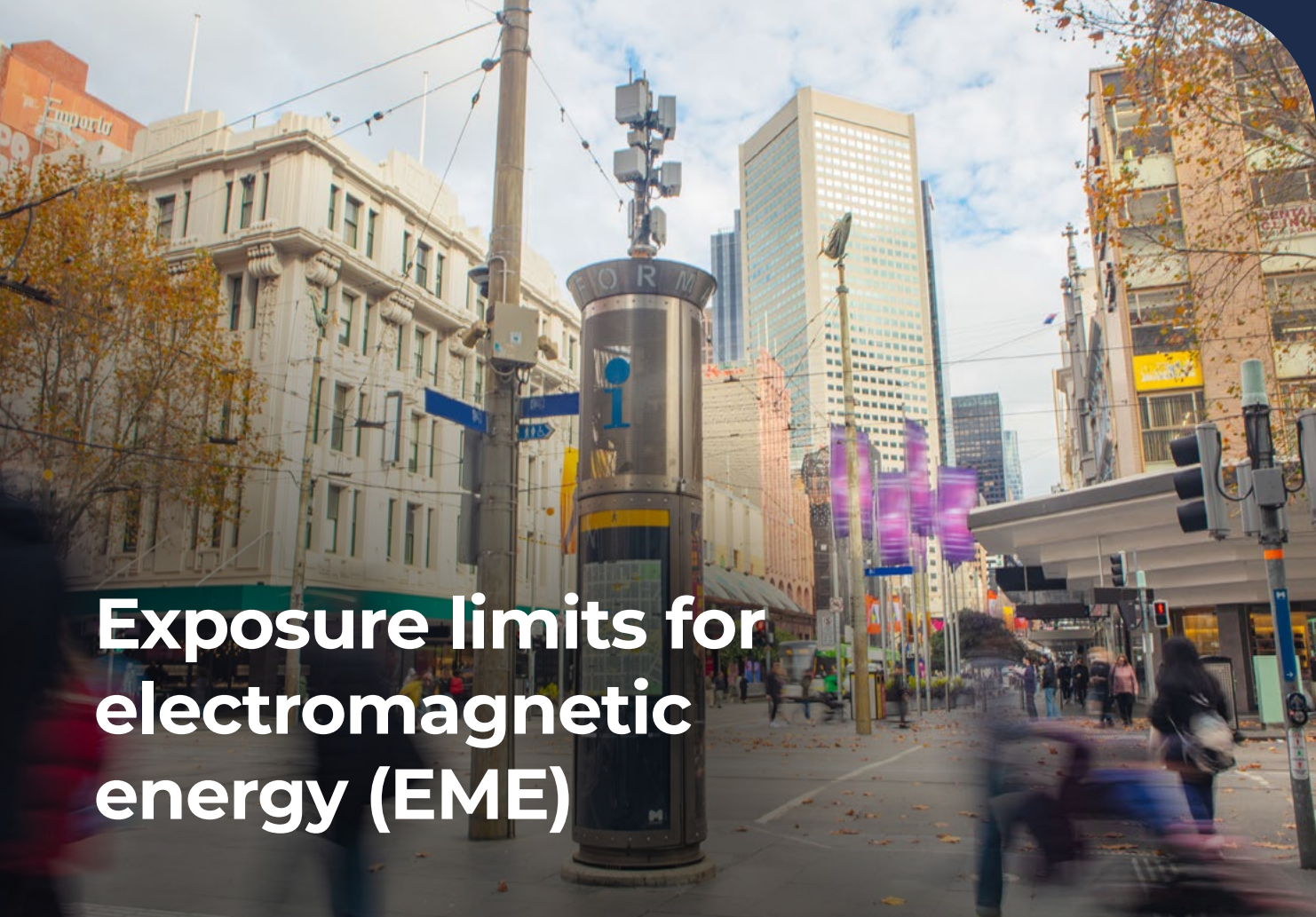




Australian Government

THE SCIENCE OF
SAFE
 CONNECTION



Exposure limits for electromagnetic energy (EME)

The science of safe connection

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) advises the Australian Government on what exposure limits for EME from telecommunications should be to keep everyone safe.

To do this, ARPANSA developed a [Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz \(RPS S-1\)](#) based on international guidelines established by the International Commission for Non-Ionizing Radiation Protection (ICNIRP) and endorsed by the World Health Organization (WHO).

Exposure limits and safety regulations for EME from telecommunications infrastructure vary from country to country and are subject to the operation of local laws.

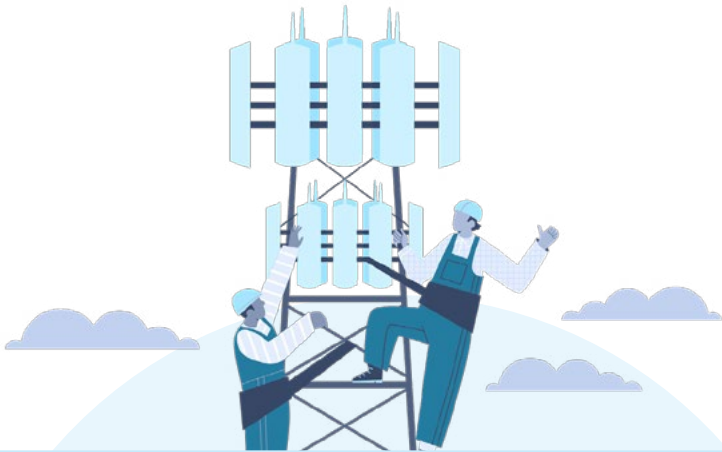
The exposure limits in the Standard are designed to protect people of all ages and health status against any known adverse health effects from exposure to EME.

And the good news is, there are no known adverse health effects from exposure to EME from telecommunications, when operating below the exposure limits set out in the Standard.

How does the Standard protect us?

The Standard is based on current scientific research and international guidelines and sets limits requiring telecommunications services and equipment to operate well below these levels.

There are different exposure limits in the Standard that apply to a variety of settings, depending on what frequency a particular source uses as well as different impacts of EME on the human body.



What are the limits of the Standard?

For telecommunications infrastructure, like towers and small cells, the limit for the general public is measured in a quantity called 'power density' and it ranges from 2 to 10 watts per square meter (W/m²) depending on the operating frequency.

For 5G infrastructure, the public exposure limit is 10 W/m².

For devices such as mobile phones, tablets and laptops that are used in closer proximity to the body, another measure called 'specific absorption rate' (measured in watts per kilogram, W/kg) is used to evaluate exposure.

When using a mobile phone against the head the exposure limit is 2 W/kg.



For more information visit
www.eme.gov.au



So, what key information do I need to know?



To keep everyone safe, the Australian Radiation Protection and Nuclear Safety Agency advises the government on exposure limits for electromagnetic energy (EME) from telecommunications.



In Australia, we have strict regulations designed to protect people of all ages and health status against any known adverse health effects from exposure to EME.



There are no known adverse health effects from exposure to EME from telecommunications, when operating below the exposure limits set out in the Standard.