

EME and Health

Telstra places very high importance on EME safety. All of Telstra's mobile base stations are designed to comply with the relevant Australian safety standard known as the Australian Radiation Protection and Nuclear Safety Agency ("**ARPANSA**") *Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3 kHz to 300 GHz (2002)* or ("**RPS 3**"). The Radio Frequency ("**RF**") EME emissions from mobile phone base stations and other communications installations are regulated by the Australian Communications and Media Authority ("**ACMA**"). The ACMA's regulatory arrangements require base stations to comply with the exposure limits in the ARPANSA RF Standard.

The ARPANSA Standard is designed to protect people of all ages and health status against all known adverse health effects from exposure to RF EME. The ARPANSA Standard is based on scientific research that shows the levels at which harmful effects occur and it sets limits, based on international guidelines, well below these harmful levels. We regard ARPANSA and the World Health Organisation ("**WHO**") as representing the accepted expert opinion on EME both in Australia and internationally. In relation to base stations and health, the conclusion from the WHO is: *"Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects."*¹

ARPANSA's position is: *"Based on current research there are no established health effects that can be attributed to the low RF EME exposure from mobile phone base station antennas"* "Significant safety factors are incorporated into the exposure limits – that is, the limits are set well below the level at which adverse health effects are known to occur."²

Additionally when base stations are located close to users, the transmitter power required by the mobile phone and base station to communicate is relatively low. If base stations were located further away, the power required is generally higher, and this means higher electromagnetic energy ("**EME**").

All of Telstra's base stations are designed to comply with the RPS 3. Telstra's engineers conduct a thorough EME compliance assessment as part of the base station design. For each base station, an EME Environmental Report is prepared by Telstra. The Environmental Report estimates the maximum cumulative EME emitted from the base station.

Once a base station becomes operational or is modified, a Site Compliance Certificate is prepared by an National Association of Testing Authorities (NATA) Assessor to certify that the site has been assessed and complies with the Radio Frequency Human Exposure Limits as specified by the Australian Communications and Media Authority (ACMA) Licence Condition Determination (LCD) and the requirements of RPS 3. A copy of the Site Compliance Certificate for a site can be accessed via the RFNSA.

¹ WHO Fact Sheet: Electromagnetic Fields and Public Health – Base Stations and Wireless Technologies

² ARPANSA Fact Sheet: Mobile Base Stations and Health