Environmental EME Report

Location

Radio Room, Crackenback Upper Lift Station, THREDBO NSW 2625

Date 11/02/2022 RFNSA No. 2625001

How does this report work?

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at Radio Room, Crackenback Upper Lift Station, THREDBO NSW 2625. These levels have been calculated by Lend Lease using methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

A document describing how to interpret this report is available at ARPANSA's website: *A Guide to the Environmental Report*.

A snapshot of calculated EME levels at this site

The maximum EME level calculated for the existing systems at this site is	The maximum EME level calculated for the propos changes at this site is		
27.20%	28.43%		
out of 100% of the public exposure limit, 17 m from the location.	out of 100% of the public exposure limit, 17 m from th location.		
	EME levels with the proposed changes		
	Distance from the site	Percentage of the public exposure limit	
	0-50 m	28.43%	
	50-100 m	16.72%	
	100-200 m	4.64%	
	200-300 m	1.04%	
	300-400 m	0.45%	
Coopilo Map data C2022 Google	400-500 m	0.25%	

For additional information please refer to the EME ARPANSA Report annexure for this site which can be found at <u>http://www.rfnsa.com.au/2625001</u>.

Radio systems at the site

This base station currently has equipment for transmitting the services listed under the existing configuration. The proposal would modify the base station to include all the services listed under the proposed configuration.

	Existing		Proposed		
Carrier	Systems	Configuration	Systems Configuration		
Optus	3G, 4G, 5G	LTE700, LTE1800, WCDMA2100, NR/LTE2100, LTE2600, WCDMA900	3G, 4G, 5G	NR3500 (proposed), LTE1800, NR/LTE2100, LTE2600, WCDMA2100, WCDMA900, LTE700, LTE900 (proposed)	
Telstra	3G, 4G	WCDMA850, LTE1800, LTE700	3G, 4G	WCDMA850, LTE1800, LTE700	

Vodafone	3G, 4G	WCDMA900, LTE850, WCDMA2100, LTE2100, NB- IOT900	3G, 4G	WCDMA900, LTE850, WCDMA2100, LTE2100, NB-IOT900
NSW Government - Telco Authority				Gov. Radio Network (proposed)

An in-depth look at calculated EME levels at this site

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined. All EME levels are relative to 1.5 m above ground and all distances from the site are in 360° circular bands.

	Existing configuration		Proposed configuration			
Distance from the site	Electric field (V/m)	Power density (mW/m²)	Percentage of the public exposure limit	Electric field (V/m)	Power density (mW/m²)	Percentage of the public exposure limit
0-50m	25.57	1734.16	27.20%	26.16	1815.46	28.43%
50-100m	18.02	860.96	12.30%	20.85	1152.66	16.72%
100-200m	9.41	234.96	3.18%	11.37	343.09	4.64%
200-300m	4.55	54.97	0.73%	5.34	75.75	1.04%
300-400m	3.01	23.96	0.32%	3.49	32.24	0.45%
400-500m	2.24	13.35	0.18%	2.60	17.98	0.25%

Calculated EME levels at other areas of interest

This table contains calculations of the maximum EME levels at selected areas of interest, identified through consultation requirements of the <u>Communications Alliance Ltd Deployment Code C564:2020</u> or other means. Calculations are performed over the indicated height range and include all existing and any proposed radio systems for this site.

Maximum cumulative EME level for the proposed configuration

Location	Height range	Electric field (V/m)	Power density (mW/m²)	Percentage of the public exposure limit
Cafe - Elevated Walkway	0-3 m	16.37	710.50	9.53%