

# North Kesteven District Council **Written Representations**



## Heckington Fen Solar Park

Application by Ecotricity (Heck Fen Solar) Limited  
PINS Reference: EN010123  
NKDC Reference: 21/1572/NSIP



**North Kesteven**  
DISTRICT COUNCIL

# Heckington Fen Solar Park

## Written Representations

A report prepared by North Kesteven District Council

7<sup>th</sup> November 2023

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## **1 Terms of Reference and Introduction**

- 1.1 This report comprises North Kesteven District Council's Written Representation (WR) in relation to the above project. The content of the WR is consistent with the themes and overall conclusions set out in the Council's Local Impact Report (LIR).

## **2 Scope, Purpose and Structure of the Written Representation**

- 2.1 Unless otherwise specified the WR only relates to the proposed development insofar as it affects the administrative area of NKDC. Unless otherwise specified this WR does not consider the impacts of development insofar as they relate to the grid connection cabling works and the proposed works to Bicker Fen Substation (BFSS) which are located outside the Council's administrative area and are located within Boston Borough.
- 2.2 Following on from the 'positive', 'neutral' and 'negative' impacts of development identified in the Council's LIR, this WR has been prepared to highlight the ways in which the proposed development of a solar park and associated battery storage facility on flat, low lying agricultural land at Heckington Fen either aligns or conflicts with local and national policy based upon the applicant's submissions. Unless otherwise specified the documents referred to are those submitted and accepted at acceptance stage and not to the 'Additional Submissions' or 'Post Submission' change documents contained within the Examination Library.
- 2.3 The Council's LIR contains further information relating to the site planning history, the description of the proposals, the characteristics of the surrounding area and the overarching legislative and policy context relevant to the proposals (national and local); including the status of the National Policy Statements. It also sets out applicable local guidance and strategy adopted by the District Council.
- 2.4 By way of confirmation, the application falls to be determined under section 105 of the Planning Act 2008 (PA2008) due to electricity generation by solar generating stations being excluded from the scope of NPS' EN-1 'Overarching National Policy Statement for Energy' and EN-3 'National Policy Statement for Renewable Energy Infrastructure' (both 2011). In addition, energy storage infrastructure also does not fall within the scope of EN-1 and EN-3. There is therefore no designated NPS that has effect in relation to the proposed development. Summaries of the relevant NPSs', both adopted and draft (2023) are contained within the Council's LIR but highlighted where applicable below in relation to topic-based matters. Similarly, the LIR contains a summary of applicable policy from the adopted Central Lincolnshire Local Plan (2023) however our Deadline 2 submission also contains full text of these applicable policies at the request of the Examining Authority.

2.5 Consistent with the Council's LIR, this WR considers four specific topic areas where to a greater or lesser degree in each case there are particularly pronounced policy conflicts and tensions with both national and local policy and guidance (the designated and draft National Policy Statements (EN-1 and EN-3) and the CLLP respectively), or an absence of information (or departure from best practice assessment methodologies), or both, which the Council considers should be brought to the ExA's attention. These are:

- Impacts on Best and Most Versatile (BMV) agricultural land
- Landscape and Visual Impact
- Cultural Heritage impacts (above ground and archaeology); and
- Ecology, Ornithology and BNG impacts

2.6 The Council's LIR was debated by the Council's Planning Committee on 12<sup>th</sup> September and in addition to endorsing the submission of a WR framed around the above topic areas, the Committee also resolved to make additional submissions on the following grounds:

- Cumulative impact in terms of the use of BMV agricultural land across Lincolnshire in combination with other solar development proposals.
- Further consideration of the battery technology to be deployed to minimise the risk of fire with reference to the potential use of the Lithium Iron Phosphate variant

2.7 Whilst the Council's LIR also identified 'negative' effects in relation to ES Chapters relating to Residential Visual Amenity, Hydrology/Flood Risk, Socio-Economics, Noise and Vibration, Glint and Glare and Cumulative Effects (with the notable exception of BMV land), we do not offer any additional comments here. The Council also addresses cumulative effects with other NSIP projects in its response to the Examining Authority's first questions.

2.8 We have assessed all other ES Chapters as resulting in either 'neutral' or 'positive' effects. Without prejudice, and subject to the ExA taking account of statutory and other consultee comments where applicable, the Council is satisfied that, in principle there are mitigation measures associated with all other topic areas (even where the Council accepts that there are 'negative' effects) which are capable of resolution by Requirement/s, and we will continue to engage with the applicant in particular relation to Schedule 2 of the draft DCO (examination document PS-024) in this regard.

### **3 Land Use and Agriculture**

#### **Policy Context – National Policy Statements**

- 3.1 As set out in our LIR, paragraph 5.10.8 of the adopted 2011 EN-1 outlines that applicants should ‘seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5) except where this would be inconsistent with other sustainability considerations’.
- 3.2 Paragraph 5.10.15 of the 2011 EN-1 states that the decision maker should ensure that ‘applicants do not site their scheme on the best and most versatile agricultural land without justification. It should give little weight to the loss of poorer quality agricultural land (in grades 3b, 4 and 5), except in areas (such as uplands) where particular agricultural practices may themselves contribute to the quality and character of the environment or the local economy’.
- 3.3 The 2023 draft EN-1 states similar advice to applicants and the SoS that they should seek to minimise impacts on BMV (paragraphs 5.11.12 and 5.11.34 refer, with the latter reiterating that ‘The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification’). Where it is sited on BMV, it should duly justify as to why other land cannot be used. The SoS should also ‘take into account the economic and other benefits of that land’.
- 3.4 Under the heading of ‘Solar Photovoltaic Generation’, paragraph 3.10.14 of the 2023 draft National Policy Statement for Renewable Energy Infrastructure (EN-3) states that ‘While land type should not be a predominating factor in determining the suitability of the site location applicants should, where possible, utilise previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land (avoiding the use of “Best and Most Versatile” agricultural land where possible)’.
- 3.5 Paragraph 3.10.15 notes that ‘Whilst the development of ground mounted solar arrays is not prohibited on agricultural land classified 1, 2 and 3a, or sites designated for their natural beauty, or recognised for ecological or archaeological importance, the impacts of such are expected to be considered and are discussed under paragraphs 2.10.66 – 2.10.83 and 2.10.98 – 2.10.110’.
- 3.6 Paragraph 3.10.16 acknowledges that it is likely that applicants’ developments may use some agricultural land, however that ‘Applicants should explain their choice of site, noting the preference for development to be on brownfield and non-agricultural land’.

- 3.7 Paragraph 3.10.17 advises that ‘Where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions (for example, onshore wind generation, or storage) to maximise the efficiency of land use’.
- 3.8 Paragraph 3.10.18 confirms that the Agricultural Land Classification (ALC) is the only approved system for grading agricultural quality in England and Wales, and we note that whilst the 2021 consultation version of draft EN-3 stated that the ALC survey ‘should be extended to the underground cabling and access routes’, this has, following consultation feedback, been removed from the consultation version 2023 draft of EN-3.
- 3.9 Paragraph 3.10.136 of draft EN-3 reiterates that the SoS should take into account ‘the economic and other benefits of the best and most versatile agricultural land’ and that ‘The Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to minimise impacts on soils or soil resources’.

**National Planning Policy Framework (2023), National Planning Practice Guide (NPPG) and Written Ministerial Statement**

- 3.10 NPPF paragraph 8 reminds the decision taker that achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways, so that opportunities can be taken to secure net gains across each of the different objectives. Under the ‘environmental objective’ this includes “using natural resources prudently”.
- 3.11 Chapter 15 ‘Conserving and enhancing the natural environment’ of the NPPF states at paragraph 174 that planning policies and decisions should contribute to and enhance the natural and local environment by, amongst other things:
- ‘(b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland’.*
- 3.12 The National Planning Policy Guidance (NPPG) outlines guidance on the specific planning considerations that relate to large scale ground-mounted solar PV farms (013 Reference ID: 5-013-20150327). It states that one consideration amongst others should be whether land is being used effectively; recommending that large scale solar farms are focused on previously developed and non-agricultural land.

- 3.13 The NPPG also advises that where a proposal involves greenfield land, decision making should consider whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays.
- 3.14 The potential impacts of large-scale solar farms were also addressed through a speech by the then Minister for Energy and Climate Change to the solar PV industry on 25 April 2013 and subsequent Written Ministerial Statement (WMS). The speech highlighted the importance of considering the use of low grade agricultural land which works with farmers to allow grazing in parallel with generation, and the WMS (dated 25/3/15 – UIN HCWS488) stressed that meeting our energy goals should not be used to justify the unnecessary use of high quality agricultural land, noting that *‘any proposal for a solar farm involving the best and most versatile agricultural land would need to be justified by the most compelling evidence’*.

### **Central Lincolnshire Local Plan (2023)**

- 3.15 Under the sub-heading of ‘Central Lincolnshire In Context’, paragraph 1.2.11 of the CLLP notes that outside of the urban areas, “land use in Central Lincolnshire is predominantly agricultural, with intensive arable crops dominating. Soils are mostly fertile and of high quality for agriculture”. One of the overarching ‘objectives’ for Central Lincolnshire listed in section 1.5 of the CLLP at paragraph 1.5.2, is:

*‘Natural Resources – Land Use and Soils: To protect and enhance soil and land resources and quality in Central Lincolnshire’*.

- 3.16 Under the sub-heading of ‘Additional matters for solar based energy proposals’, CLLP policy S14 ‘Renewable Energy’ states that proposals for ground based photovoltaics and associated infrastructure, including commercial large scale proposals, will be under a presumption in favour (of approval) unless, amongst other things, ‘the proposal is (following a site specific soil assessment) to take place on Best and Most Versatile (BMV) agricultural land and does not meet the requirements of Policy S67’.
- 3.17 The preface to CLLP policy S67 ‘Best and Most Versatile Agricultural Land’ confirms at paragraph 11.8.1 that:

*“Agriculture is a significant land use across Central Lincolnshire, and the wider Lincolnshire area and generates a significant proportion of the national food production. Therefore the protection of the best and most versatile land is key to ensure that food production is not negatively impacted by development”*.

- 3.18 Paragraph 11.8.2 states that the development of the best and most versatile agricultural land in Central Lincolnshire:

*“will only be supported where it can be demonstrated that the need for the development, its benefits and/or sustainability considerations outweigh the need to protect such land taking into account the economic and other benefits of the best and most versatile agricultural land”.*

- 3.19 Paragraph 11.8.13 sets out that:

*“Proposals for development on unallocated sites which would individually or cumulatively result in a significant loss (1 hectare or more) of best and most versatile agricultural land will also need to demonstrate that there are no other suitable alternative sites which could accommodate either all or part of the development on either previously developed land, or land within the built up area of existing adjacent or nearby settlements, or on poorer quality agricultural land”.*

- 3.20 The ‘Central Lincolnshire Policy S67: Protecting the Best and Most Versatile Agricultural Land – Evidence Report’ (attached as **Appendix 1** to this Written Representation) which sits behind the adopted CLLP and formed part of evidence base to the CLLP Local Plan Examination, confirms at paragraph 3.1 that:

*“Central Lincolnshire has a large rural area with different characteristics, opportunities and constraints. Agriculture and directly and indirectly related businesses form a significant part of the local and regional economy. Agri-food is identified by the GLLEP [Greater Lincolnshire Local Enterprise Partnership] as a priority sector”.*

- 3.21 Turning to the policy wording itself, CLLP policy S67 states that significant development resulting in the loss of the best and most versatile agricultural land will only be supported if:

- The need is clearly established;
- The benefits outweigh the need to protect such land, when taking into account the economic and other benefits of the best and most versatile agricultural land;
- The impacts of the proposal upon ongoing agricultural operations have been minimised through the use of appropriate design solutions; and
- Once the development has ceased its useful life then the land should be returned to its former use’.

- 3.22 Finally, paragraph 9.1.8 of the North Kesteven Landscape Character Assessment (LCA) notes that “the soil throughout the whole of the landscape sub-area (the ‘Fenland Landscape Character Sub-Area’ identified in the LCA) is of the highest grade, peaty and very dark brown in colour and presents a nationally significant agricultural resource”.



## **Applicant's Assessment**

- 3.23 Agricultural Land Classification (ALC) auger sampling has been carried out across the Energy Park site in two stages, both in consultation with Natural England and NKDC's agricultural consultant, Landscape. Initially a semi-detailed ALC was carried out, involving sampling on a regular 200 metre by 200 metre grid, comprising of 138 auger samples. A further 313 auger samples were taken in August and September 2022 – a total of 451 auger samples across the main Energy Park site. Soil augering of the cable route has not been carried out as it has been agreed that the cable route involves temporary disturbance of the soils to enable a trench to be dug and the cabling to be inserted and then backfilled.
- 3.24 The soil auger sampling has identified that 49.0% of the site, an area of 257 ha, is within the Best and Most Versatile (BMV, grades 1, 2 and 3a) category, 50.6% of the site is subgrade 3b (non-BMV) 0.4% was non-agricultural. The specific gradation breakdown is 58ha (11.1% overall site area) of Grade 1 land, 39ha (7.4%) of Grade 2 land and 160ha (30.5%) of Grade 3a land. Very broadly those concentrations of BMV land are along the eastern site boundary and west/south-west/centre-west and north of the site.
- 3.25 The applicant's augering and analysis identifies that the existing fields are large and rectilinear and the assessments found that some of the agricultural fields are a complex mix of ALC grades; namely in places the disposition of the various ALC grades (and concentrations of BMV land) does not align with field boundaries.
- 3.26 Consistent with EIA scoping requirements, the applicant then considers the relative amounts/proportions of ALC across North Kesteven District and Lincolnshire; albeit using published mapping as part of a 'desktop' exercise. The applicant's assessment notes that across Lincolnshire the estimated proportion of BMV as a proportion of all ALC grades is 71.2% (14.6% of agricultural land is Grade 1, 36% is Grade 2 and 20.6% is Grade 3a).
- 3.27 Across North Kesteven District the proportion of BMV is slightly lower (67%) than the Lincolnshire average, and where the composition is 1.4% of all District agricultural land falling within Grade 1, 44.9% being Grade 2 and 20.7% as Grade 3a. Therefore in the case of BMV proportions within the main Energy Park site boundary at Heckington, there are higher than District-average proportions of Grade 1 and 3(a) land and lower proportions of Grade 2 land.
- 3.28 The applicant's 'Working Indicative Site Layout Rev H' developed during the pre-application stages and subject to statutory consultation included additional land of around 62ha in size to the south and west of the Energy Park, which is now outside of (removed from) the Order Limits. This excluded land, initially intended to form part of the development-related BNG delivery, was augered and confirmed to be Grade 1 and 2 (BMV) land.

Therefore, the applicant has already adopted a 'design mitigation' through the evolution of the scheme by excluding 62ha of Grade 1 and Grade 2 land from the Order Limits, which the Council supported.

- 3.29 In that case however, the applicant's initial approach was to maximise BNG provision across the site and which in the Council's view would have sterilised the opportunity to maintain Grade 1 and 2 land in ongoing agricultural use. The applicant was subsequently able to remove those areas from the Order Limits, safeguarding that BMV land, and without undermining the overall approach to BNG provision across the site. In that context there was a clear rationale behind modifying the Order Limits.
- 3.30 The Council has continued to press the applicant throughout the pre-application stage to maintain that same momentum in pushing for additional areas of BMV land to be removed from the Order Limits; although unfortunately this has not transpired. Whilst a significant proportion of the energy park site Order Limit still comprises BMV land (as above), this pre-application modification has however demonstrated a proactive approach to adjusting the Order Limits to exclude areas where proportions of Grade 1 and 2 BMV land was more readily 'grouped'.
- 3.31 A large strand of the applicants remaining approach to 'mitigating' (in the overall planning balance and assessment of impacts) the impacts on BMV agricultural land is through highlighting that the effects are temporary (40-year operational timeframe) and largely reversible through appropriate soil management measures during construction and decommissioning. Additional mitigation measures through sheep grazing between panels is also proposed; discussed below.
- 3.32 The applicant highlights that the only 'permanent' loss of agricultural land is through 'sealing over' and which is not therefore readily mitigated through soil restoration or management measures at decommissioning stage, and is primarily associated with the formation of access tracks and the BESS/substation (totalling just over 20ha). Of this area the amount of Grade 1 and 2 land permanently sealed over is just over 1.0 ha and the amount of Subgrade 3a land sealed over is 1.8 ha. The applicant points to impact assessment guidance that only the permanent sealing of land or ALC downgrading of more than 20 hectares should be a 'major adverse' magnitude of impact.
- 3.33 The applicant has also undertaken a cumulative agricultural land impact assessment considering the effects of 16 (primarily) solar schemes (NSIP and TCPA scale) across the District and Lincolnshire. Whilst the timings of the ES preparation meant that it had not accounted for cumulative effects with the three other solar NSIP schemes in the District (Springwell, Beacon Fen and Fosse Green) and subsequently with the recently announced One Earth Solar Farm located partly within West Lindsey District, these sites have since been addressed by the applicant in document Rep1-021 and the Council responds to this document separately.

- 3.34 The ES cumulative assessment notes that if all of the assessed schemes (with the three exceptions) were to gain planning consent alongside Heckington Fen, and all of the land was used for solar development the total use of agricultural land would be of the order of 5,950 ha, of which about 4,200ha would be BMV land of varying grades. Excluding the 3 other NKDC NSIP schemes this would amount to 1% of Lincolnshire's agricultural land being used for solar farms; about 1.2% of its commercially farmed area.
- 3.35 The applicant has also submitted a Farming Report which sets out practical difficulties and constraints, including that parts of the Energy Park have a significant blackgrass problem and that the site's division by deep ditches means that there are existing physical barriers between fields and single bridge entry points such that, regardless of the proposed development, there are practical limitations to wider scale farming.
- 3.36 The applicant has also estimated that the 360-tonne annual reduction in the county's winter wheat yield associated with the removal of land from agricultural production is only an approximate 0.02% reduction. In addition, the applicant points to the nature of the soils, waterlogging and a deterioration of the drainage system which has generally precluded spring/summer use and has directed the focus onto winter cropping. With reference to the potential to delete additional areas of BMV land from the scheme and to enable a continuance of arable farming in those areas (amongst surrounding panelled areas), the report highlights that for practical and economic reasons the land has to be 'block cropped' and farmed in such a way as to reflect the quality of the majority of the land.
- 3.37 Aside from the reference to only relatively limited areas being permanently 'sealed over' (and that ALC grading will not be permanently degraded elsewhere within the Energy Park) a large part of the applicant's case for mitigation of impacts is the use of the land between the panels for sheep grazing. The applicant points to sheep grazing being common around and under solar panels, manages grass, provides an income, provides for continuance of agricultural use and improves nutrient value.
- 3.38 The submitted details suggest that sheep farming labour is comparable to cereals production and that the overall sheep enterprise could be made up of 4 ewes per hectare; approximately 2,000 breeding ewes across the Energy Park site, and with a typical rearing percentage of 1.65% lambs per ewe, this would equate to 3,300 lambs being produced per year across the site. The applicant states that this would be a considerable new farming enterprise in its own right running alongside clean energy generation. The applicant's proposals in relation to sheep grazing are set out in the Outline LEMP (reference document PS-148) and specifically at paragraph 4.6, Section 5.4 and Section 6 of the Schedules.

- 3.39 The applicant points to other mitigation already embedded into the design, including the proactive pre-application approach described above which modified the Order Limits to reduce the extent and spread of panels to avoid fields that are mostly of ALC Grades 1 and 2 quality; which the Council supports.
- 3.40 The applicant also points to an alternative design consideration involving the removal of additional (BMV) land to the south and west, however they deemed that this was 'not appropriate or commercially attractive when considering the wider planning balance and reductions in energy generation'.
- 3.41 An outline Soil Management Plan has been submitted, to be secured in detail by a Requirement, which sets out a series of measures to minimise issues such as soil compaction during the installation process, the avoidance of working wet or waterlogged soils and associated mitigation.

### **North Kesteven District Council position**

- 3.42 Turning to the policy position firstly, the Council's position is that there is a clear conflict and tension with CLLP policies S14 and S67 and both the adopted and emerging NPS which need to be factored into the planning balance. We note paragraph 3.10.14 of the 2023 draft National Policy Statement for Renewable Energy Infrastructure (EN-3) which confirms that land type is not a determining factor, and we fully accept that agricultural land impacts are one of a number of material planning considerations that the Examining Authority needs to consider and weigh in the overall planning balance.
- 3.43 Nevertheless, taken collectively those policies are clear and consistent in reiterating that only where the proposed use of any agricultural land over and above despoiled and brownfield land has been shown to be necessary, poorer quality land should be preferred to higher quality land. Whilst the WMS dates from 2015, nevertheless it still features by cross reference in the NPPG, setting out that any proposal for a solar farm involving the best and most versatile agricultural land would need to be justified by the most compelling evidence.
- 3.44 The Council has worked positively with the applicant throughout the pre-application process and we welcome scheme modifications resulting in the removal of areas of Grade 1 and 2 land from the Order Limits. Of itself this was a positive step. We also accept that the applicant is entitled to decide, unilaterally, that removal of additional areas of BMV land would be commercially unattractive. However, it remains the case that nearly half of the Energy Park site is classed as BMV land. This is a significant proportion. In real terms the difference between grade 3a and 3b land is quite small in this instance and that there is a degree of subjectivity about the difference, though the overall ALC findings and methodology are not in dispute. Nevertheless there is very limited margin for professional interpretation (noting the subjectivity of overall assessment), before this proportion flips into an overall 'majority' by area.

- 3.45 By comparison with the Longfield Solar Farm (EN010118), the proportions of BMV to non-BMV land within the Order Limits of the energy park site is 15% higher at Heckington Fen, 33% higher than compared with the Little Crow Solar Farm (EN010101) and 46% higher than at Cleve Hill Solar Farm (EN10085).
- 3.46 In the Council's view, the applicant has not proven that the *need* to develop BMV land (as distinct from the overall case set out in the applicant's Statement of Need – document PS-142) has been clearly established (CLLP policy S67, first bullet point), nor in relation to point 3 that the impacts of the proposal upon ongoing agricultural operations have been minimised through the use of appropriate design solutions.
- 3.47 As above, we accept that ultimately it is at the applicant's absolute discretion to conclude that the removal of additional areas of BMV land and to further reduce the order limits would be commercially unattractive. The Council is not privy to those discussions nor it is the role of the applicant's Funding Statement (which focusses on capital funding, land acquisition and blight) to evidence.
- 3.48 However, the consideration given to 'alternatives' (including avoidance) in the context of land use and agriculture is restricted to three paragraphs (6.23 to 6.25; 6.22 to 6.24 in PS-142) in the Statement of Need/Planning Statement. The general premise is that there will not be any permanent loss of agricultural land, that the proposal is temporary in nature with an operational lifespan of up to 40 years and that there will be an expected increased productivity from arable cropping uses following the removal of the panels. ES Chapter 16, paragraph 16.6.4 confirms that whilst an earlier alternative indicative site layout (Revision J) reduced the Energy Park site by approximately 110ha (removing land to the south and west – including a 49ha panelled area) this was not taken forward as it was neither appropriate or commercially attractive 'when considering the wider planning balance and reductions in energy generation'.
- 3.49 With reference to the ALC results and the distribution of grades across the energy park site Order Limits, we would continue to highlight, to the Examining Authority, that there remain large cohesive, connected tracts of land proposed for solar panels in the south west and western limits of the site in particular, which are either wholly or primarily BMV, and which could be removed from the Order Limits. The most obvious are fields G4, G5-7, G9, G10, G17-19, G21 and G23 as shown on document APP-077 'Field Plan'. Whilst this would reduce the renewable energy capacity of the site it would strike an improved balance in terms of the proportion of BMV to non-BMV. In our opinion if this approach were to be adopted it would better align with NPS, NPPF and CLLP policy and guidance on BMV land and would provide potentially more rationale to then turn to developing robust mitigation measures to deal with residual impacts.

- 3.50 Whilst paragraph 16.5.40 of ES Chapter 16 refers to the divisions of fields across the Energy Park by deep ditches, which create a physical barrier between fields, and where there are also usually only single bridge entry points to most fields (prohibiting farming other than on a whole-field scale) we are not aware that the applicant has tested or has been able to rule out (on farming operational/practicality grounds) further alternatives along the lines of those in the above paragraph.
- 3.51 We would refer the Examining Authority to the comments submitted by the Council's agricultural consultant, Landscape, attached as Appendix 3 to our LIR. Landscape have been engaged by the Council through the pre-application stage and find that the applicant's spatial approach to augering and soil analysis is acceptable relative to the size of the site. Landscape also acknowledge that the scheme amendment to reduce the DCO order limits and therefore retain additional high grade BMV land is positive. However, Landscape comment that in real terms the difference between grade 3a and 3b land is quite small in this instance and that there is a degree of subjectivity about the difference, though the overall findings are not in dispute.
- 3.52 Landscape also query some of the applicant's suggestions in terms of the degree to which existing site drainage/irrigation conditions and the extent of blackgrass impacts the ability to farm the existing site to its fullest extent. Landscape highlight that there are methodologies to limit and manage blackgrass, and that evidence of irrigation constraints are more anecdotal rather than based in firm evidence. Furthermore, Landscape note that whilst sheep grazing between panels on the site is possible, the area is not known for such activity, and concerns are expressed about the likelihood of this occurring. Landscape's overall conclusion is that through the combination of the scale of the project and the amount of BMV land taken up by the development, the impact is 'significant' at both District and County level – and where this conclusion is supported by paragraph 11.8.3 of the CLLP which defines 'significant' in relation to proposals on unallocated sites as resulting in individual or cumulative loss of 1 hectare of BMV or more.
- 3.53 Turning to the applicant's proposed mitigation, the proposals for sheep grazing are developed only to high level, with the applicant stating only that a contract with a grazier is in place but with no further detail provided. None of the draft Requirements in Schedule 2 of the draft DCO expressly deal with grazing management (although these discussions are ongoing, without prejudice), even though there is seemingly a heavy reliance on reversion to sheep grazing to demonstrate continuance of an agricultural use and to mitigate adverse effects.
- 3.54 For example, paragraph 4.6 of document PS-148 (OLEMP) simply refers to the Option agreement with the landowner, which provides the ability to graze the land and that the Applicant has been engaging with a local shepherd in order to progress discussions on the availability of sheep and the possible densities of flock. The Council has not seen any further information, such as a contract or draft grazing plan.

- 3.55 The applicant points to sheep grazing being common around and under solar panels, manages grass, provides an income, provides for continuance of agricultural use and improves nutrient value. The submitted details suggest that sheep farming labour is comparable to cereals production and that the overall sheep enterprise could be made up of 4 ewes per hectare; approximately 2,000 breeding ewes across the Energy Park site, and with a typical rearing percentage of 1.65% lambs per ewe, this would equate to 3,300 lambs being produced per year across the site. The applicant states that this would be a considerable new farming enterprise in its own right running alongside clean energy generation. However, the limited detail contained in the OLEMP means that, in the Council's opinion, limited weight should be placed on the changes to agricultural land use post-development given that at present these appear to be hypothetical estimates rather than embedded into an evidenced, deliverable proposal.
- 3.56 The applicant's overall analysis is that construction and operational effects, when assessed at a national level, are slight to moderate adverse in relation to the permanent sealing over of land and soil quality impacts during construction. 'Very large adverse' impacts are concluded at a national scale associated with cumulative operation of other (primarily PA2008) solar farms in Lincolnshire/Rutland.
- 3.57 The Council's view is that the temporary loss of 257ha of BMV land is significant in its own right. 40 years represents a 'generational' change of land use; as borne out by the Inspector (paragraph 48) in dismissing appeal APP/F1040/W/22/3313316 for a TCPA 1990 solar scheme on land north of Lullington, Swadlincote, Derbyshire (attached as **Appendix 2** to this Written Representation). There are similarities with the Heckington proposals; the Inspector in that case accepted the appellant's arguments that where sites are made up of a patchwork of agricultural gradings, it is not feasible or practical to separate small areas of BMV land from development, particularly as this would result in that land having little commercial agricultural utility. However, the Inspector noted that harm would occur to the BMV resource, 'which amounts to just under half the total available hectarage and would make an unacceptable indent on the contribution that a large proportion of the site makes towards food security for a significant period of time' (paragraph 48).
- 3.58 Whilst we accept that the applicant has applied for a temporary 40-year permission, consistent with all other solar NSIP schemes, in the Council's view there is somewhat of an inevitability that many of these proposals will be repowered. There is already a nationally established position through paragraph 158 (c) of the NPPF, which sets out that 'in the case of applications for the repowering and life-extension of existing renewable sites, give significant weight to the benefits of utilising an established site, and approve the proposal if its impacts are or can be made acceptable' and this calls into question whether or not such proposals are truly 'temporary' in nature.

- 3.59 We are not convinced that the applicant has demonstrated that they have avoided the use of BMV agricultural land where possible (including making further adjustments to the Order Limits or site layout through drawing back panelled areas) and this is borne out by cross reference to the APP-077 'Field Plan' and BMV land distribution map. We are not satisfied that mitigation measures; primarily by way of sheep grazing, has been sufficient developed and evidenced at this stage. On that basis there is a tension and conflict with paragraph 5.10.15 and 5.10.18 of EN1, 5.11.12 and 5.11.34 of draft EN-1, paragraphs 3.10.14 to 3.10.17 and 3.10.136 of the draft EN-3, NPPF paragraph 174 (b), the 2015 WMS and CLLP policies S14 and S67.
- 3.60 Finally, in relation to cumulative BMV impacts and the applicant's documents REP1-021 and APP-175, we agree that in addition to the One Earth Solar Farm, solar NSIP projects 2, 3, 4, 5, 6, 8, 9, 10, 11 and 12 (Cottam, Gate Burton, West Burton, Mallard Pass, Temple Oaks, Tillbridge, Beacon Fen, Springwell and Fosse Green) will have cumulative adverse effects on agricultural land at a regional level. The applicant estimates that applying a worse case scenario these projects alongside Heckington Fen will take 3,697ha of BMV land out of production; just under 1% of the BMV in Lincolnshire. We do not however agree that those cumulative agricultural land/BMV impacts will not be 'significant', as suggested by the applicant.

#### **4 Ecology, Ornithology and Arboriculture including Biodiversity Net Gain (BNG)**

##### **Policy Context – National Policy Statements**

- 4.1 As set out in our LIR, section 5.3 of the 2011 EN-1 states that 'development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives (...); where significant harm cannot be avoided, then appropriate compensation measures should be sought'.
- 4.2 It also notes that due consideration should also be given to regional and local biodiversity and geological designations this is because these sites have a fundamental role to play in meeting overall national biodiversity targets; contributing to the quality of life and the well-being of the community; and in supporting research and education.
- 4.3 The draft EN-3 also highlights that solar farms have the potential to increase the biodiversity value of a site, especially if the land was previously intensively managed. Paragraph 3.10.80 notes that "in some instances, this can result in significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains and which is encouraged'.



## **National Planning Policy Framework (2023)**

- 4.4 Chapter 15 'Conserving and enhancing the natural environment' of the NPPF sets out at paragraph 174 that planning policies and decisions should contribute to and enhance the natural and local environment by amongst other things:

*'(d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures'.*

- 4.5 Paragraph 180 of the NPPF sets out that when determining planning applications, local planning authorities should apply a number of principles, including that:

*'(a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; and*

*(d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.*

## **Central Lincolnshire Local Plan (2023)**

- 4.6 CLLP policy S14 'Renewable Energy' states that proposals for renewable energy schemes, including ancillary development, will be supported where the direct, indirect, individual and cumulative impacts are, or will be made, acceptable, including in relation to biodiversity and geodiversity considerations. The policy also states that:

*"Proposals for ground based photovoltaics should be accompanied by evidence demonstrating how opportunities for delivering biodiversity net gain will be maximised in the scheme taking account of soil, natural features, existing habitats, and planting proposals accompanying the scheme to create new habitats linking into the nature recovery strategy".*

- 4.7 CLLP policy S59 'Green and Blue Infrastructure Network' states that the Central Lincolnshire Authorities 'will safeguard green and blue infrastructure in Central Lincolnshire from inappropriate development and work actively with partners to maintain and improve the quantity, quality, accessibility and management of the green infrastructure network'. Continuing, the policy notes that 'Proposals that cause loss or harm to the green and blue infrastructure network will not be supported unless the need for and benefits of the development demonstrably outweigh any adverse impacts. Where adverse impacts on green infrastructure are unavoidable, development will only be supported if suitable mitigation measures for the network are provided'.

- 4.8 Policy S60 'Protecting Biodiversity and Geodiversity' states that development proposals will be considered in the context of the relevant Local Authority's duty to promote the protection and recovery of priority species and habitats. If the proposals do cause adverse impacts, then the benefit of the scheme will need to provide benefits that clearly outweigh the harms.
- 4.9 Policy S60 sets out that development will only be supported where the proposed measures for mitigation and/or compensation along with details of net gains are acceptable. All developments are required to meet the tests of:
- Protecting, managing, enhancing and extending the ecological network of habitats, species and sites of international, national and local importance.
  - Minimising impacts on biodiversity and geodiversity value.
  - Delivering measurable and proportionate net gains in biodiversity.
  - Protecting and enhancing the aquatic environment within or adjoining the site, including water quality and habitat.
- 4.10 Policy S61 'Biodiversity Opportunity and Delivering Measurable Net Gains' requires development to deliver at least a 10% measurable biodiversity net gain (BNG) attributable to the development. The net gain for biodiversity should be calculated using Natural England's Biodiversity Metric, and should be provided on-site wherever possible. Unless specifically exempted, a biodiversity gain plan should be submitted providing clear and robust evidence for biodiversity net gains and losses, and which includes details of the pre-development biodiversity value of the onsite habitat, the post-development biodiversity value of the onsite habitat following implementation of the proposed ecological enhancements/interventions and an ongoing management strategy for any BNG proposals.
- 4.11 Finally, policy S66 'Trees, Woodland and Hedgerows' requires proposals to provide evidence that they have been subject to adequate consideration of the impact of the development on any existing trees and woodland. New developments will also be required to retain existing hedgerows where appropriate and integrate them fully into the design having regard to their management requirements.

### **Applicant's Assessment**

- 4.12 As set out in our LIR, the baseline habitat within the main Energy Park site is comprised of flat, low-lying farmland in intensive arable winter wheat-production, subdivided into rectilinear field parcels by long, linear tracks, grass margins and drainage ditches. Some of the ditches support occasional shrubs and trees, reeds and emergent aquatic vegetation. There are intermittent hedgerows forming additional boundary features in places, and tree cover is limited to four small plantation woodland blocks and one line of trees within the centre of the Energy Park. The proposed underground cable grid connection runs through a similar agricultural landscape, also intensively arable, supporting a wide variety of crops, primarily wheat and oilseed rape.

- 4.13 An Extended Phase 1 survey for the Energy Park was carried out on four dates between 18-23 August 2021, with the Cable Route Corridor Extended Phase 1 survey carried out in April 2022. Following the initial surveys and assessments, a number of further surveys were conducted comprising aquatic plant surveys, arable plant surveys, bat surveys, breeding and wintering bird surveys, great crested newt surveys and further badger, water vole and otter surveys and a re-survey of habitat in the Energy Park. These were carried out between March and October 2022.
- 4.14 We note that there are no internationally important statutory designated sites (Ramsar, SAC & SPA) within 10km of the Energy Park Site, and the nearest Site of Special Scientific Interest (SSSI) is Horbling Fen SSSI located 11.5km to the southwest of the Energy Park. In addition there are no non-statutory designations within the Energy Park Site. There are four Local Wildlife Sites (LWS) within 5km of the Energy Park Site; South Forty Foot Drain LWS, the Great Hale Eau, Broadhurst Drain East and Old Forty Foot Drain – ranging between 1.5-4km south of the Energy Park Site. This increases to 9 LWS's within 5km of the Grid Connection Route.
- 4.15 The Lincolnshire Environmental Records Centre hold no records of protected, national priority or local priority mammal species within the Energy Park, however there are 81 records of at least eight bat species from within 5km of the Energy Park Site, and 68 bird records within 5km of the Energy Park site. As above, habitats comprise winter wheat arable production largely up to field boundaries but with 4-6m grass strips around field edges in the eastern part of the Energy Park.
- 4.16 Tree cover within the Energy Park comprises four small plantation woodland blocks containing Ash, Field maple, Sycamore, Bird cherry, Hawthorn Oak and White poplar. Walked activity transect recorded 3 bats species across the site whilst static bat surveys record up to maximum of 12 species; the vast majority being common pipistrelle. Breeding bird surveys recorded a total of 68 species, mainly common farmland birds nesting the banks of drainage ditches, woodland, Copse and farm buildings or along hedgerows. Three Schedule 1/Annex I species was found breeding in the area during the surveys - one pair of marsh harrier, three pairs of barn owl and one pair of kingfisher, and a further twelve Birds of Conservation Concern (BOCC)/Red List species were also recorded. This increased to 9 and 13 species respectively during wintering bird surveys.
- 4.17 The proposals incorporate a minimum standoff from all Black Sluice IDB maintained drainage ditches of 9m and all other ditches of 8m (totalling about 30ha) along with an area to the north of the site that will be managed specifically for biodiversity gain. These biodiversity areas will be seeded/or over seeded in the existing grass margins with nature conservation species rich seed mix to provide habitat for insects and pollinators.

- 4.18 With reference to Biodiversity Net Gains, the applicant's Metric Assessment and outline Landscape and Ecological Management Plan (LEMP) aim to deliver 424ha of grazing species grass, nearly 67ha of species rich grassland in the dedicated BNG area in the north of the site and along field boundaries, 2.15ha of wildflower mix in the community orchard and about 8.5 linear kilometers of hedgerow of variable heights. The applicant estimates that this will account for a 102% BNG in habitat units and a 230% BNG in hedgerow units; relative to the baseline.
- 4.19 The submitted Arboricultural Impact Assessment (AIA), Tree Survey, and Tree Protection Plan confirms that within the Energy Park the layout of panels and infrastructure has been designed to sit within the existing fields and network of agricultural access tracks, meaning that no existing trees or hedges will be removed. A total of 61 individual trees, 46 groups, 7 woodland areas (4 within the Energy Park) and 22 hedgerow sections were assessed across the Energy Park and cable corridor, with root protection areas calculated, mapped and tree protection measures specified.

#### **North Kesteven District Council position**

- 4.20 As set out in our LIR, the Council's consultant ecologist, AECOM, has reviewed the applicant's assessment, BNG calculation and outline LEMP, and a copy of the feedback is attached as Appendix 1 to the LIR. AECOM are generally satisfied with the approach taken, the results obtained, the impact assessment conclusions, and the mitigation proposed. It is noted and agreed with that in general terms, the existing habitat baseline is relatively 'low risk' and therefore that the development is capable of delivering BNG.
- 4.21 However, AECOM advise the Council that they are not satisfied with the approach taken for the botanical surveys, specifically the timing and survey effort and in particular the suitability of surveying for occurrences of scarce arable flora.
- 4.22 AECOM set out that they also require further details of the proposed mitigation by way of badger gates in the proposed perimeter fencing, and the implications of security fencing on deer movements. We note that the applicant is currently considering this particular issue with a view to providing additional information. Furthermore, AECOM note that the impact assessment of birds is rather high level and that the main 'impact pathway' (displacement due to habitat loss rather than injury/mortality) has been sufficiently considered. Whilst the future habitat baseline may be improved for foraging by some bird species, the concern is that it might not outweigh the loss of nesting habitat.
- 4.23 AECOM also point to insufficient impact assessment on quail, however are content with the assessment on wintering birds provided that Natural England (NE) agrees with the findings. We would therefore refer the Examining Authority to the advice of NE in this regard. Certainty is also needed that the timing and extent/intensity of proposed sheep grazing would also allow for use of pasture by ground nesting birds.

The Council has already highlighted concerns regarding the level of detail submitted and available at this stage in relation to sheep grazing and BMV impact mitigation, although we note that the applicant is looking to jointly address these matters through the ongoing drafting of Requirements.

- 4.24 AECOM also point to the cumulative impact assessment with other solar projects in the wider landscape/Central Lincolnshire, indicating extensive landscape scale conversion of arable farmland to grassland and other habitats, noting that the cumulative assessment provided in the ecology chapter is rather ' cursory'. AECOM highlight that the applicant's reported combined loss of 1.5% of arable farmland habitat in Lincolnshire is not trivial and that this cumulative habitat loss should be further examined in terms of the relevant 'Natural Character Area' and its specific biodiversity features of interest.
- 4.25 With reference to the BNG assessment, AECOM note that the level of detail is sufficient to understand what is being offered in broad terms, but it does not represent a full specification suitable to set terms of reference for agreement of the detailed plan later as a Requirement. Whilst the quantum of BNG to be achieved is likely to over 10%, it cannot be agreed until sufficient information has been provided to verify the applicant's BNG calculations. Amongst other things, grassland provision might have been overstated, the gains associated with 'over-sowing' of existing grassland headlands are challenged, the balance between new hedgerow creation and the gapping up of existing hedgerows is unclear, and the condition scores for the baseline and proposed habitats are not fully provided; including the 'Strategic Significance' weighting associated with some areas of ditch which are mapped as 'green infrastructure' with cross reference to CLLP policy S59.
- 4.26 Whilst we raise some concern regarding the absence of a full specification and condition scores for the baseline and proposed habitats, the Council supports the applicant's approach of aiming to deliver over 100% BNG (habitat units). This aligns with CLLP policy S14's requirement that proposals for ground based photovoltaics should be accompanied by evidence demonstrating how opportunities for delivering biodiversity net gain '*will be maximised*' in the scheme taking account site specific factors. However, in order to deliver against such intentions and mindful of the status of the OLEMP, our ongoing 'without prejudice' discussions regarding the wording of Requirements is based around fixing a higher minimum percentage of habitat unit BNG (currently 60%).
- 4.27 With reference to impacts on trees, as set out in our LIR the Council's Tree Officer raises no concerns with the submitted AIA, noting that the tree/hedge protection measures are adequate and that soft landscaping details (including therefore with the community orchard) can be secured by Requirement. However, AECOM highlight that the Oak within Group G39 will need to be re-assessed for 'veteran tree' status and that stand-off distances/root protection zones might need to be adjusted.

- 4.28 The applicant's overall assessment of effects identifies generally minor adverse construction impacts for boundary habitats, woodland blocks, breeding birds and aquatic areas within the Energy Park, to be mitigated through a Construction Environmental Management Plan (CEMP). Similarly minor adverse effects are predicted for works along the cable corridor; including through the grid connection beneath the South Forty Foot Drain LWS. We agree that in principle a CEMP can deal with most of these matters and we note the Requirement contained in the dDCO and our ongoing dialogue with the applicant.
- 4.29 The Council's position therefore is that whilst the applicant has largely complied with CLLP policies S59, S60 and S61 and the associated national guidance and policy, and we agree that in general terms, the existing habitat baseline is relatively 'low risk', there remains a degree of tension and conflict with these policies (particularly S60) on the basis that there remain unresolved construction/operation effects in relation to breeding/nesting birds, and in the assessment of botanical impacts. Set in that context we do not yet agree that temporary minor beneficial/positive effects accrue for species benefitting from seeding of watercourse boundaries, including breeding birds. The Examining Authority is referred to the AECOM comments appended to our LIR for further detail.

## **5 Landscape and Visual Impacts**

### **Policy Context – National Policy Statements**

- 5.1 EN-1 states that the ExA needs to consider the design of a scheme carefully. They should have regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.
- 5.2 Paragraph 5.10.34 of draft EN-1 (2023) states that the ExA should 'judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project'. Paragraph 5.10.35 then sets out that the ExA should 'consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the Secretary of State considers reasonable'.
- 5.3 Paragraph 5.10.5 of the 2023 draft EN-1 states that 'Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation'. Paragraph 5.10.6 then states that projects need to be designed carefully, taking account of the potential impact on the landscape, and that they should have regard to 'siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate'.

- 5.4 The specific guidance relating to Solar Photovoltaic Generation in section 3.10 of the 2023 draft EN-3 notes at paragraph 3.10.85 that ‘Solar farms are likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure’. Paragraph 3.10.86 states that ‘whilst it may be the case that the development covers a significant surface area, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography, the area of a zone of visual influence could be appropriately minimised’.

### **National Planning Policy Framework**

- 5.5 Chapter 12 ‘Achieving well-designed places’ of the NPPF sets out at paragraph 126 that the creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve.
- 5.6 Paragraph 130 advises that planning policies and decisions should ensure that developments, amongst other things:

*“b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*

*c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities); and*

*f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users”*

### **Central Lincolnshire Local Plan (2023)**

- 5.7 CLLP policy S14 ‘Renewable Energy’ supports proposals for renewable energy schemes subject to the direct, indirect, individual and cumulative impacts of development on, amongst other things, landscape character and visual amenity being acceptable or capable of being made acceptable.
- 5.8 CLLP Policy S53 ‘Design and Amenity’ states all development must achieve high quality sustainable design which contributes positively to the local character and landscape. Development should, amongst other things, be based on a sound understanding of the context, integrating into the surrounding, relate well to the site, protect any important local views into, out of or through the site, reflect the identity of area and contribute to the sense of place and maintain landscape quality and minimise adverse visual impacts through high quality building and landscape design.

## **North Kesteven Landscape Character Assessment (2007)**

- 5.9 Applying the 2007 North Kesteven Landscape Character Assessment (LCA), the Energy Park site is located within the Fens Regional Landscape Character Type in the east of the district, and the associated 'Fenland Landscape Character Sub-Area'. The 'key characteristics' of the Fenland sub-area as noted in the LCA include:
- Low lying land with very flat relief
  - Very large, rich arable fields divided up by drainage channels
  - Generally extensive vistas to level horizons and huge skies, apart from in the north easterly direction where the Lincolnshire Wolds provide a marked "Upland" horizon.
  - Sparse woodland cover though some occasional trees surrounding farmsteads and some shelter, belts particularly of poplars
  - Intensively farmed and managed it is almost entirely a man-made landscape.
- 5.10 Paragraph 9.1.5 of the LCA notes that "the large scale of the landscape with open panoramas and enormous skies can create a strong sense of isolation which is compounded by the lack of settlements in the area". Under the sub-heading of 'Land Use, Land Cover and Vegetation', paragraph 9.1.9 of the LCA notes that "the land is almost exclusively set to arable farming, managed within the very large, distinctively flat fields. The relatively low concentration of significant agricultural complexes suggests large farm holdings with intensive modes of operation".

## **Applicant's Assessment**

- 5.11 The applicant has identified a number of specific elements of the Energy Park site (i.e. the works within North Kesteven District) identified as having the potential to result in adverse landscape and visual effects, including;
- extensive areas of fixed PV mounting (solar modules) up to 3.5m high,
  - the main onsite substation compound with a footprint of approximately 185m x 110m and the maximum height of the equipment assumed to be up to 15m (but mainly between 4m – 6m in height, with 3 no. 'step-down' Transformers of up to 12m in height)
  - The Battery Energy Storage System (comprised of energy storage containers, inverters, transformers, switchgears and control room) with a footprint of approximately 280m x 280m and with infrastructure up to 6m in height
  - 3m high perimeter security fencing around the site with 3.5m high CCTV mounted on steel poles within the perimeter fence and within the Energy Park.



- 5.12 The applicant has agreed the general approach to LVIA with the landscape advisor acting on behalf of Lincolnshire County Council, along with North Kesteven District and Boston Borough Council. This included the scope of work, study area (preliminary 5km radius), methodology and viewpoint selection; the latter being expanded at the statutory consultation stage.
- 5.13 In terms of the baseline assessment the site is located within Character Area 46 'The Fens' of the National Landscape Character Area, the key characteristics being;
- Expansive, flat, open, low-lying wetland landscape influenced by the Wash estuary, and offering extensive vistas to level horizons and huge skies throughout, providing a sense of rural remoteness and tranquillity
  - Sparse woodland cover notably comprising of few small woodland blocks
  - Predominant arable land use is arable
  - Open fields, bounded by a network of drains and the distinctive hierarchy of rivers; strongly influencing a geometric/rectilinear landscape pattern.
  - A dispersed settlement pattern with scattered farms.
- 5.14 As summarised above, similar characteristics are described in the 2007 North Kesteven Landscape Character Assessment (LCA), with Energy Park site being located within the Fens Regional Landscape Character Type in the east of the district, and the associated 'Fenland Landscape Character Sub-Area', of particular note being the baseline characteristic of 'generally extensive vistas to level horizons and huge skies' and the reference to an intensively farmed, managed and almost entirely man-made landscape. The same underlying characteristics are reported in the Boston Borough Council LCA, for character area 'A1 Holland Reclaimed Fen'.
- 5.15 The applicant's assessment generally finds that the landscape associated with the Energy Park corresponds to the descriptions contained across the three national/local character area descriptions, being large scale, geographically extensive, and where any features within and surrounding the site tend to appear isolated and small. Some existing, and potentially mitigating features are however noted, including small scale blocks of woodland to the north west of the Energy Park, tree planting around Glebe Farm, farm buildings near Elm Grange, blocks of woodland within the site (in particular immediately west of the proposed substation and BESS), and other lines of trees and tree groups.
- 5.16 There are no nationally designated landscape areas within North Kesteven, and the site is not located in an Area of Great Landscape Value and is therefore not subject to CLLP policy S62. Nevertheless, the applicant's assessment concludes that the local landscape is of 'high sensitivity' to the proposed development. Field assessment confirms that that views from within the site of the Energy Park are medium to long range but, in places, particularly to the south, are interrupted by tree belts, and built form and vegetation that line the A17 - including Elm Grange, Home Farm, Rectory Farm and petrol station along the A17, Nos. 1 – 12 'Council Houses' East

Heckington, and Rakes Farm. There is also enclosure by an embankment associated with Head Dike, Holland Dike, and Skerth Drain, however theoretical visibility extends across South Kyme Fen, Ewerby Fen, and Howell Fen - beyond the 5km LVIA assessment radius.

- 5.17 The applicant has undertaken landscape and visual assessment of the impacts of development from 23 viewpoints, representing views experienced by a range of receptor groups, including residents/local community, users of public rights of way and road users. The viewpoints were spread in a 360 degree range around the site, with a slight concentration to the west and north west and fewer to the south east, and at distances to the Order Limit boundaries ranging from around 275m to around 4km.
- 5.18 Taking a 'collective' approach to the viewpoint analysis, the applicant finds that because the level landform and topography of the Energy Park is 'uncomplicated', locally widespread and not exhibiting any visual relationship with any elevated landscape, then the 'light' and largely level footprint of the proposed solar panels would mean that the perception of the landform would continue as currently experienced, therefore reflecting the existing level topography.
- 5.19 In summary, in terms of construction impacts on the overall local Fens landscape character (2007 NKDC LCA), the applicant finds a high degree of change and major significant short-term temporary effects on local landscape during the construction stage. Construction 'visual' impacts to road users of the A17 are assessed as 'highly localised and moderate' (adverse), increasing to major/significant (adverse) to motorists travelling along Sidebar Lane between the A17 and Head Dike (a distance of about 2.5km). Construction effects on users of the Public Footpath Heck/15/1 running along the northern edge of the Energy Park are assessed as 'major significant adverse'.
- 5.20 Landscape impacts on the overall local Fens landscape character (2007 NKDC LCA) during the operational phase are collectively assessed by the applicant as 'highly localised' but significant adverse within the Energy Park itself, however beyond the immediate context and close range visibility, the applicant finds that 'approximately up to 500m away from the Energy Park, the degree of change upon the character of the local landscape and its understanding would quickly diminish to a low magnitude of change resulting in minor (negative), thus not significant, effects'.
- 5.21 Operational visual effects are found to be 'significant' (adverse) at year 1 (prior to landscaping) for residential receptors in East Heckington and on Sidebar Lane; as analysed by Viewpoint locations 4 and 6. Operational visual effects on road users of the A17 are, similar to construction impacts, assessed as minor adverse – primarily on the basis that views would be gained by motorists at speed, with movement and noise. In comparison, and consistent with the effects identified during the construction phase, road users of Sidebar Lane to the west would be subject to significant (adverse) visual effects for the same stretch of road, namely approximately 2.5km from between the A17 and Head Dike.

Operational visual effects on users of the Public Footpath Heck/15/1 running along the northern edge of the Energy Park are similarly assessed as ‘major significant adverse’.

- 5.22 The applicant highlights that the proposed layout, which has evolved during the pre-application stage, incorporates a number of built-in mitigation measures such as reduction in the extent of the proposed solar modules and refinements to the layout to provide increased physical separation to receptors. This is in part in response to agricultural land impacts, to mitigate noise impacts (operation of the BESS/substation) and in response to flood risk modelling.
- 5.23 Additional landscape mitigation is proposed through planting a new hedgerow of varied height along the perimeter of the Energy Park, including along the edges of PROW Heck/15/1. In general the hedgerow would be grown to and maintained at approximately 3m – 3.5m height to break up lines of sight between the nearby visual receptors and the interior of the proposed Energy Park, increasing to approximately 5m in height in places to resemble overgrown hedgerows. It is modelled and anticipated that by year 5, developing hedgerow would help to ‘visually disintegrate the proposed Energy Park’, substantially diminishing its scale and horizontal extent. These details are proposed to be secured by Requirement.
- 5.24 The applicant has also considered cumulative LVIA effects arising from the development and a number of primarily solar projects (NSIP and TCPA 1990 scale), including through document REP1-021 ‘Interrelationship with other Nationally Significant Infrastructure Projects’. The majority of the listed cumulative schemes are not located within National Character Area 46 ‘The Fens’ and with the exception of the registered Beacon Fen Solar Park (NSIP) all of the remaining NSIP-scale solar are located significant distances (including within West Lindsey and South Kesteven/Rutland) from Heckington Fen such that the applicant assesses there to be no cumulative adverse LVIA impacts; including with reference to the Springwell and Fosse Green projects as addressed through REP1-021.
- 5.25 The applicant identifies possible cumulative adverse construction effects with two approved solar energy projects in Boston Borough at Vicarage Drove and Land West of Cowbridge Road, Bicker Fen, Boston – owing to the very close proximity to the existing National Grid Bicker Fen Substation. Minor operational effects (Heckington Fen and Boston Borough solar schemes) are estimated for areas around West Low Grounds and Bicker Fen in Boston Borough but not necessarily for NKDC properties owing to the embankment of the South Forty Foot Drain.
- 5.26 Overall the applicant concludes that the construction stage would bring about ‘major and significant’ (adverse) visual effects upon District receptors at East Heckington, road users present along the B1395 Sidebar Lane (north from the junction with the A17) and users of Public Footpaths SKym/2/1 (South Kyme) and Heck/15/1 (running partly through the site).

5.27 The operational phase is assessed as potentially causing ‘geographically highly limited yet significant adverse effects’ upon the character of the Fenland Landscape Character Sub-Area as identified in the NKDC LCA, within the Energy Park itself and its immediate surrounding landscape context of up to approximately 500m. In addition ‘static’ viewpoint receptors at viewpoints 1 and 2 (both footpaths), viewpoint 4, and viewpoint 6 are predicted to experience ‘significant adverse effects’ prior to mitigation plantings, reducing to between minor and moderate (adverse). Viewpoint 4 is representative of residential properties along the B1395 Sidebar Lane west of the site and viewpoint 6 (footway in East Heckington, near Six Hundred Farm House) is representative of residential property around Old Main Road, East Heckington.

### **North Kesteven District Council position**

- 5.28 The Council welcomes the additional analysis carried out through REP1-021 pursuant to the comments made in our LIR, and as per our submitted response to the Examining Authority’s First Questions the Council is satisfied that there are no cumulative adverse LVIA impacts with the solar NSIPS, the Lincolnshire Reservoir NSIP and the Town and Country Planning proposals as assessed.
- 5.29 The one exception to this is in relation to the Beacon Fen energy park. With reference to REP1-021 cumulative LVIA considerations with Beacon Fen we agree that there is the potential for significant cumulative visual effects to occur during the construction stage of the offsite cable routes if the two NSIP schemes were built out at the same time, as the two offsite cable route corridors overlap. We agree those that these effects are likely to be highly localised, short term and temporary.
- 5.30 In terms of cumulative LVIA considerations associated with the construction and operation of the respective Heckington Fen and Beacon Fen energy park sites, Figure 1.3 is very helpful at this stage, confirming that there is the potential that certain visual receptors may be subject to sequential significant visual effects; specifically those areas shaded blue on Figure 1.3 around the north, north-west and west of the Heckington Fen energy park site. At this stage and in the absence of emerging designs for the Beacon Fen proposal the Council could only conclude that some negative operational effects, primarily associated with the energy park site as opposed to the cable corridor works, would occur.
- 5.31 With reference to LVIA effects of the Heckington Fen proposals in isolation, the Council agrees that the construction and operation will invariably cause geographically highly limited yet significant adverse effects upon the character of the Fenland Landscape Character Sub-Area and we agreed that based on the applicant’s analysis these impacts would be experienced within the Energy Park itself, the existing public right of way, and the immediate surrounding landscape context up to a distance of approximately 500m from the energy park boundary.

- 5.32 We agree with the applicant's assessment that these significant adverse visual effects would be particularly pronounced to the 'static receptor' properties on Sidebar Lane represented notionally by Viewpoint 4, most of which have front or rear elevations facing towards the western edge of the site, and from the more open areas (benefitting from existing less natural screening or by intervening buildings) around Rose Cottage, Rainbow Cottage, Blacksmith's Cottage, Beech House, Rectory Cottages, 1-12 Council Houses, The Wheel, Park View Cottage, Rakes Farm and Six Hundreds Farmhouse along the A17 corridor south of the site.
- 5.33 Inevitably as a product of the size and scale of the Order Limits, the topography of the fenland landscape within which the site is located, the proportion of ground coverage (developed to undeveloped area), the absence (save for very sporadic farm buildings) of built development and the inclusion of a multi-hectare BESS and substation with plant and equipment of relatively pronounced height there is a conflict and tension with CLLP policy S53 'Design and Amenity' not least parts (a) and (b). Taken together these require proposals to be based on a sound understanding of the context, integrating into the surroundings and relating well to the site, its local and wider context.
- 5.34 That said, the Council accepts and appreciates that whilst there are zonal elevation changes between panels to reflect flood risk mitigation (which would have very limited perception) the resultant energy park would introduce a largely homogenous horizontal flat built form which by virtue of the relatively low elevation of the panels themselves would not unduly interrupt the expansive, open, level-horized landscape nor the 'huge skies' as all described in the NKDC LCA.
- 5.35 As above the Council agrees that the significant but localised landscape and visual impacts will reduce with landscaping beyond year 5. We also accept that the revised location of the BESS and substation area (relative to pre-application layout versions) is sited such that it minimises prominence from public vantage points including the PROW. Without prejudice the Council will continue to review the dDCO and Requirements relating to detailed design and LEMP matters to ensure that residual impacts are mitigated as far as possible.
- 5.36 As noted by CLLP Policy S14, proposals for ground based photovoltaics and associated infrastructure, including commercial large scale proposals, are under a presumption in favour unless, amongst other things, 'there is clear and demonstrable significant harm arising'. Design tensions are bound to remain given that wholesale integration into the surrounding landscape, even after mitigation, would not occur. However, the Council considers that set within the characteristics of the fenland sub-area and mindful of the geographically localised and time limited nature of the most harmful effects, 'clear and demonstrable significant harm' on landscape and visual grounds would not arise in this case.

## **6 Cultural Heritage**

### **Policy Context – National Policy Statements**

- 6.1 Section 5.8 of the 2011 EN-1 states that the IPC (now ExA) should consider the impact of a proposed development on any heritage assets and that they should take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between conservation of that significance and proposals for development.
- 6.2 In terms of archaeological assets, paragraph 5.8.22 states that where there is a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, then Requirements should be considered to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction.
- 6.3 The 2023 draft EN-1 seeks consistency with the current National Planning Policy Framework (adopted July 2021) and expands the definition of heritage significance to acknowledge the contribution that can be made by setting, and alters the wording of paragraphs 5.8.4 and 5.8.5 regarding non-designated archaeological heritage assets of demonstrably equivalent significance to Scheduled Monuments.
- 6.4 The draft also recommends that the applicant prepares proposals that enhance heritage significance and mitigate heritage harm, and considers whether the development effects will be direct, indirect, temporary or permanent. It further identifies a need to weigh any identified less than substantial harm to the significance of a designated heritage asset against the public benefits of the proposal.

### **National Planning Policy Framework**

- 6.5 Chapter 16 ‘Conserving and enhancing the historic environment’ of the NPPF sets out at paragraph 194 that:

“In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets’ importance and no more than is sufficient to understand the potential impact of the proposal on their significance... Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.”

6.6 Paragraph 202 then sets out that:

“Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use”.

6.7 NPPF paragraph 203 states that:

“The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing 68 Non-designated heritage assets of archaeological interest, which are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets. 58 applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset”.

6.8 Paragraph 041 Reference ID: 18a-041-20190723 of the National Planning Practice Guide reaffirms the advice of NPPF paragraph 194 in relation to archaeological matters through advising that:

*“Where an initial assessment indicates that the site on which development is proposed includes or has potential to include heritage assets with archaeological interest, applicants should be required to submit an appropriate desk-based assessment and, where necessary, a field evaluation”.*

6.9 Paragraph 020 Reference ID: 18a-020-20190723 of the NPPG notes that ‘public benefits may follow from many developments and could be anything that delivers economic, social or environmental objectives as described in the National Planning Policy Framework ([paragraph 8](#)). Public benefits should flow from the proposed development. They should be of a nature or scale to be of benefit to the public at large and not just be a private benefit’.

### **Central Lincolnshire Local Plan**

6.10 CLLP Policy S53 ‘Design and Amenity’ sets out that development proposals will be assessed against, and will be expected to meet a number of relevant design and amenity criteria, including under sub-heading (1) ‘Context’ that development proposals will:

*‘a) Be based on a sound understanding of the context, integrating into the surroundings and responding to local history, culture and heritage;*

*b) Relate well to the site, its local and wider context and existing characteristics including the retention of existing natural and historic features wherever possible and including appropriate landscape and boundary treatments to ensure that the development can be satisfactorily assimilated into the surrounding area’.*

- 6.11 CLLP policy S57 ‘the Historic Environment’ then requires development proposals to protect, conserve and seek opportunities to enhance the historic environment of Central Lincolnshire including through protecting the significance of heritage assets (including where relevant their setting), and taking into account the desirability of sustaining and enhancing non-designated heritage assets and their setting.
- 6.12 Continuing, the policy states that where a development proposal would result in less than substantial harm to a designated heritage asset, permission will only be granted where the public benefits, including, where appropriate, securing its optimum viable use, outweigh the harm. Finally, development affecting archaeological remains (whether known or potential, designated or undesignated) should take every practical and reasonable step to protect and, where possible, enhance their significance.
- 6.13 Finally, paragraph 9.1.15 of the 2007 NKDC LCA, which addresses settlement character in the Fenland sub-area notes that:

*“To the west of the village is the Kyme Tower, a remnant of a medieval castle which is a distinctive local landmark. Close by are the remains of a priory which dates from the 12th century and the attractive Victorian parish church which add reference points, historical interest and visual prominence to the settlement and landscape”.*

### **Applicant’s Assessment**

#### Above ground heritage assets

- 6.14 A search area of a minimum 5km-radius from the proposed development site was applied by way of initially scoping heritage assets whose setting or significance might be impacted by the development. There are 2 North Kesteven Conservation Areas located within the study area - Heckington Conservation Area c.4.4km west of the Energy Park site and Helpringham Conservation Area c.4.9km to the west.
- 6.15 In addition there are 123 Listed Buildings located within the 5km radius of the site, the majority being Grade II. The closest higher grade Listed Buildings are the Grade I Listed Church of St Andrew at Heckington, c.4.5km west of the Energy Park, the Grade I Listed Heckington Mill at Heckington, c.4.5km west-south-west of the Energy Park, and the Grade I Listed Church of St John the Baptist at Great Hale, c.4.5km south-west of the Energy Park.
- 6.16 There are no Registered Parks and Gardens, Registered Battlefields, or World Heritage Sites located within a 5km radius of the Site, however there are 11 Scheduled Monuments located within a 5km radius of the site – including in closest range the settlement site ‘east of Holme House’ (c.860m west of the Energy Park), and the remains of medieval monastery, moated manor house, fishponds, and post-medieval garden at South Kyme, c.3.5km north-west of the Energy Park.



- 6.17 The applicant has identified that there are no key views either towards the Conservation Areas at Heckington or Helpringham from the site, or towards the site from the Conservation Areas. The applicant concludes that the site does not contribute through setting to the significance of any Conservation Area.
- 6.18 In addition, screened 'Zone of Theoretical Visibility' (ZTV) modelling carried out by the applicant has indicated that the proposed development would not be visible from any of the Listed Buildings at Heckington, Great Hale and South Kyme within North Kesteven. With specific reference to impacts on the setting of the closest churches (as a collective) within the District, St Andrew's at Asgarby is more than 7km west, and those within the 5km study area are situated within settlement cores and so enclosed by other built form. The applicant notes that neither the Church of St Andrew at Heckington, nor the Church of St John the Baptist at Great Hale are visible from the section of the A17 to the south of the Energy Park due to the screening provided by vegetation and buildings at East Heckington and further afield.
- 6.19 The applicant has therefore screened that the only heritage assets potentially sensitive to the construction and/or operation of the development are the Scheduled Monument of 'east of Holme House', the Grade I Listed Building of Kyme Tower at South Kyme and Mill Green Farmhouse (identified by the applicant as a non-designated heritage asset).
- 6.20 The Council's primary interest is the applicant's 'group' assessment of the Grade II Listed Manor at South Kyme, the nearby Grade I Listed Kyme Tower and Church (Grade II\*), all of which are located within the Scheduled Monument of the monastery, moated manor house and gardens. The applicant's focus is then specifically on Kyme Tower, which forms part of the group and where it can also be seen at long range from the western part of the Energy Park and from the A17.
- 6.21 The applicant notes there may be visibility of the Energy Park from the stairwell, upper floors and parapet of Kyme Tower, which was designed to be seen from and see across the landscape for defence – thus the range of intervisibility and the character of the landscape may contribute to its significance. However, the applicant points to there being no evidence that the Tower was positioned or orientated to ensure its prominence specifically in views from or across the Energy Park, and notes the significant subsequent change in the current landscape character relative to the period of use during the 14th to 17th centuries. The suggestion is that the intervisibility of Kyme Tower and parts of the Energy Park is therefore largely incidental rather than 'planned'. The applicant's overall assessment is that there is no harm to the significance of Kyme Tower stemming from the development.

- 6.22 In terms of non-designated heritage assets (NDHA), the applicant has considered Mill Green Farmhouse, to the north of the site, and the Primitive Methodist Chapel on Sidebar Lane; both of which are on the Historic Environment Record (HER). The Chapel is around 500m west of the Energy Park, and it is accepted that it was not designed or sited to afford views across the Energy Park landscape. No harm to its character accrues. The applicant concludes that development will result in only minor harm to the significance of Mill Green Farmhouse, including as a result of the change to the open agricultural landscape to its south, which features in designed views from the farmhouse and contributes to an understanding of the origins of the farmstead.

### Archaeology

- 6.23 The main Energy Park site has been subject to extensive pre-determination assessment, comprising full geophysical survey of the entire site. A total of 962 trial trenches were excavated and recorded across the Energy Park site, of which 194 contained archaeological features and deposits, indicating that archaeological remains are present across the site, albeit sporadically. The concentrations are located in fields G9, SH1 and SH14. The earliest archaeological activity is evidenced by a small assemblage of Mesolithic/Neolithic flints, recovered from the northern area of the site, with Romano–British activity across the central and southern portions of the site and comprised enclosures, possible settlement, and evidence of salt processing.
- 6.24 There is also evidence of post-medieval activities including hunting pursuits (a duck decoy and possible coverts/wooded compartments) placed along the field boundaries and possibly representing a ‘designed’ landscape.
- 6.25 Despite the effect of ploughing and modern field drainage, the archaeological deposits were relatively well preserved and the overall analysis is that the main Energy Park site largely conforms to the regional landscape of early saltmarsh with limited prehistoric activity, and more pronounced Roman–British activity, especially associated with salt production, followed by land drainage/reclamation in the eighteenth century.
- 6.26 The applicant’s assessment notes there to be potential for further analysis to better characterise and understand the archaeological remains of Romano-British date within Fields G9, G23, SH1, G3, G4, G21 and SH14. The post-medieval draining of the site and its subsequent agricultural history is well represented both archaeologically and through historical sources and there is limited scope to develop this further. However, none of these known and potential heritage assets are considered to be of the highest level of significance requiring ‘preservation in situ’.

- 6.27 The Council's archaeological consultant, the Heritage Trust of Lincolnshire (HTL) has provided detailed feedback (attached as Appendix 2 to the Council's LIR), and notes that the evaluation of the Energy Park provides an appropriate level of baseline information to inform the archaeological mitigation strategy.
- 6.28 However, HTL make reference to six areas for archaeological strip, map and record excavation which does not correspond with information contained elsewhere in the ES documents. The ES chapter does not describe any mitigation or control mechanisms in respect of other archaeological priority zones, and there is an apparent disjoint between the results of the Energy Park evaluation, which identified areas of archaeological potential which may require mitigation, the 'six areas' of archaeological mitigation (strip, map and record) described in the cultural heritage Chapter and the areas described Outline Written Scheme of Investigation (WSI) for Archaeological Mitigation. This means that the areas proposed for mitigation (and the appropriate measures) is unclear.
- 6.29 In terms of the cable corridor, owing to cropping and accessibility constraints, only geophysical survey has been carried out, and HTL confirm that a trial trench evaluation is required in order to inform the archaeological mitigation strategy. An Outline WSI for the cable corridor has been provided for a programme of archaeological trial trenching, informed by the applicant's desk-based assessment and geophysical survey.
- 6.30 The purpose of the trenching programme is to examine the cropmarks and geophysical anomalies identified together with areas where other techniques have not identified potential archaeological features. Trial trenching commenced in July 2023 and therefore the results are not yet available to inform the applicant's assessment. This matter is therefore unresolved at the present time and HTL conclude that the assessment of significant effects on any buried archaeological remains along the cable route is limited by the absence of this information.
- 6.31 The applicant's overall analysis is that construction impacts to the known buried remains of Mesolithic or Neolithic pits and Roman salterns range from local to regional significance and comprise 'minor harm' which cannot be fully mitigated and will result in loss through construction activities.

#### **North Kesteven District Council position**

- 6.32 In relation to archaeological matters, whilst there is nothing to suggest that the outstanding cable route trial trench works will reveal remains of more than local or regional significance, the Council agrees that 'minor harm' accrues and that it is not yet possible to assign categorically impact significance to the cable route works.

- 6.33 As such, there is at present a degree of tension and conflict with the provisions of NPPF paragraph 194 and CLLP policy S57 pending the reporting of the scheme of trial trenching on the cable corridor. Whilst paragraph 5.8.22 of the adopted EN-1 notes that in principle Requirements can be considered to ensure that appropriate procedures are in place for the identification and treatment of such assets discovered during construction, at present there is a disconnect in the evidence base which tempers how draft Requirement 12 can be finalised. If subsequently accepted into the examination process the Council would wish to review the report once available. Some negative construction effects on archaeological interests will accrue in relation to both the Energy Park and cable route works, with the degree of harm as yet unquantified in the latter.
- 6.34 With reference to above-ground heritage assets the Council does not challenge the overall impact assessment on the Scheduled Monument of ‘east of Holme House’, nor the two NDHAs (Mill Green Farmhouse and the Primitive Chapel). The Council agrees that there will be no impact on the significance of Heckington or Helpringham Conservation Areas and we also agree that no harm would occur to the other designated heritage assets considered in the applicant’s assessment.
- 6.35 As set out in our response to the first set of Examining Authority questions, the Council agrees that the following sites should be considered as ‘non-designated heritage assets’ (NDHA) given that they satisfy the criteria contained on the Council’s NDHA checklist ([Local List of Non-Designated Heritage Assets | North Kesteven District Council \(n-kesteven.gov.uk\)](https://www.n-kesteven.gov.uk));
- Mill Green Farmhouse
  - Former Primitive Methodist Chapel
  - Rectory
  - The derelict cottages and barn of Six Hundreds Farm
  - Former drainage pump at Head Dike

However, due to the extant condition, the following would not be considered as an NDHA:

- Low boundary wall at Elm Grange
- 6.36 The five named assets are certainly of some interest, however we consider that the Former Primitive Methodist Chapel and Rectory do not require further assessment, but the farm buildings (cottages and barn) at Six Hundreds Farm and the former drainage pump should probably be subject to some further assessment. However, we are satisfied that on the basis these structures will not be physically impacted by the proposed development, this assessment could be linked with ‘archaeological’ matters through expanding the dDCO Requirement 12 and requiring a submission of a scheme for historic building recording for these two assets which then can be placed on the Historic Environment Record as supplemental to existing entries. We do not consider that any additional pre-determination assessment of these assets in the context of impacts arising and significance (NPPF paragraph 203 and CLLP policy S57) is necessary.

- 6.37 With reference to impacts on above-ground heritage assets, and specifically Kyme Tower, the Council's principle concern lies with the following description of the setting of the tower in paragraph 6.59 of the Environmental Statement (Volume 3: Technical Appendices Appendix 10.1: Heritage Desk Based Assessment DBA) (APP-206);

*“The long-ranging intervisibility of Kyme Tower and parts of the Energy Park is largely incidental to the significance of the asset; there is no evidence to suggest that visibility specifically of the Energy Park was ever important to the defensive function of the Tower, or that the Tower was intended to be seen specifically from the Energy Park or any location to its south or south-east from where the Energy Park may be co-visible”.*

- 6.38 As a fortified tower there should not be an expectation that the tower was designed as part of a wider designed landscape. As above, its prominence and visibility is referred to in the Council's LCA. The tower was constructed to be both conspicuous in the landscape and functionally offering a 360-degree defensive view away from the tower. The principal of aligning its significance within a designed view/designed landscape would be to imply that it was a folly type structure, which is not the case. These views and the surrounding landscape add significance to the setting of the heritage asset. The application site falls within these views.
- 6.39 Due to the historic function of the tower and the extant landscape setting, no views of the tower, or away from the tower, should be classed as “incidental”. The fact that the tower is visible from the application site demonstrates the fact that Kyme Tower was designed to be a physical presence in the landscape.
- 6.40 The application site would be visible and present within views away from the tower, thereby affecting the landscape character of the site, though this is yet to be properly assessed through the application. This would affect the setting of the tower, thereby having a degree of ‘less than substantial harm’ on its special interest. The impact of monumental architecture in the landscape is further exemplified by views of numerous church towers and spires located outside the study area, which are still clearly visible from the application site.
- 6.41 As such the Council disagrees with the conclusion in paragraph 10.5.22 of APP-063 that the effect on Kyme Tower is “not significant” and that no harm is caused. In our view, we believe that the impact has yet to be fully assessed, however we accept that the harm lies towards the lower end of ‘less than substantial’ (engaging NPPF paragraph 202) and that the required counterbalance of public benefit would be met with reference to the NPPG guidance on this matter.

## **7 Other Matters – Battery Type**

- 7.1 The Council also requests that the applicant give consideration to the use of lithium iron phosphate batteries (LiFePO or LFP battery) in the operation of the BESS. Whilst we accept that this will ultimately be a commercial decision the Council notes published sources which suggest that one of the advantages of the use of LFP batteries over other lithium-ion chemistries is thermal and chemical stability, which improves battery safety; including that the battery does not decompose when exposed to high temperatures. LFP batteries are suitable for deployment in commercial solar farms with a number of sources noting the benefits of application in terms of longevity, safety features, and low maintenance requirements.
- 7.2 We would also refer the examining authority and applicant to the recently updated NPPG guidance dealing with battery storage systems (including at paragraph 034 Reference ID: 5-034-20230814). The NPPG refers applicants to guidance produced by the National Fire Chiefs Council in ensuring that sites are developed to incorporate firefighting access and that facilities must be added to the risk register for the purposes of Section 7 of the Fire and Rescue Services Act 2004.

## **8 Summary and Conclusion**

- 8.1 It is noted that the delivery of renewable energy of this nature is in accordance with the strategic policies of the Central Lincolnshire Local Plan (2023); most notably CLLP policies S14 ‘renewable energy’ and S16 ‘wider energy infrastructure’. Underpinning the Plan is the overarching vision and strategy, and a series of policies, to address the challenges relating to climate change to ensure that the District and Central Lincolnshire is fit for a zero-carbon future, contributes to the transition to a net-zero carbon society, and is responsive to a changing climate.
- 8.2 This ‘golden thread’ also runs through the NKDC Climate Emergency Strategy (CES), the Climate Emergency Action Plan (CEAP) 22/23, its Environment Policy, the NK Plan 22-25 and its Community Strategy. Together these also comprise the Council’s vision and strategy for a sustainable transition to net zero by 2030, supported by mitigation measures to reduce emissions and adaptation measures to improve resilience to the effects of climate change.
- 8.3 The Council therefore supports the principle of the development however notes that (not unexpectedly for a project of this scale and nature) there are negative impacts identified for the majority of the ES topics. This inevitably creates a tension and conflict, of varying degrees, with the adopted and draft NPSs, the NPPF and policies contained in the 2023 CLLP. However, as set out above and in our LIR we are satisfied that in principle those matters are capable of being addressed by Requirement.

8.4 As set out above however, the four topic areas and associated impacts of greatest concern are in relation to;

- Impacts on Best and Most Versatile (BMV) agricultural land
- Landscape and Visual Impact
- Cultural Heritage impacts (above ground and archaeology); and
- Ecology, Ornithology and BNG impacts

We also request that the applicant give consideration to the use of lithium iron phosphate batteries in the operation of the BESS. The cumulative impacts arising in terms of the region-wide use of BMV is also more significant in the Council's submission and it has been rather down-played by the applicant.

8.5 Of these there is a particular tension and policy conflict in relation to BMV land impacts given that very nearly half of the energy park site by area comprises land in Grades 1, 2 and 3a. The NPSs direct that previously developed land, brownfield land, contaminated land, industrial land and non-BMV land should be developed as a preference, and where policies S14 and S67 of the CLLP seek to protect the best and most versatile agricultural land so as to preserve opportunities for food production and the continuance of the agricultural economy.

8.6 The temporary loss of 257ha of BMV land is significant in its own right. We are not convinced that the applicant has demonstrated that they have avoided the use of BMV agricultural land where possible (including making further adjustments to the Order Limits or site layout through drawing back panelled areas) and this is borne out by cross reference to the APP-077 'Field Plan' and BMV land distribution map. The applicant has ruled out making further adjustments to BMV proportions and Order Limit changes/reductions owing to this being commercially unattractive. Furthermore we are not satisfied that the 'need' to develop BMV land has been evidenced.

8.7 In relation to cumulative BMV impacts and the applicant's documents REP1-021 and APP-175, we agree that in addition to the One Earth Solar Farm, solar NSIP projects 2, 3, 4, 5, 6, 8, 9, 10, 11 and 12 (Cottam, Gate Burton, West Burton, Mallard Pass, Temple Oaks, Tillbridge, Beacon Fen, Springwell and Fosse Green) will have cumulative adverse effects on agricultural land at a regional level. The applicant estimates that applying a worse case scenario these projects alongside Heckington Fen will take 3,697ha of BMV land out of production; just under 1% of the BMV in Lincolnshire.

8.8 We do not however agree that those cumulative agricultural land/BMV impacts will not be 'significant', as suggested by the applicant and therefore we also consider there to be an additional policy conflict associated with cumulative BMV impacts.

8.9 The proposed mitigations (including contractual arrangements for sheep grazing) are, unfortunately, poorly developed at this stage albeit we will continue to work with the applicant on a without prejudice basis to assess whether these matters can be addressed by Requirement.