

Smart meters 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 smart meters is one of a series discussing RF EME from telecommunications equipment.

What are smart meters?

Smart meters are electronic devices that measure the quantity of electricity use and communicate this information back to electricity suppliers. Smart meters typically measure electricity use at different times of the day and send the information using short bursts of radio waves, or RF EME.

How is EME from smart meters regulated?

The ACMA and ARPANSA have distinct but complementary roles in RF EME regulation.

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 smart meters and other telecommunications equipment.

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. Smart meters must comply with the ACMA's [Radiocommunications \(Electromagnetic Radiation – Human Exposure\) Standard 2014](#) (the Human Exposure Standard). This regulation requires smart meters to comply with the public exposure limits specified in the ARPANSA Standard before the devices can be supplied in Australia.

Do smart meters 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 smart meters and health, and concluded there are no established health effects at levels below the ARPANSA Standard.

The combination of the relatively low power of the smart meter transmitters, their location on the outside of buildings and the short transmission time means that the overall RF EME exposure from smart meters is very low. Additionally, the ACMA's monitoring of industry compliance, coupled with an assessment of the current literature, indicates that EME exposure levels from smart meters are **significantly below** the limits of the ARPANSA Standard.

Where can I get more information?

- > State and territory governments usually manage smart meter rollout programs. Utilities around Australia are replacing legacy-metering infrastructure with smart meters. These utilities are responsible for decisions about the operating characteristics of the smart meters and have an obligation to ensure they meet all regulatory requirements, including those related to EME. Individual states, territories and electricity suppliers have different policies on the use of smart meters, so contact your relevant State Government department if you have concerns about smart meter programs:
 - o [Victoria](#)
 - o Other [State government departments and agencies](#)
- > The [ARPANSA website](#)
- > The ACMA's [EME consumer hub](#)