

# Pathway to 2030 and Beyond Projects



## Electric & Magnetic Fields (EMF)

We develop, build, and operate our infrastructure to meet all health and safety legislation and guidance set by relevant bodies – including the UK Government, Scottish Government, the Health and Safety Executive and our regulator, Ofgem – including that associated with Electric and Magnetic Fields (EMFs). In respect of EMFs, we strictly follow the guidance as set by the UK Government, which in turn is informed by international guidance.

## Exposure Limits

As well as setting exposure limits that protect against known, established effects of EMF; the UK Government's guidance also includes precautionary measures to protect against possible effects below the exposure limits that have not been established by science.

In addition to this, the UK Health Security Agency and Department of Health have a remit to review new research in this area and ensure that current guidelines and policies are reflective of that research.

## Conclusion

The guidance we follow, which remains subject to ongoing review as required, ensures that safety measures will be applied to our new overhead line transmission infrastructures up to 400kV protecting us all against EMF exposure, keeping our network safe for the public.



## New research

In regard to the emergence of new research that has come to light after the UK Government's guidance was published, there is a process in place to ensure this is considered and that the Government policies in place are appropriate in light of any new science.

Furthermore, the UK Government's latest policy on EMF is set out in National Policy Statement EN-5, (NPS EN-5) which was reissued in November 2023 and came into force on 17 January 2024.

This latest policy is reflective of that review process and in line with the NPS EN-5, the current UK Government guidance, informed by relevant international guidance, is therefore still considered appropriate by the UK Government and their public health experts.

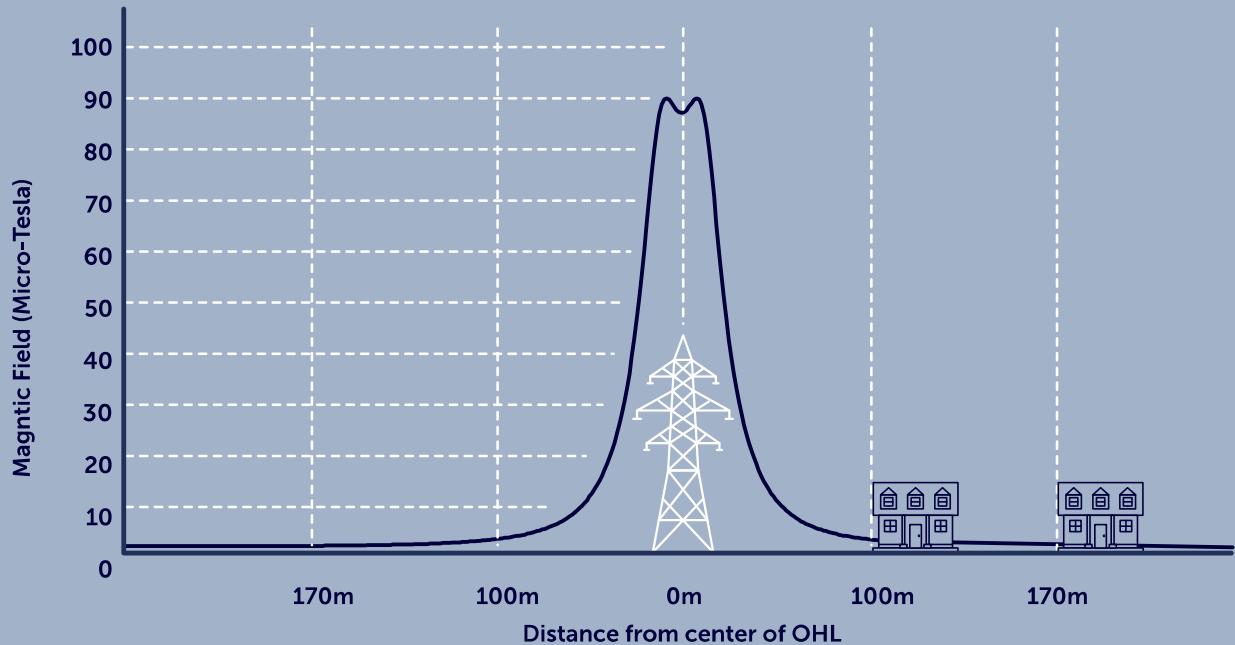
Whilst electricity consenting decisions are devolved to Scottish Ministers and the NPS EN-5 is therefore not all relevant in Scotland, we can confirm compliance with all EMF guidance as set out in the NPS EN-5.

There have been over four decades of research looking into whether EMF can cause health effects and there are no established effects below the exposure limits.

When we design our overhead lines, substations, and cables we do so to ensure they will not exceed those exposure limits, even when operating at 100% capacity, and we also ensure that the precautionary measures are also applied to the design where required. We will provide information on compliance as part of the consenting process, which will be publicly available.

## Magnetic Field Strength

UK Exposure Limit for Magnetic Field Strength is equal to 360uT (Micro-Tesla) as recommended by ICNIRP guidelines (1998). Magnetic field graph for 400kV overhead line infrastructure, which is the most critical voltage level for Magnetic Fields.



## Electric Field Strength

UK Exposure Limit for Electric Field Strength is equal to 9kV/m as recommended by ICNIRP guidelines (1998). Electric field graph for 400kV overhead line infrastructure, which is likely the critical voltage level for Electric Fields.

