

Understanding Electromagnetic Radiation

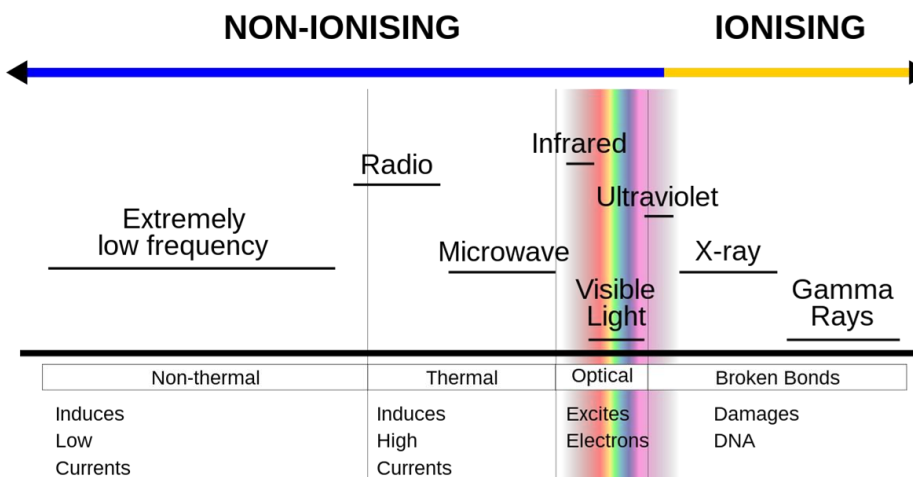
Powerlines generate low levels of electromagnetic radiation (or EMR) in the form of **radio waves**. This is caused by the alternating current (AC) flowing through wires, generating changing electric and magnetic fields.

Radio waves of regular intensity **are not considered harmful to the human body**. Radio waves are the same form of EMR used for Wi-Fi, phone signals, television, and radios. This is why your car radio can sometimes be disrupted when you drive under power lines.

Should I be concerned?

People often find the word 'Radiation' scary, but in truth, Electromagnetic Radiation is constantly all around us everyday. Light itself is a form of EMR. Microwaves, radio waves, and what we view as the visible spectrum, are all simply EMR of varying wavelengths.

Some EMR can indeed be harmful. High-frequency ionising EMR such as X-rays and Gamma rays can damage bodily cells and lead to cancers and ill-health when in high concentration.



Hairdryer
10-70mG

Stove
2-30mG

Laptop
2-20mG

Under a distribution powerline
2-20mG

Under transmission powerline
20-200mG

At the edge of transmission powerline line easement
10-50mG

However, one should not confuse this with non-ionizing EMR. Non-ionizing EMR (such as radio waves and light) are, in normal intensities, harmless.

At the edge of a transmission line easement (some 50 m away), transmission lines generate EMR at a lower intensity than a hairdryer.

Over 30 years, and 25,000 papers, no adverse health effects have been linked to low-level low-frequency EMR exposure.

Australia has strong and protective legal EMR public exposure standards, and Wind Farm transmission lines fall well below these conservative limits. As such, there **is no reason to be concerned** by EMR from Wind Farm power lines.

Sources:

<https://www.arpansa.gov.au/>

<https://www.energyco.nsw.gov.au/sites/default/files/2022-09/cwo-rez-fact-sheet-electric-magnetic.pdf>



Scan here for more information.