



EAST PARK ENERGY

East Park Energy

EN010141

Environmental Statement Volume 1 – Main Report

Chapter 4 – Environmental Impact Assessment Methodology

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Chapter 4: EIA Methodology

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4.0 ENVIRONMENTAL IMPACT ASSESSMENT METHODOLOGY

4.1 Introduction

- 4.1.1 This chapter of the Environmental Statement (ES) sets out the approach to the Environmental Impact Assessment (EIA), providing an outline of the general structure to each ES chapter and how this relates to the EIA process.
- 4.1.2 It also explains the general process of identifying and assessing the likely significant environmental effects associated with the East Park Energy project (the ‘Scheme’), and outlines the measures proposed to avoid, prevent, reduce, or, where required, offset any significant adverse effects identified during the EIA process.
- 4.1.3 More in-depth information regarding specific methodologies, including survey techniques and data collection methods, is provided in the relevant topic-specific chapters (see **ES Vol 1: Chapters 5-17 [EN010141/DR/6.1]**).
- 4.1.4 The core purpose of EIA is to identify, describe and assess the direct and indirect significant effects (both adverse and beneficial) of the Scheme, which is an iterative and staged process. As the Scheme is a nationally significant infrastructure project (NSIP), the following are the key EIA reporting stages through to submission of the application for development consent:
- **EIA Screening** – depending on the scale of the development, EIA screening is undertaken to establish whether the development has the potential to give rise to significant environmental effects and therefore be considered ‘EIA Development’. The screening process evaluates the project's scale, nature, and location to ascertain the likelihood of potential significant effects occurring. As part of this process, the applicant can determine itself whether the project is EIA Development and volunteer an ES or seek a screening opinion from the Secretary of State. The Applicant did not request a screening opinion but instead acknowledged that the

Scheme has the potential for significant environmental effects, and therefore notified the Secretary of State of their intention to provide an ES with the application for development consent.

- **EIA Scoping** – Once a project is determined to require an EIA, the scoping phase begins. The purpose of scoping is to identify the key environmental issues that need to be assessed, ensuring that the EIA focuses on the likely significant impacts. This stage helps to outline the specific parameters and methodologies that will be used in the assessment, providing clarity on what will be included in the ES. An EIA scoping report, setting out the Applicant's proposed scope of the EIA, was submitted to the Planning Inspectorate on 30th October 2023 and can be found at **ES Vol 2 Appendix 4-1: East Park Energy EIA Scoping Report [EN010141/DR/6.2]**. The statutory consultees, including the relevant local planning authorities, were consulted by the Planning Inspectorate on the EIA scoping report. The Planning Inspectorate issued its scoping opinion on 8th December 2023. The Scoping Opinion informs the scope of the EIA and can be found at **ES Vol 2 Appendix 4-2: EIA Scoping Opinion [EN010141/DR/6.2]**. The Applicant has complied with the scoping opinion, as set out in **ES Vol 2 Appendix 4-3: Scoping Opinion Response Matrix [EN010141/DR/6.2]**.
- **Preliminary Environmental Information** – Following scoping, the Applicant prepares and consults on preliminary environmental information (PEI) provided within a PEI Report (PEIR). The PEIR must provide sufficient information for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development). The PEIR was published as part of the Statutory Consultation, which ran from the 24th September to 29th October 2024. The PEIR presented the Applicant's PEI for the Scheme and took the form of an early draft ES.
- **Environmental Statement** – Following the consultation on the PEIR, the Applicant has prepared an ES for submission with the application for development consent. This ES presents comprehensive findings from the

environmental assessment conducted by the Applicant, detailing the likely significant environmental effects of the Scheme and the mitigation measures designed to avoid, reduce, and offset adverse effects. The findings of the ES will be considered as part of the decision-making process regarding whether to grant development consent. The ES has incorporated feedback received during the statutory consultation process, particularly comments on the PEIR. The Applicant has also engaged with various statutory consultees and relevant organisations to inform the design of the Scheme. Feedback from the comprehensive consultation process undertaken with the community and statutory consultees has been integrated into the ES.

4.1.5 The ES has been prepared to satisfy the requirements of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ('the EIA Regulations')¹. In general, whilst preparing this ES, reference has been made to the following guidance:

- Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents (2025)²;
- Nationally Significant Infrastructure Projects: Advice on working with public bodies in the infrastructure planning process (2025)³;
- Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation (2025)⁴;
- Nationally Significant Infrastructure Projects - Advice Note 7: Environmental Impact Assessment Process, Preliminary Environmental Information and Environmental Statements (2025)⁵;
- Nationally Significant Infrastructure Projects - Advice Note 9 Rochdale Envelope (2025)⁶;
- Nationally Significant Infrastructure Projects: Commitments Register (2025)⁷
- Nationally Significant Infrastructure Projects: Advice on working with public bodies in the infrastructure planning process (2025)⁸; and

- Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (2025)⁹ (PINS Advice on CEA).

4.2 Consultation

- 4.2.1 The views of consultation bodies and the local community serve to focus the environmental studies and to identify specific issues that require further investigation, as well as to inform aspects of the design of the Scheme.
- 4.2.2 The formal approach taken by the Applicant to consultation is set out in the East Park Energy Statement of Community Consultation (September 2024) ('the SoCC') which is provided within the **Consultation Report Appendices [EN010141/DR/5.2]**.
- 4.2.3 The Applicant has been actively engaging with the host local planning authorities (LPAs), statutory environmental bodies and other relevant stakeholders as part of the EIA process.
- 4.2.4 The Applicant has been holding regular meetings with planning officers at Bedford Borough Council, Huntingdonshire District Council and Cambridgeshire County Council since November 2023 and has agreed a planning performance agreement (PPA) that sets out the terms of current and future engagement with these three host authorities.
- 4.2.5 A series of meetings have been held with other technical Officers at the LPAs covering the following topics:
- highways and public rights of way;
 - cultural heritage;
 - archaeology;
 - environmental health and protection; and
 - ecology and nature conservation.
- 4.2.6 The Applicant has also been engaging with Historic England, Natural England, the Environment Agency and National Highways and where relevant a summary of the advice received is set out in individual chapters of this ES.

- 4.2.7 Each chapter of this ES sets out a summary of the engagement undertaken for each topic, and how that has influenced what is considered in that chapter.

Community Consultation

- 4.2.8 The Applicant has undertaken a two-stage approach to pre-application consultation on the Scheme. Phase 1 comprised an informal, non-statutory consultation during October and November 2023. Phase 2 consultation comprised a formal statutory consultation during September 2024 and October 2024, and as set out above the Phase 2 consultation included publication of the PEIR.
- 4.2.9 During these consultation phases the Applicant engaged with the local community via in-person open public consultation events, one-to-one meetings, and published project information across a range of media types.
- 4.2.10 A **Consultation Report [EN010141/DR/5.1]** has been prepared and submitted with the application. This report complies with Sections 37(3)(c) and 37(7) of the Planning Act 2008 and outlines the consultations conducted under the relevant sections of the Act, along with associated legislation and guidance, including the government's advice on the preparing consultation reports . It details all consultations held during the pre-application period, including the responses received, and includes the Applicant's responses regarding how the feedback from consultees has been addressed.
- 4.2.11 Section 3 of each technical chapter within the ES (Chapter 5.0 to 17.0) describes the key feedback provided from statutory consultees and how these have been considered within the assessment.

4.3 Approach to Assessment

- 4.3.1 This section sets out the approach taken within each technical chapter of the ES, under the headings used within each chapter.

4.3.2 In order to provide a consistent and robust assessment, each of the technical chapters (Chapter 5.0 to 15.0) presented within the ES follows the general structure set out as follows:

- Introduction;
- Legislation, Policy, and Guidance;
- Consultation and Engagement;
- Assessment Methodology;
- Assumptions and Limitations;
- Baseline Conditions;
- Embedded Mitigation and Enhancement Measures;
- Assessment of Likely Impacts and Effects;
- Additional Mitigation, Enhancement and Monitoring;
- Residual Effects;
- Cumulative Effects;
- Conclusions; and
- References.

Introduction

4.3.3 The introduction to each chapter will provide a statement outlining the relative expertise and qualifications of the specialist that has undertaken the assessment.

Legislation, Policy and Guidance

4.3.4 This section of each ES Chapter describes the legislation, planning policy and guidance relevant to the assessment of the topic area. This section is not intended to provide a comprehensive analysis of whether the Scheme would comply with legislative requirements and does not provide an appraisal of the Scheme against the planning policies identified. However, this section helps to inform the reader of the relevant documents which have informed the approach to the assessment, and also the factors the decision maker will need to take into account when considering the acceptability of the Scheme.

- 4.3.5 An analysis of the Scheme's compliance with policy is included in the **Policy Compliance Document [EN010141/DR/5.4]**.

Consultation and Engagement

- 4.3.6 This section of each ES chapter outlines consultation and engagement undertaken during the pre-application period with relevant statutory consultees. It also sets out how comments received are addressed within the chapter, including comments from the PINS scoping opinion.

Assessment Methodology

- 4.3.7 This section of each ES Chapter provides details of the assessment method followed and typically includes:
- A description of the study area used for the assessment;
 - The approach taken to gathering of any desk-based or field data. Where specific surveys have been undertaken an outline of the survey methodology will be provided;
 - The approach to the impact assessment. This includes how the particular chapter has defined the sensitivity of environmental receptors, the magnitude of impacts, and how these relate to the overall level of effect and significance in EIA terms.

Rochdale Envelope and Scheme Parameters

- 4.3.8 As set out in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]**, it is necessary for the technical assessments to assess an 'envelope' within which the works will take place. As such, the EIA is based upon maximum and, where relevant, minimum parameters which are defined in Chapter 2, taking account the limits of deviation shown on the **Works Plan [EN010141/DR/2.3]** and the Design Parameters and Design Principles set out in the **Design Parameters and Principles Statement [EN010141/DR/7.1]**. To remain in accordance with the EIA Regulations the parameters are as 'limited' as possible to ensure that the 'likely significant effects' are identified. These

parameters are considered in detail in Chapter 2 and where necessary in the Assessment Methodology section of technical chapters to ensure the realistic worst-case effects of the Scheme are assessed for each potential receptor.

Temporal Scope - Assessment Years

4.3.9 The assessment of effects for each environmental topic is structured around the following phases:

- construction phase;
- operational phase; and
- decommissioning phase.

Construction Phase

4.3.10 It is assumed the construction phase will begin in early 2028 and take 30 months to complete, with a conclusion date of mid-to-late 2030 (although initial energisation of the Scheme is likely to commence prior to 2030).

4.3.11 The effects of the Scheme during construction will vary depending on the activity being undertaken, with some construction activities expected to last longer than others. For example, the impact of laying access tracks during the enabling works will be relatively short, whilst the electrical works to install the solar arrays will persist over a longer period.

4.3.12 As set out in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]** the construction works would be split into different sub-projects / packages to enable the development to be delivered in the most efficient manner. **ES Vol 2 Appendix 2-1: Indicative Construction Phasing and Resource Schedule [EN010141/DR/6.2]** illustrates the indicative phasing envisaged for the purposes of the EIA.

4.3.13 For most environmental topics, construction effects are generally considered to be short-term and lasting only for the duration of the construction phase, however for some topics the impact of particular construction activities could have long-term effects.

Operational Phase

- 4.3.14 It is assumed that the Scheme would be commissioned and become operational in 2030.
- 4.3.15 The effects of the Scheme once operational will be restricted to its operation, use, and maintenance of the equipment and landscaping.
- 4.3.16 For most environmental topics, operational effects are considered to be either short-term, medium-term, or long-term as follows:
- Short-term – a change typically persisting for less than three years;
 - Medium-term – a change typically persisting for between three and ten years; and
 - Long-term – a change typically persisting for more than ten years.
- 4.3.17 In addition, effects can be defined as reversible or permanent. Reversible effects are those which would end once the operational phase is complete, and the Scheme is decommissioned. Permanent effects are those which cannot be reversed.
- 4.3.18 As set out in **ES Vol 1 Chapter 2: The Scheme [EN010141/DR/6.1]** there will be a requirement for certain components of the development to be replaced during the 40-year operational period. Where this is relevant, the impact of this will be assessed.

Decommissioning Phase

- 4.3.19 The Scheme is being applied for on a temporary basis with a 40-year operational period. It is assumed that the decommissioning phase would commence in 2070 and take between 12 and 24 months to complete
- 4.3.20 The effects of the Scheme at decommissioning are similar in nature to the construction phase, although would be of a shorter duration and of less intensity. For example, removing the solar PV mounting structures at the decommissioning phase is a relatively straightforward and quick task

compared to accurately piling them into the correct position during the construction phase.

- 4.3.21 For most environmental topics, decommissioning effects are generally considered to be short-term and lasting only for the duration of the decommissioning phase.

Spatial Scope – Geographical Area

- 4.3.22 The spatial scope or ‘study area’ of each assessment is set out in the relevant technical chapter, including the rationale for determining the study area. The study areas generally relate to the geographic area in which there is potential for a receptor to experience an impact.

Assumptions and Limitations

- 4.3.23 This section of each ES Chapter sets out any key assumptions and limitations to the assessment.

Baseline Conditions

- 4.3.24 This section of each ES Chapter provides a description of the baseline conditions relevant to the topic being assessed. The baseline conditions have been established through consultation, collation and analysis of existing data sets and reports, and in some cases site-specific field data. The baseline identifies any sensitive receptors or resources that need to be evaluated in the assessment.
- 4.3.25 Each chapter provides an outline of the likely evolution of the baseline conditions without implementation of the Scheme as far as natural changes from the baseline scenario can be assessed. The ‘future baseline’ is then taken into account when assessing the likely effects of the project over its lifetime where this is relevant.

Embedded Mitigation and Enhancement Measures

Overview

4.3.26 It is a requirement of the EIA Regulations to describe the measures envisaged to avoid, prevent, reduce and where possible offset any significant effects on the environment. These measures, which can include monitoring and enhancement can be used to reduce, avoid or offset any adverse effect, whether or not that effect is deemed to be 'significant' in EIA terms. This approach is often referred to as the mitigation hierarchy with mitigation being selected as high up the hierarchy as possible:

- Avoid;
- Prevent;
- Reduce; and
- Offset / Compensate.

Embedded Mitigation

4.3.27 Embedded mitigation is that which is considered to form an intrinsic part of the Scheme and has therefore been taken into account as part of the assessment of effects. The purpose of embedded mitigation is to avoid, prevent or reduce likely significant effects as part of the design process or through measures which must be committed to, either via legislation (e.g. Wildlife and Countryside Act 1980) or Requirements set out in the draft development consent order (DCO).

Design

4.3.28 The design process began at the outset of the project through the site selection process, which is considered a first step in avoiding significant environmental effects where practicable, as set out in **ES Vol 1 Chapter 3: Alternatives and Design Evolution [EN010141/DR/6.1]**.

4.3.29 A series of design principles have been established from the outset of the project to guide decision making in relation to Scheme design, and to avoid

or minimise the environmental impacts of the Scheme as far as practicable. These design principles have evolved since the inception of the Scheme as an understanding of the project has also evolved, and in response to the EIA process. The design principles are as follows:

- **Design Principle 1:** The Scheme will seek opportunities to deliver solar development as efficiently as practicable to support national electricity network decarbonisation targets;
- **Design Principle 2:** The Scheme will be sensitive to landscape and views, and how people perceive the landscape;
- **Design Principle 3:** The Scheme will be sensitive to heritage assets, looking to protect the most valuable assets that contribute to a sense of place;
- **Design Principle 4:** The Scheme will be sensitive to biodiversity, and look to provide enhancement where possible;
- **Design Principle 5:** The Scheme will be sensitive to the water environment, looking to avoid harm to watercourses and improve water quality where practicable;
- **Design Principle 6:** The Scheme will be sensitive to local amenity and human health; and
- **Design Principle 7:** The Scheme will seek opportunities to leave a positive legacy through the delivery of multiple social and environmental benefits.

4.3.30 Further detail on the design principles are set out in the **Design Approach Document [EN010141/DR/5.6]**. Compliance with the design principles is secured by the **Design Parameters and Principles Statement [EN010141/DR/7.1]** via a Requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**. The design principles have informed the production of an Illustrative Environmental Masterplan (refer to **ES Vol 3 Figure 2-1: Illustrative Environmental Masterplan [EN010141/DR/6.3]**). The measures set out in the Illustrative Environmental Masterplan form part of the embedded mitigation as set out in the **outline Landscape and Ecological Management**

Plan [EN010141/DR/7.7], which is secured via a Requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**.

Control Documents

- 4.3.31 Standard best practice measures will be incorporated into the construction, operation and decommissioning of the Scheme via the implementation of a series of certified ‘control documents’. Control documents include any documents certified within the **draft DCO [EN010141/DR/3.1]** which provide specific and detailed practical controls on the Scheme. The mitigation which is described within control documents is secured via the Requirements in Schedule 2 of the draft DCO.
- 4.3.32 The control documents which describe mitigation to be employed to avoid or reduce adverse environmental effects of the Scheme are as follows:
- **outline Construction Environmental Management Plan (oCEMP) [EN010141/DR/7.3];**
 - **outline Construction Traffic Management Plan (oCTMP) [EN010141/DR/7.4];**
 - **outline Operational Environmental Management Plan (oOEMP) [EN010141/DR/7.5];**
 - **outline Decommissioning Environmental Management Plan (oDEMP) [EN010141/DR/7.6];**
 - **outline Landscape and Ecological Management Plan (oLEMP) [EN010141/DR/7.7];**
 - **outline Public Rights of Way Management Plan (oPROWMP) [EN010141/DR/7.8];**
 - **outline Soil Management Plan (oSMP) [EN010141/DR/7.9];**
 - **outline Battery Safety Management Plan (oBSMP) [EN010141/DR/7.10];**
 - **outline Skills, Supply Chain and Employment Plan (oSSEMP) [EN010141/DR/7.11];**
 - **outline Waste Management Plan (oWMP) [EN010141/DR/7.12];**

- **outline Surface Water Management Plan (oSWMP) [EN010141/DR/7.13]; and**
- **outline Archaeological Mitigation Strategy (oAMS) [EN010141/DR/7.15].**

- 4.3.33 Post-consent, the above management plans will be developed into full plans which must be in substantial accordance with the outline, and require approval from the host authorities. The Scheme must be undertaken in accordance with those full approved plans. This is secured via a Requirement in Schedule 2 of the **draft DCO [EN010141/DR/3.1]**.
- 4.3.34 A list of mitigation measures proposed and how they are secured in the DCO is provided in a **Commitments Register [EN010141/DR/7.2]** submitted with the application for development consent.
- 4.3.35 Enhancement measures that have been incorporated into the design, which are not required as mitigation for the Scheme, but are environmental opportunities the Scheme will deliver to achieve additional benefits, are also described in this section in each chapter.

Assessment of Likely Significant Effects

- 4.3.36 This section of the chapter describes the likely significant environmental effects of the Scheme (inclusive of the embedded mitigation) on the baseline conditions at the Site and the surrounding area relevant to the assessment topic. The assessment includes a description of the nature, extent and significance of these effects. The assessment of effects considers the construction, operational and decommissioning phases of the Scheme.
- 4.3.37 The EIA Regulations do not provide definitive methods for the assessment of significance and a variety of methods are employed within environmental statements. The method used to assess the effects is specific to each discipline. Where available and appropriate, the assessments follow impact assessment criteria and methodology set out by relevant professional institutions. Where such guidance is not available, or prescriptive methods

are not set out by the relevant professional body, then assessment criteria are developed by the technical specialists to enable a clear and structured assessment to be undertaken.

4.3.38 The level of the effect is, in general, derived by considering the magnitude of the impact and the sensitivity of the receptor to a change resulting from the Scheme.

4.3.39 Depending on the discipline, there are several factors that need to be taken into account when establishing the type and magnitude of an impact, including:

- whether the impact is adverse, beneficial or neutral;
- whether it is temporary or permanent;
- extent or spatial scale of the impact;
- duration of the impact;
- whether the impact is reversible; and
- probability / likelihood of the impact.

4.3.40 Similarly, the sensitivity of a receptor is the function of several elements dependent on the discipline and effect being assessed, these could include:

- designation and legal status;
- quality;
- rarity; and
- ability to adapt to change.

4.3.41 Having established the magnitude of the impact and the sensitivity of the receptor, the level of the effect is then defined. For some disciplines, a matrix is used to classify the level of effect by correlating magnitude of impact and sensitivity. Where a matrix is to be used it will be set out within the relevant chapter and the levels of effect described.

4.3.42 Where a matrix is not used, the magnitude of impact and the sensitivity of the receptor is used to make a reasoned professional judgement to establish the

level of the effect and whether it is considered to be significant or not significant. For some topics, e.g. ground conditions, an environmental risk assessment approach may be used to establish the potential environmental effects of the Scheme.

- 4.3.43 Where the findings of an assessment are set out as different levels of effect (e.g. major, moderate, minor, etc.) the assessment clearly sets out where an effect is considered to be significant in EIA terms. This may vary between disciplines and the threshold is defined within each chapter of the ES.
- 4.3.44 In all instances, the assessments set out the basis of the judgements made so that the readers of the ES can understand the rationale of the assessment. In this sense, the ES clearly explains how likely significant effects are identified.

Additional Mitigation and Monitoring

- 4.3.45 Where embedded mitigation cannot fully prevent a likely significant effect occurring, or is only partially effective, additional measures are proposed where it is considered these could help reduce the level of effect being experienced by a receptor.
- 4.3.46 Where embedded mitigation measures are sufficient to avoid likely significant effects occurring, or where additional mitigation is either not possible, may result in a significant operational constraint or would reduce the function of the Scheme, then additional mitigation may not be provided.
- 4.3.47 Monitoring may be considered necessary to establish the success or otherwise of proposed mitigation or enhancement. This may be to ensure that the mitigation has been implemented successfully, or it may be needed so that mitigation can be adjusted over time to ensure it delivers the intended outcome. Monitoring may be explicitly described within the chapter or could be integrated into the management plans which form part of the embedded mitigation.

Residual Effects

- 4.3.48 This section of each ES chapter provides a textual description of the likely residual effects of the Scheme following the implementation of any additional mitigation measures.

Cumulative Effects

- 4.3.49 This section of each ES chapter provides an assessment of the likely significant cumulative effects which could arise with other projects identified within the Cumulative Effects Assessment (CEA) shortlist, which is described in more detail in Section 4.5 below.

Conclusions

- 4.3.50 This section of each ES chapter provides a summary of the effects of the Scheme, and any conclusions that can be drawn.

4.4 Indirect Effects

- 4.4.1 In order to comply with Regulation 5(2) and Schedule 4 of the EIA Regulations, specifically in relation to the provision that *the “indirect significant effects of the proposed development”* are assessed, the EIA process must consider the likely upstream and downstream effects of the Scheme. Upstream effects are deemed to be those indirect effects which could arise prior to the construction, operational or decommissioning processes occurring on Site, which enable that element of the development to be undertaken. Downstream effects are those indirect effects which may arise from the actions or outputs of the construction, operational or decommissioning processes.
- 4.4.2 Indirect upstream and downstream environmental impacts have been considered where:
- i) the impact would be an inevitable causation of the Scheme; and

-
- ii) the impact would give rise to likely significant effects that are capable of evidence-based meaningful assessment.
- 4.4.3 Examples of this include consideration of the embedded carbon associated with the manufacture and transportation of solar PV modules within the carbon calculations set out in **ES Vol 1 Chapter 15: Climate Change [EN010141/DR/6.1]** i.e. an indirect upstream impact of the Scheme or the impacts on the economy or businesses in the region which could arise from the Scheme as set out in **ES Vol 1 Chapter 14: Socio-Economics, Land Use and Tourism [EN010141/DR/6.1]** i.e. an indirect downstream impact of the Scheme.
- 4.4.4 Note that a reduction in UK greenhouse gas emissions as a result of the renewable electricity generated by the Scheme reducing the reliance on electricity generated from fossil fuel sources is treated as a direct impact of the Scheme, and is considered in **ES Volume 1 Chapter 15: Climate Change [EN010141/DR/6.1]**.

4.5 Cumulative and In-Combination Effects

Introduction

- 4.5.1 The EIA Regulations require that a description of the likely significant effects of the development on the environment be included in the ES, including cumulative effects. This section sets out the methodology used to assess the cumulative likely significant effects arising from the construction, operation and decommissioning of the Scheme.
- 4.5.2 Cumulative effects typically fall to be considered within two distinct categories, comprising:
- **Cumulative inter project effects** – effects arising to a receptor or group of receptors from the residual (post-mitigation) environmental effects of the Scheme combining and interacting with the residual environmental effects of one or more other committed developments.

- **In combination intra project effects** – arising from the interaction and combination of different residual environmental effects of the Scheme affecting a receptor or group of receptors. Individually the effects may not be significant, but the accumulation of effects may, collectively, give rise to a significant overall effect.

4.5.3 The assessment of inter project effects has been carried out in accordance with the four stages of CEA, set out within PINS Advice on CEA. In the absence of an agreed standard method for cumulative effects assessment, PINS Advice on CEA is deemed to be the most appropriate guidance for the Scheme.

4.5.4 PINS Advice on CEA advocates a staged approach for documenting the cumulative effects assessment within an ES for an NSIP. The PINS Advice highlights the need to consider the potential for cumulative effects arising due to the interactions between different components of the development, as well as with other existing development and / or approved development.

4.5.5 Whilst PINS Advice on CEA provides a basis for the assessment of cumulative effects between the Scheme and other developments, it fails to provide guidance on the assessment of in-combination effects. Other guidance does exist on the assessment of in-combination effects, including guidelines prepared by the European Commission, and this has been used to inform the assessment.

Cumulative (Inter Project) Effects Assessment

4.5.6 The EIA assesses the cumulative, inter project, effects of the Scheme, based upon the methodology set out in the PINS Advice on CEA. The advice advocates a four-stage approach to the, which is outlined in Table 4.1 below.

Table 4.1: CEA Stages

Stage	Task
Stage 1 - Establishing the long list	Establish a Zone of Influence (Zol) for the environmental topics scoped into the EIA.
	Carry out a desk study to develop long list of 'other developments' and assign a tier (dependant on their progress towards determination within the planning system) to each of the 'other development'.
	Consult with Local Authorities (LAs) and Statutory Consultees on the list.
Stage 2 – Establishing the short list	Consider inclusion / exclusion criteria (set out in PINS Advice on CEA) on whether 'other development' has potential to cause significant cumulative effects due to overlap in temporal scope or scale and nature of the development. Also consider the need for any variants to the inclusion / exclusion criteria that are specific to the Scheme
	Shortlist 'other developments' and outline key issues to be taken forward.
	Consult with LAs and Statutory Consultees on the list
Stage 3 – Information gathering	Gather available information on shortlisted 'other projects'.
Stage 4- Assessment	Assess each shortlisted 'other project' in terms of cumulative effects.
	Consult with other developers, if required, to obtain detail on the potential environmental impacts of the project and to jointly address mitigation of significant adverse cumulative effects.

Stage 1 – Establish the NSIP's Zol and Identifying a Long List of 'Other Development'

4.5.7 Stage 1 is based around establishing a long list of other existing and / or approved developments. To develop the long list of 'other developments' the ZOI for environmental topics scoped into the EIA was established and is outlined in Table 4.2 below. PINS Advice on CEA confirms that the scale and

nature of the project will typically dictate a broad spatial and temporal ZOI. The ZOI for the Scheme has been determined through a combination of PINS Scoping Opinion, consultation with the relevant consultees, industry specific guidance and / or professional judgement. The ZOI's have been prepared robustly and most match or exceed the study areas for individual environmental topics.

Table 4.2: Zone of Influence for Environmental Topics

Environmental Topic	Zone of Influence (measured from nearest part of the Order Limits)
Landscape and Visual	5km
Cultural Heritage - Designated Sites	3km
Cultural Heritage - Non-designated Sites	1km
Ecology - International statutory designations	10km
Ecology – Nationally or Locally designations	2km
Water Resources	1km
Traffic and Transport	10km
Noise and Vibration – Construction and Operation	1km
Air Quality	500m
Ground Conditions	500m
Land and Soils	1km
Socio Economics	1km

Environmental Topic	Zone of Influence (measured from nearest part of the Order Limits)
Climate Change	It is not considered appropriate to include this topic in the cumulative assessment. GHG emissions are not restricted to a geographical area.

4.5.8 The largest Zol is 10km and that has been used in the establishment of a Long List of ‘other developments’.

4.5.9 The identification of schemes has been based on a desk-based study of planning applications, development plan documents and relevant development frameworks for a search radius of 10km. This includes the planning portals operated by the Planning Inspectorate, Bedford Borough Council, Huntingdonshire District Council, Cambridgeshire County Council, Central Bedfordshire Council, and East Northamptonshire District Council. The search has been wide ranging and includes:


- DCO applications for NSIPs in England;
- Local authority planning applications that represent ‘major developments’, the definitions and thresholds for which are set out in The Town and Country Planning (Development Management Procedure) (England) Order 2015;
- Any major development projects being progressed through other statutory procedures;
- Allocations identified in the adopted and emerging development plans of the local planning authorities; and
- Any other relevant plans and projects.

4.5.10 PINS Advice on CEA recommends that a range of future projects be included within the assessment. It advocates that they are tiered (from Tier 1-3)

according to how advanced the development is within the planning process and the level of detail that is likely to be available for each tier.

- 4.5.11 The different tiers are set out in Table 4.3 below which is based on the 3-tier system set out in PINS Advice on CEA.

Table 4.3: Project Tiers for the CEA

Tier	Description	Decreasing Level of Detail available for Stage 2 Assessment
Tier 1	<ul style="list-style-type: none"> Development that is currently under construction; Approved applications (under the Planning Act 2008, Town and Country Planning Act 1990 or other regimes) which have not yet been implemented (covering the past five years and taking account of those that received planning consent over three years ago and are still valid but have not been completed); Submitted applications (under the Planning Act 2008, Town and Country Planning Act 1990 or other relevant regimes) not yet determined; Refused applications under the Town and Country Planning Act 1990, subject to appeal procedures not yet determined; 	
Tier 2	<ul style="list-style-type: none"> projects on the Planning Inspectorate's Programme of Projects where a scoping report has been submitted; 	
Tier 3	<ul style="list-style-type: none"> Projects on the National Infrastructure Planning Programme of Projects (where an EIA Scoping Report has not been submitted); Development identified in the relevant Development Plan(s) and captured within the Zol; Development identified in emerging Development Plans (with appropriate weight being given as they move closer to adoption); and Development identified in other plans and programmes which set the framework for future development consents/approvals, where such development is reasonably likely to come forward. 	

- 4.5.12 The long list of cumulative development schemes is set out within **ES Vol 2 Appendix 4-4: Long List of Other Development [EN010141/DR/6.2]**. The geographical location of the long list of developments is shown on **ES Vol 3 Figure 4-1: Long List of Other Development [EN010141/DR/6.3]**.

- 4.5.13 The long list was initially developed to inform the PEIR. Following the consultation period the Long List was reviewed and updated in August 2025 to inform the ES. It will be the subject of a further review and update ahead of

and during examination to ensure the assessment remains up to date throughout the decision-making process.

Stage 2 – Identify Shortlist of ‘Other Development’ for Cumulative Effects Assessment

- 4.5.14 Stage 2 is based upon the establishment of a shortlist of ‘other developments’ to be taken forward to the CEA. At Stage 2, any developments without the potential to result in cumulative impacts are excluded.
- 4.5.15 The shortlisting process involves the application of inclusion/exclusion criteria and is informed by the professional judgement of the environmental specialists undertaking the EIA and through engagement with the relevant local authorities.
- 4.5.16 The table contained within **ES Vol 2 Appendix 4-4: Long List of Other Development [EN010141/DR/6.2]** presents the identified long list of developments within the search radius and considers whether they should be included in the shortlist of cumulative developments. The decision / justification as to whether an ‘other development’ is to be shortlisted has been based upon:
- **The scale of the ‘other development’** - consideration of whether the scale and nature of the developments identified in the Zol are likely to interact with the Scheme and result in a cumulative effect.
 - **Whether there is a temporal overlap** – whether there is overlap and any potential for interaction, or similar temporal scope during the construction and operation activities.
 - **Other relevant factors** – these might include the sensitivity of the receiving environment.
- 4.5.17 To assess the ‘other developments’ in the context of these criteria there must be a certain level of information available. The Planning Inspectorate acknowledges that the availability of information necessary to conduct the CEA will depend on the current status of the ‘other existing development

and/or approved development'. However, there can be exceptions to this and if there are non-EIA developments close to the Scheme, and there is a reasonable understanding of the likely effects arising from those developments, they can also be considered for shortlisting.

- 4.5.18 The short listed 'other developments' are set out in **ES Vol 2 Appendix 4-5: Short List of Other Development [EN010141/DR/6.2]** and shown on **ES Vol 3 Figure 4-2: Short List of Other Development [EN010141/DR/6.3]**.

Stage 3 – Information Gathering

- 4.5.19 The next stage of the CEA process was to review the information relating to the other developments that have been shortlisted and establish details of their likely environmental effects. This includes but is not limited to:
- the Zol of environmental topics assessed;
 - proposed design and location information;
 - proposed programme of demolition, construction, operation and / or decommissioning;
 - environmental assessments that set out baseline data and effects arising from the 'other development'; and
 - details of their potential or likely significant effects.

Stage 4 – Assessment

- 4.5.20 The assessment of likely cumulative effects has then been carried out to an appropriate level of detail, commensurate with the amount of information that is available on each development proposal.
- 4.5.21 The findings of the assessment of cumulative effects are provided in each of the topic chapters, **ES Vol 1 Chapters 5 to 15 [EN010141/DR/6.1]**. **ES Vol 1 Chapter 17: Cumulative and In-Combination Effects [EN0101541/DR/6.1]** summarises the findings of the inter-project cumulative assessment.

Cumulative (In Combination) Effects Assessment

- 4.5.22 There is no established EIA methodology for assessing and quantifying in-combination project effects. However, there is some guidance on the topic, including the European Commission's guidelines for assessing effect interactions. The guidance is helpful in establishing the broad requirements for assessment. However, it does not provide a detailed assessment methods for establishing in-combination project effects.
- 4.5.23 The primary purpose of the EIA (as reported in the ES) is to identify whether the Scheme has the potential to give rise to significant environmental effects (adverse or beneficial) during the construction, operation and decommissioning of the Scheme. However, in going through that process, the ES also identifies other beneficial or adverse residual effects that are not significant in EIA terms.
- 4.5.24 Where more than one residual effect on a receptor or resource has been identified, the In Combination Effects Assessment considers the potential for in-combination effects to arise, which may be at a greater level than each individual effect considered separately.
- 4.5.25 Consideration of these in-combination / intra project effects is an inherent part of the EIA assessment process for many ES topics, with the assessment of such interactions forming part of the assessment methodology e.g. ecological assessment considers the potential for noise, water quality and physical disturbance on receptors. However, other in-combination effects can arise that are not necessarily captured within those assessments.
- 4.5.26 The In Combination Effects Assessment contained in **ES Vol 1 Chapter 17: Cumulative and In-Combination Effects [EN010141/DR/6.1]** identifies the interactions that have been assessed in individual chapters of the ES and sets out the methodology used. It also provides a bespoke assessment of other effect interactions.

4.6 References

- ¹ The Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2017). Available at: <http://www.legislation.gov.uk/ukSI/2017/572> [Last Accessed: 05 April 2025]
- ² Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-preparation-and-submission-of-application-documents> [Last Accessed: 05 April 2025]
- ³ Nationally Significant Infrastructure Projects : Advice on working with public bodies in the infrastructure planning process. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-working-with-public-bodies-in-the-infrastructure-planning-process>. [Last Accessed: 05 April 2025].
- ⁴ Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-eia-notification-and-consultation> [Last Accessed: 05 April 2025]
- ⁵ National Infrastructure Planning (2020). Advice Note 7 'Screening, Scoping and Preliminary Environmental information'. Available at: <https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an> [Last Accessed: 05 April 2025]
- ⁶ National Infrastructure Planning (2018). Advice Note 9: Using the 'Rochdale Envelope'. Available at: <https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope> [Last Accessed: 05 April 2025]
- ⁷ Nationally Significant Infrastructure Projects: Commitments Register. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-commitments-register>. [Last Accessed: 05 April 2025]
- ⁸ Nationally Significant Infrastructure Projects : Advice on working with public bodies in the infrastructure planning process. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-working-with-public-bodies-in-the-infrastructure-planning-process> [Last accessed: 05 April 2025]
- ⁹ Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available at: <https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment> [Last accessed: 05 April 2025]