

# OPTUS

## Small Cells - Frequently Asked Questions



### What is being proposed?

Optus is proposing to install new innovative mobile technology known as small cells across Australia. This technology is designed to enable improvements in voice and data services. Small cells enable faster data speeds and larger data downloads on devices including mobile phones, laptops, tablets and smart modems.

Small cells are already in suburbs of Sydney, Melbourne and Brisbane but we need more.

### What is a small cell?

Small cells are physically small radio base stations. Small cells complement the existing network of tower and rooftop sites. They improve coverage, add capacity and should improve your user experience.

Small cells allow us to provide wireless services on a small scale. Small cells operate at lower power levels and typically, a small cell has a coverage range of 100m-300m.

### What will these small cells look like?

Small cells are significantly smaller discreet, and visually unobtrusive. Some examples of small cells are shown above. Small cells, in most circumstances will be installed on to existing infrastructure which allows the equipment to blend within the urban context. You have most likely walked past one on the street without noticing.

### Why are small cell sites required?

Small Cells are being deployed to supplement the existing network. Small cells can provide additional network capacity to an area identified as exhibiting high demand for mobile network usage.

Each small cell will have its own individual coverage objectives which will influence its' location.

Small cells work best when deployed in clusters to allow for a continuous service within the selected area. Small cells are needed in high network traffic areas such as train stations, local shopping precincts, sports and recreation precincts and residential precincts.

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## Will small cells benefit me?

Optus network users located near a small cell are likely to benefit from improved Optus mobile voice coverage and improved, data flow experience to and from devices. We note that users will need to ensure that they have a 4G enabled device to benefit.

## How could this impact my health?

Optus understands that there may be some negative perceptions in the general public surrounding electromagnetic energy (EME) emitted from radio frequency equipment, including mobile phone base stations.

Optus relies on the expert advice of international and national health authorities including the World Health Organization (WHO) and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) for overall assessments of health and safety impacts.

*“Health authorities around the world, including ARPANSA and the World Health Organization, have examined the scientific evidence regarding possible health effects from base stations. Current research indicates that there are no established health effects from the low exposure to the RF EME from mobile phone base station antennas.”*

ARPANSA Fact sheet “**Mobile Base Stations and Health**” August 2016 .

Additional information about small cells and EME can be found here:

<https://www.acma.gov.au/theACMA/a-guide-to-small-cells>

## How do Mobile Phone Networks Work?

A mobile wireless network is made up of multiple overlapping cells covering a geographic area. When you make a call or download data, your device sends and receives radio signals to and from a nearby base station. As you move across an area, the device will switch to an adjoining cell. More devices and more data flowing across the network means we need to continually improve and grow our network to keep pace with demand.

## Does the proposal meet the safety standard?

The ARPANSA standard has safety limits built into it to ensure sites operating within the standard are safe for all people at all times. Optus ensures all its facilities comply with the ARPANSA standard which is the Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz (2002), commonly referred to as RPS3. The safety limit itself has a significant safety margin built into it.

To demonstrate compliance with the safety standard, an Environmental EME Report for each proposal is available via the Radio Frequency National Site Archive (RFNSA) website at [www.rfnsa.com.au](http://www.rfnsa.com.au). You can obtain information using the site reference number, address, name or search a suburb. All operating facilities are required to have a Compliance Certificate to demonstrate ongoing compliance with the Australian Standard. These are also available on the RFNSA.

## Where can I find further information about EME?

Australian Radiation Protection and Nuclear Safety Agency [www.arpansa.gov.au](http://www.arpansa.gov.au)

Australian Communications and Media Authority (ACMA) [www.acma.gov.au](http://www.acma.gov.au)

World Health Organisation (WHO) [www.who.int/en/](http://www.who.int/en/)

## What if I want to talk to someone further?

If you have received a notification letter about a new small cell proposal and would like to speak further about it then please use the contact details within the letter. Alternatively, you can find additional information about a proposal at [www.rfnsa.com.au](http://www.rfnsa.com.au).