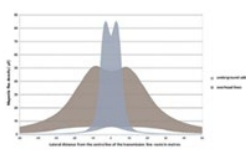


**Applicant Response to Roy Clegg Submission.**

**Written Representation on Flora and Fauna and Wildlife**

<p>1. We may in fact know less about effects to humans than to other species. In this WR, focus is on exposures common in today’s environment.</p> <p>2. There is enough evidence to indicate we may be damaging species at ecosystem and biosphere levels across all taxa from rising background levels of anthropogenic non-ionizing electromagnetic fields (EMF) from 0 Hz to 300 GHz leaving wildlife unprotected.</p> <p>3. Despite classic assumptions that non-ionizing radiation cannot directly damage DNA, genotoxic effects have been seen in land-based, aerial, aquatic, and plant species at very low intensity RFR exposures far below ICNIRP/IEEE/FCC guidelines.</p> <p>4. There are at least 48 papers showing DNA damage after exposure to RFR at &lt; 0.4 W/kg [see Supplement 1 in reference (24)]. Insects are of special concern as populations are being decimated globally (24).</p> <p>5. For centuries beekeepers had noticed curious movements in beehives, but Austrian ethologist Karl von Frisch finally interpreted that activity in the 1940s, winning the Nobel Prize in 1973 for what came to be known as the honeybee “waggle dance.”</p> <p>6. Electro-ecological interplay between flowers and pollinators has also been known since the 1960s and is critical to pollen transfer from flowers to bees.</p> <p>7. Since all food webs are uniquely tied together, there are negative cascading effects across all ecosystems.</p> <p>8. There is no question that the huge diversity of pollinator species across the planet is suffering and that losses could be catastrophic with an estimated 90% of wild plants and 30% of world crops in jeopardy.</p> <p>9. Taken as a whole, this indicates enough information to raise concerns about ambient exposures to radiation at ecosystem levels. Wildlife loss is often unseen and undocumented until tipping points are reached. It is time to recognize ambient EMF as a novel form of pollution and develop rules at regulatory agencies that designate air as ‘habitat’ so EMF can be regulated like other pollutants.</p> <p>10. There is no question that the huge diversity of pollinator species across the planet is suffering and that losses could be catastrophic with an estimated 90% of wild plants and 30% of world crops in jeopardy. There is a likelihood that rising EMF background levels play a significant role.</p> <p>11. We may already be overwhelming some species' natural biological sensors that evolved over eons. Such heightened sensitivities function far beyond human perception and create unique vulnerabilities that can easily be disturbed by novel man-made fields.</p> <p><b>12. Is the Developer, ExA and the Secretary of State satisfied that there is no risk to any species of flora and fauna and wildlife from the effect of EMF and its features because of the Project?</b></p>	<p>1. No response required.</p> <p>2 - 4 The Applicant acknowledges the research quoted in the WR but this does not provide any evidence that significant effects can arise from the specific elements of the Gate Burton Scheme. The Applicant re-iterates that the design of the buried cables is effective mitigation against any perceived or potential impacts on important ecological features identified in Chapter 8 of the ES [APP017/3.1].</p> <p>5 - 8. No response required.</p> <p>9 - 11 As set out in the above response the Applicant acknowledges the research quoted in the WR but that this does not provide any evidence that significant effects can arise from the specific elements of the Gate Burton Scheme. The Applicant re-iterates that the design of the buried cables is effective mitigation against any perceived or potential impacts on important ecological features identified in Chapter 8 of the ES [APP-017/3.1].</p> <p>12. Based on the responses provided above the Applicant is satisfied that there is no potential for significant adverse effects on the flora and fauna identified in Chapter 8 of the ES [APP-017/3.1].</p>	<p>1. No response required.</p> <p>2. In Appendix B – Summary EMF point 5, The applicant accepted that the cable runs carrying up to 400Kv to transport electricity are all transmitting EMF’s. An Electromagnetic Field is a circular vector field that radiates out centrally from its stronger central core with a magnetic influence on moving electric charges, electric currents, and magnetic materials. The electromagnetic fields will not be mitigated or stopped by covering them over or burying to a revised depth in effect the EMF will at its core be distanced 2.9 metres and have an effective band width across the River Trent estimated at 12 metres.</p> <p>The diagram below, when enlarged will show the effect of EMF field strength set against underground and overhead cables and lateral core.</p>  <p>3 - 8. No further response</p> <p>9 – 12. The Applicant has stated that the design of the buried cables is effective mitigation against any perceived or potential impacts on important ecological features is satisfied that there is no potential for significant adverse effects on the flora and fauna contained in the WR’s.</p> <p>What the applicant has not specified the design of the cables and demonstrated how they will provide mitigation against the impact of EMF on Flora and Fauna at the site.</p> <p><b>As Custodians of the Environment, we have a long over-due obligation to consider potential consequences to other species – before more species go extinct.</b></p>
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