The Great Grid Upgrade

Eastern Green Link 5 (EGL 5)

Preliminary Environmental Information Report

Volume 1
Part 1
Chapter 5 PEIR Approach and Methodology

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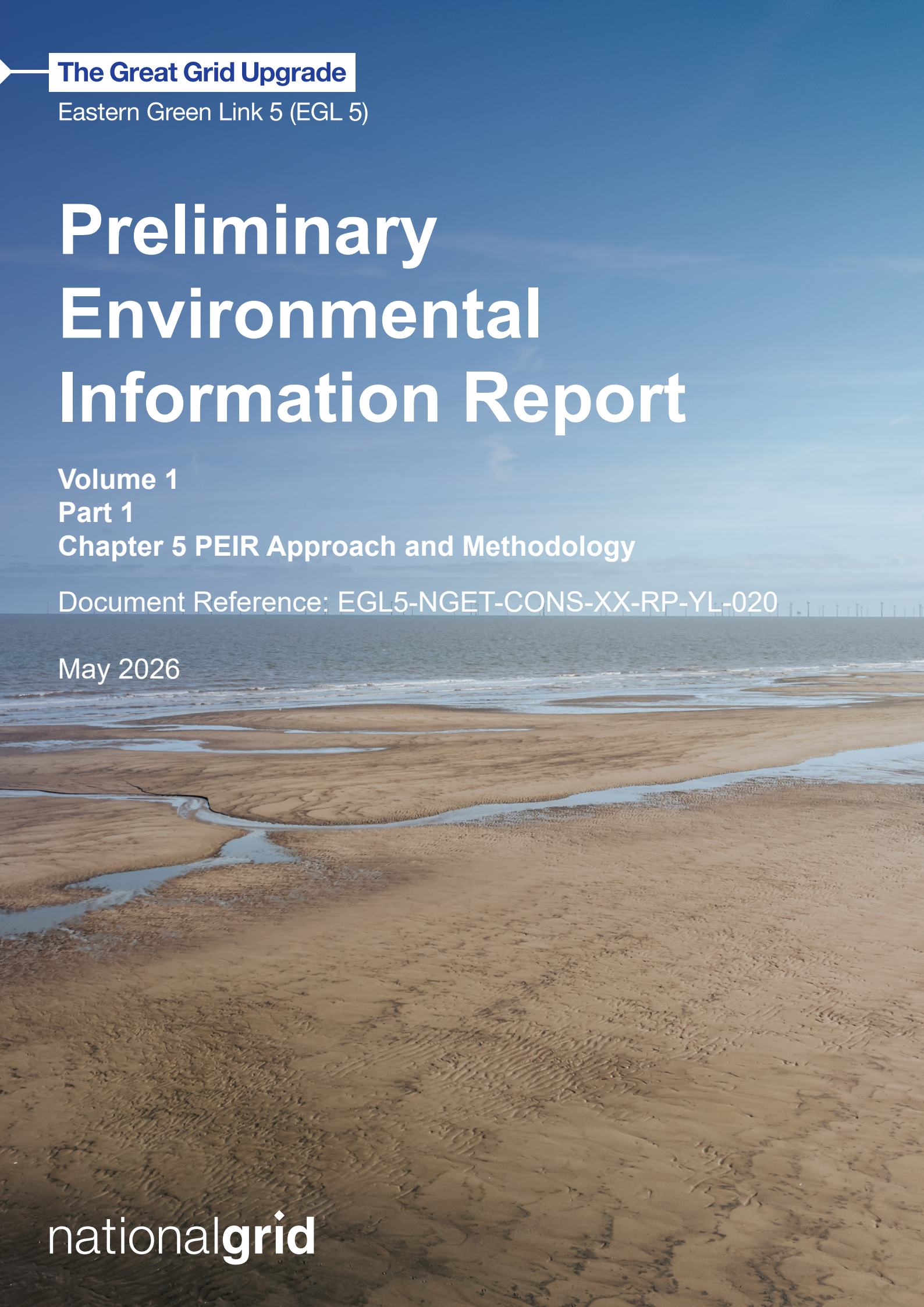

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5. PEIR Approach and Methodology

5.1 Introduction

5.1.1 This chapter sets out the approach and general methodology that has been used in developing the Preliminary Environmental Information (PEI) about the Project, which is presented in this Preliminary Environmental Information Report (PEIR). As the PEIR is based upon the current findings of the as yet incomplete Environmental Impact Assessment (EIA), procedural information about the EIA process is also provided. The chapter summarises the key stages that have been followed leading up to the publication of this PEIR, in line with statutory requirements and formal advice provided by the Secretary of State (SoS) via the Scoping Opinion (Ref 5.1) issued by the Planning Inspectorate.

5.1.2 The preliminary environmental aspect assessments (**Volume 1, Part 2, Part 3 and Part 4**) have been carried out using the general approach and processes established in this chapter. Where required, specific aspect chapters have refined the approach as described in this chapter in order to properly address particular requirements in a suitable manner. Any changes to the approach set out here are described in the appropriate environmental aspect chapter.

5.1.3 Regulation 12(2) of the EIA Regulations (Ref 5.2) defines the PEIR as information that has been compiled by the applicant and

5.1.4 "Is reasonably required for the consultation bodies to develop an informed view of the likely significant *environmental effects of the development (and of any associated development*)".

5.1.5 In relation to PEI, Planning Inspectorate Advice Note Seven (Ref 5.3) states that:

"*There is no prescribed format as to what PEI should comprise and it is not expected to replicate or be a draft of the ES. However, if the Applicant considers this to be appropriate (and more cost-effective) it can be presented in this way. A good PEI document is one that enables consultees (both specialist and non-specialist) to understand the likely environmental effects of the Proposed Development and helps to inform their consultation responses on the Proposed Development during the pre-application stage*".

5.1.6 This PEIR has not been presented as a draft Environmental Statement (ES). It does, however, provide details of the information gathered to date and the assessment work undertaken at this stage, in sufficient detail to help inform the statutory consultation responses.

5.1.7 This chapter should be read in conjunction with, **Volume 1:**

- **Part 1, Chapter 1: Introduction**; and
- **Part 1, Chapter 4: Description of the Project**.

5.1.8 This chapter is supported by the following appendices in **Volume 2:**

- **Part 1, Appendix 5.A: Outline Register of Design Measures;**
- **Part 1, Appendix 5.B: Outline Code of Construction Practice;** and
- **Part 1, Appendix 5.C: Outline Construction Environmental Management Plan.**

5.2 The EIA Process

5.2.1 EIA is a process for identifying the likely significant environmental effects (beneficial and adverse) of a project to inform the decision-making process for development consent to be granted. The EIA process will culminate in the provision of an ES written in accordance with the EIA Regulations and will provide an overview of the likely significant effects associated with the Project during the construction, operation (and maintenance) and decommissioning phases, which will help to inform decision-making.

5.2.2 The EIA process aims to be systematic, analytical, impartial, consultative and iterative allowing opportunities for environmental concerns to be addressed in the design and evolution of the Project. Typically, throughout the evolution of the design, a number of design iterations take place in response to environmental features identified during the EIA process, stakeholder engagement and consultation prior to the final design being submitted for approval. The PEIR serves an important milestone in the development of a Development Consent Order (DCO) project that is fundamental to the iterative EIA process. Given the scale, nature and duration by which Nationally Significant Infrastructure Project (NSIP) projects are developed, the PEIR provides an opportunity to gather information, assess and seek feedback on the current design proposals. This allows for further design refinement in response to assessment conclusions and feedback received.

5.2.3 The EIA will take into consideration the latest key guidance documents from the Planning Inspectorate which at this stage include the following:

- Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation (September 2024). (Ref 5.4);
- Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents (August 2024). (Ref 5.5);
- Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements (Version 7, 2020). (Ref 5.3);
- Advice Note Nine: Rochdale Envelope (Version 3, 2018). (Ref 5.6);
- Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments (September 2024). (Ref 5.7);
- Nationally Significant Infrastructure Projects: Advice on working with public bodies in the infrastructure planning process (September 2024). (Ref 5.8);
- Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process (September 2024). (Ref 5.9);
- Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (September 2024). (Ref 5.10);
- Nationally Significant Infrastructure Projects: Commitments Register (September 2024). (Ref 5.11); and
- Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive (September 2024). (Ref 5.12).

5.2.4 Institute of Sustainability and Environmental Professionals (ISEP, formerly Institute of Environmental Management of Assessment (IEMA)) also provides guidance on EIA, and the EIA for the Project will take into consideration the following guidance documents from ISEP:

- Environmental Impact Assessment Guide to: Delivering Quality Development (Ref 5.13); and
- Delivering Proportionate EIA. A Collaborative Strategy for Enhancing UK Environmental Impact Assessment Practice (Ref 5.14).

5.2.5 These lists of guidance documents are not exhaustive and provide a general overview of the important guidance that will help to inform the EIA process for the Project. The lists will be continually reviewed and updated throughout the EIA process up to submission of the DCO application. Each individual environmental aspect will also refer to relevant aspect-specific guidance in the environmental aspect chapters of the PEIR where appropriate.

5.2.6 The key EIA documents produced as part of the DCO EIA process include[1]:

- **Scoping Report (Ref 5.15):** The Scoping Report sets out the likely significant effects from a project, and therefore which environmental aspects should be scoped into the EIA and presented within the ES. It also presents the data collected and the proposed assessment methodology and approach that would be used during the EIA. The Scoping Report is issued by the Planning Inspectorate to consultees for comment on the scope and methodology proposed, informing the Scoping Opinion.
- **Preliminary Environmental Information Report (PEIR):** The PEIR (this document) helps inform consultees consultation responses during Statutory Consultation and as such, it provides an opportunity for both the design of the Project and the EIA to take into consideration any comments received through this consultation.
- **Environmental Statement (ES):** The ES will be based on the most recently adopted Scoping Opinion, and it will present the results of the EIA undertaken for the Project. It identifies the likely significant effects that would result if the Project were implemented, and details the measures envisaged to prevent, reduce and where possible offset any significant adverse effects. The ES will accompany the DCO application and will be considered carefully by the Planning Inspectorate to ensure that it is adequate and complies with the EIA Regulations.

5.2.7 This PEIR has been prepared in four separate 'parts' found in **Volume 1** (**Part 1, Introduction; Part 2, English Onshore Scheme; Part 3, English Offshore Scheme; and Part 4, Project Wide Scheme**).

5.3 Overview of the EIA Scoping Stage

5.3.1 The process of scoping and the preparation of a 'Scoping Report' is the main mechanism for determining the 'scope' of the EIA i.e., what environmental aspects will be considered, what methods of assessment will be used, and how conclusions will be reached regarding the significance of environmental effects.

[1] NGET has notified the SoS in writing that they propose to provide an ES in respect of the English Onshore Scheme, and as such, a screening opinion is not considered necessary, in line with Regulation 8(1)(b) of the EIA Regulations.

5.3.2 A Scoping Report (Ref 5.15) for the Project was issued to the Planning Inspectorate on 2 September 2025 and a Scoping Opinion (Ref 5.1) was received from the SoS on 13 October 2025. In each of the technical chapters presented within this PEIR, a table is provided which includes extracts from the Scoping Opinion relating specifically to the technical chapter; information is provided to explain how and where the issue is addressed within the PEIR or will be addressed at ES. Where the Scoping Opinion comments are overarching (i.e., not technically focussed), these have been addressed within **Volume 2, Part 1, Appendix 1.A: Scoping Opinion Responses.** The Scoping Opinion takes account of responses from prescribed consultation bodies, relevant statutory undertakers[2], and non-prescribed consultation bodies as appropriate[3].

5.3.3 The Scoping Report and Scoping Opinion reflect the information available at the time they were prepared. The results of further baseline investigations may dictate the need for changes to be made to the scope, such as additional surveys or assessments that are beyond the scope of work identified in the Scoping Report or the Scoping Opinion. Likewise, any changes to the Project resulting from further technical or environmental investigations, or through changes brought about in response to consultation, may affect the scope of the EIA prior to submission. Any incidences where the proposed scope has increased or decreased since the Scoping Opinion was provided are identified in each of the technical chapters.

5.4 Scope of the Assessment

5.4.1 This section describes the methodology which will be used in the PEIR and ES to assess the potential effects on the natural, human and built environment as a result of the Project. In accordance with the EIA Regulations (Ref 5.17), the assessments undertaken will evaluate and identify the likely significant environmental effects arising from the proposed construction and operation phases of the Project.

5.4.2 The primary objective of the EIA is to identify likely 'significant' effects, since it is these effects that must be reported in the ES. This is undertaken by first predicting impacts and then evaluating their severity against agreed significance criteria.

5.4.3 The prediction, quantification and evaluation of an impact and the significance of resulting effects, is typically undertaken by considering the relationship between two factors:

- The magnitude of an effect (that is, the actual change taking place to the environment); and
- The value of the affected baseline resource or receptor and its sensitivity to the impact.

5.4.4 The scope of the assessment is based on that presented within the Scoping Report (Ref 5.15). It has also been updated based on the responses given in the Scoping Opinion (Ref 5.1). Where the Planning Inspectorate has requested that aspects should be scoped back into the assessment, these have been included within the assessment presented in this PEIR and will be included within the ES, unless further information (also documented in the ES) is provided to justify scoping out.

[2] Statutory Undertaker' is defined in the APFP Regulations as having the same meaning as in Section 127 of the Act (PA2008)

[3] As defined in Section 43(3) of the PA2008

5.4.5 Within this PEIR, and ultimately the ES, the methodology for assessing the significance of an effect will vary between environmental aspects but in principle, a receptor-based approach has been and will continue to be adopted i.e., based upon the environmental sensitivity (or value / importance) of a receptor and the magnitude of change from baseline conditions. Receptors are those aspects of the environment which may be sensitive to change as a result of the Project. When deciding on which receptors to include within the PEIR, and subsequently the ES, consideration was given to the description of the development in accordance with Regulation 5(2) and Schedule 4, paragraph 4 of the EIA Regulations (Ref 5.2).

Technical scope

5.4.6 The technical scope of assessment for each environmental aspect is detailed in **Volume 1, Part 2, Chapter 6: Biodiversity** to **Chapter 16: Health and Wellbeing** and **Part 3, Chapter 17: Coastal and Marine Physical Processes** to **Chapter 25: Marine Archaeology** and this covers the scoping in and out of impacts and effects to be assessed as part of the PEIR. Justification is provided for the individual approach and scoping of matters to be considered in the assessment for each environmental aspect. The technical scope also details the approach to baseline data collection and assessment methodologies.

Spatial scope

5.4.7 The spatial scope for each environmental aspect i.e., the area over which changes to the environment are predicted to occur as a consequence of the Project, will depend on the nature of the potential effects and the location and distance of receptors that could be affected. It takes account of:

- The physical area of the Project;
- The nature of the baseline environment;
- The manner and extent to which environmental effects may occur; and
- Relevant guidance, best practice and/or legislation.

5.4.8 Each of the environmental aspect chapters in the PEIR describes the study area considered, providing a clear explanation as to why the study area has been adopted. Study areas may also vary in aspect chapters between the construction, operation and maintenance phases and identified receptors. Likewise, similar study areas may be considered within some aspect chapters reported in **Volume 1, Part 2 and Part 3** of this PEIR where the English Offshore Scheme and English Onshore Scheme overlap within the Intertidal Zone.

5.4.9 The spatial scope of each assessment may be refined at the ES stage in response to comments from consultees or further assessment work.

Temporal scope

5.4.10 The temporal scope covers the time period over which changes to the environment and the resultant effects are predicted to occur and are typically defined as either being temporary or permanent:

- Permanent - these are effects that will remain even when the Project are complete, although these effects may be caused by environmental changes that are permanent or temporary.
- Temporary – these are effects that are related to environmental changes associated with a particular activity and that will cease when that activity finishes.

5.4.11 The assessment will have regard to the Project programme and will evaluate the environmental effects of the Project during construction and operation. These effects will be compared to the situation prevailing before the Project are commenced (the current baseline), and to the situation that would prevail in the future without the Project (the projected future baseline). Construction would be expected to start in 2029 and is anticipated to take approximately 6 years, with the Project expected to be operational by 2035. The Project is expected to operate for 40 years; however, it is anticipated that after this date rather than be decommissioned, parts would be replaced to extend the operational life. As such, the operational assessments will be undertaken under the assumption that the Project will continue to operate in perpetuity.

5.4.12 The assumption is that the Project would need to be removed if it cannot be re-purposed. Removal of the Project would be a similar process to construction but in reverse. The environmental impact of decommissioning cannot be fully assessed until the environmental conditions at the time of decommissioning are established. In any event, it is not anticipated that impacts from decommissioning would be any greater than impacts from the construction phase. For the purposes of this EIA, it is proposed that decommissioning effects are not assessed in detail at this stage because there are no current plans to decommission the Project. However, Table 4.19 in **Volume 1, Part 1, Chapter 4: Description of the Project** summarises the assessment of the likely significant effects associated with decommissioning for each onshore and project wide environmental aspect based on existing information. Table 4.19 assumes that standard good practice measures, such as those set out within **Volume 2, Part 1, Appendix 5.B: Outline Code of Construction Practice (CoCP)** and within **Volume 2, Part 1, Appendix 5.C: Outline Construction Environmental Management Plan (CEMP)** would be implemented during decommissioning activities, as these would be typical measures employed on large NGET contracts.

5.4.13 The future baseline is the theoretical situation that would exist in the absence of the Project. This is based upon extrapolating the current baseline using technical knowledge of likely changes to predict this (e.g., predictable changes such as climate change, changes that can be predicted based on reasonable assumptions and modelling calculations, information about other relevant developments etc.).

5.4.14 Each environmental aspect chapter of the PEIR, and ultimately the ES, will define the baseline (current and future) against which the environmental effects of the Projects will be assessed. The baseline conditions to be assessed for each environmental aspect are outlined in **Volume 1, Part 2, Chapter 6: Biodiversity** to **Chapter 16: Health and Wellbeing and Part 3, Chapter 17: Coastal and Marine Physical Processes** to **Chapter 25: Marine Archaeology and Part 4, Chapter 26: Greenhouse Gases** of this PEIR. Where relevant, aspect chapters provide further information on the time periods within the Projects' programme that will be considered for their assessment.

The ‘Rochdale Envelope’ approach

5.4.15 At this stage of the Project’s lifecycle, an element of flexibility needs to be retained within the design, and subsequently the draft Order Limits, in order to address uncertainties i.e., where some details of the Projects are yet to be confirmed. In order to establish the scope of the environmental assessment, the PEIR therefore adopts what is termed a ‘Rochdale Envelope’ or parameter-based design envelope approach, having regard to the Planning Inspectorate’s Advice Note Nine (Ref 5.6), allowing for a realistic worst-case assessment to be undertaken and providing sufficient flexibility for the design to evolve.

5.4.16 The PEIR has therefore established the realistic worst-case design parameters for the purposes of assessment, and these are defined in **Volume 1, Part 1, Chapter 4: Description of the Project.** The reasonable worst-case scenario for any given design parameter may vary by environmental aspect, depending on how that particular parameter may interact with the receptor being considered. In these instances and where uncertainty surrounds a particular design parameter, the assessment presented in each environmental aspect chapter (**Volume 1, Part 2 Chapter 6: Biodiversity** to **Chapter 16: Health and Wellbeing and Part 3 Chapter 17: Coastal and Marine Physical Processes** to **Chapter 26: Marine Archaeology and Part 4, Chapter 26: Greenhouse Gases**) has defined what the maximum design scenario is specific to that environmental aspect i.e., it has established those parameters likely to result in the maximum adverse effect (the worst-case scenario). Justification as to the reasons why these parameters are considered worst-case is also provided.

5.5 Approach to Environmental Measures

Design and control measures

5.5.1 EIA is an iterative process and opportunities for measures to mitigate effects will be considered throughout the design evolution of the Project and in the assessment undertaken for the PEIR where likely significant effects have been identified. Where possible, these measures have been developed with input from key stakeholders together with appropriate technical standards, policies and guidance.

5.5.2 These environmental measures are split into three categories and include avoidance, best practice and design commitments, which are classified into ‘design measures’, and ‘control and management measures’ (referred to collectively as ‘environmental measures’). Environmental measures have been defined within each environmental aspect chapter and include the following:

- **Design measures**: these are modifications to the location, design or operation of the Project made during the pre-application phase that are an inherent part of the Project, and do not require additional action to be taken. These measures may have been identified through the EIA process to avoid or reduce potential significant effects that may otherwise be experienced during construction and operation of the Project.
- **Control and management measures**: these are good practice, control and management measures to be implemented during the construction phase of the Project.

5.5.3 Opportunities for design measures will continue to be identified throughout the design evolution of the Project and the EIA process, whereby potential significant adverse environmental effects will be fed back into the design process to verify whether they can be avoided or otherwise mitigated in accordance with the hierarchy. Alongside this, good practice measures will be identified with reference to legislative requirements and measures of standard practice to manage commonly occurring effects. These design measures and good practice measures will be included within the Project plans and drawings and thus are integrated into the overall design strategy.

5.5.4 As consent for the Project will be sought through a DCO, the environmental measures described above (design measures and control and management measures) will be the subject of a DCO requirement and will therefore be secured and there will be a legal requirement to implement them. As such, no assessment of likely significant effects has been undertaken prior to the application of design and control and management measures, as delivery of all measures will be a legal requirement.

Monitoring

5.5.5 Monitoring measures may be required in relation to any significant adverse effects on the environment caused by the Project and these measures would be imposed as a DCO requirement. Whilst the need for and type of monitoring is still evolving as part of the iterative design process; any monitoring proposed at this stage with respect to significant adverse effects is identified in the environmental aspect chapters.

5.6 Assessment of Effects and Determining Significance

Overview

5.6.1 For consistency, and to allow comparison between aspects, the methodology described in this section will be applied when preparing the PEIR and the ES. This methodology is designed to consider whether impacts of the Project would have an effect on any environmental receptors. Assessments will consider the magnitude of impacts and the sensitivity of resources or receptors that could be affected in order to classify the significance of effects.

5.6.2 The conclusion that is made on whether an effect should be considered significant is based upon professional judgement, with reference to the description of the Project outlined in **Volume 1, Part 1, Chapter 4: Description of the Project** and available information about:

- The magnitude and other characteristics of the potential changes (impacts) that are expected to be caused by the Project;
- The sensitivity of receptors to these changes;
- The effects of these changes on relevant receptors; and
- The value of receptors (where relevant).

5.6.3 For each environmental aspect, the categories of resource or receptor sensitivity and magnitude of impact will be described or defined.

5.6.4 The sensitivity or value of a receptor is largely the product of the importance of an asset, as informed by legislation and policy, and as qualified by professional judgement. For example, higher value receptors for landscape, biodiversity or the historic environment may be defined as being of international or national importance; lower value resources may be designated as being sensitive or important at a county or district level. The use of a receptor also plays a part in the classification of its value or sensitivity. For example, when considering visual amenity, a receptor which is residential in nature may be valued more than a place of work as the environmental quality of the residential receptor is more likely to be an important part of that receptor's use. General criteria for defining the importance or sensitivity of receptors are set out in **Table 5-1**.

Table 5-1 Definitions of value and sensitivity for an example receptor

Receptor Value and Sensitivity	Description
Very High	Value: Very high importance and rarity, international scale. Sensitivity: The receptor has little or no capacity to absorb change without fundamentally altering its present character.
High	Value: High importance and rarity, national scale. Sensitivity: The receptor has a low capacity to absorb change without fundamentally altering its present character.
Medium	Value: Medium importance and rarity, regional scale. Sensitivity: The receptor has some tolerance to change without detriment to its character.
Low	Value: Low importance and rarity, local scale. Sensitivity: The receptor has a moderate capacity to absorb change without fundamentally altering its present character.
Negligible	Value: Not considered to be important (e.g., Common or widespread). Sensitivity: The receptor is resistant to change and has capacity to accommodate the proposed changes.

5.6.5 The magnitude of change affecting a receptor that would result from the Project will be identified on a scale from very little change from baseline conditions, up to major changes or the total or substantial loss of the receptor. For certain aspects, the magnitude of change would be related to guidance on levels of acceptability (for example, for air quality or noise) and is therefore based on numerical parameters. For others it will be a matter of professional judgement to determine the magnitude of change, using descriptive terminology. **Table 5-2** sets out the guidelines of the assessment of the magnitude of impact. Where relevant, individual aspect chapters set out variations in magnitude description requirements.

Table 5-2 Definitions of Impact Magnitude Criteria

Impact Magnitude	Definition
High	Adverse: Total loss or major alteration to key elements / features of the baseline conditions such that post development character/composition of baseline conditions would be fundamentally changed. Beneficial: Large scale or major improvement of quality; extensive restoration or enhancement; major improvement in attribute quality.
Medium	Adverse: Loss or alteration to one or more key elements / features of the baseline conditions such that post development character/composition would be materially changed. Beneficial: Benefit to, or addition of key characteristics, features or elements; improvements of attribute quality.
Low	Adverse or beneficial: Some measurable change in attributes, quality or vulnerability; Minor shift away from baseline conditions. Changes arising from the alterations would be detectable but not material; the underlying character/composition of the baseline conditions would be similar to the pre-development situation.
Very Low / Negligible	Very little change from baseline conditions. Change is barely distinguishable, approximating to a 'no change' situation.

5.6.6 The environmental aspect chapters provide greater detail on the approach to the assessment and specific guidelines for the definition of impact magnitude and resource or receptor sensitivity. Where applicable standards mandated by professional bodies (for example the Chartered Institute of Ecology and Environmental Management (CIEEM) or the Landscape Institute) will also be considered.

Determination of significance

5.6.7 The significance of effects is derived with reference to information about the nature of the Project, the sensitivity or value of receptors that could be affected, together with the magnitudes of change that are likely to occur.

5.6.8 For many environmental aspects, significance can be determined by using a matrix. Variations to this matrix approach, which may be applicable to specific environmental aspects are detailed within the respective chapters, along with descriptions of receptor sensitivity, magnitude of change and levels of effect that are considered significant. Definitions of how the categories that are used in the matrix are derived for each environmental aspect are also set out.

5.6.9 In addition, professional judgement is applied in the assessment, as the boundaries between the sensitivities or magnitudes of change may not be clearly defined and the resulting assessment conclusions may need clarifying.

5.6.10 The overarching framework matrix for determining significance of effects is shown in **Table 5-3**. Reference is made to:

- 'Major' effects, which will always be determined as being significant;
- 'Moderate' effects can be significant, or not significant, based on specific scenarios and professional judgement; and
- 'Minor' or 'negligible' effects, which will always be deemed as 'not significant'.

5.6.11 Effects can be either beneficial or adverse.

Table 5-3 Significance Evaluation Matrix

Sensitivity or value	Magnitude of change			
	High	**Medium**	**Low**	**Negligible**
Very High	Major (significant)	Major (significant)	Moderate (potentially significant)	Minor (not significant)
High	Major (significant)	Moderate (potentially significant)	Minor (not significant)	Minor (not significant)
Medium	Moderate (potentially significant)	Minor (not significant)	Minor (not significant)	Negligible (not significant)
Low	Minor (not significant)	Minor (not significant)	Negligible (not significant)	Negligible (not significant)
Negligible	Negligible (not significant)	Negligible (not significant)	Negligible (not significant)	Negligible (not significant)

5.7 Cumulative Effects Assessment

5.7.1 When undertaking an assessment of the environmental effects of a project, it is necessary to consider how various effects may interact, and also how the effects of the Project could accumulate with the effects of other developments proposed within the same zone of influence. The Cumulative Effects Assessment of the Project will consider the following types of effect:

- Inter-project Cumulative Effects (referred to as Cumulative Effects) are the residual environmental effects of the Project combining and interacting with the residual environmental effects of other, committed development(s), affecting the same receptor. For example, effects upon users of the local road network because of traffic flows from the Project and traffic flows from a nearby committed industrial development.
- Intra-project Cumulative Effects (referred to as Combined Effects) are potential significant effects resulting from the interaction of a combination of different residual environmental effects, which on their own are not significant, but could combine with other environmental aspects to create a potential significant effect on a receptor. For example, visual and noise effects during construction affecting users of a nearby Public Rights of Way would be assessed in the Health and Wellbeing chapter.

5.7.2 The methodology for both the intra-project and inter-project cumulative assessments is provided in **Volume 1, Part 4, Chapter 27: Cumulative Effects**.

5.7.3 This section sets out the approach to the Cumulative Effects Assessment to support consultation being undertaken under Sections 42 and 47 of the Planning Act (2008).

Inter-Project Cumulative effects

5.7.4 Inter-project cumulative effects are effects resulting from the Project combining with the same topic-related effects generated by other developments to affect a common receptor. For example, where the effects from traffic flows during the construction of the Project combine with traffic flows from another development undergoing construction nearby to result in potential significant effects on a local resident.

5.7.5 The long list of cumulative development is presented within **Appendix 27.A: Long List of Other Developments**. This represents the baseline for inter-project cumulative assessment at this PEIR stage**. Volume 1, Part 4, Chapter 27: Cumulative Effects** sets out the shortlist of 'Other Development' which will be taken forward into the assessment for the ES and identifies at this PEIR stage for which aspects there could be potential significant effects.

Intra-Project Cumulative effects

5.7.6 Intra-Project Cumulative effects are individual environmental aspect effects resulting from the Project, which are not significant in their own right, but could combine with other environmental aspect effects from the same development to create effects that are significant. For example, significant noise, traffic and visual impacts at one location could result in a general combined significant disturbance effect for local residents; or several separate impacts on hedgerows could together result in a significant depletion of habitat. These effects will be reported under the aspect headings for which they are relevant.

5.7.7 In addition, as identified in Section 5.4 similar study areas may be considered within some aspect chapters reported in **Volume 1, Part 2 and Part 3** of this PEIR where the English Offshore Scheme and English Onshore Scheme overlap within the Intertidal Zone. Potential for intra-project cumulative effects within the Intertidal Zone will be considered between the English Onshore Scheme and English Offshore Scheme aspect assessments and will be reported in the ES, where required.

5.7.8 As identified in **Volume 1, Part 1, Chapter 1: Introduction**, this PEIR is written with specific regard to the English components of EGL 5. Where the construction crosses from one jurisdiction to the next e.g., English to Scottish waters, there will be a continuation of effects along the linear project which may be considered to result in intra-project effects. These effects will be limited in spatial extent in proximity to the jurisdictional boundary and are not considered to be significant. The potential for intra-project effects will continue to be considered and where required, will be reported in the ES.

5.7.9 In line with this requirement, a description of the likely significant intra-project cumulative effects will be provided within the ES.

5.7.10 The methodology for how intra-project cumulative effects will be considered and assessed is provided in **Volume 1, Part 4, Chapter 27: Cumulative Effects.** As the PEIR is presenting a preliminary assessment and a level of significance is not defined, an assessment of intra-project cumulative effects is not presented. A full assessment of intra-project cumulative effects will, however, be presented in the ES.

5.8 Transboundary Effects

5.8.1 The EIA Regulations require an ES to consider the transboundary effects of a development (paragraph 5 of Schedule 4).

5.8.2 Given the nature of the English Onshore Scheme and its proposed location, significant transboundary effects are unlikely as there are no pathways for effects to occur outside of the UK. Similarly, the English Offshore Scheme lies wholly in the UK waters. Separate applications will be submitted to the relevant Statutory Authority for the Scottish Onshore and Scottish Offshore Schemes. Where the English Offshore Scheme and Scottish Offshore Scheme meets, collaborative environmental assessments will ensure impacts are fully assessed.

5.8.3 As outlined in the Planning Inspectorate's Advice Note Twelve (Ref 5.9) the screening process for transboundary effects has been carried out by the Planning Inspectorate and responses have been received. The Planning Inspectorate in their first transboundary screening (Ref 5.16) has concluded that based on information provided within the EIA Scoping Report (Ref 5.15) the Project is likely to have a significant effect on the environment in an EEA State from English Offshore Scheme topic chapters. Therefore Belgium, Denmark, France, Germany, Ireland, the Netherlands, Norway and Spain states have been notified under regulation 32 of the 2017 EIA Regulations.

5.8.4 Where a potential transboundary source-receptor pathway has been identified this is assessed in the relevant English Offshore Scheme topic chapters:

- **Volume 1, Part 3, Chapter 19: Fish and Shellfish Ecology;**
- **Volume 1, Part 3, Chapter 21: Marine Mammals and Marine Reptiles;**
- **Volume 1, Part 3, Chapter 23: Commercial Fisheries;** and
- **Volume 1, Part 3, Chapter 24: Other Marine Users.**

5.9 Consultation and Engagement

5.9.1 NGET has held, and will continue to hold, informal engagement with the key prescribed consultees, as appropriate, in order to refine the Project, the EIA and assist in the development of any required mitigation. Specific information on any feedback received is presented in the individual environmental aspect chapters (**Volume 1, Parts 2, 3 and 4**) which include a 'Consultation and stakeholder engagement' section which provides a record of all relevant comments received in relation to that aspect from:

- The EIA Scoping Opinion (Ref 5.1);
- The non-statutory consultation feedback report (Ref 5.17); and
- Ongoing technical engagement with relevant prescribed consultees, including the host local planning authorities.

5.9.2 Through the process of engagement and consultation the aim is to reach agreement, as far as possible, with stakeholders prior to the submission of the DCO. Statements of Common Ground will be developed between NGET and relevant stakeholders to document any remaining areas of disagreement which will be shared with the Planning Inspectorate at the point of submitting the DCO application.

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