



1 March 2024

[REDACTED]

By email: [REDACTED]

Copy to: [REDACTED]

CONFIDENTIAL

Dear [REDACTED]

Infrastructure RKR 2024 Submission – Changed methodology to calculating Outdoor Coverage

Telstra has today submitted its 2024 Infrastructure RKR submission via the ACCC Ourshare portal.

As required under Section 8(3) of the Infrastructure RKR, we are writing to update you of a variation in the methodology used to calculate Telstra's outdoor coverage data (geographic extent) as compared with the 2023 return.

In 2018, the MNOs agreed to a common terminology across three coverage categories. "Outdoor" coverage was one of these categories, defined as *"reception a customer can expect when using a device outdoors with typical handheld use, based on an elevated upright standing, head height position"*.¹ Despite adopting the 2018 common terminology (which was subsequently adopted by the ACCC in 2022 in the RKR), when we applied this in our coverage mapping, we simply renamed our existing "handheld" layer to "outdoor" on the understanding at the time that the two were close enough to be inter-changeable. [REDACTED]

[REDACTED] This has led to Telstra substantially underestimating its outdoor coverage for some time, especially when compared to other MNOs. This is the reason that Telstra's proportion of outdoor coverage compared to external antenna coverage appears significantly lower than the other MNOs, as highlighted in ACCC's 2023 Mobile Infrastructure Report, where the report notes that *"Optus' 4G outdoor geographic coverage is around 83% of its 4G external antenna geographic coverage..... TPG's 4G outdoor geographic coverage is 74% of its 4G external antenna geographic coverage. On the other hand, Telstra's 4G outdoor geographic coverage is around 52% of its 4G external antenna geographic coverage."*²

We have now reassessed our methodology and recalculated our outdoor coverage data, [REDACTED] and more directly align to the agreed outdoor coverage definition. This results in a revised outdoor coverage footprint, relevant to three coverage layers, i.e., 4G 700, Combined Network

¹ [Understanding coverage maps - AMTA | The Voice of the Australian Mobile Telecommunications Industry](#)

² [Mobile Infrastructure Report 2023](#), page 2.



and Combined 4G Outdoor. This therefore results in differences as compared to our 2023 filing. We have informed our analysis through drive surveys that use a device mounted to a rail at head height within a fibreglass enclosure (using the device's integrated antenna only).

As a result of these changes, Telstra's outdoor coverage mapping now better aligns with the outdoor coverage mapping of our competitors, on a site-by-site basis, allowing for a more accurate comparison of outdoor coverage between MNOs. Mobile coverage is inherently variable, and derivation of maps involves a balance between producing maps that are comparable, but also reasonable, practical, and meaningful for our consumers. The outdoor coverage reflected in Telstra's coverage maps will always err on the side of conservatism. For example, our own survey data shows successful operation of outdoor services at levels below our set threshold, but when coverage is mapped, it is prudent to allow an error margin to accommodate for the inherent variability of wireless signals.

[REDACTED]
[REDACTED] Please note, we have not yet updated our (customer facing) coverage maps based on our revised outdoor coverage footprint but expect do so in the coming months.

Finally, an audit of the propagation models used in our coverage mapping has also been conducted. The propagation models used for some sites have been updated to reflect the geography and technology of these sites more accurately. The updates include corrections of errors in our data such as the use of propagation models calibrated for urban environments which were applied to sites in regional areas, or the use of incorrect propagation models for the frequency bands present at a site. In some cases, it has resulted in small reductions to the predicted coverage of these sites when compared with the 2023 submission.

Should you have any questions, please contact [REDACTED] to discuss.

Yours sincerely,

[REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]