Preliminary Environmental Information Report Volume 1

Chapter 5 EIA Approach and Methodology

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Contents

Glossary of Project Terminology

This Glossary has been provided to define terms used across a number of the LionLink Proposed Scheme documents.

Terms and abbreviations contained herein are provided at the end of the document in the **Topic Glossary and Abbreviations.**

Term	Description
Amendment to Kiln Lane Substation Scenario	The scenario where the Proposed Scheme will comprise the amendments to Kiln Lane Substation that would be required if Kiln Lane Substation was built out pursuant to the EA1N/EA2 DCOs.
Applicant, the	National Grid Lion Link Limited (NGLLL)
Bellmouth	A flared vehicular access/egress point connecting permanent route to the public highway.
Converter Station	A converter station changes electricity between High Voltage Alternating Current (HVAC), which power our homes, and High Voltage Direct Current (HVDC) which is more efficient for transporting electricity over long distances and vice versa. The proposed Converter Station is located to the east of Saxmundham.
Converter Station Site	The Converter Station Site as a whole, allowing for the co-location of the Converter Station with the Converter Station being separately consented as part of the Sea Link project.
Co-ordination	The process of people or entities working together.
Co-location	Where different elements of a project, or various projects, are located in one place.
Construction Compound	Temporary compounds installed during the construction phase of the Proposed Scheme. Each compound is likely to contain storage areas such as laydown areas, soils storage, and areas for equipment and fuel, drainage, generators, car parking and offices and welfare areas (portacabins).
Development Consent Order (DCO)	An order made by the Secretary of State pursuant to the Planning Act 2008 (as amended) granting development consent for a Nationally Significant Infrastructure Project. It grants consent to develop the approved project and may include (among other things) powers to compulsorily acquire land and rights where required and deemed marine licences for any offshore works.
Draft Order Limits	The area of land identified as being subject to the DCO application. The Draft Order Limits are made up of the land required both temporarily and permanently to allow for the construction, operation and maintenance, and decommissioning of the Proposed Scheme. All onshore parts of the Proposed Onshore Scheme are located within England and offshore parts of the Proposed Offshore Scheme are located within English territorial waters to 12 Nautical

Term	Description
	Miles and then up to the United Kingdom (UK) Exclusive Economic Zone (EEZ) boundary at sea.
Dutch Offshore Components	Is the term used when referring to the offshore elements of the Project within Dutch waters.
Eastern Route Option	As part of the Underground HVDC cable corridor, the Eastern Route Option would facilitate a degree of co-location with the Sizewell Link Road (SLR) scheme.
Environmental Impact Assessment (EIA)	The EIA is a systematic regulatory process that assesses the potential likely significant effects of a proposed project or development on the environment.
EIA Scoping Report	An EIA scoping report defines the proposed scope and methodology of the EIA process for a particular project or development. The EIA Scoping Report for the Proposed Scheme was submitted to the Planning Inspectorate with a request for the Secretary of State to adopt a scoping opinion in relation to the Proposed Scheme on 6 March 2024.
Environmental Statement (ES)	The ES is a document that sets out the likely significant effects of the project on the environment. The ES is the main output from the EIA process. The ES is published as part of the DCO application.
Exclusive Economic Zone (EEZ)	The zone in which the coastal state exercises the rights under Part V of the United Nations Convention on the Law of the Sea. These rights relate principally to the water column and may extend to 200 nautical miles from baselines. This is distinct from territorial waters, which for the UK extend 12 nautical miles from the coast.
Full Build Out of Kiln Lane Substation Scenario	The scenario if the Proposed Scheme was brought forward first, then it would be responsible for developing Kiln Lane Substation for the Proposed Scheme, with sufficient additional capacity for other projects.
Joint Bay	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Kiln Lane Substation	The proposed connection point for the Project to the British National Electricity Transmission System, located to the north of Friston. Formerly known as Friston Substation. The new name has recently been adopted by NGET. The substation is of the same footprint and in the same location. Friston Substation will, hereafter, be referred to as Kiln Lane Substation.
Landfall	The proposed Landfall is where the proposed offshore HVDC Submarine Cables are brought ashore and meets with the onshore proposed Underground HVDC Cables. This includes the Transition Joint Bay (TJB). The proposed Landfall will be located at Walberswick, and there will be no permanent above ground infrastructure at the proposed Landfall.
Landfall Site	The area where the Landfall may be located.

Term	Description
Limit of Deviation	A maximum distance or measurement of variation within which the works must be constructed. These are lateral (i.e. on the ground) and vertical limits (in relation to height).
Link Box Chamber	Link boxes are used at joint bays to facilitate grounding connections to ensure safety and enable maintenance. Link boxes can either be installed below ground, in a link box chamber, or in an above ground link pillar
Multi-purpose interconnector (MPI)	A project where GB interconnection is combined with transmission of offshore generation within GB (and optionally within a connecting state).
National Grid Electricity Distribution (NGED)	The local distribution network operator for the Midlands, the southwest of England and south Wales.
National Grid Electricity Transmission (NGET)	Operators of the national electricity transmission network across Great Britain and own and maintain the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. National Grid does not distribute electricity to individual premises, but its role in the wholesale market is vital to ensuring a reliable, secure and quality supply to all.
National Grid Lion Link Limited (NGLLL)	The Applicant, a joint venture between National Grid Ventures and TenneT. NGLLL is a business within the wider National Grid Ventures portfolio.
National Grid Strategic Infrastructure (NGSI)	Part of NGET and responsible for delivering major strategic UK electricity transmission projects, focussed on connecting more clean, low-carbon power to England and Wales.
National Grid Ventures (NGV)	Operates and invests in energy projects, technologies and partnerships to accelerate the development of a clean energy future. This includes interconnectors (such as the LionLink Project), allowing trade between energy markets and the efficient use of renewable energy resources.
Nationally Significant Infrastructure Projects (NSIP)	Major infrastructure developments in England and Wales for which development consent is required, as defined within Section 14 of the Planning Act 2008 (as amended). This includes any development which is subject to a direction by the relevant Secretary of State pursuant to Section 35 of the Planning Act 2008.
Non-standard interconnector (NSI)	A project where GB interconnection is combined with transmission of offshore generation outside of GB.
Northern Route Option	A northern cable corridor option that would allow Underground HVAC Cable delivery for Proposed Scheme only.
Offshore Hybrid Asset (OHA)	A project that combines cross-border interconnection with the transmission of offshore generation, this is an overarching term which covers both multi-purpose interconnectors (MPI) and non-standard interconnectors (NSI).
Order Limits	The maximum extent of land within which the Proposed Scheme may take place, as consented.

Term	Description
Outline Offshore Construction Environmental Management Plan (Outline Offshore CEMP)	Describes the control measures and standards proposed to be implemented to provide a consistent approach to the environmental management of the construction activities of the Proposed Offshore Scheme.
Outline Onshore Code of Construction Practice (Outline Onshore CoCP)	Describes the control measures and standards proposed to be implemented to provide a consistent approach to the environmental management of the construction activities of the Proposed Onshore Scheme.
Overhead Lines (OHL)	Conductors (wires) carrying electric current, strung from Tower to Tower.
Planning Act 2008	The Planning Act 2008 being the relevant primary legislation for national infrastructure planning.
Planning Inspectorate (PINS)	The Planning inspectorate review DCO applications and make a recommendation to the Secretary of State, who will then decide whether to approve the DCO.
Preliminary Environmental Information Report (PEIR)	The PEIR is a document, compiled by the Applicant, which presents preliminary environmental information, as part of the statutory consultation process. This is defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 as containing information which "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)" (Section 12 2. (b)). This PEIR describes the Proposed Scheme, sets out preliminary findings of the EIA undertaken to date, and the mitigation measures proposed to reduce effects. The PEIR is published at Statutory Consultation stage for information and feedback.
Project (the)	The LionLink Project (hereafter referred to as the 'Project') is a proposal by National Grid Lion Link Limited (NGLLL) and TenneT. The Project is a proposed electricity link between Great Britain (GB) and the Netherlands with a capacity of up to 2.0 gigawatts (GW) of electricity and will connect to Dutch offshore wind via an offshore platform in Dutch waters. The Project is the collective term used to refer to the proposal for all aspects (onshore and offshore) of the proposed interconnector between GB and the Netherlands.
Proposed Offshore Scheme	The term used when referring to the offshore elements of the Proposed Scheme, seaward of the mean high-water springs to the EEZ boundary at sea.
Proposed Onshore Scheme	The term used when referring to the onshore elements of the Proposed Scheme, landward of the mean low water springs. Proposed Onshore Scheme components include:

Term	Description
	a) Kiln Lane Substation. b) Underground High Voltage Alternating Current (HVAC) Cables; c) Converter Station. d) Underground High Voltage Direct Current (HVDC) Cables; and e) Landfall.
Proposed Scheme	Used when referring to the GB scheme components of the Project, not including Dutch components. This includes both the onshore and offshore scheme components which are within UK territorial waters and up to the UK EEZ boundary at sea.
Rochdale Envelope	The Rochdale Envelope or Design Envelope approach is employed where the nature of a proposed development means that some details of a project are not available in advance of, or at the time of submitting the DCO application. The Rochdale Envelope approach defines a design envelope and parameters within which the final design will sit and ensures a robust and reliable EIA can be undertaken.
Scoping Opinion	A scoping opinion is requested from the Planning Inspectorate on behalf of the Secretary of State, to inform the requirements of EIA process and ultimately the ES which will be submitted as part of the application for development consent. Through the scoping process, the views of the statutory consultees and other relevant organisations on the proposed scope of the EIA are sought. A Scoping Opinion for the Proposed Scheme was issued by the Planning Inspectorate (on behalf of the Secretary of State) on 16 April 2024. The Applicant received a separate EIA Scoping Opinion from the Marine Management Organisation (MMO) (Reference DCO/2024/00005, dated 04 September 2024) as the MMO were unable to provide opinion to the Planning Inspectorate in time for the April 2024 deadline.
Scottish Power Renewables (SPR) East Anglia One North (EA1N) and East Anglia 2 (EA2) Consents (SPR EA1N and EA2 Consents)	The Orders made following the Scottish Power Renewables applications for development consent for the following projects: a) The East Anglia ONE North Offshore Wind Farm Order 2022; and b) East Anglia TWO Offshore Wind Farm Order 2022
Southern Route Option	A southern cable corridor option that would allow: a) Underground HVAC Cable delivery for Proposed Scheme only, or b) Underground HVAC Cable delivery for Proposed Scheme and ducting for Sea Links Underground HVAC and HVDC cables in that section.
Statutory Consultation	Consultation undertaken with the community and stakeholders in advance of the application for development consent being submitted to the Planning Inspectorate, on behalf of the Secretary of state, in accordance with the PA 2008.

Term	Description
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.
TenneT	Operator of the electricity transmission network across the Netherlands.
Tower	A structure used to carry overhead electrical conductors, insulators, and fittings. Often described as a pylon.
Transition Joint Bay (TJB)	An underground structure at the Landfall Site that house the joints between the offshore cables and the onshore cables.
Underground Cable Corridors	Collective term for the corridors within which HVAC and HVDC cables are planned.
Underground High Voltage Alternating Current (HVAC) Cable Corridor	A corridor in which the underground HVAC cables are planned to be installed.
Underground High Voltage Alternating Current (HVAC) Cables	Transmission cables which connect between the Converter Station and Substation. HVAC cables are designed to manage fluctuating flow of current.
Underground High Voltage Direct Current (HVDC) Cable Corridor	A corridor in which the underground HVDC cables are planned to be installed.
Underground High Voltage Direct Current (HVDC) Cables	Transmission cables which connect the Converter Station to the Landfall Site and then offshore. HVDC cables are designed to manage current flowing in one direction.
Visibility Splay	An area of land at a road junction that ensures drivers have an unobstructed view of oncoming traffic allowing them to safely join or cross the road.
Western Route Option	As part of the Underground HVDC cable corridor, the Western Route Option would deliver the Scheme within its own corridor with no co-location with the Sizewell Link Road (SLR) scheme.

5 EIA Approach And Methodology

5.1 Introduction

5.1.1 This chapter provides an overview of the approach to the preliminary Environmental Impact Assessment (EIA), including the approach to the EIA assessment scenarios and general methodology used to provide consistency across assessment topics.

5.1.2 An EIA is a staged and iterative process. The final findings of the EIA will be reported within an Environmental Statement (ES) to be submitted as part of the application for the Development Consent Order (DCO) for the Proposed Scheme.

5.1.3 This Preliminary Environmental Information Report (PEIR) reports the findings of a preliminary assessment of the likely significant effects of the Proposed Scheme and has been undertaken in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI/572) (as amended) (EIA Regulations)(Ref 1) and relevant guidance.

5.1.4 This preliminary assessment has been undertaken using information available at the time of writing and has been prepared to provide the information reasonably required for readers to develop an informed view of the likely significant environmental effects of the Proposed Scheme. This is provided with sufficient detail to assist informing the Statutory Consultation responses.

5.1.5 This chapter is structured as follows:

a. **Section 5.2 EIA Process** - sets out the overall legislative requirements and guidance which directs the EIA process, including the treatment of uncertainty and limitations of the assessment.
b. **Section 5.3 The Proposed Scheme EIA Scoping** - describes how the scope, including technical, temporal, and spatial scope, for the assessment have been established.
c. **Section 5.4 The Proposed Scheme PEIR** – describes the purpose of the PEIR.
d. **Section 5.5 EIA Methodology**
    i. Assumptions and limitations – which are common to all assessments;
    ii. Th Rochdale Envelope approach – defining the treatment of uncertainty and flexibility;
    iii. Baseline – describes current baseline conditions and future conditions;
    iv. Defining significance – sets out how the magnitude of impact, and sensitivity or value of a receptor are considered in evaluating significance.
    v. Mitigation – describes how environmental measures to reduce, limit or eliminate effects through primary (embedded), secondary (additional), and tertiary (good practice and control measures) mitigation are considered in the assessment.
    vi. Enhancement – describes approach to opportunities beyond mitigation.

vii. Monitoring - describes an outline approach to proposed monitoring.

e. **Section 5.6 Assessment Scenarios and Options** – describes the approach to the assessment of the current design alternatives presented within this PEIR.
f. **Section 5.7 Climate Change and Carbon Assessment** – describes the approach taken for the vulnerability of the Proposed Scheme to climate change, the contribution of the Proposed Scheme to greenhouse gas emissions and an in-combination climate change assessment. **Chapter 27 Climate Change and Carbon** of this PEIR provides further detail of the methodological approach, and findings to date.
g. **Section 5.8 Cumulative effects** – defines the approach to inter-project and intra-project cumulative effects. **Chapter 28 Cumulative Effects** of this PEIR provides further detail of the methodological approach, and findings to date.
h. **Section 5.9 Transboundary Effects** - sets out the legislative context and further consideration of transboundary effects.
i. **Section 5.10 Major Accidents and Disasters** - sets out the legislative context and evidence to scope out further consideration of major accidents and disasters
j. **Section 5.11 Engagement** - describes the approach to the stakeholder engagement process, meetings to date and identifies where additional information recording interactions are provided.
k. **Section 5.12 Supporting studies** - provides details of the other studies which have been used to inform the EIA, including: Habitats Regulations Assessment, Water Environment Regulations/Water Framework Directive Compliance Assessments, Flood Risk Assessment, Marine Conservation and emerging Transport Strategy.

5.1.6 This chapter should be read in conjunction with the PEIR documents:

a. **Chapter 1 Introduction;**
b. **Chapter 2 Description of the Proposed Scheme**;
c. Onshore technical assessments within **Chapters 6 to 18;**
d. Offshore technical assessments within **Chapters 19 to 26**; and
e. Sitewide technical assessments within **Chapters 27 and 28.**

5.1.7 This chapter is supported by the following appendices and figures:

a. **Appendix 2.1 Outline Code of Construction Practice;**
b. **Appendix 2.2 Outline Offshore Construction Environmental Management Plan;**
c. **Appendix 5.1 Transboundary Screening Matrix;**
d. **Figure 1.1 Location Plan of Proposed Scheme Draft Order Limits;**
e. **Figure 2.2 Proposed Onshore Scheme; and**
f. **Figure 2.4 Proposed Offshore Scheme.**

5.2 EIA Process

5.2.1 This section explains what the objectives of a PEIR and EIA are, giving an overview of a typical approach to EIA.

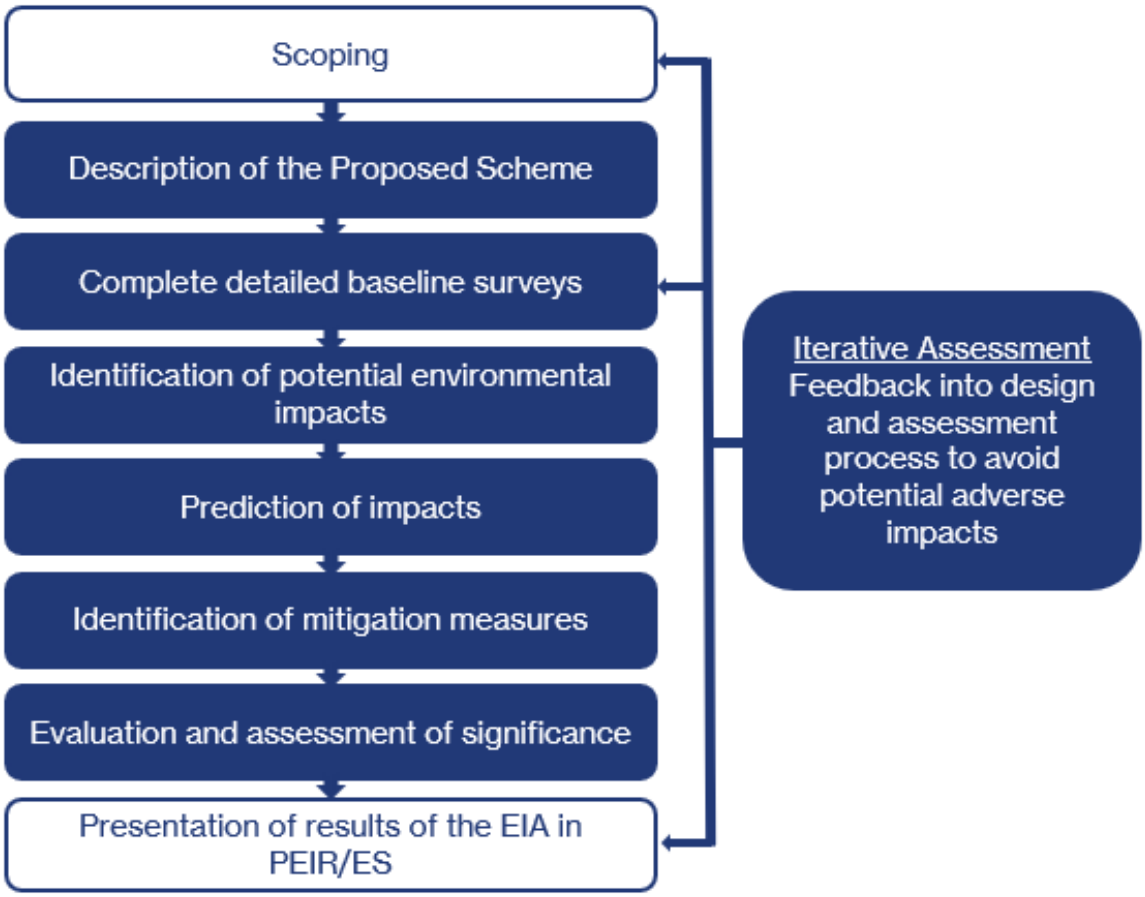
Overview of the EIA Process

5.2.2 An EIA is a systematic process that examines the likely significant effects (beneficial or adverse) on the environment resulting from the future construction and operation of a proposed development. The findings of an EIA are presented in a document known as an ES, which can then be used to inform decision makers and the public about the possible environmental implications of a development and help the decision maker (in the case of a DCO, the Secretary of State) determine the application for development consent. This is a process prescribed by the EIA Regulations. The EIA Regulations set out the procedures to be followed in relation to EIAs which must be undertaken for Nationally Significant Infrastructure Projects (NSIPs) in England and Wales.

5.2.3 The early detection of likely significant environmental effects enables effective and appropriate mitigation; measures to avoid, reduce or offset likely significant adverse effects, to be identified, as well as their incorporation into the design of a project. The approach is iterative and involves close working between multiple parties, including the Applicant, stakeholders, designers and the technical specialists undertaking assessment.

5.2.4 The EIA typically follows a number of stages (illustrated in **Inset 5.1**) in the pre-application stage of a DCO.

Inset 5.1: Environmental Impact Assessment Process



5.2.5 Baseline data gathering is an ongoing process which informs the description of existing environmental conditions within the defined study area for each topic. This may include site survey data, or information available through public records or directly from stakeholders such as Historic England or the Environment Agency.

5.2.6 Consultation and stakeholder engagement consultation is undertaken in accordance with Section 42 of the Planning Act. Prescribed stakeholder bodies are consulted as part of the scoping process, supported by wider pre-application non-statutory stakeholder engagement activities undertaken as part of the DCO process.

5.2.7 Assessments of the potential impacts of a project upon identified receptors is then undertaken to predict the likely beneficial or adverse significant environmental effects. These assessments are based on clearly defined methodologies.

5.2.8 Once the potential effects are known, mitigation measures can be identified. This includes the identification of measures beyond those embedded within the design of a project. Additional mitigation can be identified in response to significant adverse effects identified in the EIA. For example, specific additional measures to

include in a Draft Code of Construction Practice which outlines control measures, procedures and standards that must be used during construction.

5.2.9 Residual environmental effects of a project are then described, taking into account the effectiveness of proposed mitigation measures.

5.2.10 Three key EIA documents are produced as part of the DCO pre-application process: an EIA Scoping Report, a PEIR and an ES:

a. EIA Scoping Report: sets out the likely significant effects from a project, also referred to as the scope. It also presents the data collected and the proposed assessment methodology and approach that would be used during the EIA to determine significance of effects. The Scoping Report is issued by the Planning Inspectorate to consultees for comments on the scope and methodology proposed. The consultees comments inform the Scoping Opinion, which is issued by the Planning Inspectorate (on behalf of the Secretary of State) and sets out the information and topics which the Planning Inspectorate considers should form part of the EIA.
b. PEIR: contains the findings of the EIA at a point in time in the design of a project, and is used by consultees to inform their consultation responses during the Statutory Consultation.
c. ES: presents the results of the EIA undertaken for a project, building on the initial preliminary assessment which was contained in the PEIR. It identifies the likely significant effects that would result if a project was delivered, and any mitigation proposed to reduce those significant effects. The ES is submitted as part of the application for development consent and is considered during the decision-making process.

5.3 The Proposed Scheme EIA Scoping

5.3.1 An **EIA Scoping Report** (Ref 2) for the Proposed Scheme was submitted to the Planning Inspectorate with a request for the Secretary of State to adopt a Scoping Opinion in relation to the Proposed Scheme on 6 March 2024. The **EIA Scoping Report** included information regarding the construction, operation and decommissioning of the Proposed Scheme, topics, aspects and matters which in the Applicant's view should be either scoped into or out of the EIA, how these topics will be assessed and the potential likely significant effects as a result of the Proposed Scheme.

5.3.2 In considering the request for a Scoping Opinion, the Planning Inspectorate (on behalf of the Secretary of State) consulted with the relevant prescribed consultation bodies, statutory undertakers, Local Authorities, including those identified by Section 43 of the Planning Act 2008 (PA 2008), and non-prescribed consultation bodies as appropriate, who had 28 days to respond to the Planning Inspectorate regarding the information provided.

5.3.3 An **EIA Scoping Opinion** (Ref 3) was received from the Planning Inspectorate (on behalf of the Secretary of State) on 16 April 2024. The Applicant received a separate EIA Scoping Opinion from the Marine Management Organisation (MMO)

on 04 September 2024 (Ref 4) as the MMO were unable to provide opinion to the Planning Inspectorate in time for the April 2024 deadline.

5.3.4 The Applicant has provided responses to the Planning Inspectorate's EIA Scoping Opinion in each of the technical chapters (**Chapters 6 to 28**) presented within this PEIR, Overarching comments have been considered and agreed with by the Applicant and full responses will be provided in the subsequent ES.

5.3.5 A preliminary response to the issues identified within the Marine Management Organisation Scoping Opinion is provided in each of the offshore technical chapters (**Chapters 18 to 25** of this PEIR) to explain how and where issues are addressed in the PEIR or will be addressed within the ES.

5.3.6 The **EIA Scoping Report** and **EIA 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 assessment that are beyond the scope of work identified in the **EIA Scoping Report** or the **EIA Scoping Opinion**. Similarly, any changes to the Proposed Scheme 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 with appropriate reasoning set out.

5.4 The Proposed Scheme PEIR

5.4.1 Regulation 12(2)(b) of the EIA Regulations define the PEIR as information that has been compiled by the applicant and

> *"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)".*

5.4.2 Referring to preliminary environmental information, the Planning Inspectorate Advice Note Seven (Ref 5) states:

> *"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 preapplication stage".*

5.4.3 This PEIR provides a preliminary assessment for each technical environmental aspect to inform Statutory Consultation. Each chapter outlines methodology, baseline, mitigation and residual effects (including a prediction of likely significant effects) informed by the **EIA Scoping Report** and **EIA Scoping Opinion**.

5.4.4 This PEIR follows a receptor-based assessment approach (unless otherwise stated in each chapter). When deciding on which receptors to include within the PEIR, consideration was given to Regulation 5(2) and Schedule 4 paragraph 4 of the EIA Regulations.

5.4.5 All conclusions and assessments presented within this PEIR are preliminary and are based on the Proposed Scheme design and assumptions described within this PEIR. All assessment work has and continues to apply a precautionary principle, in that where limited information is available, a realistic worst-case scenario is assessed.

5.4.6 The PEIR sets out the level of work undertaken to reach the conclusion as to whether there are likely to be significant effects for each scoped in aspect. It also outlines any further work that will be presented in the ES to validate conclusions.

5.5 EIA Methodology

Overview

5.5.1 This section of the PEIR describes the standardised approach being applied for the EIA of the Proposed Scheme. This offers a consistent basis for each technical assessment to adopt and adapt as required within **Chapters 6 to 28** of this PEIR.

Guidance

5.5.2 This PEIR has been prepared in accordance with current, applicable, best practice EIA guidance to the EIA process, including:

a. the Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects (April 2024) (Ref 6);
b. Department for Levelling Up, Housing and Communities - Environmental Impact Assessment (May 2020) (Ref 7);
c. Planning Inspectorate's Advice Notes:
    i. Nationally Significant Infrastructure Projects - Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements (June 2020) (Ref 2);
    ii. Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope (July 2018) (Ref 8);
    iii. Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (September 2024) (Ref 9);
    iv. Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process (September 2024) (Ref 10);
    v. Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments (September 2024) (Ref 11);
    vi. Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive (November 2024) (Ref 12);
    vii. Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation (September 2024) (Ref 13);

viii. Nationally Significant Infrastructure Projects: Advice on Preparing Applications for Linear Projects (Ref 14).

d. Institute of Environmental Management and Assessment (IEMA – now the Institute of Sustainability and Environmental Professionals (ISEP)) Delivering Proportionate EIA (Ref 15); and
e. IEMA Guidance: Implementing the Mitigation Hierarchy from Concept to Construction (Ref 16).

Assumptions and limitations

5.5.3 Known assumptions and limitations specific to individual assessments are detailed in technical chapters of this PEIR (**Chapters 6 to 28**).

5.5.4 General limitations include:

a. baseline conditions are specific to each technical topic and are considered to be accurate at the time when surveys were undertaken, however, it is recognised that environmental conditions may change during the course of the Proposed Scheme, and these are described as appropriate as part of the **Future Baseline** (Paragraphs **5.5.33 to 5.5.36**);
b. the assessment presented in this PEIR is based on construction, operation and maintenance, and decommissioning information available at the time of writing, and based on the construction phases and programme described in **Chapter 2 Description of the Proposed Scheme**;
c. the assessment of cumulative effects (**Section 5.8** and **Chapter 28 Cumulative Effects**) is dependent on the availability of information at the time of assessment in relation to other identified developments.

5.5.5 Where applicable, any technical deficiencies or, in some instances, lack of available data encountered in the collection of information is clearly described within each technical assessment chapter of this PEIR (**Chapters 6 to 28**).

The Rochdale Envelope Approach

5.5.6 The 'Rochdale Envelope' or 'Design Envelope' approach is employed where the nature of any part of a proposed development means that some design details have not been confirmed when an application is submitted. This approach is commonly used within major infrastructure projects and allows the use of flexibility within clearly defined parameters to address any uncertainties, as first established in the cases of *R v Rochdale Metropolitan Borough Council ex p Milne (2000)* and *R v Rochdale Metropolitan Borough Council ex p Tew (1999).*

5.5.7 Major infrastructure projects such as linear infrastructure projects for underground cables and above ground installations, such as converter stations, typically need some flexibility to be maintained at application stage for detailed design and construction with such details to be refined post-consent. Therefore, the Rochdale Envelope approach has been adopted for the Proposed Scheme. The use of this approach allows for the maximum parameters to be adopted when determining likely significant effects, allowing the Proposed Scheme to be assessed on a realistic 'worst-case' basis. This allows sufficient flexibility for

detailed design to be undertaken within these parameters, without the identification of new or different significant effects post submission from those identified within the EIA. This ensures that the 'as-built' Proposed Scheme will in no circumstances have a worse environmental impact than what is assessed in the final ES, on the basis that the parameters assessed represent the worst-case scenario.

5.5.8 The Planning Inspectorate's Advice Note Nine (Ref 8) defines key principles for how flexibility in design can be considered during an EIA when final design details are not available:

"The DCO application documents should explain the need for and the timescales associated with the flexibility sought and this should be established within clearly defined parameters;

The clearly defined parameters established for the Proposed Development must be sufficiently detailed to enable a proper assessment of the likely significant environmental effects and to allow for the identification of mitigation, if necessary within a range of possibilities;

The assessments in the ES should be consistent with the clearly defined parameters and ensure a robust assessment of the likely significant effects;

The DCO must not permit the Proposed Development to extend beyond the 'clearly defined parameters' which have been requested and assessed. The Secretary of State may choose to impose requirements to ensure that the Proposed Development is constrained in this way;

The more detailed the DCO application is, the easier it will be to ensure compliance with the Regulations."

5.5.9 Consent can be granted for a development which is conditional on further details related to design refinement being agreed prior to construction of a proposed development on the basis of the Rochdale Envelope approach.

5.5.10 The EIA process aids and informs the design process and supports the identification of a design at the application stage for a DCO that is flexible enough to accommodate change in future stages but not so flexible that it could over-state or unnecessarily amplify the potential environmental effects of the Proposed Scheme.

Limits of deviation and design parameters

5.5.11 A spatial tolerance has been applied to the location of linear elements of the Proposed Scheme to accommodate the Rochdale Envelope. These are used to accommodate unexpected issues in the routeing and siting of infrastructure when further detailed information, such as pre-construction ground investigations, are available in the development of design or post-consent. This approach is recognised by the Planning Inspectorate Advice on Preparing

Applications for Linear Infrastructure Projects (Ref 14), and the extent of this tolerance is known as the 'limits of deviation' (LoD).

5.5.12 The Proposed Scheme Draft Order Limits (DOL) (**Figure 1.1** of this PEIR) are presented and used within this PEIR, and final Order Limits to be applied for consent need to encompass the LoD.

5.5.13 Flexibility is also required for the non-linear components of the Proposed Scheme; namely the Kiln Lane Substation and proposed Converter Station. Design parameters to state the maximum dimensions and location within which components can be micro-sited have therefore also been used to accommodate the Rochdale Envelope and are specified in **Chapter 2 Description of the Proposed Scheme** of this PEIR.

5.5.14 At this stage, some elements of the Proposed Scheme have not been finalised, therefore findings presented within this PEIR are preliminary. However, the principles used to define the LoD and design parameters ensure the assessment is robust and a realistic worst-case for the Proposed Scheme have been used.

5.5.15 The LoD and design parameters for each element of the Proposed Scheme is explained in **Chapter 2 Description of the Proposed Scheme** of this PEIR.

5.5.16 Each technical assessment defines within their methodology their reasonable 'worst-case' assumptions which have been made as part of their assessments (**Chapters 6 to 28** of this PEIR) for each specific technical receptor. These have been informed by the defined LoD and design parameters described in **Chapter 2 Description of the Proposed Scheme**, the **Future baseline** (paragraphs **5.5.33 to 5.5.37)** and the scenarios and options defined in **Section 5.6 Assessment Scenarios and Options** of this Chapter 5**.**

Determining scope of assessment

Technical Scope

5.5.17 The technical scope of the EIA was determined during the scoping exercise. Aspects included in the assessment are those which were determined to have the potential to give rise to significant effects. The aspects addressed within this PEIR are listed below and are presented in detail in individual chapters **(Chapters 6 to 28)** of this PEIR:

a. Agricultural Land and Soils;
b. Air Quality;
c. Ecology and Biodiversity;
d. Geology and contamination;
e. Health and Wellbeing;
f. Historic Environment;
g. Hydrology, Hydrogeology and Drainage;
h. Landscape and Visual;
i. Material Assets and Waste;

j. Noise and Vibration;
k. Socio-Economics, Recreation and Tourism;
l. Traffic and Transport;
m. Marine Physical Environment;
n. Intertidal and Subtidal Benthic Ecology;
o. Fish and Shellfish;
p. Intertidal and Offshore Ornithology;
q. Marine Mammals;
r. Shipping and Navigation;
s. Commercial Fisheries;
t. Other Marine Users;
u. Marine Archaeology;
v. Climate Change; and
w. Cumulative Effects.

5.5.18 The technical assessments undertaken at PEIR stage evaluate and identify the likely significant environmental effects arising from construction, operation and maintenance, and decommissioning of the Proposed Scheme (defined further in **Chapter 2 Description of the Proposed Scheme** of this PEIR). These have been defined as:

a. Construction: activities undertaken to deliver the required infrastructure for the Proposed Scheme;
b. Operation and maintenance: the presence of and activities undertaken to maintain functionality of the Proposed Scheme; and
c. Decommissioning: activities associated with the dismantling and removal of the Proposed Scheme once it has reached the end of its lifespan.

5.5.19 Cumulative effects arising during either construction or operation of the Proposed Scheme due to interactions with 'other developments', or between Proposed Scheme elements are described further in **Section 5.8 Cumulative Effects** and methodology detailed within **Chapter 28 Cumulative Effects** of this PEIR.

Spatial Scope

5.5.20 The Proposed Scheme DOL refers to the area shown in **Figure 1.1 Location Plan** of this PEIR. At the current stage of the design process, this land has been identified as potentially being required for temporary or permanent purposes for the construction or operation of the Proposed Scheme.

5.5.21 Each technical chapter has defined a relevant study area informed by the Proposed Scheme DOL, and, in most instances, applying a buffer sufficient to encompass the spatial extent over which impacts relevant to that technical assessment and the related receptors may operate.

5.5.22 The following factors were taken into account when defining the study area for each technical assessment:

a. the physical extent of the Proposed Scheme;

b. the nature of the baseline environment;
c. the manner and extent to which environmental effects may occur; and
d. relevant guidance, best practice and/or legislation.

5.5.23 The spatial scope of assessment for each topic may be refined for subsequent stages of the EIA in response to consultation feedback or further assessment.

Temporal Scope

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

a. Permanent - these are effects that are irreversible and will remain even when the Proposed Scheme is complete. These effects may be caused by temporary or permanent activities which lead to environmental effects.
b. Temporary – these are time limited effects that are due to environmental changes associated with a particular activity.

5.5.25 The proposed start year of construction for the Proposed Scheme is 2028. For the assessment of construction phase effects, the baseline year represents the conditions prior to construction starting.

5.5.26 Operation and maintenance phase effects are effects that are likely to occur as a result of the presence, operation and maintenance of the Proposed Scheme. Operation and maintenance is anticipated to start following completion of construction in year 2032.

5.5.27 It is assumed the Proposed Scheme has a minimum design life of 40 years, i.e. until 2072; however, it is anticipated that rather than be decommissioned, parts would be replaced to extend the Proposed Scheme operational life. Details of the likely replacement rate of components are provided in **Chapter 2 Description of the Proposed Scheme** of this PEIR. The assumption is that the above ground components of the Proposed Scheme would need to be removed if it cannot be re-purposed. Decommissioning of the Proposed Scheme is also described in **Chapter 2 Description of the Proposed Scheme** of this PEIR and is considered in the technical assessments (**Chapters 6 to 28**).

Baseline

Current baseline

5.5.28 The current environmental and physical conditions within the study areas ('the current baseline') have been established so that a comparison of future changes as a result of the Proposed Scheme can be understood, and potentially significant effects can be identified.

5.5.29 The baseline year has been established as 2025.

5.5.30 Site visits, walkover surveys, technical assessment specific surveys, and desk-based studies have been used to collect baseline data and determine the baseline conditions.

5.5.31 Each technical assessment chapter (**Chapters 6 to 28**) within this PEIR provides details of the baseline data gathered, and the definition of the baseline with relevance to their assessments.

5.5.32 Due to the timescales required to potentially consent development and deliver the construction of the Proposed Scheme, the EIA has been carried out in relation to known conditions, and conditions that are likely to occur in future construction and operational years, defined further below.

Future baseline

5.5.33 As part of this assessment, a 'without development' scenario has been explored to establish the environmental conditions in the event that the Proposed Scheme does not go ahead. This is typically referred to as a 'Future Baseline' for the area within the DOL without the Proposed Scheme.

5.5.34 To predict the most likely future baseline without development, i.e. without the Proposed Scheme, against which the impact of the Proposed Scheme can be assessed, the following has been considered:

a. The future baseline will be affected by other projects in the area. Where the Proposed Scheme is the first to develop and construct in isolation, the baseline would only be changed by b. below. However, the Planning Inspectorate's NSIP: Advice on Cumulative Effects Assessment (Ref 9) states "*Where other existing and, or approved developments are expected to be completed before construction of the proposed NSIP and the effects are fully determined, effects arising from them should be considered as part of the baseline*" and "*The Environmental Statement should distinguish between projects forming part of the dynamic baseline and those in the CEA [cumulative effects assessment]"*. Consideration has been given to likely material changes between the time of data collection/survey and the future baseline for the construction and operation and maintenance phases of the Proposed Scheme. In some cases, these changes may include the construction or operation of other planned developments in the area. Where such developments are built and operational at the time of data collection and writing, these are considered to form part of the baseline environment. Where sufficient and robust information is available, such as expected traffic growth figures, other future developments are considered as future baseline conditions. At this stage, this includes Sizewell Link Road (a component of the Sizewell C (Nuclear Generating Station) Order 2022) for which construction is predicted to be completed prior to 2028. Other planned future developments are considered within the assessment of cumulative effects (**Chapter 28 Cumulative Effects** of this PEIR). These will be updated within the ES.
b. Climate change is predicted to impact coastal erosion, increase heatwaves, heavy rainfall events, dry spells, sea level and decrease frost days. These expected future conditions are described fully in **Chapter 27 Climate Change and Carbon** of this PEIR under 'Future climate baseline'. Each environmental

technical assessment has provided an In-combination Climate Change Impacts Assessment which considers this potential future change to baseline conditions and any change it may have to the conclusions of the assessment of effects, as described in **Section 5.7 Climate Change and Carbon**.

5.5.35 In addition to **Paragraph 5.5.34 a. and b**., upgrades and improvements to the highway network provided by the Highway Authority under their powers will be considered within the EIA presented at ES, which will be confirmed with the Highway Authority.

5.5.36 In some instances, modelling has been or will be used to inform the future baseline and/or to predict the potential impacts of the construction and operation of the Proposed Scheme within the EIA. Where these have been employed, methodologies have been defined as appropriate within the relevant technical chapters (particularly **Chapter 7 Air Quality, Chapter 12 Hydrology, Hydrogeology and Drainage, Chapter 15 Noise and Vibration,** and **Chapter 17 Traffic and Transportation,** and **Chapter 27 Climate Change** of this PEIR).

5.5.37 Further descriptions of future baseline appropriate to individual technical assessments have been based on currently available environmental information and scientific knowledge, and are reported within **Chapters 6 to 28** of this PEIR.

Assessment of effects and determining significance

Overview

5.5.38 The terms 'impact' and 'effect' in EIA are different. The EIA Regulations state that an assessment of project environmental impacts is required; however, the impacts of the Proposed Scheme may or may not result in significant effects on the environment. It is an assessment of effects that is required by Schedule 4 of the EIA Regulations.

5.5.39 To provide consistency across all topics within the EIA, and for ease of comparison, the methodology described in this section is applied where appropriate. Where topic-specific alternatives exist (following industry-wide guidance or best practice) these have been presented within the relevant technical assessment chapters (**Chapters 6 to 28**) of this PEIR.

Impacts

5.5.40 The following factors have been taken into account when identifying potential impacts, in accordance with the EIA Regulations:

a. the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);
b. the nature of the impact (i.e. what the impact is and whether it is adverse, beneficial or neutral);
c. the transboundary nature of the impact;
d. the intensity and complexity of the impact;
e. the probability of the impact;

f. the expected onset, duration, frequency and reversibility of the impact;
g. the cumulation of the impact with the impact of other existing and/or approved development; and
h. the possibility of effectively avoiding or reducing the impact.

5.5.41 Impacts may be direct or indirect; secondary; cumulative; adverse or beneficial; permanent or temporary; and short-, medium- or long-term. These terms are used to describe the nature of impacts, to provide the context within which the significance of effects can be understood. The criteria used to differentiate between temporary (between short-, medium- and long-term impacts) and permanent, vary between topics and are explained, where relevant, in **Chapters 6 to 28** of this PEIR.

Effects

5.5.42 Whilst the EIA Regulations require that the likely significant effects of a development are assessed they do not define what constitutes a 'significant' effect. This is typically taken as a function of the importance or sensitivity of the feature being affected and the magnitude of the impact which is occurring. Therefore, the assessment of the significance of effects for the majority of technical assessments is based on a three-step process:

a. Assigning value (or sensitivity) of receptors or resources;
b. Assigning magnitude of impact; and
c. Assigning significance

5.5.43 For all technical assessments, effects are considered in terms of construction, operation and maintenance, decommissioning and cumulative.

5.5.44 The guidelines and generalised descriptions which follow are based on most recent experience of environmental assessments for NSIPs undertaken by accredited professionals in the EIA team.

Receptor value and sensitivity

5.5.45 Receptors are environmental features that have the potential to be affected by the Proposed Scheme, either beneficially or adversely. The sensitivity of a receptor is determined by assessing its ability to adapt to change and tolerate or recover from potential impacts. The value of a receptor takes into account whether, for example, the receptor or resource is rare, or has protected or threatened status. Where applicable, the value of a receptor is prescribed by specific technical guidance.

5.5.46 Value or sensitivity is defined within each topic chapter, or the topic chapter will reference this chapter as required. Value and/or sensitivity takes into account factors including the following:

a. Vulnerability of the receptor to change;
b. Recoverability of the receptor (e.g., is the change reversible or irreversible, permanent or temporary); and

c. Importance of the receptor.

5.5.47 General criteria for defining the importance or sensitivity of receptors are set out in **Table 5.1.**

Table 5.1: General definitions of value/sensitivity

Receptor value/sensitivity	Description
Very high	Value: Very high importance and rarity, international scale (e.g. Internationally protected site). 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 (e.g. Internationally or nationally protected site). Sensitivity: The receptor has a low capacity to absorb change without fundamentally altering its present character.
Medium	Value: Medium importance and rarity, regional scale (e.g. Regionally protected site). 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.

5.5.48 The baseline studies for each aspect assessment have enabled the identification of receptors that may be affected by the Proposed Scheme. Professional judgement of the competent experts leading the technical assessments (qualifications provided **Appendix 1.1 Competent Experts** of this PEIR) and guidelines defined above have been applied as appropriate to define receptor sensitivity/value for each topic assessment.

Magnitude of impact

5.5.49 Impacts caused by a given effect can be either adverse or beneficial. The magnitude of the impact on receptors or resources is reported within this PEIR. Magnitude refers to the 'size' or 'amount' of an impact on a receptor.

5.5.50 Factors used to determine the potential impact upon a receptor include:

a. Extent – the area over which an effect occurs;
b. Duration – the time for which the effect occurs e.g., whether it is temporary or permanent;
c. Frequency – how often the effect occurs;
d. Severity – the degree of change relative to existing environmental conditions;
e. Relevant policy or guidelines; and

f. The reversibility of the effect.

5.5.51 **Table 5.2** sets out the guidelines of the assessment of the magnitude of impact. Where relevant, individual technical chapters set out variations in magnitude description requirements.

Table 5.2: General definitions of magnitude of impact

Magnitude of impact	Description
High	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.
Medium	Loss or alteration to one or more key elements/features of the baseline conditions such that post development character/composition would be materially changed.
Low	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.
Negligible	Very little change from baseline conditions. Change is barely distinguishable, approximating to a 'no change' situation.

Determination of significance

5.5.52 The significance of effect is determined using quantitative or qualitative criteria, as well as professional judgment. Where appropriate, the matrix illustrated in **Table 5.3** is applied to aid the assessment of effect significance based on expert judgement, latest guidance and input from consultation.

Table 5.3: General effects matrix

Magnitude of impact	Receptor value/sensitivity				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

5.5.53 To provide a consistent approach to expressing the outcomes of the various studies undertaken as part of the EIA and thereby enable comparison between effects upon different environmental receptors, the effect is described using the terms negligible, minor, moderate or major, except where required otherwise by guidance. A generic description of effects is provided in **Table 5.4**.

Table 5.4: General definitions of effects

Effect level	Description
Major	A large or very large change to the environmental or socio-economic conditions. These are likely to include effects, positive or negative, associated with regional or national, or international issues, objectives or legislation and are crucial to the decision-making process.
Moderate	A medium change to the environmental or socio-economic conditions. These are likely to include effects, positive or negative, associated with local or regional issues, objectives or legislation and are likely to be of importance to the decision-making process.
Minor	A small change to the environmental or socio-economic conditions. These are likely to include effects, positive or negative, associated with local issues and are unlikely to be of importance to the decision-making process.
Negligible	No discernible change to the environmental or socio-economic conditions. An effect likely to have a neutral or negligible influence.

5.5.54 Major and moderate effects are considered to be **significant**, whilst minor or negligible effects are considered to be **not significant**. However, the professional judgement of technical experts will be applied where necessary.

5.5.55 Where the methodology used to determine the significance of effect deviates from this standard approach, a description of the approach taken to the assessment and interpretation of significance levels is provided within each technical chapter. This approach ensures that the definition of significance of effect is transparent, and that the methodology is appropriate for each topic.

Mitigation

5.5.56 This PEIR describes the mitigation measures used to avoid, prevent or reduce potential significant effects identified.

5.5.57 In line with IEMA (now ISEP) guidance (Ref 16), and professional best practice, consideration is given to three key types of mitigation:

a. Embedded mitigation, also known as primary or inherent mitigation.
b. Additional mitigation, also known as secondary or foreseeable mitigation.
c. Good practice mitigation, also known as control measures, tertiary or inexorable mitigation.

5.5.58 Mitigation is relied upon in undertaking the assessment of significant effects and the conclusions of the EIA. Each technical chapter of this PEIR has identified mitigation measures that can be applied, where appropriate, to avoid or reduce the potential significant adverse effects of the Proposed Scheme. Known mitigation measures at this stage of pre-application have been summarised within each technical chapter of the PEIR (**Chapters 6-28**). It is likely additional measures will be identified and presented within the ES.

Embedded mitigation

5.5.59 Defined as mitigation that is embedded into the design or 'intrinsic' to the Proposed Scheme. These include efforts undertaken to iteratively modify the location, design or operation of the Proposed Scheme implemented throughout the design evolution in the pre-application stage. This mitigation will inherently be delivered as part of the Proposed Scheme and is therefore taken into account within the initial assessment of likely effects as part of the EIA. For example, reducing the height of a building to reduce visual impact.

Additional mitigation

5.5.60 Additional measures or actions required to reduce likely significant adverse environmental effects which are identified or developed during individual technical assessments of the EIA. These would not be taken into account within the initial assessment of likely effects as part of the EIA, but rather applied prior to the identification of residual effects. For example, hedgerow planting in a specified location to replace unavoidable loss and screen receptors from visually intrusive aspects of the Proposed Scheme. These measures are identified and described within the relevant technical chapters of this PEIR and would be secured through various mechanisms within the DCO application, such as management plans.

Good practice mitigation

5.5.61 Defined as required regardless of any environmental assessments. These include actions that will be undertaken to meet existing legislative requirements, or actions that are considered to be standard best practice used to manage commonly occurring environmental impacts. For example, this would include control measures to manage contractor activities and minimise nuisance effects contained within the Onshore Code of Construction Practice (CoCP) and Offshore Construction Environmental Management Plan (CEMP) that the contractor(s) will be obliged to implement, and also license requirements for activities subject to legislation. These requirements and controls must be delivered and therefore are considered to form part of the Proposed Scheme, therefore are assumed in place within the initial assessment of likely effects as part of the EIA.

Onshore Code of Construction Practice and Offshore Construction Environmental Management Plan

5.5.62 An Outline Onshore CoCP and Outline Offshore CEMP have been prepared as part of this PEIR (**Appendix 2.1 Outline Onshore Code of Construction Practice** and **Appendix 2.2 Outline Offshore Construction Environmental Management Plan** respectively of this PEIR).

5.5.63 Good practice measures have been identified and included in the Outline Onshore CoCP and Outline Offshore CEMP. The assessments have taken

account of these as inherent and inexorable. If significant adverse construction effects are identified and further mitigation is required, additional foreseeable mitigation has been considered, developed and included in the Onshore CoCP and Offshore CEMP as the mechanism for securing their delivery.

Enhancement

5.5.64 Environmental enhancements are measures incorporated into the design which are over and above those that are required to mitigate the potential environmental effects of the Proposed Scheme. Any opportunities for environmental enhancement over and above the required mitigation measures (if identified) and Biodiversity Net Gain will be outlined within the ES.

Monitoring

5.5.65 Schedule 4, Paragraph 7 of the EIA Regulations states that, where appropriate, the ES should include a description of any proposed monitoring arrangements where likely significant residual effects have been identified. The monitoring requirements will be detailed within the ES technical chapters to include clear and proportionate objectives for monitoring, the parameters to be monitored, the methodology for the monitoring, a timescale for implementation, identification of the party who will be responsible for the monitoring, and an outline of the remedial actions to be undertaken should results be adverse.

5.5.66 Within this PEIR, where relevant, preliminary monitoring measures have been identified during each technical assessment to ensure the ongoing efficacy of measures to mitigate significant effects as a result of the Proposed Scheme. These preliminary measures have been outlined in each individual technical chapter (**Chapters 6 to 28)** of this PEIR.

5.6 Assessment Scenarios and Options

5.6.1 At this time, there are a number of ways that certain components of the Proposed Scheme may be delivered due to ongoing coordination with third party projects which are being brought forward within the same locale (see **Chapter 2 Description of the Proposed Scheme** of this PEIR for further details of coordination with other parties). Therefore, the EIA reported this PEIR has considered possible alternative scenarios and options in order to retain necessary flexibility at this stage.

5.6.2 Alternative scenarios and options have been described further within this **Section 5.6**. Each technical chapter of this PEIR sets out the worst-case scenarios and options (as relevant) for each receptor, which will form the basis of the assessment in order to ensure a robust and reasonable worst-case assessment is undertaken.

5.6.3 **Table 5.5** sets out the consenting scenarios, and design optionality with these scenarios (where relevant) for each key component of the Proposed Scheme.

The full description of each scenario and option is set out in **Table 5.5,** and the associated parameters of each are set out within **Chapter 2 Description of the Proposed Scheme** of this PEIR.

Table 5.5: Consenting scenarios and optionality

Component of the Proposed Scheme	Consenting scenarios	Design optionality
Kiln Lane Substation	Amendment to Kiln Lane Substation	Not applicable
	Full Build Out of Kiln Lane Substation	Not applicable
HVAC Cables	HVAC Cable Route LionLink Infrastructure Only Underground HVAC Cable delivery for Proposed Scheme only	HVAC Cable Northern Route Option: LionLink Infrastructure only laid in the Northern Route
		HVAC Cable Southern Route Option: LionLink Infrastructure only laid in the Southern Route
	HVAC Cable Route LionLink Infrastructure and ducting for Sea Link Underground HVAC cable delivery for Proposed Scheme in coordination with Sea Link	HVAC Cable Southern Route Option: LionLink Infrastructure and ducting for Sea Link in the Southern Route
Converter Station	No differing consenting scenarios.	No differing design optionality
HVDC Cables	No differing consenting scenarios.	HVDC Cable Western Route Option
		HVDC Cable Eastern Route Option
Offshore HVDC Cables	No differing consenting scenarios.	Offshore HVDC Cable Corridor through Marine Aggregate Area 2109
		Offshore HVDC Cable Corridor Alternative Route around Marine Aggregate Option Area 2109

Proposed Onshore Scheme

Kiln Lane Substation

Amendments to Kiln Lane Substation Scenario

5.6.4 This scenario assumes that the Kiln Lane Substation is installed under the current EA1N/EA2 consents secured by SPR prior to the commencement of the

Proposed Scheme. In this scenario, the assessment would be against the future baseline, which would assume the completion of the proposed SPR EA1N/EA2 schemes. The Proposed Scheme in this scenario would require the extension of the Substation to accommodate two new 400 kilovolts (kV) bays. There is no design optionality within the Amendment to Kiln Lane Substation Scenario.

Full Build Out of Kiln Lane Substation

5.6.5 If the Proposed Scheme was delivered in advance of the SPR EA1N/EA2 projects, or the Sea Link project which is also seeking to consent the Kiln Lane Substation, this would require the full build out of the Substation and its supporting infrastructure. In this scenario, the assessment would assume no other schemes have come forward in the same locale.

Proposed Underground HVAC Cable Corridor

LionLink Infrastructure Only

5.6.6 This scenario assumes that LionLink will install infrastructure for the Proposed Scheme only. In this scenario, there are two design options:

a. Northern Route Option: The proposed Underground HVAC Cables for the Proposed Scheme would be installed within the Northern Route option, as shown on **Figure 2.2** of this PEIR; or
b. Southern Route Option: The proposed Underground HVAC Cables for the Proposed Scheme would be installed within the Southern Route option, as shown on **Figure 2.2** of this PEIR.

LionLink Infrastructure and ducting for Sea Link in the Southern Route

5.6.7 In this scenario, LionLink would install infrastructure required for the Proposed Scheme and in addition, would install ducting for the Sea Link HVAC and HVDC cabling, to facilitate a co-ordinated cable route and a co-ordinated delivery of construction, to minimise impacts to the area. This scenario is only possible within the Southern Route option (as shown on **Figure 2.2**), on the basis that this is where Sea Link have sought consent for their cabling within the application for their Development Consent Order. On that basis, there is no design optionality within this scenario.

Proposed Converter Station

5.6.8 There are no differing consenting scenarios for the proposed Converter Station.

Proposed Underground HVDC Cable Corridor

5.6.9 There are no differing consenting scenarios for the proposed Underground HVDC Cable Corridor, however there is potential design optionality in respect of a section of the routing:

a. Western Route Option: the Applicant would install the proposed Underground HVDC Cables along the Western Route Option, as shown on **Figure 2.2** of this PEIR.

b. Eastern Route Option: the Applicant would install the proposed Underground HVDC Cables along the Eastern Route Option, as show on **Figure 2.2** of this PEIR – this would involve routing the Underground HVDC Cables alongside the north of the Sizewell Link Road.

Proposed Landfall

5.6.10 There are no differing consenting scenarios for the proposed Landfall.

Proposed Offshore Scheme

Proposed Offshore HVDC Cable Corridor

5.6.11 There are no differing consenting scenarios for the proposed Offshore HVDC Cable Corridor, however there is potential design optionality in respect of a section of the routing:

a. Option 1: the Applicant would install the proposed Offshore HVDC Cable Corridor in such a way that it crosses through the western corner of Marine Aggregate Option Area 2109; or
b. Option 2: the Applicant would install the proposed Offshore HVDC Cable Corridor in such a way that the cabling entirely avoids Marine Aggregate Option Area 2109.

Assessment of scenarios and options

5.6.12 The technical assessments presented in this PEIR will consider only what is deemed to be 'worst-case' for the purposes of their assessments. Therefore, onshore technical assessments presented within this PEIR (**Chapters 6** to **17** and **27, 28**) will consider both Kiln Lane Substation scenarios described in **Paragraphs 5.6.4 to 5.6.5**, and both HVAC and HVDC Cable Corridor design optionality as appropriate.

5.6.13 Offshore technical assessments presented within this PEIR (**Chapters 18** to **26,** and **27, 28**) will assess the Offshore Proposed Scheme as described in **Chapter 2 Description of the Proposed Scheme** of this PEIR.

5.7 Climate Change and Carbon

5.7.1 **Chapter 27 Climate Change and Carbon** of this PEIR includes:

a. Greenhouse gas (GHG) Emissions assessment – identifies the estimated GHG emissions associated with construction, operation and maintenance (i.e. whole lifecycle GHG emissions) in comparison with the current and future baseline. It also identifies mitigation measures to reduce GHG emissions through the life cycle of the Proposed Scheme. The term 'carbon' is used interchangeably to refer to GHG emissions.
b. Climate Change Resilience assessment – this identifies the changes in climate expected in the future with regards to the operational life of the Proposed Scheme, and assesses how the Proposed Scheme may be exposed to additional vulnerability arising from these changes.

c. In-combination Climate Change Impact assessment – this considers where the future changed climate may increase environmental impacts from the Proposed Scheme on all environmental receptors, beyond those impacts arising from present climate conditions.

5.7.2 The scope of these assessments is considered at a 'scheme wide' level, i.e. both onshore and offshore, and therefore reported in a standalone chapter.

5.8 Cumulative Effects

5.8.1 As part of the EIA process, cumulative effects of the Proposed Development should be considered. This is required within Regulation 5(2)(e) of the EIA Regulations which requires the consideration of 'interactions':

"the interaction between the factors [population and human health; biodiversity; land, soil, water, air and climate; material assets, cultural heritage and landscape.]"

5.8.2 Schedule 4 of the EIA Regulations describes cumulative effects as:

"the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources."

5.8.3 These effects are typically distinguished into two types:

a. Intra-project cumulative effects (sometimes referred to as combined or interactive effects): are inter-relationships within the Proposed Scheme; and
b. Inter-project cumulative effects: of the Proposed Scheme with 'other developments'.

Intra-project Cumulative Effects

5.8.4 Intra-project cumulative effects (sometimes referred to as combined or interactive effects) occur where a single receptor is affected by more than one source of effect or aspect of the Proposed Scheme. An example of an intra-project effect would be where a local community is affected by dust, noise, and traffic disruption during the construction of the Proposed Scheme, with the result being a greater effect than each individual effect alone.

Inter-project Cumulative Effects

5.8.5 Inter-project cumulative effects occur where a receptor is affected by two or more projects at the same time, potentially amplifying the overall effect. Individually the effects may not be significant, but when considered together could create a significant cumulative effect.

5.8.6 In accordance with the approach contained within the Inspectorate's Advice Note (Ref 9), the approach to the assessment of inter-project cumulative effects will follow a staged approach.

5.8.7 In summary the key stages of the assessment are:

a. Stage 1a: Identify the Zone of Influence;
b. Stage 1b: Identify long list of other developments;
c. Stage 2: Establishing a shortlist of other existing development and/or approved development;
d. Stage 3: Information gathering; and
e. Stage 4: Assessment.

5.8.8 The methodology adopted to undertake the intra-project and inter-project cumulative effects assessment for both onshore and offshore aspects of the Proposed Scheme respectively is provided in **Chapter 28 Cumulative Effects** of this PEIR.

5.8.9 For a linear infrastructure project such as the Proposed Scheme, there is the potential that combined effects could conceivably occur where there is a pathway between an onshore and an offshore impact with a shared receptor. These will be clearly defined and cross-referred where identified across multiple assessment chapters.

5.9 Transboundary Effects

5.9.1 In accordance with Regulation 32 of the EIA regulations, and as set out in the Planning Inspectorate's Advice on Transboundary Impacts and Process (Ref 10), consideration has been given to the potential for transboundary effects on European Economic Area States as a result of the Proposed Scheme.

5.9.2 As a linear infrastructure project between the UK and Netherlands, it is acknowledged that during construction and operation (specifically maintenance) there will be a continuation of impacts from UK waters to Netherland waters and vice versa during certain works.

5.9.3 Each of the offshore technical assessments presented in this PEIR consider the potential significant transboundary impacts, where applicable. The Proposed Onshore Scheme is not anticipated to contribute to transboundary effects.

5.9.4 A screening of transboundary impacts, in line with the Planning Inspectorate's Advice Annex 1 (Ref 17) is provided in **Appendix 5.1 Transboundary Screening Matrix** of this PEIR, and where appropriate, further assessment is provided within **Chapters 18 to 26** of this PEIR.

5.10 Major Accidents and Disasters

5.10.1 During the scoping stage of the Proposed Scheme, an exercise was undertaken to identify the vulnerability of the Proposed Scheme to risks of major accidents and disasters, and the potential for the Proposed Scheme to contribute to major accidents and disasters. Evidence provided in the **EIA Scoping Report** and **Appendix 28-A – Major Accidents and Disasters Screening Table** of the **EIA Scoping Report** (Ref 18) concluded that major accidents and disasters should be scoped out from further assessment.

5.10.2 The Planning Inspectorate agreed an assessment of major accidents and disasters could be scoped out, stating within its **EIA Scoping Opinion** (ID: 3.23.1):

> *The Scoping Report proposes to scope out an assessment of major accidents and/or disasters on the basis that all potential risks will be mitigated and the Proposed Development would not be likely to lead to any increased risk of a major accident or disaster. The justification for scoping out each potential major event type is provided in Appendix 28-A.*
>
> *The Inspectorate agrees that an assessment of major accidents and disasters can be scoped out, aside from matters relating to Sizewell B nuclear power station. Any design measures taken to avoid major accidents and disasters should be clearly described within the ES and demonstrably secured in the dDCO. This should include any proposed measures to manage fire risk during operation of the proposed onshore substation, such as firefighting and containment measures.*
>
> *The Inspectorate notes from SCC's consultation response (Appendix 2 of this Opinion) that the Proposed Development is located within its Sizewell B emergency planning zone. The ES should include a description of any likely significant adverse effects deriving from the vulnerability of the Proposed Development to risks of major accidents and/or disasters due to its location within the emergency planning zone, and identify any protection measures that would be required to mitigation identified risks, such as construction worker emergency protection plans.*

5.10.3 Preliminary design measures taken to avoid the potential for major accidents and disasters are described in **Chapter 2 Description of the Proposed Development** of this PEIR and captured in control documents such as the **Appendix 2.1 Outline Onshore Code of Construction Practice** of this PEIR.

5.10.4 The ES will provide further evidence of measures taken to avoid major accidents and disasters and the required securing mechanisms in the draft DCO.

5.10.5 Sizewell B Power Station is located to the east of the DOL (approximately 3km at the closest point, approximately 4.5km from Proposed Converter Station or approximately 4km closest point of cabling route).

5.10.6 The Sizewell B Power Station is strictly regulated under the Control of Major Accident Hazard (COMAH) Regulations 2015 (Ref 19) and must manage their activities in a way which reduces risk to workers and the public. They must take all measures necessary to prevent major accidents and to limit their consequences for people and the environment.

5.10.7 Engagement is ongoing with Sizewell B to coordinate, manage the potential risks associated with the geographical location of the Proposed Scheme within the emergency planning zone. Noting the Proposed Scheme's distance from Sizewell

B, and Sizewell B's obligations[1] to notify off-site organizations of site emergencies, should they be declared, it is still considered the Proposed Scheme is not vulnerable to major accidents and disasters.

5.10.8 The ES will detail the interface with Sizewell B's emergency planning zone, and engagement undertaken to agree protection measures, if required.

5.11 Engagement

5.11.1 The process of consultation and stakeholder engagement is important to undertaking a comprehensive and balanced EIA. The views of interested parties serve to focus the environmental studies, define methodologies, and to identify specific issues that require further investigation.

5.11.2 It should be noted that feedback is also used to drive the design of the Proposed Scheme to avoid, prevent and reduce any likely environmental effects. **Chapter 3 Alternatives and Design Evolution** of this PEIR reports how the Proposed Scheme design has evolved in response to feedback and details of proposed embedded design (primary) mitigation and standard good practice (tertiary) mitigation measures.

5.11.3 **Section 5.3** described the scoping stage of the Proposed Scheme.

Non- statutory consultation

5.11.4 A programme of non-statutory consultation was completed between 24 October and 18 December 2022, which included in-person public exhibition events, community webinars and a virtual exhibition. A second non-statutory consultation took place between Friday 8 September 2023 and Friday 3 November 2023 which included in-person community events, community webinars and a virtual exhibition. Feedback received from both the general public, statutory bodies and other relevant stakeholders has been considered in the design development of the Proposed Scheme and the preparation of this PEIR.

5.11.5 Further information on the outcome of non-statutory consultation and how feedback received has been considered by the project team is provided within the **Interim Non-Statutory Consultation Feedback Summary Report 2023** (Ref 21) and **Supplementary Non-statutory Consultation Report 2024** (Ref 22) published by the Applicant.

Direct engagement

5.11.6 A summary of meetings held with environmental stakeholders which have informed the preparation of this PEIR is provided within individual technical chapters of this PEIR. Key considerations and additional direct engagement undertaken by technical specialists to address queries raised within the Scoping Opinion and discussed at these meetings are summarised within each technical

[1] details of which are contained with the Sizewell B Nuclear Power Station Emergency Plan (Ref 19)

assessment **Chapters 6 to 28** of this PEIR. Where queries or further engagement remains to be undertaken, this has also been detailed.

Statutory consultation

5.11.7 This PEIR has been published in accordance with Section 4 of PA 2008 for the purposes of statutory consultation.

5.11.8 Responses received will be used to inform design development, the preparation of the ES and captured in a Statutory Consultation Feedback Report.

5.12 Supporting studies

5.12.1 The EIA will take into account other supporting studies, with a view to avoiding duplication of assessment. The preparation of these other standalone documents is needed to meet the requirements of other policy and legislation. Whilst the contents of these documents will not be repeated within this PEIR, the outcomes of these assessments may provide additional information to inform the design and preliminary assessment herein.

5.12.2 An outline of these supporting studies is provided below for information.

Habitats Regulations Assessment

5.12.3 The European Habitats Directive (Ref 23) is transposed into UK legislation through the Habitats Regulations. These regulations set out procedures for dealing with the effects of development on the national site network, which comprises Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). As a matter of policy, the Government applies the same procedures to possible SPAs, possible SACs, Ramsar sites and proposed Ramsar sites.

5.12.4 Under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended), and Regulation 28 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 (for plans and projects beyond UK territorial waters (12 nautical miles)), an appropriate assessment is required where a plan or project (in this case an NSIP application) is likely to have a significant effect upon a European site, either individually or in combination with other projects. This information takes the form of a report.

5.12.5 Further to this, the Habitats Regulations provide that where an appropriate assessment has been carried out and results in a negative assessment (that is, the development will adversely affect the integrity of the site(s) despite any proposed avoidance or mitigation measures or if uncertainty remains), consent can only be granted if there are no alternative solutions, there are Imperative Reasons of Overriding Public Interest (IROPI) for the development, and compensatory measures have been secured.

5.12.6 Paragraph 5.4.49 of EN-1 clarifies the role of the Secretary of State in undertaking an Appropriate Assessment as the competent authority:

"The Secretary of State must consider whether the project is likely to have a significant effect on a protected site which is part of the National Site Network (a habitat site), a protected marine site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects"

5.12.7 A HRA screening assessment has been undertaken and an HRA Screening Report is provided within the suite of documents at this statutory consultation stage, alongside this PEIR. Further details on the relevant sites are provided in **Chapter 8 Ecology and Biodiversity, Chapter 18 Marine Physical Environment, Chapter 19 Intertidal and Subtidal Benthic Ecology, Chapter 21 Intertidal and Subtidal Ornithology,** and **Chapter 22 Marine Mammals** of this PEIR.

5.12.8 A Report to Inform Appropriate Assessment (RIAA) will be prepared by the Applicant for all designated sites within the national site network which have the potential to be affected by the Proposed Scheme, in accordance with the Habitat Regulations and submitted as part of the application for development consent for the Proposed Scheme alongside the ES.

5.12.9 A **draft RIAA for the Proposed Offshore Scheme** only has been provided alongside the suite of documents at statutory consultation due to sufficient design and baseline data to inform the production of this document at this stage.

5.12.10 An HRA will be undertaken by the Secretary of State as part of the decision-making process.

Flood Risk Assessment

5.12.11 A preliminary Flood Risk Assessment (FRA) has been undertaken in accordance with the Overarching National Policy Statement for Energy (EN-1) (NPS EN-1)(Ref 24) National Planning Policy Framework (NPPF), to consider flood risk both to and from the Proposed Scheme. This preliminary FRA is provided as **Appendix 12.1** of this PEIR, and demonstrates how this risk is intended to be managed in the future, including with the influence of climate change.

5.12.12 Sources of flood risk range from groundwater, surface water during high rainfall events, fluvial or man-made water bodies, and sewers. Impact of changes to groundwater flows and flood risk during operation on superficial deposits; Crag Group bedrock (principal aquifer); source protection zones (SPZ) 1 to 3; and groundwater dependent terrestrial ecosystems have been scoped out. Impacts of changes to surface water or groundwater flows and flood risk during operation on licensed and private abstractions (surface water and groundwater); consented discharges (to surface water or land); and groundwater-surface water interactions (e.g. springs/sinks) have been scoped out. The Scoping Opinion has confirmed *"The Inspectorate agrees that this matter can be scoped out provided that the construction phase assessment considers the permanent changes introduced by the Proposed Development and that any mitigation required to avoid*

likely significant effects is described in the ES and demonstrably secured in the dDCO." (ID 3.7.6) and (ID 3.7.8) respectively.

5.12.13 **Chapter 12 Hydrology, Hydrogeology and Drainage** of this PEIR summarises the likely effects on flood risk, and the status of discussions with the Lead Local Flood Authority.

5.12.14 A FRA will be included as an appendix to the ES and will consider flood risk both to and from the Proposed Scheme, as well as outlining how this risk will be managed in the context of climate change.

Water Environment Regulations Compliance Assessment

5.12.15 A Water Environment Regulations (WER) Compliance Assessment will be undertaken, in accordance with the Water Environment (Water Framework Directive (WFD)) (England and Wales) Regulations 2017. The outcomes of the WER/WFD Compliance Assessment will inform the EIA by determining the status of WFD waterbodies with the potential to be impacted by the Proposed Scheme. The assessment will consider the extent to which the Proposed Scheme has the potential to impact upon the current and future target WFD status of water bodies and will follow the approach set out in Nationally Significant Infrastructure Projects guidance: Advice on the Water Framework Directive (Ref 12). Further information on WFD rivers and coastal waters with the potential to be impacted by the Proposed Scheme is provided in **Chapter 12 Hydrology, Hydrogeology and Drainage** and **Chapter 18 Marine Physical Environment** of this PEIR.

5.12.16 A WER Compliance Assessment (onshore) and WFD Assessment (offshore) are provided alongside the publication of the PEIR as **Appendices 12.2** and **18.2** respectively. These will be updated based on design evolution and submitted as part of the ES.

Marine Conservation Zone Assessment

5.12.17 A Marine Conservation Zone (MCZ) Assessment – Screening, under the Marine and Coastal Access Act 2009, was undertaken for the Proposed Scheme. It was provided with the EIA Scoping Report and has subsequently been provided with this PEIR. Screening has not identified any relevant MCZs that intersect with the zone of influence (the spatial extent) over which direct and indirect impacts from the Proposed Offshore Scheme will likely be experienced. The Scoping Opinion states: "*The Inspectorate agrees that indirect impacts to the MCZ can be scoped out of the assessment based on its distance from the study area boundary (being 8.5km at the closest point), which is stated to be beyond the maximum ZoI."* (ID 3.14.1),

Transport Assessment

5.12.18 The environmental effects of traffic and transport are addressed in relevant parts of this PEIR such as **Chapter 7 Air Quality, Chapter 15 Noise and Vibration,** and **Chapter 17 Traffic and Transport.**

5.12.19 A Transport Assessment will be included with the DCO application. This will include the assessment of the surface traffic impacts of the Proposed Scheme during construction and operational traffic. The assessment will consider the local, regional and national policy context, and details modelled surface traffic movements based on the latest guidance. This will report the assessment of the road and wider network capacity, the functionality of junctions, and potential impacts on journey times amongst other things.

5.12.20 A Transport Statement is being prepared and will be submitted as part of the application for development consent, describing the surface access modelling and assessment carried out to date.

Topic Glossary and Abbreviations

Term	Definition
CoCP	Code of Construction Practice
COMAH	Control of Major Accident Hazard
DCO	Development Consent Order
dDCO	Draft Development Consent Order
DOL	Draft Order Limits
EA1N	East Anglia ONE North
EA2	East Anglia TWO
EIA	Environmental Impact Assessment
ES	Environmental Statement
FRA	Flood Risk Assessment
GB	Great Britain
HRA	Habitats Regulation Assessment
IEMA	Institute of Environmental Management and Assessment
ISEP	Institute of Sustainability and Environmental Professionals
LoD	Limits of Deviation
MCZ	Marine Conservation Zone
NPPF	National Planning Policy Framework
NSIP	Nationally Significant Infrastructure Projects
PA 2008	Planning Act 2008
PEIR	Preliminary Environmental Information Report
SACs	Special Areas of Conservation
SI	Statutory Instrument
SPAs	Special Protection Areas
SPR	Scottish Power Renewables
SPZ	Special Protection Zone
WER	Water Environment Regulations
WFD	Water Framework Directive
ZOI	Zone of Influence

References

Ref 1 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, Statutory Instrument, No. 572

Ref 2 LionLink (March 2024) Environmental Impact Assessment Scoping Report Volume 1 Main Report [online] Available at: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020033-000046-LION%20-%20Scoping%20Report%20-%20Main%20Text.pdf [accessed 24/02/2025]

Ref 3 Planning Inspectorate (16 April 2024) Scoping Opinion: Proposed LionLink Multi-purpose Interconnector [online] Available at: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020033-000103-LION%20-%20Scoping%20Opinion.pdf [accessed 24/02/2025]

Ref 4 Marine Management Organisation (04 September 2024) MMO Scoping Consultation Response for the LionLink Multi-Purpose Interconnector [online] available at: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020033-000149-LION%20-%20Late%20Scoping%20Consultation%20Response%20-%20Marine%20Management%20Organisation.pdf [last accessed 26 September 2025].

Ref 5 Planning Inspectorate (June 2020) Guidance: Nationally Significant Infrastructure Projects - Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements [online] Available at: https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-seven-environmental-impact-assessment-process-preliminary-environmental-information-an [accessed 24/02/2025]

Ref 6 Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities (April 2024) Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects [online] https://www.gov.uk/guidance/planning-act-2008-pre-application-stage-for-nationally-significant-infrastructure-projects [accessed: 24/02/2025]

Ref 7 Department for Levelling Up, Housing and Communities (May 2020) Guidance: Environmental Impact Assessment [online] https://www.gov.uk/guidance/environmental-impact-assessment [accessed 24/02/2025]

Ref 8 Planning Inspectorate (July 2018) Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope [online]

https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope [accessed: 24/02/2025]

Ref 9 Planning Inspectorate (September 2024) Guidance: Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment [online] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment [accessed: 24/02/2025]

Ref 10 Planning Inspectorate (September 2024) Guidance: Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process [online] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-transboundary-impacts-and-process [accessed: 24/02/2025]

Ref 11 Planning Inspectorate (September 2024) Guidance: Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments [online] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-habitats-regulations-assessments [accessed: 24/02/2025]

Ref 12 Planning Inspectorate (November 2024) Guidance: Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive [online] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-water-framework-directive [accessed: 24/02/2025]

Ref 13 Planning Inspectorate (September 2024) Guidance: Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation [online] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-eia-notification-and-consultation [accessed: 28/02/2025]

Ref 14 Planning Inspectorate (February 2025) Guidance: Nationally Significant Infrastructure Projects: Advice on Preparing Applications for Linear Projects [online] https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-preparing-applications-for-linear-projects [accessed: 24/02/2025]

Ref 15 Institute of Environmental Management and Assessment (IEMA) (2017) Delivering Proportionate EIA

Ref 16 IEMA (August 2024) Impact Assessment Guidelines: Implementing the Mitigation Hierarchy from Concept to Construction

Ref 17 Planning Inspectorate Transboundary Advice Annex 1 Transboundary screening for the purposes of Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) Long form proforma [online] Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-transboundary-impacts-and-process [accessed: 24/02/2025]

Ref 18 LionLink (March 2024) Environmental Impact Assessment Scoping Report Volume 3 Appendices [online] Available at: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020033-

000049-LION%20-%20Scoping%20Report%20-%20Appendices.pdf [accessed 24/02/2025]

Ref 19 UK Statutory Instruments 2015 No. 483. The Control of Major Accident Hazards Regulations 2015. Her Majesty's Stationery Office, Richmond, UK.

Ref 20 Nuclear Generation Limited (October 2020) Company Specification Sizewell B Nuclear Power Station Emergency Plan [online] https://www.edfenergy.com/sites/default/files/sizewell_b_nuclear_power_station_emergency_plan_0.pdf [accessed: 24/02/2025]

Ref 21 LionLink Multi-Purpose Interconnector (August 2023) Interim Non-Statutory Consultation Feedback Summary Report [online] Available at: https://www.nationalgrid.com/national-grid-ventures/lionlink/library#230548828-3684997351 [accessed 28/02/2025]

Ref 22 LionLink (March 2024) Supplementary Non-Statutory Consultation Summary Report [online] Available at: https://www.nationalgrid.com/national-grid-ventures/lionlink/library#230548828-3684997351 [accessed 28/02/2025]

Ref 23 Habitats Directive On the Conservation of Natural Habitats and Wild Flora and Fauna (92/43/EEC)

Ref 24 Overarching National Policy Statement for Energy (EN-1) (NPS EN-1) [online] Available at: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1 [accessed 28/02/2025]

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