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oneearthsolar@planninginspectorate.gov.uk
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Your Ref: EN010159

Date: 14 October 2025

Dear Sir/Madam

ONE EARTH SOLAR FARM

RESPONSE TO EXAMINING AUTHORITY'S WRITTEN QUESTIONS 2

Thank you for consulting us on the examining authority's written questions 2. We have reviewed the questions directed at the Environment Agency and responded to them below.

We trust this advice is useful.

Yours sincerely

Mr James Cordell
Planning Advisor - National Infrastructure Team

Appendix 1 – Response to Examining Authorities Written Questions 2

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Appendix 1

ExQ1	Question to:	Question:
10.0.1	All local authorities	**Management Plans** At the current time the management plans do not appear to be fully agreed. For example, LCC have raised issues in respect of the oCEMP with regard to breeding birds, and the oLEMP in respect of tree planting and replacement in the event of an unforeseen event or large-scale failure. The ExA are aware discussions on these topics are ongoing, however if the matters are not agreed, are the authorities content that the dDCO gives sufficient certainty through the requirements that these matters could be resolved in due course?
Environment Agency Response:		
The Environmental Management Plans have made significant progress in their commitments towards mitigation for activities such as storage of fuels and chemicals, wash out water and concrete, and we are satisfied these concerns have now been resolved. We are still under consultation about details of firewater management associated with the BESS and Substations and the potential contamination from cables that are left in-situ, but progress is still being made. We have requested that further details about water quality monitoring be added to the EMPs, but if this happens post-consent, we are confident as a result of Schedule 2 DCO Requirements (13, 14 and 20) that we can address this during further consultation.		

ExQ1	Question to:	Question:
10.1.1	EA (2)	**Disapplication and modification of the statutory provisions** In their D3 response NCC (LIR Addendum [REP3-086]) express concern that the FRA indicates that flood risk activity permits and ordinary water course consents would be disapplied (paragraph 7 (a)). The dDCO seeks to disapply regulation 12 (requirement for an environmental permit) in respect of flood risk activity. (1) Can the applicant clarify that these 2 matters are one and the same or explain the distinction (2) Do the EA have any concerns in this respect
Environment Agency Response:		
Currently, the EA is working with the applicant to agree protected provisions to disapply Flood Risk Activity Permits. These protected provisions will be to only disapply FRAPs and will not secure protected provisions for ordinary watercourse consents, we defer to the Lead Local Flood Authority to secure these with the applicant.		

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ExQ1	Question to:	Question:
12.0.1	EA	**Flood Risk Assessment** Please provide an update on the progress of updating the FRA to address the issues raised by the EA at ISH2 and discussed in a meeting on 11 September 2025, on the following: (1) Use of voided structures for inverters/pcs; (2) Impact of, and agreement of flood flows due to partially submerged solar panels and other equipment; (3) Interaction between the proposed development and existing flood defences; and (4) The draft requirement for the dDCO for the re-running of the FRA at the detailed design stage – is this approach compliant with policy?

Environment Agency Response:

Use of voided structures for inverters/pcs

The applicant has assessed the impact the worst-case scenario of invertor stations being with in the design flood on the floodplain capacity and found that the stilts remove 32m^2 Capacity from the floodplain. This combined with the addition of 14,149m^2 lost from the solar panel structures cause an increase of 2.2mm on the West of the River Trent and 3.5mm on the East of the River Trent. This is within a tolerance, which has been set of 5mm, which is seen to not have an unacceptable increase. Additionally, the applicant has provided commentary of why stilts and voids are the best options due to the placement of the invertor stations. The applicant has stated that the area of floodplain which is lost due to the footprint of the invertor stations may be difficult to compensate for on a level for level basis due to the topography of the land and the vast floodplain may mean compensation is not provided within the vicinity of the floodplain lost.

Further to this, the applicant has committed to reviewing the design of all invertor stations on an invertor by invertor basis at the design stage and minimise the use of voids where possible. This will be secured through Requirement 22 and we are working with the applicant and our internal legal team to ensure this is appropriately worded.

Impact of, and agreement of flood flows due to partially submerged panels and other equipment

The applicant has now committed to removing solar panels that were previously inundated during the design flood event (1 in 100-year scenario plus a 39% allowance for climate change). This commitment is confirmed in the latest Flood Risk Assessment (yet to be submitted dated September 2025, page 27). This has been achieved by either adjusting the tilt angles of the solar panels or be removing the bottom row of panels. Given the removal of inundated panels from the design flood this has also reduced the volume of water displaced by inundated panels. The updated flood level change estimates based on the volumetric assessment are now 2.2mm and 3.5mm respectively for the Western and Eastern floodplains of the Trent (table 3.9 page 36 of the updated FRA). We are currently reviewing the requirement

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that the applicant has proposed within their FRA in consultation with our internal legal team to ensure this is appropriately worded and compliant with policy.

In addition to the removal of the inundated solar panels from the design flood event, we are in ongoing discussions with the applicant with regards to the impact of the solar panel mounting structures on flood risk. In addition to the volumetric assessment, we have requested supplementary assessment on the impact that the solar panel mounting structures have on flood flow conveyance within the Tidal Trent hydraulic model. This will provide further spatial clarity on the flood risk impact of the solar panel mounting structures and will help to reduce any uncertainties.

Interaction between the proposed development and existing flood defences
We are satisfied that in the most recent FRA (dated 26 September 2025) the applicant has shown sufficient mitigation has been put in place when working near and/or interacting with flood defences. Specifically, the applicant has committed to undertaking surveys at the detailed design phase which will provide additional detail to the condition and composition of the embankments which in conjunction with the proposed construction practice will mitigate for any impacts. Additionally, the applicant has committed to monitoring the condition of the embankments for the construction phase to ensure any impacts may be identified as soon as possible and additional mitigation required.

In regards to the 'Environment Agency Flood Gate' which has been mentioned at both the ISH2 and in resident submissions. There are Environment Agency owned outfalls which discharge water from Sewer Dyke into the River Trent (grid reference 482135, 373485). These outfalls have none return flap valves which close as the River Trent rises to stop back up from the Trent into Sewer Dyke. These are not accessed in times of a flood only after to clear debris build up. We do not have concerns access to these flap valves will be hindered due to the development.

Additionally, a penstock structure has been highlighted along Trent Lane (grid reference 482100, 372275). This is not an Environment Agency owned or maintained structure. We believe this may be a Severn Trent Water asset so we refer to them to comment on how the development may affect the penstock. Furthermore, we have permission to use this structure in emergency scenarios and have no concerns the development will hinder access to the structure.

The draft requirement for the dDCO for the re-running on the FRA at the detailed design stage.
The applicant has proposed a requirement in their most recent FRA which we are reviewing and making amendments.

Re-running the FRA in its entirety may not be compliant with policy. To ensure the requirement(s) are compliant with policy, we are looking to ensure fundamental mitigation principles, which are included in the current FRA, remain valid at the detailed design stage. We are working with the applicant and our internal Legal team to ensure we secure all necessary flood mitigation and all requirements are compliant with policy.

ExQ1	Question to:	Question:
12.0.4	EA	**Sequential Test** In ISH2 the applicant stated if the Sequential Test is failed, then this would be weighted against the application, but CNP comes into play. Do the councils

		and the EA agree with this statement in policy terms, with reference to NPS EN-1 Paragraph 4.2.15?

Environment Agency Response:

We would defer to the Local Planning Authority's view as to whether the sequential test has been passed or not. Paragraph 4.2.15 suggests that risk from unacceptable flood impacts could influence the presumption of consent for Critical National Priority (CNP) infrastructure. In these cases, where flood risk increases elsewhere cannot be avoided flood risk should be mitigated to an acceptable and safe level. If the flood risk impacts cannot be mitigated for then according to policy, the presumption of consent for CNP infrastructure would be invalid. Section 5.8.42 of EN-1 becomes valid in this context.

With regards to the impact of the scheme on flood risk elsewhere, the applicant has committed to now removing the panels which were previously inundated in the design flood (1 in 100-year scenario plus 39% for climate change). This is being achieved by adjusting the panel angles or removing the bottom row of panels as outlined in the latest flood risk assessment dated September 2025. Given the removal of inundated panels from the design flood this has also reduced the volume of water displaced by inundated panels.

The Applicant has demonstrated that the proposed development will remain operational during the design flood event which accounts for the higher central climate change scenario for the 2080s epoch (2070 to 2125). Both the Western and Eastern Battery Energy Storage System (BESS) sites are located outside the design flood extent. On this basis we are satisfied that the proposed development will remain safe and operational for its lifetime.

An updated volumetric assessment has been undertaken by the applicant, considering the panels which no longer flood in the design flood event, to help to understand any impacts on flood risk from the solar panel mounting structures to third parties. This assessment suggests negligible increases in flood level (2.2mm and 3.5mm for the western and eastern floodplains), The parameters that the applicant has used for this assessment are conservative as they assume a depth of flooding of 1.8 metres across all inundated panel areas. The reality is that the average depths across the eastern and western floodplain for each panel area are lower in the design flood event. To reduce uncertainty and provide greater locational detail, the Environment Agency has requested further hydraulic modelling to assess the impact of solar panel mounting structures on flood conveyance. While current evidence indicates no unacceptable increase in flood risk to third parties, the Environment Agency awaits the outcome of this additional modelling before forming a final view regarding the impact of flood risk to third parties.

ExQ1	Question to:	Question:
12.0.5	EA	**Sequential Test** WLDC in their D3 submission following ISH2 maintain a lack of confidence that the current proposal has demonstrated that the sequential test has been followed in such a way that the exception test can also be shown to demonstrate an exception case. (1) Are the councils satisfied, that with applicant's Deadline 3 submissions relating to the approach taken for the Sequential Test?

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		(2) Have all the issues raised on the Sequential Test/exception test been addressed satisfactorily? (3) If not, what additional work do you consider is required by the applicant? (4) Please explain should this be the case the policy basis for the council not being satisfied?

Environment Agency Response:

We defer to the Local Authorities' comments on the adequacy and the result of the Sequential Test.

In regard to the second part of the exception test only, the only item which we require evidence from the applicant on to pass this section of the exception test is the impacts the proposed development may have on flood conveyance. This is discussed in detail in our response to Q12.0.4 part 2. Once the applicant has provided this evidence, we are satisfied that with the proposed mitigation, resilience measures and design alterations the development will be remain operational in times of a flood and be safe for its lifetime without causing increased offsite flood risk.

ExQ1	Question to:	Question:
12.0.6	EA	**PPG on flood risk was updated 17/09/25 including changes to the Sequential Test, see para 27a** Paragraph 27a states. "*For infrastructure proposals of regional or national importance the area of search may reasonably extend beyond the local planning authority boundary. It may also, in some cases, be relevant to consider whether large scale development could be split across a number of alternative sites at lower risk of flooding, but only where those alternative sites would be capable of accommodating the development in a way which would still serve its intended market(s) as effectively*." (1) Does this new guidance have any effect on the application for the proposed development or what the applicant has undertaken in the assessments provided? (2) Does the new guidance mean that any further work is required in respect of the Sequential Test? (3) If so what additional work do you consider would be required as a result of the changes? (4) Has the position of any party changed due to the amendments made to the PPG?

Environment Agency Response:

We defer to the Local Authorities' comments on the adequacy of the Sequential test meeting the new policy, as the update does not change our remit for assessing on

the Sequential Test, as stated in the PPG paragraph 29 which states the Local Authority should make decisions on the adequacy of the Sequential Test.

ExQ1	Question to:	Question:
12.0.10	EA	**Water Framework Directive** Following meetings with the applicant on 11 and 12 September 2025, and the subsequent submissions by the applicant at Deadline 3, can you please confirm, whether you are now satisfied with the WFD Screening Assessment [REP3-021]? If you are not yet satisfied, please provide full details of the deficiencies that remain.

Environment Agency Response:

As above, we are satisfied with construction mitigations that are now included in the WFD Assessment providing the CEMP and BESS firewater storage designs are adequate. We have requested that further details about water quality monitoring, which is referenced in section 5.2 of the WFD Assessment, but all other matters are considered to be agreed.

ExQ1	Question to:	Question:
12.0.11	EA	**Water Environment** (1) In light of the ongoing concerns identified by 'Say No to One Earth' in their D3 submission [REP3-079], please provide a full and detailed response to each of the points they make, and where appropriate cross reference to submissions already provided. (2) Can the EA confirm its position with regard to the suitability of the outline Management Plans and monitoring and management regimes they are proposed to provide to secure the mitigation and ensure that the environment is appropriately protected through the construction, operation and decommissioning of the proposed development

Environment Agency Response:

Please see our response below to REP3-079, we have pulled out the relevant information within the representation issued by 'Say No to One Earth' and provided detail on the topics within our remit.

Battery Energy Storage Systems (BESS)

We note your question "whether the drainage systems will function effectively under adverse conditions". Table 4.7 of the Flood Risk Assessment (FRA) and Drainage Strategy confirms that the basins have been sized to provide sufficient storage to attenuate the 1 in 10 year event plus 228m^3 of firewater (based on firefighting at 1,900 l/minute for 2 hours), with no discharge.

The recommended 2 hours of firefighting water capacity is set by the National Fire Chief's Council guidance, and therefore the Environment Agency defers to the local Fire and Rescue Services for confirmation that 2 hours is sufficient.

https://nfcc.org.uk/wp-content/uploads/2023/10/Grid-Scale-Battery-Energy-Storage-System-planning-Guidance-for-FRS.pdf

With regard to suppression systems, the applicant has not yet been confirmed if the BESS will use water-based sprinklers or an aerosol suppression system. However, there is capacity in the maximum volume of the basins to attenuate beyond the 1 in 10 year event plus 228m^3 of firewater.

We note the concerns regarding the effects of a flood event, particularly considering the low elevation of the Eastern BESS site. We have reviewed the proposed BESS locations and the indicative drainage basin layout, as presented in the applicant's Outline Surface Water Strategy Plans (APP-017). The positioning of both the Eastern and Western BESS sites and their associated detention basins is considered acceptable from a river (fluvial) and tidal flood risk perspective. Both BESS sites are located outside of the design flood extent for the River Trent and other Ordinary Watercourses. As the development is classed as Essential Infrastructure and considering the 60-year operational lifetime of the development this is defined as the 1 in 100-year event with a higher central allowance of climate change for the 2080s epoch (2070 to 2125) which reflects a flow increase of 39%. As the BESS sites and their detention basins are outside of the design flood extent for the River Trent there is no anticipated ingress of fluvial flood water from the River Trent or other watercourses such as the Fledborough Beck into the detention basins themselves during the design flood. Furthermore, both BESS buildings are located outside of the credible maximum fluvial flood extent which is defined as the 1 in 100-year event with an upper allowance of climate change which reflects a flow increase of 62%. The detention basins associated with the BESS are also located outside of the credible maximum flood extent, the only exception to this is the northern attenuation basin in the eastern BESS site (Detention Basin 2) at grid reference 483575, 373040. Although not shown on the drainage strategy plans (APP-017) the credible maximum flood extent for the River Trent just clips the eastern edge of this attenuation basin although the associated flood depths in this area are small, generally being less than 200 millimetres. We consider this to be reasonable given the fact that this only occurs in the credible maximum scenario, covering only a small area and only to a shallow depth. With regards to the tidal flood risk to the BESS and associated infrastructure, whilst the River Trent is tidally influenced in this location, it is fluvial flood risk that provides the dominant and more conservative flood levels and extents. During large tidal events there is a large amount of overtopping and storage, particularly in the tidal Trent floodplain downstream of the M180 motorway to the west of Scunthorpe. This results in a reduced tidal influence as you move further upstream (south) along the River Trent. For context, no areas of built development fall within the 1 in 200 year tidal flood extent for the River Trent with upper climate change applied to 2121.

Battery Energy Drainage Systems

Through discussions with the applicant and our previous submissions, Chapter 5, section 5.4.38 now specifies that "Attenuation features utilised to manage surface water runoff from the BESS compound will include an automatic penstock valve (or similar valve) (which includes manual backup) to contain runoff in the event of fire suppression being required". This is further secured via Table 3.4 in the outline Operational Environmental Management Plan (oOEMP) and sections 5.1.2-5.1.3 of the outline Battery Safety Management Plan (oBSMP). The Applicant must ensure that an adequate inspection of these valves and a maintenance programme is in place, and further details of this are expected to be available in the OEMP and BSMP.

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The activation of the fire suppression system will automatically trigger a penstock valve located downstream of the attenuation basins to isolate any potentially contaminated runoff. Backup manual operation of the penstock valve has been requested by the Environment Agency in case of failure of the automated process, and the Applicant has confirmed this will be included within the final drainage design. Table 4-10 of the updated Flood Risk Assessment and Drainage Strategy outlines a routine inspection and maintenance protocol for ensuring the penstock valve remains operable during the lifetime of the project.
Therefore, we hope your concerns about "What systems exist in the event of internet or other connection loss" are suppressed knowing that the valve will close automatically and, if required, it will be shut manually.

There is no statutory guidance on the use of a gravel substrate vs open lined drainage features, so we are only able to make advisory best practice suggestions. If gravel substrate is a component of the final BESS design, we have requested that the Applicant commits to removing the substrate for thorough cleaning prior to reuse, or complete replacement. This would be secured via the BSMP. However, section 4.8.10 of the BSMP already states "Post-incident hazards shall be addressed in the pre-fire planning and post-incident recovery plan, including consideration of contaminants remaining within the substrate of with the BESS compound of the fire water storage areas." We have not yet been able to review any details of a post-incident recovery plan, but be reassured that the Environment Agency is named in the DCO Schedule 2, Requirement 7 for Battery Safety Management so we will be consulted along with relevant authorities before determining an application for approval of the battery safety management plan.

Methods of testing of contained firewater will be detailed in the BSMP. However, we expect the Applicant to take samples which would be sent to a United Kingdom Accreditation Service (UKAS) accredited laboratory where chemical analysis would take place to UKAS and Monitoring Certification Scheme for Equipment (MCERTS) accredited methods (as applicable) and the samples would be checked against the list of surface water specific substances in the surface water pollution risk assessment guide.
Surface water pollution risk assessment for your environmental permit - GOV.UK

Air Quality
The Environment Agency is not responsible for air quality being actively monitored during construction or operation, we cannot regulate air quality where no permits are active. However, we would like to guide your attention to section 4.8.8 of the oBSMP which says "Fire responders shall maintain safe distances to the smoke plume until it is certain that they do not pose a hazard. This can be determined by flammable gas detection at key points around the facility and local air quality monitoring." Although it will be the responsibility of the local Fire and Rescue Service (FRS) to monitor air quality at major incidents, the Environment Agency may be asked to support with a multi-agency response. Further details are available here:
Sharing resources with the Fire and Rescue Services during major air quality incidents

Section 3.5.22 of the oBSMP also states that gas detection systems will be in place in all BESS enclosures to monitor the presence of flammable gases and specific gas detection systems can be installed to identify gases such as carbon monoxide and hydrogen.

Microplastics/PFAS and Decommissioning Plans

The Environment Agency does not currently have a regulatory position statement on microplastics, and no regulatory standards currently exist to define unacceptable concentrations of microplastics in groundwater.
The UK has adopted an annual average Environmental Quality Standard (AA-EQS) for PFOS in surface freshwater at 0.65 ng/l, based on the potential for secondary poisoning in humans due to fish consumption. No EQS currently exist for other PFAS compounds.
PFAS contamination in water is routinely monitored by the Environment Agency at over 500 sites targeting 48 different types of PFAS in England. Microplastics are not currently subject to routine monitoring (Poly- and perfluoroalkyl substances (PFAS): sources, pathways and environmental data: summary - GOV.UK).

We expect the developer to use underground cable construction materials and installation methods in accordance with industry standards and best practice, which we would expect 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. As outlined in our Relevant Representations (XA/2024/100116/02, 15 May 2025 EAGWCL-009) and Response to Documents Submitted at Deadline 2 (X A/2025/100427/01, 21 August 2025), we have requested that the Applicant must demonstrate that the retention of buried cables in-situ post-decommissioning would not pose a significant risk to controlled waters. We have also requested that where possible the Applicant avoid the use of PFAS compounds in construction materials.

In the latest revision of Chapter 5 of the ES (REP3-009) the Applicant proposes to retain buried cables below 0.9m following decommissioning. This represents a different position from that stated in other parts of the ES, where it is stated that underground cables are proposed to be retained unless prevailing guidance at the time of decommissioning is for the removal of underground cables. We are advising the Planning Inspectorate in our representations at Deadline 4 that the Decommissioning Plan should include an assessment of decommissioning options in accordance with statutory guidance and best practice at the time of decommissioning, which may indicate removal is required. Note that as secured in Requirement 20(5) of the draft DCO, no decommissioning works would be permitted to take place until the Decommissioning Environmental Management Plan (DEMP), which must be substantially in accordance with the oDEMP, has been approved by the relevant planning authority in consultation with a range of key stakeholders including the Environment Agency.

The Applicant has not indicated in any of their DCO submissions that excavations to install new cables are proposed during the operation phase. The Outline Operational Environmental Management Plan (oOEMP) (REP3-043) refers to the potential that excavations associated with localised small-scale maintenance could be necessary and would be managed through a Risk Assessment and Method Statement (RAMS) and audited against the RAMS and Operating Procedure. We expect these documents to be secured by incorporation into the detailed OEMP and for the Applicant to employ similar methodology and environmental controls for any excavations to those employed during the construction phase.

Heaving
The Deadline 3 representation refers to a lack of discussion of heaving. Without further context or any apparent reference to this in previous communications we are unable to respond.

Drinking Water Protected Areas

We acknowledge your comments that the development zone sits almost entirely within a drinking water protected area. In relation to the use of 'Controlled Waters' we are satisfied with the protection measures proposed by the applicant for all controlled waters, this includes, Drinking Water Protection Zones, Non-drinking Surface Watercourses and Groundwater.

Anglian Water sites that have undergone infrastructure upgrades, and the potential expansion of those sites, are not within the Environment Agency's remit to comment on.

Water Framework Directive and Environmental Management Plans
Overall, we view this WFD Screening Assessment to be complete as it has correctly identified water bodies that could be at risk from the development and has provided the baseline characteristics of the water bodies. The report has then explained the mitigation required. Section 4 and 5 of the Water Framework Directive - Screening Assessment summarises the measures that the Applicant will take during Construction and Operation that ensures that there are no negative impacts to the existing watercourses and waterbodies, both surface and groundwater, within the proposed site. It is secured in the pollution prevention protocols in the CEMP, OEMP and DEMP, and the fluid breakout plan for Horizontal Directional Drilling (HDD) which are themselves are all secured under the DCO Schedule 2 Requirements. For example, Requirement 13 on the CEMP says "No part of the authorised development may commence until a construction environmental management plan for that part has been submitted to and approved by the relevant planning authority for that part, such approval to be in consultation with the relevant county authority for that part as the local highway authority and waste planning authority, and the Environment Agency, and Anglian Water in relation to water resources." Therefore, we agree with the Applicant that no further consideration of WFD matters are required and all activities can be screened out. Further information on the WFD process can be found at:
Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive - GOV.UK

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