

## Application by Gate Burton Energy Park Limited for Gate Burton Energy Park

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

Issued on Tuesday 12 September 2023 - Responses due by Deadline 4: Tuesday 3 October 2023

Please find below answers to the Examining Authority's written questions from the Environment Agency (EA) [ref no.20037265].

Ref No.	Question	EA response
<b>3</b>	<b>Biodiversity, Ecology and Natural Environment (including Habitats Regulations Assessment (HRA))</b>	
Q2.3.1	<p><b>Electro-magnetic fields and Ecology</b></p> <p>At Deadline 3 the Environment Agency confirmed that it would review the EMF effects in respect of Ecology and provide any additional comments by deadline 4.</p> <p>Provide any further comments alongside any notes that may be included in the Statement of Common Ground with the Applicant.</p>	<p>We have reviewed the detail provided within the application documents in relation to electromagnetic fields (EMF) and ecology. The Environmental Statement (ES) does not have any specific reference to EMF and suggests "There are no impact pathways (e.g. habitat loss or degradation), during operation of the Scheme which could affect fish." (ES, Volume 1, Chapter 8: Ecology and Nature Conservation, EN010131/APP/3.1, page 100).</p> <p>Given that the potential impact of EMF on ecology is an emerging issue and not assessed within the ES we would suggest a risk assessment is carried out, centred on the grid connection corridor to fully understand the risks during the operation of the Scheme. As the potential impacts of EMF are dependent on the intensity of the emission, current type, cable characteristics, power transmitted and other surrounding environmental factors a risk assessment would evaluate whether the EMF associated with the proposed development is likely to have any impacts on fish.</p>

Atlantic salmon *Salmo salar* (hereafter salmon), Sea Trout, European Eel, River Lamprey and Sea Lamprey all use the River Trent to complete migratory journeys. The Humber Special Area of Conservation (SAC) lists River Lamprey and Sea Lamprey, and we know that both species use the River Trent to spawn, laying their eggs in suitable gravels upstream of the proposed cable corridor. Research suggests that the strongest effects from EMF will most likely occur during the embryonic or larval stages of species settling on the bottom of the river (Gill and Desender, 2020). Additionally, the behavioural and physiological responses to EMF in salmon have the potential to impact long-distance migrations due to the increased sources of artificial EMF from renewable energy installations within riverine and marine environments (Gillson et al., 2022). The extent of risks to juvenile Lamprey and migratory salmon from EMFs should be explored in a risk assessment to determine whether the risk from the project, or cumulative risk if the project is to share the cable crossing with other projects, is significant enough that it needs to be mitigated.

In relation to the signed Statement of Common Ground (SoCG) [REP-013 – paragraph 1.1.5] we would ask that the applicant adds potential impact from the presence of EMF to areas of discussion between the parties so that we may re-issue the SoCG once this issue has a satisfactory resolution.

## References

Gill, A.B. and Desender, M. (2020) 2020 State of the Science Report, Chapter 5: Risk to Animals from Electromagnetic Fields Emitted by Electric Cables and Marine Renewable Energy Devices. <https://doi.org/10.2172/1633088>.

Gillson, J.P., Bašić, T., Davison, P.I. et al. (2022) A review of marine stressors impacting Atlantic salmon *Salmo salar*, with an assessment of the major threats to English stocks. *Rev Fish Biol Fisheries* 32, 879–919. <https://doi.org/10.1007/s11160-022-09714-x>