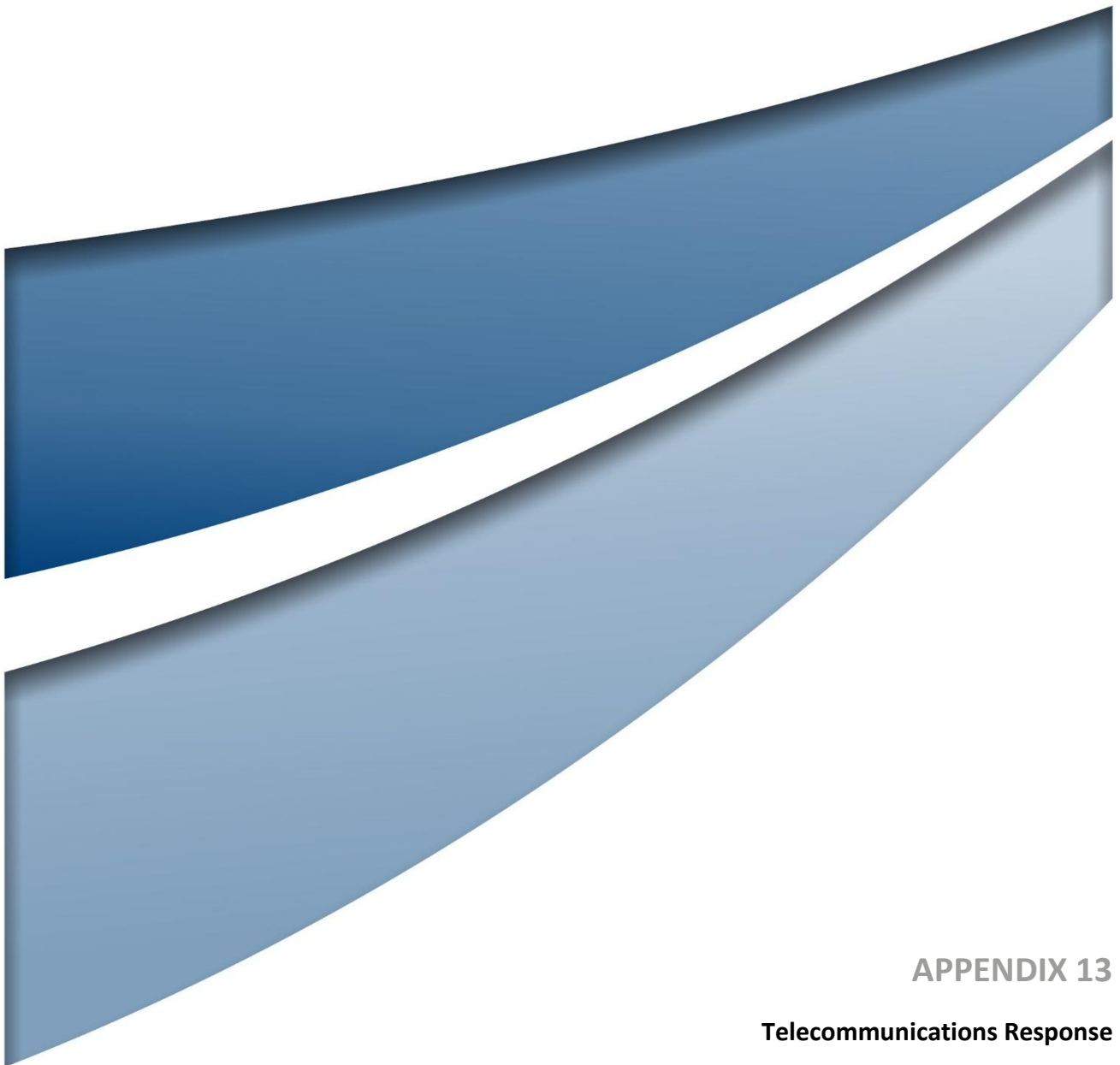




APPENDIX 13

Telecommunications Response

Lachlan Sweeney
Principal Environmental Scientist
Umwelt (Australia) Pty Ltd
lsweeney@unwelt.com.au
14th March 2025

Dear Lachlan,

RE: 22092 Junction Rivers Wind Project Telecommunications Impact Assessment – Response to NSW BCS and NPWS Telecommunications Concerns

Thank you for your email 28th October 2024 with your request to provide consolidated responses to feedback received from the NSW Biodiversity, Conservation and Science Group (BCS) and the National Parks and Wildlife Service (NPWS) on the Telecommunications Impact Assessment (TIA) prepared to support Junction Rivers Wind Farm (the project) Environmental Impact Statement (EIS).

This letter has been prepared to provide targeted responses to the advice received from DPHI on the TIA on the 3rd of September 2024.

NPWS raised concerns regarding impact to their seasonal and emergency deployment of temporary towers, also known as cells on wheels (COW), to augment the local radio network.

Cells on Wheels Discussion

CoWs are mobile units and not permanently stationed at fixed locations, and are deployed only when required. Given this variability, the impact of WTGs on their radio network cannot be accurately evaluated in the TIA report.

The CoWs deliver very high frequency (VHF) Simplex Channels, ultra high frequency (UHF) public safety network (PSN) Trunking services, and mobile systems for applications including both aerial and ground-based operations. It is noted that the CoW system provides a critical service for high-risk program delivery.

CoWs typically have mast height up to 30 m.

Telecommunication Interference Risk Identification

The risks to CoW services from WTGs would include line of sight interference, near field interference, and reflection/scattering.

For ground-based operations, CoWs communication services are unlikely to be impacted by WTGs. The lowermost blade tip of a WTG would be a minimum of around 50 m above ground as a worst-case scenario, hence a satisfactory height buffer is expected for typical CoW application. Nonetheless, interference may still occur in occasional instances given the unpredictability of CoW deployment and use.

For aerial operations, line of sight interference and reflection/scattering interference may become factors. By means of example, figure 1 below provides diagrammatic indication of this risk.



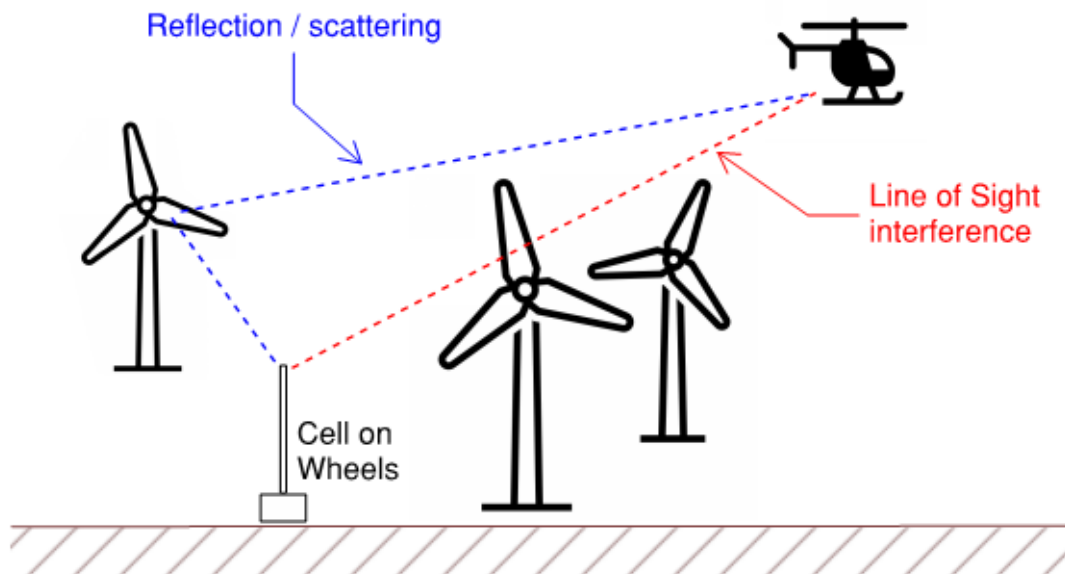


Figure 1: Indicative ground to air telecommunication interference risk

Risk Management

Where CoWs are applied for use within the Junction Rivers Wind Project boundary, telecommunication interference risk is present.

Suggested mitigation strategies are:

1. Check and avoid line-of-sight interference through WTGs
2. Place CoW units more than 1 km from WTGs
3. Place multiple CoW units around wind project boundary to minimise probability of interference occurring (see figure 2).

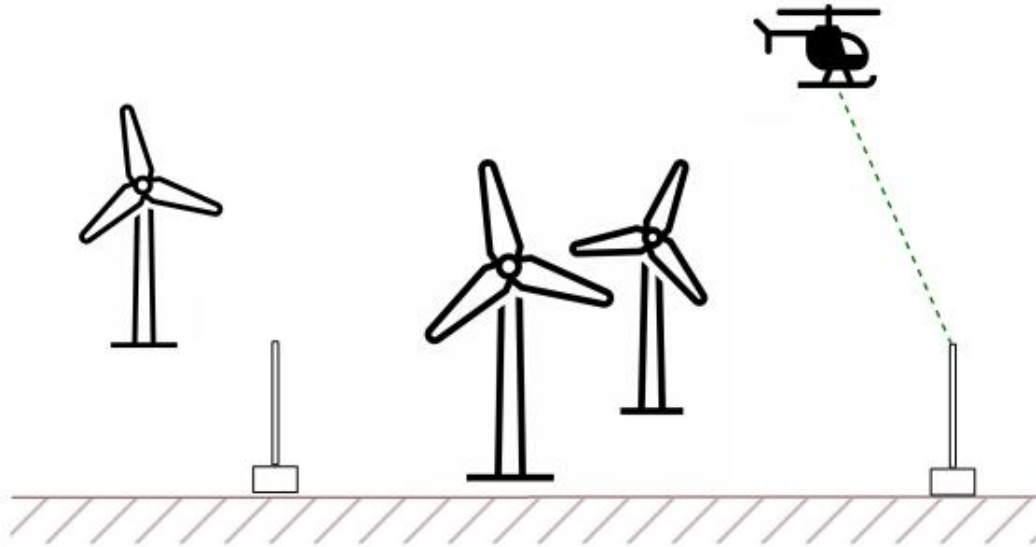


Figure 2: Indicative ground to air telecommunication interference risk mitigation

Residual Risk and Management

There remains a degree of residual risk to CoW operation within the wind farm project boundary which cannot be easily quantified by desktop study.

Through application, the performance of CoWs in vicinity of the Junction Rivers Wind Project will become better understood. It is anticipated that NPWS would be able to position any required CoWs needed for operational activities within the Yanga Group in locations that would minimise the potential for telecommunications interference from the Junction Rivers Wind Project

Should there be particular instances of interference which arise, or particular operations where interference risk is considered especially high, then engagement with the proponent, Windlab Developments Pty Ltd is recommended. There may be avenues for WTG operation management for short term applications of CoWs.

Sincerely,

Eric Bendtsen

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