Park is more affected by transmission connections than any other NSW Protected Area because it contains the Snowy Mountains Scheme, with hundreds of kilometres of overhead transmission lines in thousands of hectares of cleared easements. The net impact on the ecological values of Kosciuszko is immense. In direct and measured response, the Park's statutory Plan of Management introduced, in 2006, several policies designed to mitigate those impacts.

One was a requirement for TransGrid and Snowy Hydro, wherever feasible, to rationalise and replace overhead transmission lines with underground connections. Another was an outright prohibition on the construction of any new overhead transmission lines. In simple terms, enough was enough.

The new underground power connection to Mt Selwyn ski resort, replacing the overhead line burnt out by bushfires, is an example of the move to undergrounding.

**Snowy 2.0 transmission connection**

The Snowy 2.0 pumping/power station is located underground about 11 kilometres from the western boundary of Kosciuszko National Park. Once the power cables emerge from the access tunnel to the power station there is another 8 kilometres to the edge of the Park.

TransGrid proposed an overhead transmission connection across the Park despite the prohibition. It has emerged that TransGrid was assured by the National Parks and Wildlife Service that the Plan of Management would be amended to exempt Snowy 2.0 from the

prohibition. The application was for four 330kV lines on two parallel sets of transmission towers within an easement swathe 120-140 metres wide. The total area of Park affected by the construction and easement exceeds 160 hectares while the 75 metre high towers will be visible over more than two hundred square kilometres.

NPA contested the Snowy 2.0 transmission proposal on environmental, technical, and economic grounds. We collaborated with energy, engineering, and environmental experts, made submissions to the regulatory documents, met with Ministers, their departments and TransGrid, and drew national media attention to the issue.

Apart from the devastating impact on Kosciuszko, our objections to the proposal were motivated by the precedent for further overhead transmission lines through Protected Areas. If allowed in an iconic park where new overhead lines were expressly prohibited, what was the likelihood that other proposals would be refused?

The Snowy 2.0 transmission will be the first overhead line in a National Park for 50 years.

NPA has been campaigning on this issue for several years, and we are currently engaged in a judicial review of the previous Minister's decision to amend the Kosciuszko Plan of Management to exempt Snowy 2.0. Rather than reiterate our concerns in letter form we tender the following documents to demonstrate our contention that the Snowy 2.0 transmission connection, and by extrapolation any transmission connection through a Protected Area, should be constructed underground.

i) Open Letter to NSW Planning Minister and Environment and Energy Minister, 18 Jan 2021, from two dozen environmental groups and 50 experts, titled "Snowy 2.0 transmission must be underground"
ii) Snowy 2.0 Underground Transmission Representation from Four Independent MPs, 11 Feb 2021 , calling for the transmission connection to be underground
iii) NPA Submission on Snowy 2.0 Transmission Connection EIS, 2 Apr 2021, opposing overhead line transmission
iv) NPA Paper on Snowy 2.0 Transmission Connection RTS/PIR, 31 Mar 2022, concluding that overhead transmission is not the best option

NPA would welcome the opportunity to present on these issues to the Inquiry on 18 July. I can be contacted at or on .

Yours sincerely,

Samantha Newton
Acting Chief Executive
**National Parks Association of NSW**
*protecting nature through community action*

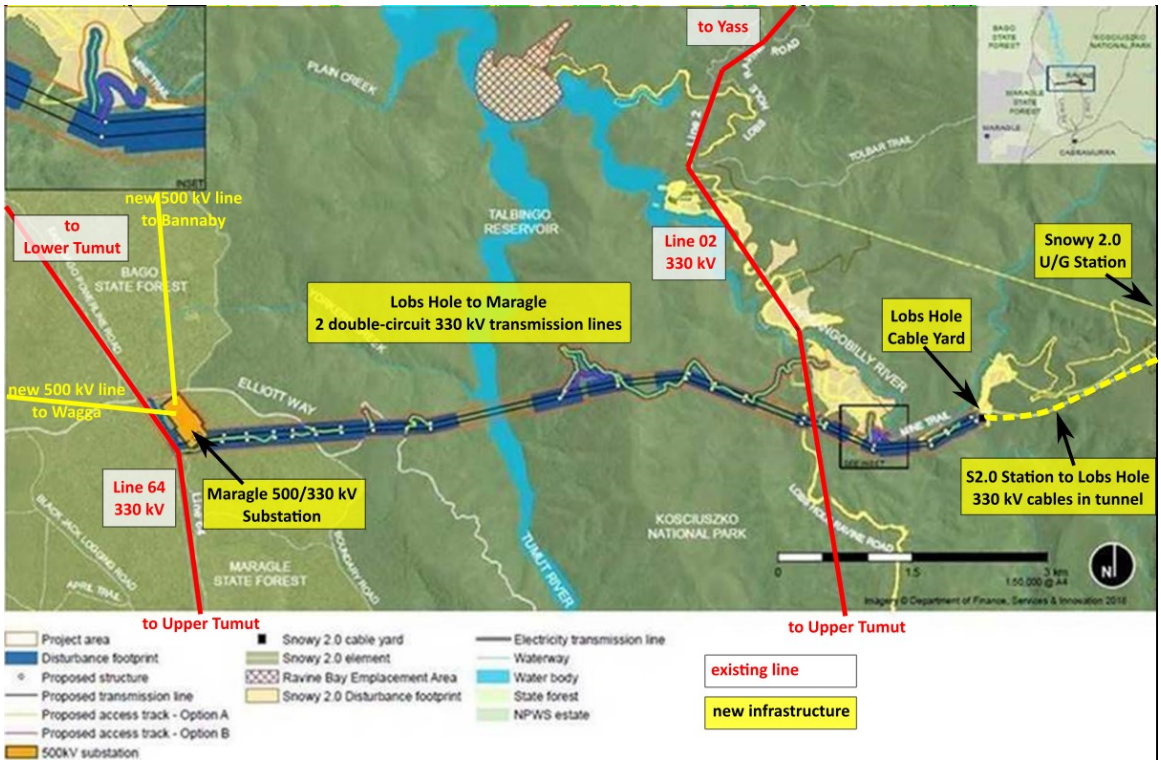
Attach: photos and diagrams showing the visual impact of the Snowy 2.0 lines across Kosciuszko National Park

## Snowy 2.0 Transmission Connection through Kosciuszko National Park

overhead transmission lines to be built through a NSW National Park for the first time in 50 years

**Photomontage of proposed overhead transmission lines near Lobs Hole (TransGrid)**

**Photomontage - Lobs Hole (TransGrid)**




**Route of transmission connection from Lobs Hole to Maragle Substation (TransGrid+ NPA captions)**

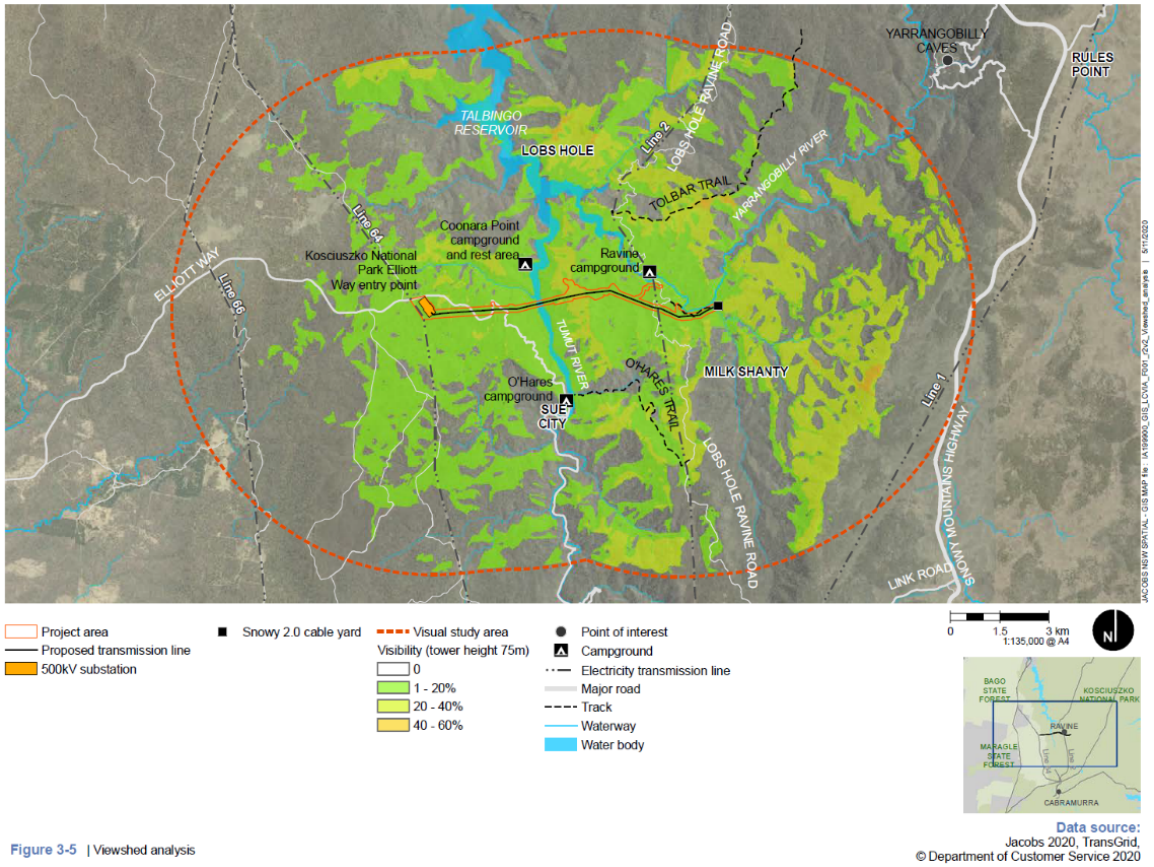
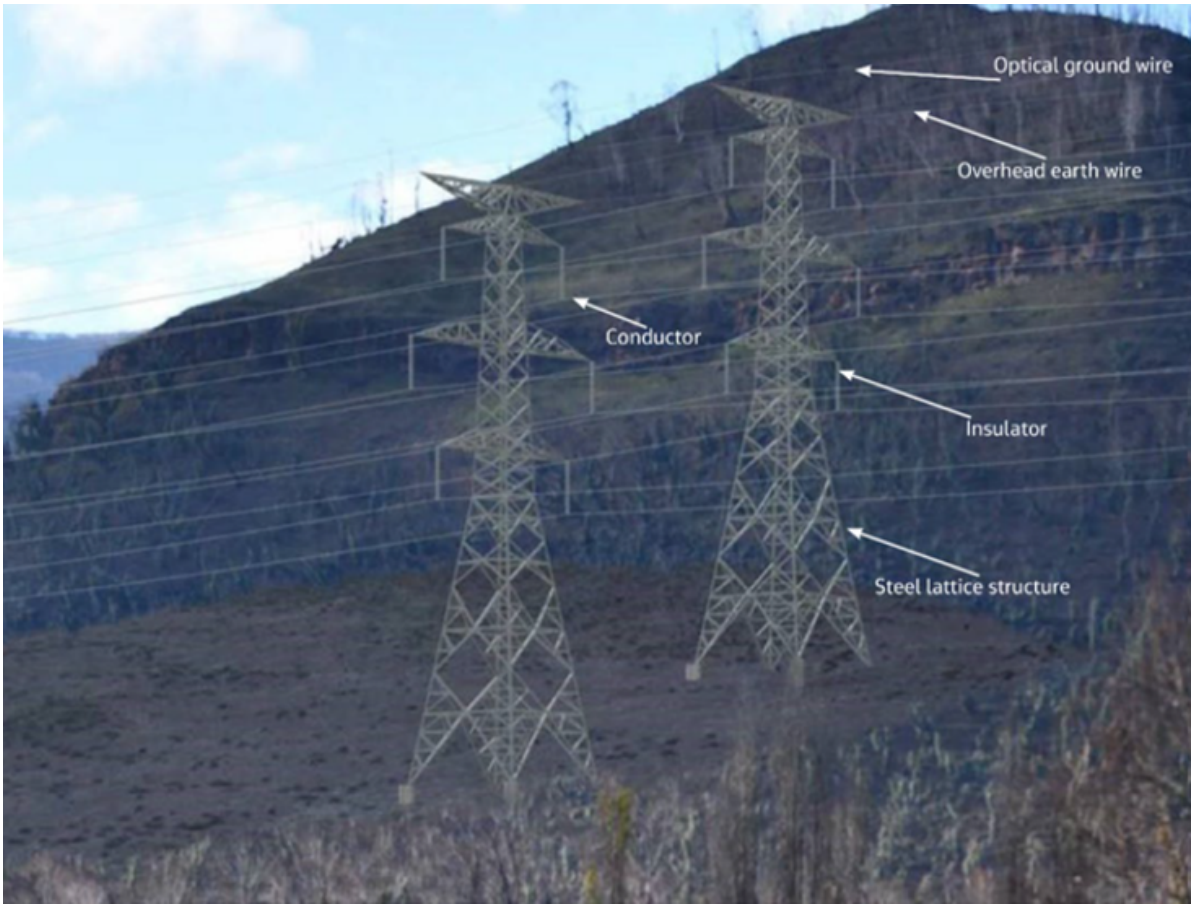


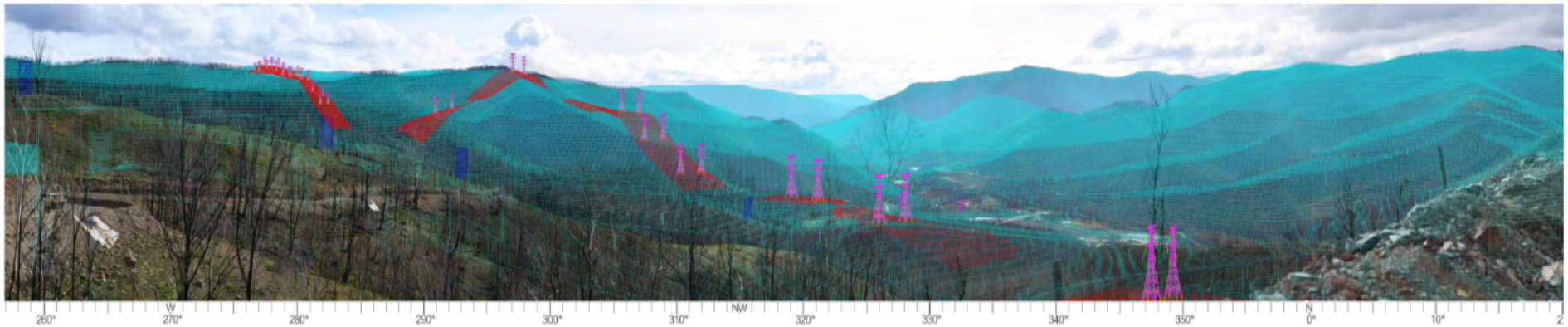

Figure 3-5 | Viewshed analysis

**Lines will be visible over 200 square kilometres (TransGrid EIS)**

**Photomontage – Tumut River/Talbingo Reservoir Crossing (TransGrid)**




**Snowy 2.0 Transmission Line Design (TransGrid)**




*Wireframe view - Project*

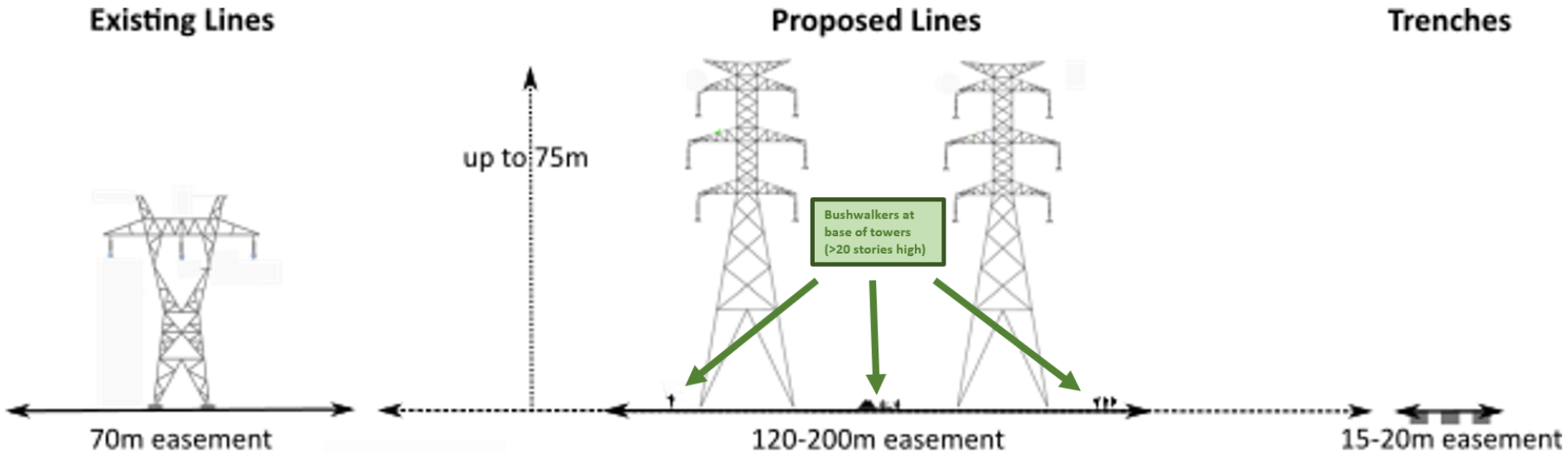
**Photomontage - Lobs Hole to Maragle (TransGrid)**

**Photomontage - Lobs Hole (TransGrid)**

# Snowy 2.0 overhead lines will dominate Kosciuszko landscape

- 3 times the bulk of existing 330 kV lines in KNP
- easement for overhead lines will be 6-10 times width of underground cable trench
- no easement or access tracks required for tunnel (best U/G option)

- four 330,000 volt circuits
- 8 km through Kosciuszko National Park and 1 km through Bago State Forest
- 21 pairs of side-by-side steel lattice towers up to 75m tall - two circuits per tower
- 26 wires per tower (52 in total)
- cleared easement swathe 120m to 200m wide
- 10 km of access tracks




**Comparison of Existing Kosciuszko NP Transmission Lines, Proposed Lines and Trench (NPA)**