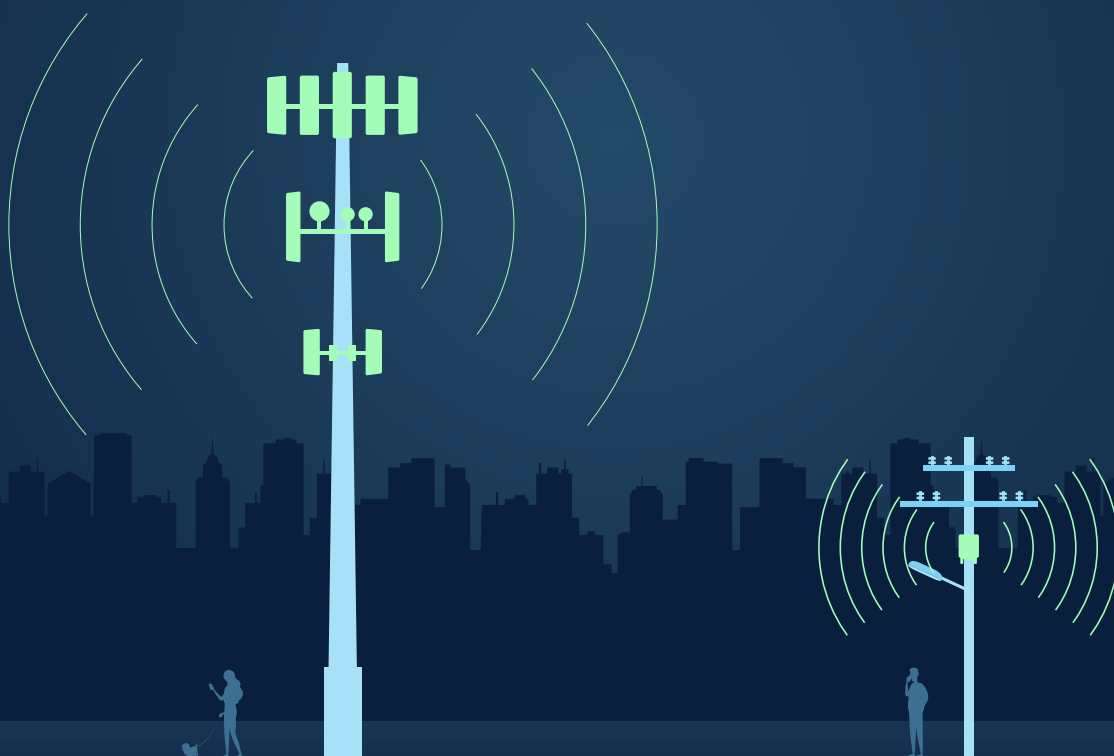




## Telecommunications Infrastructure

Mobile network operators use different infrastructure solutions to achieve maximum, optimal coverage for customers. Two main types of infrastructure you will commonly see are macro cells and small cells. Both macro and small cells are designed to send and receive signals from mobile devices using radiofrequency electromagnetic energy (RF EME) and work in similar ways.



### Macro Cell

Macro cells are cellular mobile phone base stations on large towers that work by emitting frequency signals to provide coverage over a large distance. These signals travel far, sometimes for kilometres, and physical barriers such as buildings or foliage don't usually block the signals.

### Small Cell

Small cells can use the same frequency bands as macro cells, or higher frequency bands for some 5G services. Where higher frequency bands are used, the signal covers a shorter distance and physical barriers, such as buildings or foliage, can block the signal.

These types of telecommunications infrastructure improve coverage, add capacity and support new or enhanced mobile services in our communities. They emit EME at levels far below those identified by the Government as being safe for Australians to live, work and study near every day.