

# Electric and Magnetic Fields

(EMF)

# What are EMF?

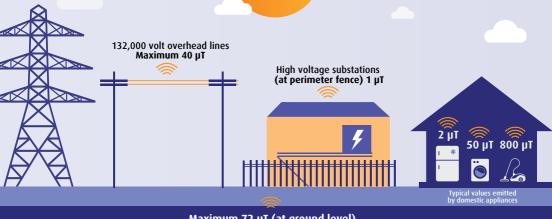
Magnetic fields are produced by current, which is the flow of electricity. Magnetic fields are usually measured in microteslas (µT). Magnetic fields aren't screened by trees, hedges or ordinary building materials.

Electric fields are produced by voltage, which is the push that causes the charge to move. Electric field strengths are measured in volts per metre (V/m). Electric fields are screened by most building materials and by trees, hedges etc.

# What produces an EMF?

EMF are produced by anything that uses or carries electricity – this includes your kettle, TV and mobile phone.





Maximum 72 µT (at ground level)

132,000 volt underground cable

#### **Electric Fields**

132,000 volt underground cable doesn't produce external electric fields as these are contained by the cable's protective insulation and sheath.

High voltage substations produce very low fields due to the screening effect of perimeter fences and enclosures on site.

# **Code of Practice**

The equipment UK Power Networks is responsible for (overhead lines, underground cable and infrastructure at 132,000 volts and below across our distribution network area) is built to comply with the code of practice. This sets a limit of 360 µT for magnetic fields in habitable spaces.

# Are there potential health effects?

All of our electricity equipment is designed to produce EMF below the limits put in place by the Government to protect us all. Those exposure limits have been set independently by an international commission of scientists who carefully review all of the research on FMF.

Four decades of research looking into whether FMF can cause health effects found no established health effects. below the exposure limits.



Scan for more information on EMFs (EMFs.info)

For more EMF advice, contact the UK Electricity Industry EMF Unit Public Information Line. 0845 7023270 or 01926 653382 | EMFHelpline@nationalgrid.com