

## West Burton Solar Project

### The Examining Authority's written questions and requests for information (ExQ2)

#### **2.5.21 Applicant and Tillbridge Solar Project Ltd**

The Applicant and especially the ExA are inviting, and responding to questions about a project, namely Tillbridge Solar Project and this falls outside of the remit identified in other NSIP's that each Project is to be addressed independently. This is further difficult to accept when the Tillbridge project is not yet been assigned an ExA! **Accordingly, will the ExA withdraw this, and any other similar issues so raised?**

#### **2.3.2 All Parties Biodiversity Net Gain**

The ExA notes that Requirement 9 now provides that the BNG Strategy must include details of how the strategy will secure a minimum of 69.4% biodiversity net gain in habitat units, a minimum of 43.7% biodiversity net gain in hedgerow units and a minimum of 26.6% biodiversity net gain in river units for all of the authorised development during the operation of the authorised development, and the metric that has been used to calculate that those percentages will be reached. The units quoted differ from those set out in e.g. the Planning Statement, in order to act as a 'buffer' in the event that circumstances change over time. Please can the Applicant provide a comment on the BNG Units secured within the dDCO and rationale as to the specific level of buffer selected. Please can IPs comment on the same. Note Question 2.5.12 addresses the BNG Requirement 9 dDCO approach to wording.

**It is noted that the Applicant has still not considered the Effect of EMF and Electric Fields on Flora and Fauna, Wildlife and Biodiversity.**

#### **2.3.4 Applicant/ Environment Agency EMF Risk Assessment**

The Environment Agency's views are sought on the submitted 'Risk Assessment on EMF Impacts on Fish' document which is appended to Appendix 1 of the Applicant's Response to Written Representations at Deadline 1 Part 1 [REP3-034]. Both the Environment Agency and the Applicant are requested to provide a progress update and progress through an updated SoCG at Deadline 5.

It is understood that the EA has requested that monitoring of the location of the river crossing for impacts on fish is undertaken pre and post construction (see response to WQ 2.13.11 Cottam Solar Project dated January 2024) with the imposition of the following Requirement on the DCO:

- (1) No part of the electrical cables permitted under Work No. 6B shall become operational until a written electromagnetic field monitoring strategy for the River Trent has been submitted to and approved by the Environment Agency.
- (2) The electromagnetic field monitoring strategy must include, but not be limited to –
  - (a) an appropriate mechanism for surveying any behavioural responses from migratory fish species passing through the area of the cable crossing under the River Trent.
  - (b) a mechanism for relaying the results of the surveys to the Environment Agency on a regular basis; and
  - (c) proposed periods and timings during which surveys will be undertaken to coincide with the main migratory periods for species such as salmon and lamprey.
- (3) The monitoring strategy must be implemented as approved.

**It is suggested there has been little research on EMF, but this is not so. For almost 100 years there have been many research papers and referenced in submitted WR's in respect of the effect of EMF**

on Marine Life and specifically fish. **The Applicant has also referenced these effects in their submissions.**

**What the Applicant has failed to do, is demonstrate that EMF can be stopped or mitigated from this application and the cumulative impact from all solar schemes sharing the same cable crossing of the River Trent.**

This is relatively easy to do. All the Applicant needs to do is bury a length of prescribed high voltage cable to a depth of 5 metres and measure the strength of the EMF and then determine the accumulated impact from all solar scheme cables crossing the River Trent.

**This must be addressed **PRIOR** to any approval, or conditional approval of the project.**

The EA request of undertaking monitoring pre and post construction is illogical. **What information and conclusion can be gathered preconstruction? And what will happen if post construction information and conclusions indicate an effect of EMF on Marine Life and Fish? Will construction, and commissioning and operation be stopped?**

**If any testing and monitoring is undertaken, it must be seen to be independent.**

The River Till and the other 30 or so number water course crossings need to be considered in any conclusions.,

The Applicant has used many chosen words in submissions which do not have supported evidence.

### **2.3.5 Applicant, Natural England, Environment Agency, Canal & River Trust Cable Depth**

The Applicant concludes that burying the cables to a minimum depth of 0.9m and given the limited span of the corridor this would provide sufficient mitigation to prevent adverse effects on aquatic life and in particular protected species. The Outline Design Principles provide a minimum buried depth below the bed of the river Trent of 5m. Please can IPs comment on the potential impact on aquatic life from cable depth of 5m.

**I refer to my previous WR on the Impact of EMF on Marine Life, Flora and Fauna, and Biodiversity in the West Burton Solar Project and would further add the following representations.**

**The developer has chosen to comment on human life and has not made any consideration of the significant impact of EMF on marine life, flora and fauna with wildlife, and biodiversity, where all the later are intrinsically linked to each other.**

A myriad of cable runs in the project resulting in connections carrying up to 400Kv to transport electricity from the solar panels to the National Grid using transformers, inverters etc., all of which transmit EMF's.

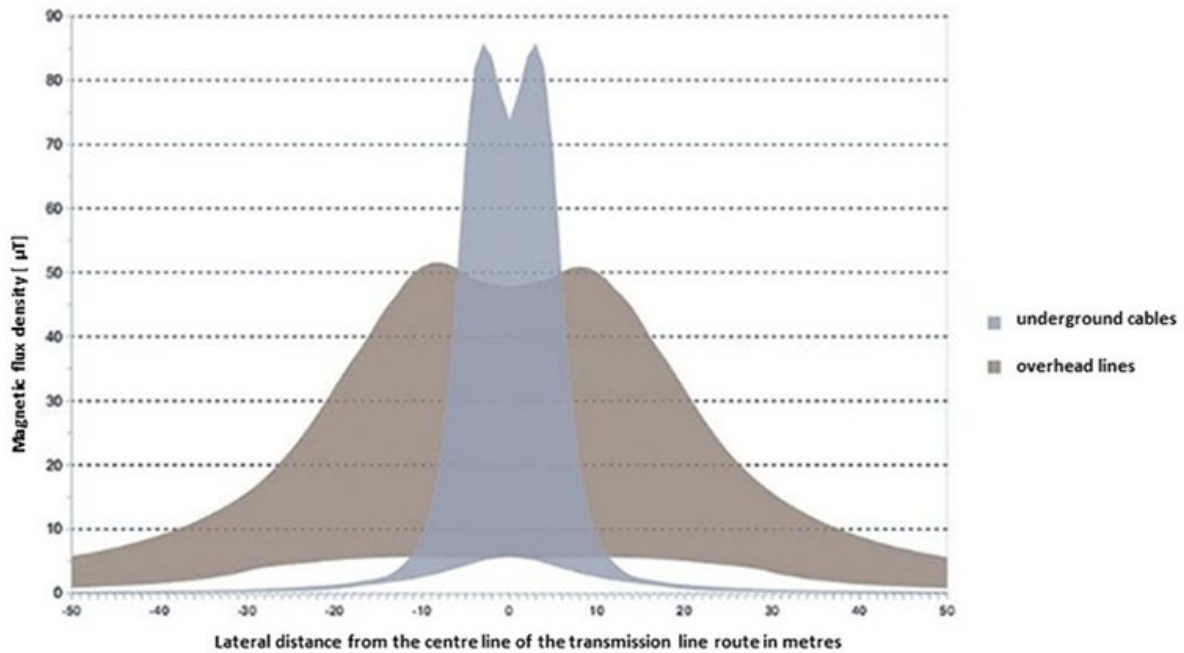
When crossing under the River Trent the Electromagnetic Fields will be significantly stronger, and the effect of EMF will be distanced further away by at least 7 metres from the central core of the high voltage cables.

A magnetic field measuring 57.5 milligauss immediately beside a 230 kilovolt transmission line measures just 7.1 milligauss at 100 feet, and 1.8 milligauss at 200 feet, according to the World Health Organization in 2010. The 400Kv volts power line will be significantly stronger

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 over or burying.** In effect, the EMF will at its core, distanced 5.0 metres below the riverbed, have a magnetic flux density of 50 - 70  $\mu\text{T}$ , with an effective band width across the River Trent calculated at 12 metres.

The diagram below shows the effect of EMF field strength set against underground and overhead cables and lateral core and illustrates the maximum values expected at the examined route sections during maximum operating conditions of a SINGLE typical 400kV power line.



**The effect of EMF will be significantly impacted by any additional power line cable crossings of the River Trent and other watercourses.**

The Impact of EMF on Marine Life, Flora and Fauna and Biodiversity are well researched, documented and detailed in the WR's submitted previously.

The Water Framework Directive, the IUCN Red List, the OSPAR, the European Eel Regulations (100/2007), the Eels(England and Wales) Regulations, the Canal Rivers Trust and the Notts Biological & Geological Records Centre list threatened, endangered and protected marine species including the Allis Shad, Brook Lamprey, Bullhead, Common / European Sturgeon, Crucian Carp, Eel, River Lamprey, Sea Lamprey, Smelt, Spined Loach, Twaite Shad, White Clawed Crayfish, Brown Trout and the Atlantic Salmon all found in the Rivers Trent and Till.

Many species of flora and fauna, because of unique physiologies and habitats, are sensitive to exogenous EMF in ways that surpass human reactivity, are highly variable, largely unseen, and a possible contributing factor in species extinctions.

EMF has an adverse effect on orientation, migration, food finding, reproduction, mating, nest and den building, territorial maintenance, defence, vitality, longevity and survivorship itself. Wildlife loss is often unseen and undocumented until tipping points are reached.

**Is the Developer, Examiner and the Secretary of State satisfied that there is no risk to any protected species from the effect of EMF and its features because of this and other similar Project?**

### **2.3.6 Applicant Decommissioning – Significance of Effects**

The significance of effects for decommissioning are not listed in the ES. Can the Applicant explain how decommissioning effects have therefore been considered and assessed as the ES should assess the worst-case scenario for all stages of the Proposed Development. If it considers that a reasonable worst-case is that the effects at decommissioning would be the same as during the construction phase, please explain how it has accounted for future changes beyond the construction phase. Also, please set out whether the potential for significance of effects may increase over time, and how this has been included in the assessment.

### **2.6.7 All Parties Electromagnetic field (EMF) - Effects on Human Health**

Electromagnetic field (EMF) - Effects on Human Health The Applicant has provided further information in response to questions and comments by members of the public, including those living near or adjacent to the Grid Connection Cable to show that even those closest to the cable route would not experience long-term health impacts as exposure rates would be significantly below ICNIRP monitoring levels. Environmental Statement Addendum 21.1: Human Health and Wellbeing Effects February 2024 [REP4-077] paragraph 4.3.3 discusses various references to EMF and Human Health throughout other documents. It has provided technical information which sets out the peak EMF likely to be generated by the Scheme and in the Shared Cable Route Corridor and has explained why there are no adverse associated health impacts. ExQ2: 19 March 2024 Responses due by Deadline 5: Thursday 11 April 2024 Page 25 of 40 ExQ2 Question to: Question: Please can IPs and other relevant health bodies confirm whether the explanation provide by the Applicant satisfactorily addresses concerns, and if not explain why not.

**Here, the Applicant has not provided information on the peak EMF likely to be generated and does not give the figures or explain how these may have been determined and this completely misleading.**

**The Applicant has failed to be addressing the effect of EMF on Marine Life, Wildlife, Flora and Fauna and Biodiversity.**

**The EA, ExA and the SOS will need to ensure they are protected from the legal requirements which protect the endangered, threatened and critically endangered species.**

**Roy Clegg**