

**Tillbridge Solar Project
EN010142**

**Applicant's Response to Written Submissions at
Deadline 3**

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**Planning Act 2008
The Infrastructure Planning (Examination Procedure) Rules 2010**

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1. Introduction

1.1 Purpose of this document

- 1.1.1 The purpose of this report is to provide Tillbridge Solar Limited's (the Applicant) response to the Written Submissions submitted by Interested Parties (IP) at Deadline 3 of the Examination for the Tillbridge Solar Project (the Scheme).
- 1.1.2 A total of 93 Written Submissions were submitted to the Examination at Deadline 3. 63 of these were from the Applicant, with 30 being from IP's. The 30 Written Submissions also comprised IP's Responses to the ExAs First Written Questions, which are not included in this document. The Applicant has provided comments on IP's Responses to the ExAs First Written Questions in another document also submitted at Deadline 4 [EN010142/APP/9.33].
- 1.1.3 To avoid repetition, the Applicant has only provided a full response to comments that make points that have not been addressed previously within the **Applicant's Responses to Relevant Representations [REP1-028]**, **Applicant's Response to Written Submissions at Deadline 1 [REP2-007]**, **Applicant's Responses to Local Impact Reports [REP3-061]**, **Applicant's Response to Examining Authority's First Written Questions [REP3-062]** and **Applicant's Response to Written Submissions at Deadline 2 [REP3-063]** or where the Applicant considers that further clarification may be useful. In response to matters that were raised previously the Applicant has provided a reference to where the matter has previously been responded to, including the page number.

1.2 Structure of this document

- 1.2.1 This document provides a response from the Applicant to Written Submissions received at Deadline 1, and is structured as follows:
- **Table 2-1: Statutory Consultees:** the Applicant's responses to Written Submissions from Statutory Consultees.
 - **Table 2-2: Parish Councils, Persons with an Interest in the Land and Public:** the Applicant's responses to Written Submissions from Parish Councils, Persons with an Interest in the Land and the Public.
- 1.2.2 The documents submitted with the Application are also referenced in this document, using the reference number given in the Examining Authority Examination Library (e.g. [APP-XXX], or [AS-XXX]) where a document which has previously been submitted is referenced, or the Applicant's reference number (e.g. [EN010142/APP/XX(RevX)]) where a new document is being submitted at Deadline 4. All documents are also presented in numerical order in the **Guide to the Application [EN010142/APP/1.2(Rev06)]**.

Table 1-1. List of Interested Parties that submitted Written Submissions at Deadline 3

Reference Number	Consultee
Statutory Consultees	

Reference Number	Consultee
REP3-070	Ministry of Defence
REP3-069	Marine Management Organisation
Parish Councils, Persons with an Interest in the Land and the Public	
REP3-079	Elton Moulds on behalf of Martin Caswell
REP3-085	Nicholas Hill
REP3-088	Tracey Adderly
REP3-082	John Arnold Hallam
REP3-083	Julian Plews
REP3-081	John Jeffrey Summers
REP3-086	Pat Mitchell
REP3-087	Roger Jones
REP3-084	Mark Wardle
REP3-089	Tracy Martindale

- 1.2.3 For ease of reference, a table of acronyms used in this document is provided in **Table 1-2** of this document.

Table 1-2. Abbreviations

Abbreviation	Definition
AGLV	Area of Great Landscape Value
ALC	Agricultural Land Classification
BESS	Battery Energy Storage System
BMV	Best and Most Versatile Land
CEMP	Construction Environmental Management Plan
CCTV	Closed Circuit Television
CNP	Critical National Priority
CLG	Community Liaison Group
DCO	Development Consent Order
DEMP	Decommissioning Environmental Management Plan
EIA	Environmental Impact Assessment
ES	Environmental Statement
EMF	Electro Magnetic Fields
GHG	Greenhouse Gas
GW	Gigawatt
HGCA	Home Grown Cereals Authority
IEMA	Institute of Environmental Management and Assessment
ICNIRP	International Commission on Non-Ionizing Radiation Protection
IPs	Interested Parties
LEMP	Landscape and Ecological Management Plan

Abbreviation	Definition
LVIA	Land and Visual Impact Assessment
MAFF	Ministry of Agriculture Fisheries and Food
MW	Megawatt
NESO	National Energy System Operator
NGET	National Grid Electricity Transmission plc
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
OEMP	Operational Environmental Management Plan
OHID	Office for Health Improvement and Disparities
PA	Planning Act 2008
PINS	Planning Inspectorate
PRoW	Public Right of Way
PV	Photovoltaic
RR	Relevant Representation
SoCG	Statement of Common Ground
TCPA	Town and Country Planning Act
TPO	Tree Preservation Order

2. Applicant’s Responses to Written Submissions at Deadline 3

2.1 Statutory Consultees

Table 2-1. Applicant’s Responses to Written Submissions at Deadline 3 – Statutory Consultees

Ref. No.	IP Name	Theme	Written Submission / Summary of Written Submission	Applicants Response to Written Submission
REP3-070	Ministry of Defence (MOD)	Safeguarded areas	Confirmation that the Scheme falls outside of MOD safeguarded areas and does not affect other defence interests, and that the MOD has no objection to the Scheme.	The Applicant acknowledges this comment.
REP3-069	Marine Management Organisation (MMO)	Deemed Marine Licence	Comment that the MMO acknowledge that the Applicant has removed the Deemed Marine Licence from the DCO, and therefore have no further comments to make.	The Applicant acknowledges this comment.

2.2 Local Authorities, Parish Councils, Persons with an Interest in the Land and Members of the Public

Table 2-2. Applicant’s Responses to Parish Councils’, Persons with an Interest in the Land and Members of the Public

#	Ref. No.	IP Name	Theme	Written Submission / Summary of Written Submission	Applicants Response to Written Submission
General Matters					
1	REP3-079	Elton Moulds on behalf of Martin Caswell	Withdrawal of Objection	Confirmation of withdrawal of objection	The Applicant acknowledges Mr Caswell’s withdrawal of his objection to the Scheme.
Land Use					
2	REP3-085	Nicholas Hill	Cumulative Impacts	Comment that the cumulative impact of the four solar projects will have a devastating impact on Hill Agricultures new farm yard.	<p>The technical advisors of each of the four projects have agreed that there is sufficient space to install the cables around the agricultural buildings enabled by the planning permission, subject to the projects adopting a suitable cable formation. Also of note is the Examining Authority’s Recommendation Report for the Cottam Solar Project [EN010133] in which they stated the following:</p> <p><i>“6.7.26 ... Furthermore, whilst we are mindful of the interaction of the Applicant’s proposals with those of Mr and Mrs Hill under the Planning Permission, we note the Applicant’s grid connection report... concludes that the cabling proposed could still be achieved in this location even following implementation of the planning permission [for the two agricultural barns]”....</i></p>

#	Ref. No.	IP Name	Theme	Written Submission / Summary of Written Submission	Applicants Response to Written Submission
					<p>This supports the Applicant's statements within Chapter 14: Socio-economics and Land Use of the ES [APP-045], paragraph 14.6.49 suggesting that should the Scheme receive development consent, the Cable Route Corridor for the Scheme and the two agricultural barns if built would be able to co-exist. Should the Scheme receive development consent, the Applicant will carry out further refinement of the Cable Route Corridor in cooperation with the developers of the other projects that share the corridor.</p>
3	REP3-085	Nicholas Hill	Cumulative Impacts	Comment that Hill Agriculture had no prior knowledge of the Shared Cable Route Corridor of the four solar projects (including Tillbridge) when it acquired the land for its farm business premises.	<p>The Applicant carried out its duties with regard to pre-application consultation as required by the Planning Act 2008. This included contacting land interests affected by the Scheme. This included contacting Mr Hill in his capacity as an affected landowner. The Applicant wrote to Mr Hill on 26 May 2023 to notify him of statutory consultation. This set out the background to the Scheme, the Applicant's intention to submit a DCO application, the fact the Applicant had identified him as a consultee under the Planning Act 2008 and details about the consultation. The Applicant also wrote to Mr Hill on 11 December 2023 as part of a targeted consultation exercise following changes made to the Order limits which proceeded the 26 May 2023 statutory consultation. The Applicant is not in a position to comment on the engagement undertaken by the neighbouring solar projects nor the due diligence carried out by Hill Agriculture prior to acquiring the land.</p>
4	REP3-085	Nicholas Hill	Cumulative Impacts	Comment that Hill Agriculture has not come to an agreement with the four solar projects, and that giving agreement would give the projects compulsory purchase order powers.	<p>The Applicant notes this comment. The Applicant has continued to negotiate with Mr Hill and it remains our preference to obtain a voluntary agreement. Details of the Applicant's engagement in this regard are given in the Schedule of Negotiations [EN010142/APP/4.4(Rev03)]. However, the Applicant separately continues to seek compulsory purchase rights for the cable route corridor and considers it has met the appropriate tests to do so as outlined further within the Statement of Reasons [REP1-014].</p> <p>The Applicant also notes that the Cottam Solar Project and Gate Burton Energy Park have received development consent and were awarded powers of compulsory acquisition over the land in question.</p>
5	REP3-085	Nicholas Hill	Cumulative Impacts	Comment that the four developers are pushing Hill Agriculture into an easement rather than a lease, when the projects are supposedly temporary.	<p>The Applicant maintains that an easement to be an appropriate solution in terms of the land rights that it requires for the Cable Route Corridor. This is in common with other projects of this kind including the made Gate Burton Energy Park and Cottam Solar Project development consent orders. The Scheme is temporary and would be limited to a 60-year operating life by a requirement in its DCO (should it be made in the form in which it is currently proposed). The Applicant is seeking an easement for a term of 60 years (which will be the operational term life of the Scheme as granted by the DCO), rather than a permanent easement. This is reflected in the heads of terms that have been provided to Mr Hill.</p>
6	REP3-085	Nicholas Hill	Energy Generation	Comment querying why developers are insisting to control the amount of energy that passes through cables, when only the maximum amount generated by the approved projects should be pushed through.	<p>The Scheme has been designed to maximise the use of its grid connection at National Grid Cottam Substation. The Applicant's connection agreement has a capacity of 500MW which represents the maximum output that the Scheme would be exporting through its cable within the Cable Route Corridor at any one time. For clarity, the Tillbridge cable within the Cable Route Corridor will be able to carry electricity for the Tillbridge Solar Project only (to and/or from the national energy transmission system). While the Applicant can manage the timing of power throughput, it will always be subject to the</p>

#	Ref. No.	IP Name	Theme	Written Submission / Summary of Written Submission	Applicants Response to Written Submission
					above capacity limitation. During operations, it is best to maximise energy throughout, as this optimises the use of the grid connection capacity. During periods of low irradiation or reduced solar generation, the exported power may be lower than the maximum grid capacity limit. Therefore, retaining flexibility in the amount of energy and power passed through the cables is a practical and necessary approach to ensuring the efficient operation of the solar farm.
7	REP3-085	Nicholas Hill	Hill Agriculture Permitted Development	Comment that Hill Agriculture have planning permission (ref. 145882) and further permitted development rights for a further agricultural building up to 1500 sq metres on the site and will be exercising that right.	<p>The Applicant notes this comment and is aware of the planning permission (ref: 145882). The Applicant is negotiating with Mr Hill with a view to reaching a voluntary agreement. The technical advisors of each of the four projects have agreed that there is sufficient space to install the cables around the agricultural buildings enabled by the planning permission, subject to the projects adopting a suitable cable formation. Also of note is the Examining Authority’s Recommendation Report for the Cottam Solar Project [EN010133] in which they stated the following:</p> <p><i>“6.7.26 ... Furthermore, whilst we are mindful of the interaction of the Applicant’s proposals with those of Mr and Mrs Hill under the Planning Permission, we note the Applicant’s grid connection report... concludes that the cabling proposed could still be achieved in this location even following implementation of the planning permission [for the two agricultural barns]”....</i></p> <p>This supports the Applicant’s statements within Chapter 14: Socio-economics and Land Use of the ES [APP-045], paragraph 14.6.49 suggesting that should the Scheme receive development consent, the Cable Route Corridor for the Scheme and the two agricultural barns if built would be able to co-exist. Should the Scheme receive development consent, the Applicant will carry out further refinement of the Cable Route Corridor in cooperation with the developers of the other projects that share the corridor.</p>
8	REP3-085	Nicholas Hill	Shared Cable Route Corridor	Comment that unless an alternative route for the cable corridor can be found to the current proposal through Hill Agriculture’s farm yard, then a DCO should not be granted.	<p>The Applicant disagrees. The technical advisors of each of the four projects have agreed that there is sufficient space to install the cables around the barns subject to the projects adopting a suitable cable formation. Also of note is the Examining Authority’s Recommendation Report for the Cottam Solar Project [EN010133] in which they stated the following:</p> <p><i>“6.7.26 ... Furthermore, whilst we are mindful of the interaction of the Applicant’s proposals with those of Mr and Mrs Hill under the Planning Permission, we note the Applicant’s grid connection report... concludes that the cabling proposed could still be achieved in this location even following implementation of the planning permission [for the two agricultural barns]”....</i></p> <p>This supports the Applicant’s statements within Chapter 14: Socio-economics and Land Use of the ES [APP-045], paragraph 14.6.49 suggesting that should the Scheme receive development consent the Cable Route Corridor for the Scheme and the two agricultural barns if built would be able to co-exist. Should the Scheme receive development consent, the Applicant will carry out further refinement of the Cable Route Corridor in cooperation with the developers of the other projects that share the corridor.</p>

#	Ref. No.	IP Name	Theme	Written Submission / Summary of Written Submission	Applicants Response to Written Submission
Agriculture and Food Security					
9	REP3-088, REP3-082, REP3-083	Tracey Adderly John Arnold Hallam Julian Plews	Consideration of Alternative Sites	Comment that the government is changing its stance on food security, with reference to Government Food Strategy document June 2022, and that Keir Starmer stated in his manifesto Food Security is National Security that whilst solar may play a small part in energy security other more acceptable sites such as brown field and roof tops should be considered before taking productive farmland out of production	<p>The Applicant acknowledges that food security is an important part of the UK’s national security.</p> <p>In terms of food production, pages 111 and 112 of the Applicant’s Responses to Relevant Representations [REP1-028] highlights that the DEFRA Food Security Report 2021 (Ref 1-4) confirms that the UK is self-sufficient producing as much grain, meat, dairy and egg as is consumed, and that land use change does not feature among the identified risks to UK food security. Climate change is, however, highlighted as a key risk to future UK food security. This demonstrates that despite concerns raised regarding the impact on food production, this impact will not be significant. The Application demonstrates that the use of agricultural land for the Scheme is justified, that the impact on best and most versatile land has been minimised, with the Scheme taking land out of agricultural use for a temporary long-term basis mainly, with only 0.92 hectares of BMV being permanently lost to proposed woodland planting, and confirming that it will not have a material impact on the availability of land for food production, even when considered in combination with other solar NSIP projects in the area. Further, pages 137 and 138 of Applicant’s Responses to Relevant Representations [REP1-028] also addresses this point through references to recent decisions on the Gate Burton Energy Park [EN010131] and Cottam Solar Project [EN010133]. The Secretary of State determined in respect of those schemes that the cumulative loss of land to food production, which includes the Scheme, would be minor and would not impact on food security.</p> <p>The Applicant also wishes to point out that the National Planning Policy Framework (NPPF) (Ref 1-6), which is important and relevant in the determination of the Application, has recently been revised and was published on 12 December 2024. Within the updated NPPF, footnote 62 which set out the policy test relating to food production in the old NPPF has now been removed, and replaced by footnote 64 which aligns with the thrust of the National Policy Statements for Energy (NPS-EN1 (Ref 1-1), NPS EN-3 (Ref 1-2) and NPS EN-5 (Ref 1-5)) which under Section 104(2) of the PA 2008 (Ref 1-3) are the primary policy consideration for NSIPs, and focuses on ensuring lower quality agricultural land is preferred to those of a higher quality (best and most versatile) as opposed to a separate consideration of food production.</p>
Solar Energy					
10	REP3-081	John Jeffrey Summers	Solar for Energy Generation	Comment that solar is not a viable proposition for the UK, due to cost of land, cost of materials and transportation, cost of labour and cost of UK bureaucracy	<p>While economic considerations are important, the primary driver for solar and storage developments are meeting net-zero targets to combat climate change. Achieving these targets requires bold investments and a market that adapts to enable necessary technologies. If these investments are required to meet climate goals, the market will naturally adjust to support them, including addressing costs associated with land, materials, transportation, labour, and regulatory processes.</p> <p>From a commercial perspective, large-scale utility projects require significant financing, often backed by thorough economic feasibility studies. If the costs outlined in the comment outweighed the benefits, such projects would not attract the necessary investment. However, the continued development of solar projects in the UK</p>

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					demonstrates that the market deems them viable and necessary. Projects of this scale undergo extensive research and evaluation to ensure both technical and financial viability before proceeding. This rigorous assessment underpins the continued growth and success of solar energy in the UK as part of its transition to a sustainable energy future.
Biodiversity Net Gain					
14	REP3-086	Pat Mitchell	Watercourse Units	<p>Comment requesting that Natural England and /or the Applicant please confirm how the 22.94% net gain for watercourse units has been arrived at and which watercourse unit module / metric was applied to the following features: priority rivers; other rivers and streams; canals; ditches; and, culverted sections?</p> <p>Comment that the percentage quoted for watercourse units in this instance mean very little to the reader if one cannot understand the process to arrive at this number.</p>	<p>The Statutory Biodiversity Metric (published 29 November 2023) was utilised within the Biodiversity Net Gain (BNG) Report, an updated version of which submitted as part of the Change Request [AS-062] (to reflect the minor reductions in the Order limits).</p> <p>To inform the findings of the BNG Report, a desk study was undertaken to identify all watercourse habitats present within the Order limits using the ‘Discovering Priority Habitat in England’ river data map (Ref 1-10). Following this, water body habitats were assigned a habitat category (according to the criteria: Priority Habitat, Other Rivers and Streams, Ditches, Canals, Culvert) and distinctiveness in accordance with the Priority Habitat descriptions under Section 41 of the Natural Environment and Rural Communities Act 2006 (Error! Reference source not found.).</p> <p>As set out within paragraph 6.3.7 of the Framework Landscape and Ecological Management Plan [EN010142/APP/7.17(Rev04)], crossings of the River Trent, River Till and the majority of smaller watercourses will be undertaken using drilling, boring, micro-tunnelling or moling (i.e. trenchless) methods, with appropriate setbacks from the top of the banks (depending on habitats and other individual ecological constraints). As such, these watercourses will not be directly impacted by the Scheme. However, there are some crossings of watercourses that could require open cut installation techniques. Where intrusive crossing techniques are used, a pre-works hydro-morphological survey will be undertaken to record channel features and provide the baseline against which reinstatement will aim to provide an improved channel form between 5 and 10 m upstream and downstream of the open trench.</p> <p>Only water bodies that have been assessed as being impacted by the Scheme have been included in the BNG assessment as set out in the BNG Report [AS-062].</p> <p>Of those watercourses, all of which constitute ‘ditches’ under the categorisations noted above, the Scheme is predicted to result in a net gain of 22.94% for watercourse units. Ditch habitats will be enhanced through the reduction of riparian encroachment, e.g., through the conversion of arable land to ‘other neutral grassland’ and resulting improvements to ditch condition criteria, which is calculated in the Metric to result in a net gain of 22.94%.</p> <p>There are no predicted impacts to priority rivers, other rivers and streams, or canals, and therefore BNG does not apply to these unaffected features. The Applicant has updated the Framework LEMP [EN010142/APP/7.17(Rev04)] at Deadline 4 to clarify that the Scheme will deliver BNG in substantial accordance with the current plans for the Scheme, as illustrated by the Indicative Landscape Masterplan [AS-064], which are predicted to result in 22.94% BNG for watercourse units. This is to</p>

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					clarify that the Applicant is committed to delivering BNG in substantial accordance with the predicted unit gains included within the BNG Report [AS-062] .
15	REP3-086	Pat Mitchell	Water Quality in BNG	<p>Question relating to how much of the 22.94% net gain relates to reducing/eliminating the use of fertilisers and nitrates on agricultural land on the proposed Scheme which make their way into watercourses?</p> <p>Comment that the proposed Scheme would be located at the lower level of the Cliff Edge road (B1298) and agricultural and farming land also encompass the length of the high ground along this Cliff Edge road. Rainwater and fertiliser / nitrates from this agricultural and farming land will make its way to the land and fields at the lower level of the Cliff Edge and onto the Scheme</p>	<p>Water quality is not assessed as part of a BNG assessment.</p> <p>However, ecological and water quality impact assessments have been completed and are set out within the relevant chapters of the Environmental Statement; Chapter 9: Ecology and Nature Conservation of the ES [APP-040] and Chapter 10: Water Environment of the ES [REP3-012], and both have concluded no significant adverse effects.</p> <p>The reductions of fertiliser/nutrient inputs as a result of the change of use of arable land to solar development would likely have an effect on ditch condition (e.g., improvements in water quality, reductions in eutrophication and algal growth), but this is not directly assessed as part of the BNG assessment (see above).</p>
16	REP3-086	Pat Mitchell	Water Quality in BNG	<p>Query if water quality is tested to determine this 22.94% net gain and if so:- a) where is the water taken from; b) how often is testing carried out before the above percentage is arrived at, and; c) if not, why not.</p>	<p>Water quality is not assessed as part of a BNG assessment, as it is not one of the criteria that supports watercourse condition assessment.</p> <p>However, ecological and water quality impact assessments have been completed and are set out within the relevant chapters of the Environmental Statement; Chapter 9: Ecology and Nature Conservation of the ES [APP-040] and Chapter 10: Water Environment of the ES [REP3-012], and both have concluded no significant adverse effects.</p>
17	REP3-086	Pat Mitchell	Wastewater in the River Till	<p>Comment that sewage pollution in the River Till near Lincoln, which is a priority river (as referenced above) is a significant issue. Comment that the River Till has been affected by sewage overflows, which have actively discharged sewage into the river. Comment that the water quality in the river has also been impacted by modification of the river channel and agricultural run-off which leads to a variety of adverse ecological effects, however, the stressor which has the greatest impact across all ecological functions ranking first is wastewater (sewage) not agricultural run-off.</p> <p>Comment that wastewater (sewage) pollution has the potential to alter and degrade critical ecosystem processes via loss of critical species, and that the River Till rises as a series of streams close to Corringham, near Gainsborough and passes Sturgate, Heapham and Springthorpe villages, some of the 30 villages and communities which will be completely negatively and harmfully affected by this development and the solar developments of Gate Burton, Cottam and yet to be decided by the SoS, West Burton solar.</p>	<p>Ecological and water quality impact assessments have been completed in relation to the River Till and are set out within the relevant chapters of the Environmental Statement; Chapter 9: Ecology and Nature Conservation of the ES [APP-040] and Chapter 10: Water Environment of the ES [REP3-012], and both have concluded no significant adverse effects.</p> <p>The foul sewage from the operational area of the Scheme will be directed to self-contained cess tanks and collected by licensed carrier. Therefore, the Scheme will have no impact on sewage pollution, either in isolation or cumulatively with other parties.</p> <p>The Scheme will cross the River Till using trenchless methods and will therefore not impact directly on the River.</p>

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18	REP3-086	Pat Mitchell	Sewage Pollution	Query if the 22.94% net gain takes into account the sewage pollution discharged into the River Till and consequently its tributaries referred to above particularly as phosphate pollution from sewage contributes 80% while agriculture contributes 20%.	Sewage pollution would not have any impact on the BNG assessment of the River Till either in baseline or post-development. Water quality is not a factor assessed through the BNG assessment as it is not one of the criteria that supports watercourse condition assessment.
19	REP3-086	Pat Mitchell	Ecological and Water Quality Impact Assessments	<p>Comment that NSIP scale solar projects are being pushed as a solution to synthetic fertilisers leaching into soils, even though they will take land out of food production for 60 years.</p> <p>Comment that new research by the University of Oxford's Department of Biology reveals that sewage discharge into rivers has a greater impact on water quality, and the animals and plants that live in rivers, than surrounding land use.</p> <p>Comment that the Department of Biology also investigated the effects of three different pollution sources (treated sewage discharge, agriculture and urban run-off) on different aspects of river systems, and the results demonstrated that treated sewage discharge was the best predictor of high nutrient levels, bottom-dwelling algae, and sewage fungus abundance, regardless of the type of land use (agriculture or urban) in the surrounding area.</p>	<p>Ecological and water quality impact assessments have been completed for the River Till and have concluded no significant adverse effects. The Scheme will cross the River Till using trenchless methods and will therefore not impact directly on the River.</p> <p>The foul sewage from the operational area will be to self-contained cess tanks and collected by licensed carrier. The Scheme will have no impact on sewage pollution, either in isolation or cumulatively with other parties.</p>
Flood Risk and Water Environment					
20	REP3-087	Roger Jones	Flooding of the River Till Catchment	<p>Concerns around the contribution made by the Scheme to flooding of the catchment area of the River Till under prolonged periods of heavy rain, in addition to storm water run off from adjacent ground based industrial solar installations onto the Flood plain of the River Till.</p> <p>Comment that currently, crops grown on thousands of acres of farmland on the River Till floodplain, (outside those areas which will be lost to ground based industrial solar), are significantly affected by flooding, which has already become more frequent in recent years, with resulting interruption of normal farming practices and ruined crops. Comment that the suggestion by the Applicant that flooding mitigation by the clay soil will remain the same as before, defies logic and implies a lack of scientific understanding.</p> <p>Comment that when the River Witham is in spate, the Upper Witham Drainage Board, under the direction of the Environment Agency, routinely shut off the River Till transfer pumps at Odder, to prevent water flowing along</p>	<p>An outline drainage strategy has been prepared as part of the Application, Appendix 10-4: Outline Drainage Strategy of the ES [APP-098]. The drainage strategy will mimic the natural existing drainage regime within the Order limits and also restrict new impermeable areas to the greenfield runoff rate. Sustainable Drainage Systems (SuDS) features within the solar PV panel fields on the Principal Site will incorporate edge swales which will intercept peak runoff and allow infiltration, reducing flood risk off site. New impermeable areas will attenuate runoff at source and discharge at greenfield rates. Therefore, the proposed SuDS features will drain runoff leaving the site at a faster rate during periods of heavy rainfall.</p> <p>Regarding the comment that the Applicant suggests flooding mitigation by the clay soil will remain the same. Guidance published by the Buildings Research Establishment in 2014 (Ref 1-9) notes that solar panel modules are mounted on metal frames anchored by driven or screw piles, causing minimal ground disturbance and occupying less than 1% of the land area. The rest of the infrastructure typically disturbs less than 5% of the ground, leaving 95% of the land to remain as existing grassland. It is considered the installation of solar panels does not materially impact the ability of the soil to manage surface water runoff, to that of the existing condition.</p> <p>The Applicant has discussed the Scheme with all affected Internal Drainage Boards (IDBs), including Upper Witham IDB. Upper Witham IDB has not raised the transfer</p>

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				the Fossdyke Navigation Canal into the Brayford Pool and flooding the centre of Lincoln.	pumps at Odder with regards flood risk as a concern. As explained above and within Appendix 10-4: Outline Drainage Strategy of the ES [APP-098] , surface water runoff from the Scheme will be effectively controlled, to ensure no increase in runoff rates compared to the existing greenfield runoff rates.
21	REP3-087	Roger Jones	Flooding of the River Till Catchment	With regards to flooding of the River Till catchment area, the Tillbridge Solar Project cannot and must not be considered in isolation	With the application of Appendix 10-4: Outline Drainage Strategy of the ES [APP-098] as discussed above, there will be no cumulative impact from this Scheme i.e., it is not feasible for the Scheme to contribute to a cumulative effect when it itself has no effect on the water table and the general hydrological cycle. Furthermore, as set out within paragraph 18.11.7 of Chapter 18: Cumulative Effects and Interactions of the ES [EN010142/APP/6.1(Rev02)] , it is assumed that all other developments, including other solar DCOs within the catchment of the River Till, will adopt an appropriate drainage design/strategy to manage and treat surface water runoff, as described in their applications, and which follow the approach undertaken by the Applicant for this Scheme.. This ensures that there is no increase in flood risk, as would be required by planning policy and the Lead Local Flood Authority. It is therefore considered that the cumulative effects during operation would be neutral (not significant).
22	REP3-087	Roger Jones	Permeability of land beneath PV panels	<p>Comment querying how the Applicant can consider that land lying beneath the inclined solar arrays and in the rain shadow, would allow infiltration of storm water run off at the same rate as before development?</p> <p>Comment that in reality, storm water will rapidly run off the surfaces of the impervious, inclined panels to the drip line, where it will form rivulets in a rapid flow, preventing the infiltration of water in the area of mitigation beneath the panels.</p>	<p>Regarding evidence of impermeability of solar panels, a research paper by Cook and McCuen (2013) ‘Hydrologic Response of Solar Farms’ (Ref 1-8) states that solar panels themselves have non-significant impact on runoff volumes / peak / time to peak and recommended grass to be well maintained under the panels or a buffer strip placed after most downgradient row of panels to prevent increase in runoff / soil erosion. As explained within Appendix 10-4: Outline Drainage Strategy of the ES [APP-098] and secured through the Framework LEMP [EN010142/APP/7.17(Rev04)], in order to limit potential increases in runoff, the Scheme would provide planting in the areas between, under and surrounding the solar PV panels with native grassland and wildflower mix. The planting will absorb and slow runoff from the PV fields, mimicking the existing regime.</p> <p>Lincolnshire County Council as Lead Local Flood Authority (LLFA) covering the Principal Site, within their Local Impact Report [REP1A-001] paragraph 11.5, has determined the Appendix 10-4: Outline Drainage Strategy of the ES [APP-098] is acceptable.</p>

3. References

- Ref 1-1 Department for Energy Security and Net Zero (2024). Overarching National Policy Statement for Energy EN-1. Accessed on 12/11/2024 at <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1>
- Ref 1-2 Department for Energy Security and Net Zero (2024). National Policy Statement for Renewable Energy Infrastructure EN-3. Accessed on 12/11/2024 at <https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3>
- Ref 1-3 Stationary Office (2008). Planning Act 2008. Accessed on 22/10/2024 at <https://www.legislation.gov.uk/ukpga/2008/29/contents>
- Ref 1-4 DEFRA (2021). United Kingdom Food Security Report 2021. Accessed on 12/11/2024 at <https://www.gov.uk/government/statistics/united-kingdom-food-security-report-2021>
- Ref 1-5 Department for Energy Security and Net Zero (2024). National Policy Statement for electricity networks infrastructure (EN-5). Accessed on 12/11/2024 at <https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5>
- Ref 1-6 Department for Levelling Up, Housing and Communities (2023). National Planning Policy Framework. Accessed on 17/10/2024 at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- Ref 1-7 Stationary Office (2017). The Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Accessed on 12/11/2024 at <https://www.legislation.gov.uk/uksi/2017/571/contents>
- Ref 1-8 Cook and McCuen (2013). Hydrologic Response of Solar Farms. Publication: Journal of Hydrologic Engineering Volume 18, Issue 5.
- Ref 1-9 Building Research Establishment: Agricultural good practice guidance for solar farms. Accessed on 11/11/2024 at <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010123/EN010123-000914-North%20Kesteven%20District%20Council%20-%20Responses%20to%20ExA%E2%80%99s%20second%20written%20questions%202.pdf>
- Ref 1-10 Priority Habitats Interactive Mapping Tool. Accessed on 27/01/2025 at [REDACTED]
- Ref 1-11 Stationary Office (2006). Natural Environment and Rural Communities Act 2006. Accessed on 27/01/2025 at <https://www.legislation.gov.uk/ukpga/2006/16/contents>