

## NBN wireless base stations and EME

### Joint statement by the ACMA and ARPANSA

The [Australian Communications and Media Authority \(ACMA\)](#) and the [Australian Radiation Protection and Nuclear Safety Agency \(ARPANSA\)](#) are committed to providing clear information about their respective responsibilities in the regulation of radiofrequency electromagnetic energy (RF EME). RF EME is emitted by telecommunications equipment such as smart meters, Wi-Fi devices and base stations.

Based on an assessment of relevant scientific research and international guidance, ARPANSA sets the human exposure limits for RF EME emitted by telecommunications equipment. To make sure RF EME exposure from equipment is kept low, the ACMA then applies the ARPANSA EME exposure limits to consumer devices and telecommunications facilities.

This joint statement about NBN wireless base stations is one of a series discussing RF EME from telecommunications equipment.

### What are NBN wireless base stations?

The National Broadband Network (NBN) uses fixed wireless communications links to provide high-speed broadband in some areas beyond the reach of fixed-line infrastructure to end-users in fixed locations.

The fixed wireless links use low level radio waves, or RF EME, to communicate between NBN wireless base stations and small rooftop installations on residences and business premises.

### How is EME from NBN wireless base stations regulated?

As the government's primary authority on radiation protection and nuclear safety, ARPANSA assesses relevant scientific research and provides expert advice on EME. It uses this information to set a framework for protecting the Australian public from harmful effects of radiation, including the RF EME emitted by NBN wireless base stations and other telecommunications facilities.

As part of this protection, ARPANSA sets the RF EME human exposure limits within Australia. These are published in the [Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz \(2002\)](#) (known as the ARPANSA Standard). The exposure limits in the ARPANSA Standard are only enforceable if they are referenced in other regulatory arrangements.

The ACMA is Australia's communications regulator. NBN Co wireless base stations must comply with the ACMA's licence conditions imposed through the [Radiocommunications Licence Conditions \(Apparatus Licence\) Determination 2015](#). This regulation requires NBN Co to ensure that its wireless base stations comply with the public exposure limits specified in the ARPANSA Standard.

### Do NBN wireless base stations cause health effects?

Measurement surveys have shown that exposure to RF EME in the environment from various sources is very low and typically much lower than the allowable limit for safety in the ARPANSA Standard.

ARPANSA and the World Health Organization have assessed the scientific evidence on RF EME exposure from base stations and health and have concluded there are no established health effects at levels below the exposure limits specified in the ARPANSA Standard.

The highest values of RF EME that the public would be exposed to from currently planned NBN base stations may be calculated from details of the equipment installed. These calculations are made available in the ARPANSA EME reports provided by NBN Co on the [Radio Frequency National Site Archive](#). EME exposure to the public from NBN base stations is **significantly below** the limits of the ARPANSA Standard.

## Where can I get more information?

- > The installation of new free standing NBN wireless base stations is subject to State, Territory and local government planning law. [NBN Co](#) is responsible for the installation of its wireless base stations and for compliance with all regulatory obligations, so contact NBN Co if you have concerns about the siting of a NBN Co wireless base station.
- > The [ARPANSA website](#)
- > The ACMA's [EME consumer hub](#)