The Planning Inspectorate

[via PINS portal]

Our ref: XA/2025/100456/02-L01
Your ref: EN010151

Date: 21 October 2025

Dear Sir/Madam

DEADLINE 2 – ENVIRONMENT AGENCY RESPONSE DEADLINE 1 SUBMISSIONS. BEACON FEN ENERGY PARK, LINCOLNSHIRE

This letter constitutes the Environment Agency's (EA) response to documents submitted into the examination at Deadline 1, the Applicant's response to Relevant Representations [REP1-029] in particular. We will also be submitting a written response to the Examining Authority's (ExA's) first written questions (ExQ1). This will be sent as a separate submission.

Following our review, we respond to the issues raised within our Relevant Representation [RR-006] in turn below.

EA01 Temporary Bridge Design

We understand the design shown in Plan 2.18: Illustrative Permanent bridge designs for Bridges over Watercourses [APP-024] to be indicative only. While we appreciate that these designs have been shared previously with the EA, this consultation was undertaken directly with the Area flood risk permitting team rather than that National Infrastructure Team. Unfortunately, as a result, the concerns of other teams or specialists within the EA may not have been considered, and our advice at that time was potentially incomplete. We do not believe that any ecological impacts of the proposed design were given consideration at that time.

Although the Applicant has confirmed that all permanent bridge soffit heights will be above the 1% Annual Exceedance Probability (AEP) with an allowance for climate change, they have not confirmed that a freeboard will be included. The EA expects a 600mm freeboard to be built into the design and soffit height. We also expect additional information to be submitted on any flood defences or riverbanks that the bridges are likely to interact with and any necessary mitigation in that regard. While we appreciate that the final design of the bridges may still be being developed, the Applicant must ensure that fundamental design criteria will be followed, and the worst-case scenario has been assessed and mitigated appropriately. The Applicant has suggested that compensatory flood storage may be required for the ramps and abutments, but we do not yet have any further detail on where compensation will be provided.

From an ecological aspect, as the design of the bridge developers, we urge the Applicant to give consideration to how otters may be allowed free passage along the riverbank.

This issue remains outstanding.

In their response to Relevant Representations [REP1-029] the Applicant also refers to watercourse buffers. We discuss this issue below in relation to Issue EA05.

EA02 Permanent Bridge Design

We understand the design shown in 2.17 Illustrative Temporary Bridge designs for Bridges over Watercourses [APP-023] is indicative only. While we appreciate that these designs have been shared previously with the EA, this consultation was done directly with the Area flood risk team rather than that National Infrastructure Team. Unfortunately, colleagues in the local team flood risk team may not have considered the concerns of other teams or specialists within the EA, so our advice at that time was potentially incomplete and did not take into account any ecological impacts of the proposed design.

Although the Applicant has confirmed that all temporary bridge soffit heights will be above the 1% AEP with an allowance for climate change, they have not confirmed that a freeboard will be included. The EA expects a 600mm freeboard to be built into the design and soffit height. We also expect additional information to be submitted on any flood defences or riverbanks that the bridges are likely to interact with and any necessary mitigation in that regard. While we appreciate that the final design of the bridges may still be being developed, the Applicant must ensure that fundamental design criteria will be followed, and the worst-case scenario has been assessed and mitigated appropriately. The Applicant has suggested that compensatory flood storage may be required for the ramps and abutments, but we do not yet have any further detail on where compensation will be provided.

From an ecological aspect, as the design of the bridge developers, we urge the Applicant to give consideration to how otters may be allowed free passage along the riverbank.

This issue remains outstanding.

In their response to Relevant Representations [REP1-029] the Applicant also refers to watercourse buffers. We discuss this issue below in relation to Issue EA05.

EA03 Use of Culverts

We support the Applicant's intention to following the hierarchy for watercourse crossings, using open span bridges where possible, instead of culverting. In their Response to Relevant Representations [REP1-029] the Applicant states that the culvert design will ensure that the capacity will be sufficient for the design storm event and that the dimensions will be confirmed at the detailed design stage. The Applicant must ensure that they have assessed the worst scenario possibility that all

crossings end up being culverts and what impact that could have on flow. They must demonstrate there are no adverse effects or that appropriate mitigation / compensation can be provided. This issue therefore remains outstanding.

EA04 Protection of Fish

We note the Applicant's intent to update Table 7.7 within the ES Ecology chapter at Deadline 2. However, this issue remains outstanding until the updated chapter is submitted into the examination.

EA05 Watercourse Buffers

We acknowledge the Applicant's clarification their Response to Relevant Representations [REP1-029] and while we recognise the intent to keep these zones free from development (within 5m) and free from development that would impede access (up to 9m), it would be beneficial to better understand what kinds of activities may take place within 5-9m of the watercourses. Some 'activities' may require a flood risk activity permit from the EA, and others may not, but they may still have the potential for pollutant and fine sediment runoff to enter watercourses. This detail should be provided within the ES Chapter 11 and the Construction Environmental Management Plan (CEMP).

EA06 Drain Downs – Risk to Fish

We are satisfied with the Applicant's amendments to their Outline CEMP (oCEMP) [REP1-010] including their commitment to undertake a pre-works habitat assessment and to feed that into decisions around watercourse crossing types. However, we consider paragraph 6.7.14 to be too vague. It should include details of mitigation, such as trenchless crossing techniques where fish habitat is present, for example. Additionally, details around fish rescue and mitigation of any over pumping should be included here. It should be noted also that any fish rescue can only be undertaken upon written permission from the EA. This issue remains outstanding until sufficient detail is provided.

EA07 Typographic Error

We note the Applicant's comment in their Response to Relevant Representations [REP1-029] and consider this point has been addressed.

EA08 Consumptive Water Use

The Applicant has indicated in their Response to Relevant Representations [REP1-029] that they are preparing a Water Demand and Options Appraisal report for submission. We look forward to seeing this report when it has been submitted at Deadline 3. This issue remains outstanding until a satisfactory report has been received.

It is likely that such a report could satisfy a Water Resources Assessment if required by Anglian Water Services, but we understand that such an assessment has been not requested at this time.

EA09 CSM – Data Sources

We have reviewed the comments made by the Applicant in their Response to Relevant Representations [REP1-029] and we are satisfied that sufficient discussions have been provided within Chapter 11 of the Environmental Statement. As such, we consider this issue has now been addressed.

EA10 Drainage Scheme

While we acknowledge the Applicant's confirmation within their Response to Relevant Representations [REP1-029] that there will be no foul water discharges or trade effluent associated with the development, all references to package treatment plants or septic tanks in the submitted documentation should be removed for clarity and the approach to managing foul waste should be confirmed within relevant reports (e.g. ES Chapter 11, oCEMP, outline Decommissioning Environmental Management Plan (oDEMP), Water Framework Directive (WFD) assessment, etc.).

Furthermore, our request to be consulted on the drainage scheme to be approved under Requirement 10 has consistently been accepted on other Development Consent Orders (DCOs). We appreciate that the Local Planning Authority (LPA) has discretion to decide whether the EA is consulted on the details submitted for approval, but if, for some reason, we are not consulted, critical environmental risks could be missed or inadequately addressed. We therefore maintain our request to be a named consultee on Requirement 10.

EA11 Fuels and Oils – Risk to Groundwater

We are satisfied with the Applicant's additions to section 6.11 of the oCEMP [REP1-010] in regard to free-phase and dissolved phase contamination.

However, no changes have been made to the ES Chapter 11 and for completeness all relevant documents should updated to provide the same information on this matter. As such, this issue remains outstanding until the appropriate changes have been made to the ES.

EA12 CSM – Fire Water and Thermal Effects

This issue remains outstanding and a point of discussion with the Applicant. Following a meeting between the Applicant and the EA on 10 October 2025, the EA sent additional guidance about the emerging topic of thermal effects to the Applicant for their consideration.

EA13 Unsuspected Contamination

We note the Applicant's response to this issue directs us to the oCEMP [APP-077]. However, we consider the outline procedure given in section 3.13, of both the original oCEMP [APP-077] and the updated oCEMP [REP1-010] submitted at Deadline 1, to be insufficient for the following reasons:

- Paragraph 3.13.1 notes that when works cease due to suspected contamination, the local planning authority should be notified. Depending on the nature of the contamination, the EA may also need to be consulted, and this is not reflected in this section.
- There is currently no process outlined which ends the protocol and permits work to recommence. Remediation must be carried out in accordance with the approved scheme discussed in paragraph 3.13.8. Following the implementation of the remediation strategy, a verification report, based on the data collected as part of the remediation strategy and demonstrating the completion of the remediation measures must be produced and supplied to the relevant planning authority, and to the EA as appropriate.
- For completeness, it should be noted that the EA will need to review the remediation strategy discussed in paragraph 3.13.8. This could be facilitated by the local planning authority, but early engagement directly from the developer may serve to minimise the potential for delays in this process.
- The guidance referenced in paragraph 3.13.6 has been superseded. See CL:AIRE (2025). The reference titles in the current text do not match the titles in the footnotes; this needs to be checked.
- We request that any piling works risks assessments, as outlined in paragraph 3.13.6, be submitted to the EA for review and comment prior to implementation. This is not reflected within the text.
- It is unclear how the 'stop protocol' outlined in 3.13.9 differs, if at all, from the steps outlined as 3.13.1 to 3.13.8.

We request that this same protocol, when updated with our comments herein, be added to the oDEMP [REP1-012]. There is the potential for contamination to be encountered during decommissioning which will need to be handled in the same way, subject to policy and best practice guidance at the time. Example reasons for discovering contamination not previously encountered could be due to migration from an off-site source, or excavation in an area not previously accessed.
We note that no Operational Environment Management Plan (OEMP) has been submitted in support of this application. The same protocol should be added to an appropriate document which includes management systems and controls in place for any maintenance works to be carried out during the operational phase. For example, Appendix 2.3 Embedded Mitigation [APP-076] may be suitable.

In light of the above, this issue remains outstanding.

EA14 Concrete Spills

We acknowledge the changes made in section 43 of the updated oCEMP [REP1-010] and consider that this issue has been sufficiently addressed.

EA15 Dewatering Permits

We note and accept the changes made in paragraphs 6.11.11 to 6.11.16 within the updated oCEMP [REP1-010]. As we mentioned in the meeting between the EA and the Applicant on 10 October 2025, if licence applications required for dewatering demonstrate all water is returned to the environment without intervening use this will avoid restrictive licence conditions or refusal. We consider this issue to be resolved.

EA16 Removal and Disposal of Road Material

We note the Applicant's comments within their Response to Relevant Representations [REP1-029] and consider this issue has been sufficiently addressed.

EA17 Leaving Cables In-Situ

For clarity, our concerns relate to the fate of all cables, including those within the Solar Array Area and the 400kV Cable Route. The Applicant's descriptions of the proposed fate of cables at decommissioning are not wholly consistent across the supplied documents. We acknowledge that in ES Chapter 2 Proposed Development [APP-053] paragraphs 2.5.11 and 2.5.12 clearly state the intention for some medium voltage cables to be removed, and all 400kV cables to remain in situ. This latter point is repeated in Appendix 2.5 oDEMP [REP1-012]. However, in ES Chapter 11 Water Resources and Flood Risk [APP-062] paragraph 11.6.35 includes the words "Potential decommissioning phase effects related to: Removal of principle features e.g. all PV modules, mounting structure, cabling". Cable voltage is not specified, and it can be read here that all cabling may be removed. This discussion does not appear to specifically relate to the solar PV area only.

The above notwithstanding, the Applicant has not presented an assessment of the potential residual long-term risk to groundwater and land, as materials in any cables left in situ break down over time. This would include medium voltage cables. In ES Chapter 2 [APP-053] paragraph 2.5.11, it is stated that each topic has considered the worst-case scenario relating to the fate of buried medium voltage cables. In ES Chapter 11 [APP-062], removal of [MV] cabling is discussed in Table 11.14. The impact of any [MV] cabling left in situ is not addressed. While the worst-case for many receptors may be removal of the cables, leaving cable in situ could be considered the worst-case in terms of risks to groundwater.

Policy and best practice guidance at the time of decommissioning may dictate that total removal of cables is required. We recommend that the Applicant makes allowance for this eventuality in the designs, even if there is no current intention to do so.

The EA does not currently have a regulatory position statement on microplastics, and no regulatory standards or guidance currently exist to define unacceptable concentrations of microplastics in groundwater. Microplastics are not currently subject to routine monitoring. We expect the developer to use underground cable construction materials and installation methods in accordance with industry standards and best practice. We would expect materials not to degrade significantly or release contaminants during the lifetime of the Proposed Development. This should provide adequate protection to controlled waters during the construction and operation phases.

EA18 Monitoring Risks to Water Environment

In their Response to Relevant Representations [REP1-029] the Applicant confirms that this was a formatting error that has been corrected. We are therefore satisfied that this point has been addressed.

EA19 Wash Water

We note that relevant sections have been updated within the updated oCEMP [REP1-010] and oDEMP [REP1-012] and consider this point has been satisfactorily addressed.

EA20 Otter & Water Vole

We acknowledge the Applicant's comments in their Response to Relevant Representations [REP1-029]. We are satisfied with the approach for pre-commencement water vole and otter surveys to be undertaken across the site. While we accept that undertaking specific Protected Species Enhancement Plans may be disproportionate given the lack of evidence of riparian mammals within the Solar Array Area, evidence of both species was found within the cable corridor. The ditch enhancements within the Solar Array Area may encourage riparian mammals into the area post-construction. This should be taken into consideration within the ditch management measures outlined in the Landscape and Ecological Management Plan (LEMP) i.e. ditches should be managed outside of periods sensitive to water vole and avoidance of over cutting particularly at the bank edge.

We would like to see this reflected within the Outline LEMP [APP-089] before we consider this matter to be fully addressed.

EA21 Flood Risk – Works to Substation

In their Response to Relevant Representations [REP1-029], the Applicant has assumed that all substation works will be designed and constructed in accordance with National Grid design manual / technical specifications regarding flood resilience / protection and on that basis concludes no likely adverse impacts from the extension works to Bicker Fen substation. However, no details of these criteria have been provided and the Applicant has not therefore demonstrated that these works will be safe for the development's lifetime, remain operational in time of flood, and will have no impact offsite, in line with the requirements of paragraph 6.8.7 of the Overarching NPS for Energy (EN-1).

In addition, the Applicant is relying on Requirements 5 and 10 to secure the necessary details of any mitigation measures. We have concerns that Requirement 5 (Detailed design approval) is not specific enough to secure the assessment of detailed designs and the provision of specific flood mitigation measures that may be required, so we are considering whether a standalone Requirement may be needed.

In light of the above, this issue remains outstanding.

EA22 Updates to Flood Mapping

In their Response to Relevant Representations [REP1-029], the Applicant confirms that an updated Flood Risk Assessment (FRA), to be submitted at Deadline 3, will refer to the latest Flood Map for Planning. We are pleased to note this. However, this point will remain outstanding until the updated FRA is received into the examination.

EA23 Credible Maximum Scenario

Discussions between the EA and the Applicant in regard to their fluvial flood modelling are ongoing. A question remains on the hydraulic modelling regarding the impact of a higher water level at the downstream boundary with the River Witham and South Forty Foot drain on credible maximum results for the upper climate change scenario (+57%). As such, this issue remains outstanding.

EA24 Insufficient Freeboard

We note the Applicant's comments in their Response to Relevant Representations [REP1-029]. The Applicant will need to ensure that within their updated FRA, they are demonstrating that all finished floor levels of the Battery Energy Storage System (BESS) and Substation and the lower edge of solar panels within the design flood event extent will be set a minimum of 600mm above the 1% AEP with an allowance for climate change. This issue remains outstanding at this time.

EA25 Flood Risk – Stockpiling & Bunds

The oCEMP [REP1-010] states that storage and stockpiling of material will be outside of the floodplain (Flood Zone 3) where practical (section 6.2.1). However, the Applicant should describe how any effects will be mitigated in the event that not all stockpiles and bunds can be located outside of the floodplain, e.g. through compensatory flood storage. This issue remains outstanding.

EA26 Floodplain Compensation

We are pleased that the Applicant intends to provide compensation on a level for level, volume for volume basis. We understand that final ground levels for the site will not be confirmed at this stage and acknowledge that the Applicant has stated that once ground levels are fixed, potential floodplain losses will be calculated. However, the Applicant should, at this stage, undertake an assessment of the worst-case scenario of floodplain capacity lost and demonstrate that a floodplain compensation scheme is able to be provided on the site.

The Applicant is relying on Requirement 5 to secure the necessary details of any mitigation measures. We have concerns that Requirement 5 (Detailed design approval) is not specific enough to secure the assessment of detailed designs and the provision of specific flood mitigation measures that may be required, so we are considering whether a standalone Requirement may be needed. As a minimum, we would request to be a named consultee for the approval of details submitted under Requirement 5. Relying on the LPA's discretion alone means critical environmental risks could be missed or inadequately addressed if we are not consulted.

In light of the above, the issue remains outstanding.

EA27 Flood Risk – Construction Phase

Within their Response to Relevant Representations [REP1-029] the Applicant has described some of the considerations and mitigation that we would expect to see. However, these need to be incorporated into the oCEMP [REP1-010], which currently only states that stockpiles will located outside of the floodplain *where practical.* This issue will remain outstanding until this mitigation is clearly defined within the oCEMP.

EA28 Design Flood Level

We understand that it is not feasible to provide a single design level across the site given the variation in flood risk and we have no objection to using the breach event to inform design flood levels. We also have no objection to using depths to inform development design, but the Applicant should apply this consistently within their FRA, so that levels across the site are comparable.

EA29 Flood Risk – Solar Panels

The explanation provided by the Applicant in their Response to Relevant Representations [REP1-029] looks reasonable. This will need to be clearly evidenced within their FRA, along with calculations and commentary regarding any assumptions made. This issue will remain outstanding until this has been done.

EA30 Impacts on Flood Assets

We acknowledge the Applicant's response within their Response to Relevant Representations [REP1-029]. When implementing buffer zones from flood defences, the Applicant should take the width of embankments into account, so the buffer should be measured from the landward toe of the embankment. We note the Applicant intends to install cables at 'sufficient depth', but additional information should be provided within the FRA [APP-162] or oCEMP [REP1-010], presenting the methodology proposed to ensure the foundations of any defences are not impacted.

EA31 Borehole Logs

We accept the explanation provided by the Applicant in their Response to Relevant Representations [REP1-029] and consider this issue to be resolved.

EA32 Fire Water – Worst Case Scenario

From their Response to Relevant Representations [REP1-029], we note that the Applicant intends to update their FRA [APP-162] but does not commit to doing the same for their Outline Battery Safety Management Plan [APP-279] This matter remains outstanding until this has been addressed in the submitted documents. It would be beneficial if all documents are updated to give the same information and avoid ambiguity.

We note that the Applicant states that “contained firewater will be tested”. Testing is important to provide information around the quality of water that has been contained after a fire and will ascertain if it contains any contaminants and what level of risk to the water environment the contained firewater has. We expect that samples would be taken, when safe to do, which would be sent to a United Kingdom Accreditation Service (UKAS) accredited laboratory. The water samples should be checked against the list of surface water specific substances in the surface water pollution risk assessment guide. This additional detail should be added into the submitted documents.

EA33 BESS Drainage Design

From their Response to Relevant Representations [REP1-029], we note that the Applicant intends to update their FRA [APP-162] but does not commit to doing the same for their Outline Battery Safety Management Plan [APP-279]. This matter remains outstanding until this has been addressed in the submitted documents. It would be beneficial if all documents are updated to give the same information and avoid ambiguity.

While we have asked for the worst-case scenario to be considered, we agree that this needs to be realistic. Based on the information in Table 3.1 and section 4.3.15 of the Outline Battery Safety Management Plan [APP-279] we understand that the reservoir is only proposed to be used in an extreme emergency case and is not an integral part of the firefighting system.

We generally advise against storage of firewater within aggregate. Where gravel is proposed to be used within an impermeable drainage basin, the operator must demonstrate how they will manage accumulation of silt and pollutants within the base of the gravel. Contaminants from a fire event may accumulate in the gravel even if firewater runoff is identified as being suitable for release. These contaminants would then be released into the natural environment over longer periods of time.

EA34 Requirement 7 - LEMP

We note the Applicant’s Response to Relevant Representations [REP1-029], However, the LEMP refers to ditch enhancements which could directly improve this habitat for protected species including fish and riparian mammals, for which we are the lead authority. We therefore maintain our requested to be a named consultee on Requirement 7.

EA35 Requirement 12 – CEMP

The Applicant’s updated oCEMP [REP1-010] does not contain the expected level of detail for monitoring requirements. We have provided additional detail on this in our response to ExQ1 (see response to question WFR.1.2).

Furthermore, our request to be consulted on the CEMP to be approved under Requirement 12 has consistently been accepted on other DCOs. We appreciate that the LPA has discretion to decide whether the EA is consulted on the details submitted for approval, but if, for some reason, we are not consulted, critical

environmental risks could be missed or inadequately addressed. We therefore maintain our request to be a named consultee on Requirement 12.

In light of the above, this issue remains outstanding

EA36 Requirement 18 – DEMP

Our request to be consulted on the DEMP to be approved under Requirement 18 has consistently been accepted on other DCOs. We appreciate that the LPA has discretion to decide whether the EA is consulted on the details submitted for approval, but if, for some reason, we are not consulted, critical environmental risks could be missed or inadequately addressed. We therefore maintain our request to be a named consultee on Requirement 18.

Please see Appendix A for a summary of the latest EA position.

We trust this advice is useful.

Yours faithfully

Chloe Snowball
Planning Advisor - National Infrastructure Team

[redacted]

APPENDIX A - SUMMARY OF ENVIRONMENT AGENCY POSITION

Subject	Work package	Scope	Method and Assumptions	Results of Assessment (i.e Impact)	Mitigation / Enhancements Agreed	Requirement	RR ID
Ecology	Biodiversity Net Gain Strategy					8	
	Ecological Assessment					7	EA01, EA02, EA03, EA04, EA05, EA06, EA20
	Water Environment Regulations Compliance						EA01, EA02, EA03, EA04, EA05, EA06
Water Resources	Water Supply Strategy						EA08, EA15
Flood Risk	Flood Risk Assessment						EA01, EA02, EA03, EA21, EA22, EA23, EA24, EA25, EA26, EA27, EA28, EA29, EA30
	Hydraulic Model						EA23, EA26, EA29
Water Quality	Outline Construction Environmental Management Plan					12	
	Decommissioning Environmental Management Plan					18	
	Outline Battery Safety Management Plan					6	EA32
	Foul & Surface Water Drainage					10	EA10, EA33
	Water Environment Regulations Compliance						EA05
Groundwater Protection	Outline Construction Environmental Management Plan					12	EA13, EA14, EA19
	Groundwater Protection						EA09, EA10, EA12, EA13, EA19, EA31, EA32, EA33
	Decommissioning Environmental Management Plan					18	EA17, EA19
Waste	Waste Management Strategy						EA16
Geomorphology	Water Environment Regulations Compliance						EA01, EA02