Connah's Quay Low Carbon Power

Environmental Statement Volume II
Chapter 2: Assessment Methodology

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2. Assessment Methodology

2.1 Overview

2.1.1 This chapter of the Environmental Statement (ES) sets out the approach and assessment methods applied to the Environmental Impact Assessment (EIA). In addition, it explains the approach to consultation and technical engagement that have informed this ES.

2.1.2 No figures support this chapter. This chapter is accompanied by the following appendices in **ES Volume IV** (**EN010166/APP/6.4**):

- **Appendix 2-A: Planning Inspectorate (PINS) Transboundary Screening Matrix**; and
- **Appendix 2-B: Scoping Opinion Responses**.

2.2 The Environmental Impact Assessment Process

Environmental Impact Assessment Approach and Scope

2.2.1 This ES has been prepared to satisfy the requirements of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (hereafter referred to as the 'EIA Regulations') (Ref 2-1). In preparing this ES, in line with the EIA Regulations (as it forms part of the EIA process) reference has been made to the following guidance:

- Nationally Significant Infrastructure Projects: Advice on EIA Notification and Consultation (Ref 2-2);
- Nationally Significant Infrastructure Projects - Advice Note Seven: Environmental Impact Assessment: process, preliminary environmental information and environmental statements (Ref 2-3);
- Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope (Ref 2-4);
- Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessments (Ref 2-5);
- Nationally Significant Infrastructure Projects: Advice Note on Transboundary Impacts and Process (Ref 2-6);
- Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (Ref 2-7);
- Nationally Significant Infrastructure Projects: Advice on the Water Framework Directive (Ref 2-8);
- Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects (Ref 2-9); and

- Institute of Environmental Management and Assessment[1] (IEMA), Environmental Impact Assessment Guide to: Shaping Quality Development (Ref 2-10).

2.2.2 The following revised energy National Policy Statements are considered to be relevant to the Proposed Development and are detailed in **Chapter 7: Planning Policy and Need** (**EN010166/APP/6.2.7**):

- the Overarching NPS for Energy (EN-1) (Ref 2-11);
- the NPS for Natural Gas Electricity Generating Infrastructure (EN-2) (Ref 2-12);
- the NPS for Natural Gas Supply Infrastructure and Gas and Oil Pipelines (EN-4) (Ref 2-13); and
- the NPS for Electricity Networks Infrastructure (EN-5) (Ref 2-14).

2.2.3 Reference has also been made to the EIA Scoping Opinion received from the Secretary of State (SoS) on 20 March 2024[2] (**Appendix 1-B: EIA Scoping Opinion** (**EN010166/APP/6.4**)) and the advice contained within it regarding assessment methodology, topics and presentation of the ES together with responses received through ongoing consultation and technical engagement.

2.2.4 Section 1.8 of **Chapter 1: Introduction** (**EN010166/APP/6.2.1**) sets out the structure of this ES. In response to the Scoping Opinion, the EIA and this ES include assessments of the following environmental topics:

- **Chapter 8: Air Quality** (**EN010166/APP/6.2.8**);
- **Chapter 9: Noise and Vibration** (**EN010166/APP/6.2.9**);
- **Chapter 10: Traffic and Transport** (**EN010166/APP/6.2.10**);
- **Chapter 11: Terrestrial and Aquatic Ecology** (**EN010166/APP/6.2.11**);
- **Chapter 12: Marine Ecology** (**EN010166/APP/6.2.12**);
- **Chapter 13: Water Environment and Flood Risk** (**EN010166/APP/6.2.13**);
- **Chapter 14: Geology and Ground Conditions** (**EN010166/APP/6.2.14**);
- **Chapter 15: Landscape and Visual Amenity** (**EN010166/APP/6.2.15**);
- **Chapter 16: Physical Processes** (**EN010166/APP/6.2.16**);
- **Chapter 17: Terrestrial Heritage** (**EN010166/APP/6.2.17**);
- **Chapter 18: Marine Heritage** (**EN010166/APP/6.2.18**);

[1] The Institute of Environmental Management Assessment (IEMA) has changed its name to the Institute of Sustainability and Environmental Professionals (ISEP). Where general reference is made to the institute in this document, the following distinction has been made: ISEP (formerly IEMA). When referencing legacy IEMA documents, this distinction is not made.

[2] Where reference is made to the Scoping Opinion published by PINS on 20 March 2024, late responses to the Scoping Opinion published by PINS are also included.

- **Chapter 19: Socio-Economics, Recreation and Tourism** (**EN010166/APP/6.2.19**);
- **Chapter 20: Climate Change** (**EN010166/APP/6.2.20**);
- **Chapter 21: Human Health** (**EN010166/APP/6.2.21**);
- **Chapter 22: Major Accidents and Disasters** (**EN010166/APP/6.2.22**);
- **Chapter 23: Materials and Waste** (**EN010166/APP/6.2.23**); and
- **Chapter 24: Cumulative and Combined Effects** (**EN010166/APP/6.2.24**).

2.2.5 **Appendix 2-B: Matters Raised in Scoping Opinion** (**EN010166/APP/6.4**) summarises the issues raised in PINS Scoping Opinion and describes how the issues raised have been taken into account during the EIA and design development of the Proposed Development.

Environmental Statement

2.2.6 This ES summarises the outcomes of the following EIA activities:

- consideration of relevant local, regional, and national planning policies, guidelines, technical standards and legislation relevant to the EIA;
- development of significance criteria and specialist assessment methodologies;
- consultation with statutory and non-statutory consultees and the contents of the Scoping Opinion;
- establishing baseline conditions, including a review of secondary information, previous environmental studies, publicly available information and databases, desktop studies, and physical surveys and monitoring;
- input into the development of design including embedded mitigation, including the consideration of alternatives;
- assessment of likely impacts and effects, including modelling and calculations and professional judgement;
- identification of any necessary additional mitigation or monitoring required;
- determination of residual effects; and
- assessment of effect interactions and cumulative effects with other schemes, plans and projects.

2.2.7 These activities enable the prediction of impacts in relation to the current and future baseline conditions, and a prediction based on the information available of the likely significance of effects on environmental receptors.

2.2.8 The term 'impact' refers to potential changes arising from the Proposed Development, whereas the term 'effect' is used to describe the result of the potential impact on a receptor.

Rochdale Envelope

2.2.9 As explained in **Chapter 4: The Proposed Development** (**EN010166/APP/6.2.4**), detailed design has yet to be finalised for the Proposed Development. Design parameters have been defined to allow the Applicant to maintain a necessary degree of flexibility as the Proposed Development detailed design progresses. This is important as the designs and technology for the integration of carbon capture on gas-fired stations continue to evolve, and also to maintain commercial flexibility to meet the changing demands of the UK market and government policy on the transition to Net Zero, prior to construction of the Proposed Development. Therefore, the Rochdale Envelope approach has been applied within the EIA to provide a robust assessment in relation to the potential likely significant environmental effects of the Proposed Development, in accordance with Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope.

2.2.10 The setting of design parameters using the 'Rochdale Envelope' approach is described in **Chapter 2: Assessment Methodology** (**EN010166/APP/6.2.2**). The maximum parameters for the principal components of the Proposed Development are set out in the **Design Principles Document** (**EN010166/APP/7.8**) and are illustrated on the **Works Plans** (**EN010166/APP/2.4**) and the **Parameter Plans** (**EN010166/APP/2.5**). These parameters, together with assumptions regarding the future plans for the existing Connah's Quay Power Station set out in **Chapter 2: Assessment Methodology** (**EN010166/APP/6.2.2**) have been used to inform the representative worst-case scenario that has been assessed in this chapter, in order to provide a robust assessment of the impacts and likely significance of environmental effects of the Proposed Development at its current stage of design.

Approach to Assessment of Likely Significant Effects

Study Areas: Spatial Scope of Assessment (Geographical Area)

2.2.11 The technical assessment chapters of this ES (**Chapters 8** to **24** (**EN010166/APP/6.2**)) describe their spatial (geographic) scope, including the rationale for determining the specific area ('study area') within which the assessment is focused. The study areas are a function of the potential types and potential geographic extents of the impacts of the Proposed Development and the locations of potentially affected environmental resources or receptor. Justification for the spatial scope considered appropriate is documented in each topic chapter (**Chapters 8** to **24** (**EN010166/APP/6.2**)).

Assessment Years and Assessment Scenarios: Temporal Scope of Assessment

2.2.12 The approach has been to assess the likely environmental impacts of the Proposed Development at key stages in its construction and operation (including maintenance) and, as far as reasonably practicable, its final decommissioning, taking into consideration the existing baseline conditions and baseline conditions that may prevail in the future.

Definition of Existing and Future Baseline

2.2.13 The 'existing baseline' date within this ES is assumed as 2024[3] since this is the period in which the majority of baseline studies for the EIA have been undertaken. Existing baseline conditions have been defined for each technical assessment topic in **Chapters 8** to **24** (**EN010166/APP/6.2**), based on a combination of desk-based assessment and primary survey data which has been specifically collected for the Proposed Development.

2.2.14 Where applicable, future baseline conditions are also predicted for each technical topic. These are the conditions anticipated to prevail at a certain point in the future (assuming the Proposed Development does not progress) and are identified for comparison with the predicted conditions with the Proposed Development. This can include, for example, natural succession of habitats, the introduction of new receptors into an area, the continued operation of existing developments, or new development schemes that have the potential to change the baseline, where these comprise committed developments.

2.2.15 The baseline scenarios that are being considered for the purposes of the EIA (and considered in this ES) are therefore as follows:

- existing baseline (2024); and
- future baseline - No Development (2026 onwards, as outlined in each technical chapter where relevant).

Construction Assessment Scenarios

2.2.16 Construction of the Proposed Development could, subject to securing the necessary development consent, start as early as 2026. Considering that the DCO may be granted allowing construction to commence within up to five years from the date of the grant of development consent, as standard, construction activities may commence as late as 2031 for the purposes of this ES.

2.2.17 It is currently envisaged that the approach to construction, which could commence between 2026 and 2031, set out in **Chapter 5: Construction Programme and Management** (**EN010166/APP/6.2.5**), could either be:

- phased construction, where:
  - the undertaker may construct Train 1[4] over an approximate four year duration, followed by commissioning and commercial operation of Train 1. On completion, this would then be followed by construction of Train 2 over a further approximate four years;

[3] Baseline data gathering has been ongoing since 2023 as described in each relevant technical chapter. Furthermore, reference to existing longer-term datasets gathered by the Applicant is also made in certain chapters (e.g. Terrestrial Ecology) and an explanation of how data remains representative is provided in chapters and appendices, where relevant.
[4] **Chapter 1: Introduction** (**EN010166/APP/6.2.1**) explains that the Proposed Development comprises up to two CCGT units achieving a net electrical output capacity of more than 350 megawatts (MW; referred to as 'MWe' for electrical output) (up to a likely maximum of 1,380 MWe). Each CCGT unit, and associated carbon capture plant (CCP) and supporting infrastructure, is referred to as a 'Train' in this ES.

  - in this event, certain construction activities (e.g. earthworks or permanent elements of the Proposed Development to be shared by both Trains) are likely to be undertaken for both Trains in parallel, although other construction works are likely to be completed sequentially; and
  - in this phased construction scenario, it is assumed that the footprint for Train 2 would be used for laydown and temporary construction uses during the construction of Train 1. Therefore, laydown requirements for the construction of Train 2 may be less than those required for the alternative single phase construction approach;
- simultaneous construction, where:
  - the undertaker may commence construction later than for phased construction, following the grant of DCO and financial investment decision. The undertaker may construct Train 1 and Train 2 simultaneously, lasting four to five years. It is currently anticipated that this could be from 2030 to 2035.

2.2.18 Applying the principles of the Rochdale Envelope, where necessary flexibility needs to be maintained, each technical topic has therefore considered the relevant worst-case construction scenario (e.g. in relation to land-use requirements).

2.2.19 In selecting an assessment year for construction, for certain topics such as road traffic, a worst-case is to consider an assessment year later in the programme (due to predictions in traffic growth), whereas for other topics, such as air quality, an earlier year may be appropriate (due to predicted improvements in background air quality concentrations in the future). The assessment scenarios considered in the technical assessments are set out in **Chapters 8** to **24** (**EN010166/APP/6.2**).

Opening/ Commercial Operation Assessment Scenarios

2.2.20 Assuming an approximate four-year construction programme, including a period of commissioning, the Proposed Development (assuming phased construction commencing with Train 1) could commence commercial operation in Q3 2030.

2.2.21 Commissioning and commercial operation of Train 2 (phased construction), or Train 1 and 2 (simultaneous construction) is anticipated from around 2035. **Chapter 5: Construction Programme and Management** (**EN010166/APP/6.2.5**) provides further information.

Interface with Existing Connah's Quay Power Station

2.2.22 The existing Connah's Quay Power Station is a four-unit combined cycle natural gas-fired, CCGT plant providing 1,380 MWe of dispatchable power to the National Grid. It has Capacity Market Agreements in place until 2028 and may seek to enter future Capacity Market auctions beyond this date. Any future plans for the existing Connah's Quay Power Station would be confirmed by the Applicant in due course.

2.2.23 For the purposes of deriving relevant worst-case assessments for this ES, it is recognised that the existing Connah's Quay Power Station would not

operate at its full installed capacity concurrently with the Proposed Development. In order to provide relevant worst-case assessments in this ES, it is recognised that in the future baseline, decommissioning of the existing Connah's Quay Power Station could take place and if that were the case, the process of decommissioning would follow the relevant regulations and consenting requirements at the relevant stage and a separate planning application would be made by the Applicant. Therefore, the environmental effects of decommissioning the existing Connah's Quay Power Station would be considered as part of any decommissioning consenting proposals at that time. Appropriate industry standard practice mitigation measures, together with any required measures, would be applied during the decommissioning works. The decommissioning works would be subject to approval by the relevant authority.

Decommissioning Assessment Scenarios

2.2.24 It is envisaged that the Proposed Development could have an operational life of up to 30 years for each Train, however this could be extended. On this basis, decommissioning activities are currently anticipated to commence after 2060 (Train 1 phased construction) and after 2065 (Train 2 phased construction or simultaneous construction).

Determining the Baseline Conditions

2.2.25 In order to predict the potential environmental effects of the Proposed Development, it is important to determine the baseline environmental conditions that currently exist within the Order limits and surrounding area, in the absence of any development.

2.2.26 Detailed, environmental baseline information has been collected and the methodology for the collection process is detailed within each technical chapter of the ES. The baseline information has been gathered from various sources, including:

- online/digital resources;
- data searches, e.g. Historic Environment Records;
- baseline site surveys;
- environmental information submitted in support of other planning applications for developments in the vicinity; and
- through stakeholder engagement and consultation.

2.2.27 Consideration has also been given to how the baseline conditions would evolve in the absence of the Proposed Development, known as the 'future baseline', in respect of both natural changes and any planned developments.

Development Design, Impact Avoidance and Mitigation

2.2.28 The design process for the Proposed Development has been influenced by the findings of early environmental appraisals that form part of the EIA process. Therefore, the Proposed Development has been sited and has a number of measures incorporated into the concept design to avoid or minimise environmental impacts. The key aspects where the design has evolved are described in **Chapter 4: The Proposed Development**

(**EN010166/APP/6.2.4**) of the ES. These include measures needed for legal compliance, as well as measures that implement the requirements of best practice guidance documents (e.g. British Standards Institute (BSI) Code of practice for noise and vibration control on construction and open sites (Ref 2-15 and Ref 2-16)). The assessment has been undertaken on the basis of these measures are incorporated in the design and construction practices (i.e. they are 'embedded mitigation').

2.2.29 The following mitigation measures were considered where relevant:

- primary mitigation measures - those which are modifications to the location or design of the Proposed Development during the pre-application phase that are 'designed in' or an inherent part of the Proposed Development and do not require additional action to be taken;
- secondary / additional mitigation measures - those that require further action to be taken to achieve the anticipated outcome or those that require a controlling mechanism or legal undertaking to be implemented, but are under the control of the Applicant, Flintshire County Council or statutory bodies, e.g. DCO Requirement; and
- tertiary mitigation measures – those that would occur notwithstanding the EIA to meet with legislative requirements or standard practices, e.g. construction mitigation with a high degree of certainty over delivery, for example, measures to be included in the CEMP.

2.2.30 The basis of the EIA and the assessments within the technical chapters of this ES is that both primary and tertiary mitigation will be delivered, and they are considered to comprise 'Embedded mitigation' for the EIA. Embedded mitigation measures are detailed within the technical chapters of the ES and if relevant to the construction phase, included in the **Framework Construction Environmental Management Plan** (**CEMP**) (**EN010166/APP/6.5**) submitted alongside the Application. Implementation of the embedded mitigation measures related to design that are relied on in the assessment will be set out in a **Commitments Register** (**EN010166/APP/6.10**) that accompanies the Application. Embedded mitigation measures are secured by the **Draft DCO** (**EN010166/APP/3.1**), for example through the setting of limits of deviation (e.g. specific maximum Above Ordnance Datum (AOD) heights and defined work areas) or specifying mitigation measures via a Requirement.

2.2.31 In line with IEMA guidance 'EIA Guide to Shaping Quality Development' (Ref 2-10 (November 2015) best practice, the management plans are defined as 'tertiary' mitigation which is defined as that which "*will be required regardless of any EIA assessment, as it is imposed, for example, as a result of legislative requirements and/or standard sectoral practices. For example, considerate contractors practices that manage activities which have potential nuisance effects*".

2.2.32 Where likely significant effects are identified as part of the assessment, consideration has been given to any further mitigation (over and above anything identified within the Development Design and Embedded Mitigation sections of each topic chapter) that may be required to mitigate any likely significant adverse effects identified. The residual effects (after the implementation of mitigation) have then been assessed and presented in

each topic chapter. Significant residual effects will also be summarised in **Chapter 25: Summary of Significant Residual Effects** (**EN010166/APP/6.2.25**) of the ES. Where sufficient embedded mitigation has been incorporated into the design, it may not be necessary to propose further mitigation.

2.2.33 Where a likely significant effect has been identified, requirements for monitoring have been proposed within the relevant technical chapter in line with the EIA Regulations, where practicable. In addition, where feasible, environmental enhancements – which are improvements to the environment that are not required to reduce or mitigate adverse effects – have been embedded in the Proposed Development design.

2.2.34 Mechanisms for securing all environmental mitigation and monitoring measures are set out within the standalone **Commitments Register** (**EN010166/APP/6.10**) submitted with the Application.

2.3 Consultation and Technical Engagement

2.3.1 In addition to consultation throughout the EIA process, statutory consultation was carried out between 8 October 2024 and 19 November 2024, during which time the Applicant hosted a number of in-person and online events. The statutory consultation included the publication of the Preliminary Environmental Information (PEI) Report, the feedback on which has been considered within this ES.

2.3.2 Following Statutory Consultation changes were made to the heights of the proposed absorber and Heat Recovery Steam Generator (HRSG) stacks and the Applicant undertook further targeted consultation. This consultation included a Supporting Information Report which detailed the environmental considerations associated with these changes. This Targeted Consultation was held between Thursday 8 May to Friday 6 June 2025.

2.3.3 The **Consultation Report** (**EN010166/APP.5.1**) describes the approach taken, and the outcomes of consultation and wider stakeholder engagement activities throughout the pre-application stage. Comments on the environmental aspects of the Proposed Development have been included within the relevant technical chapters (**Chapters 8** to **24**, **EN010142/APP/6.2**) to show how and where comments from the statutory consultation and other engagement with stakeholders have been addressed within the ES.

2.4 Impact Assessment Methodology and Significance Criteria

Overarching assessment approach

2.4.1 Details relating to the specific assessment methodologies of individual technical topics are provided in the technical chapters of this ES (i.e. **Chapters 8** to **24**). Generally, each technical chapter of the ES follows a five-stage approach, as set out below. In some cases, technical chapters may deviate from the below approach where specific technical guidance requires a different methodology. Where this is the case, this is clearly identified in

relevant technical chapters, as appropriate. The five-stage approach comprises:

- *Stage 1 - Determining the value / sensitivity of the receptor or environmental resource:*
  - to define the baseline conditions against which the likely significant environmental effects of the Proposed Development are determined;
  - to identify receptors and environmental resources that may be impacted;
  - to assign each receptor and/or environmental resource a value on the basis of its importance or sensitivity to potential impacts (in accordance with the topic specific methodology);
- *Stage 2 - Determining the magnitude and attributes of impacts:*
  - to identify the potential impacts of the Proposed Development during the construction, operational and decommissioning phases;
  - to assign each potential impact of the Proposed Development a magnitude (in accordance with the topic specific methodology);
- *Stage 3 - Classification of the effect significance:*
  - to assign each effect of the Proposed Development a significance (in accordance with the topic specific methodology) taking account of the embedded mitigation;
- *Stage 4 - Identifying additional mitigation measures, as necessary*:
  - to explore and identify additional mitigation measures where major or moderate adverse effects are predicted; and
- *Stage 5 - Identifying residual effects:*
  - to assign each effect of the Proposed Development a significance (in accordance with the topic specific methodology) following the consideration of both embedded and any additional mitigation measures.

Assessment framework

2.4.2 Whilst each of the technical chapters provides further description and definition of the assessment criteria relevant to each topic, an assessment framework has been developed in order to provide a consistent approach to expressing the outcomes of the various studies undertaken as part of the EIA.

2.4.3 Where possible, topic specific methodologies have been based upon quantitative and accepted criteria (for example British Standards), together with the use of value judgment and interpretation by experienced assessors to classify effects.

Approach to the assessment of impacts and effects

2.4.4 Impacts are defined as changes arising from the Proposed Development, and consideration of the result of these impacts on environmental resources or receptors enables the identification of associated effects, and their

classification (major, moderate, minor and negligible, and adverse, neutral or beneficial). Effects after the consideration of additional mitigation, where applicable, are referred to as 'residual effects'.

2.4.5 The classification of effects is undertaken with due regard to the following:

- extent (local, regional or national) and magnitude of the impact;
- duration (whether short, medium or long-term);
- nature (whether direct or indirect, reversible or irreversible);
- whether the effects occur in isolation, are cumulative or interactive;
- performance against environmental quality standards and in the context of relevant legislation, standards and accepted criteria;
- number of receptors affected;
- sensitivity of receptors;
- compatibility with environmental policies; and
- professional experience and judgement of the assessor.

2.4.6 Further details are provided in each technical chapter.

2.4.7 Where it has not been possible to quantify effects, qualitative assessments have been undertaken, based on available knowledge and professional judgment. Where any uncertainty exists, this has been noted in the relevant technical chapter.

Standardised terminology

2.4.8 To enable comparison between technical topics and aid understanding of the EIA findings, standard terms are used wherever possible to classify effects throughout this ES (major, moderate, minor and negligible), and effects are also described as being adverse, neutral or beneficial. Where the specific technical guidance for each technical discipline result in deviations in the standard assessment methodology, these are described in the relevant chapters, as applicable.

2.4.9 The following terminology is used throughout the ES to define effects:

- 'Beneficial, Negligible or Adverse' significance or 'No Impact / Effect'.
  - Beneficial – advantageous or positive effect to an environmental resource or receptor;
  - Negligible – imperceptible effect to an environmental resource or receptor;
  - Adverse – detrimental or negative effect to an environmental resource or receptor; and
  - No Impact / Effect - No positive and/or negative influence from the Proposed Development.
- for effects described as Beneficial or Adverse, significance is classified as 'Minor, Moderate or Major'.

- Minor – slight, very short or highly localised effect of no significant consequence;
- Moderate – noticeable effect (by extent, duration or magnitude) which may be considered significant; and
- Major – considerable effect (by extent, duration or magnitude) of more than local scale or in breach of recognised acceptability, legislation, policy or standards.

2.4.10 Moderate and major effects are generally considered to be 'significant' for the purposes of the EIA Regulations, in accordance with standard EIA practice.

Classifying effects

2.4.11 In general, the classification of an effect is based on the magnitude of the impact and sensitivity or value of the receptor, using the matrix shown in **Table 2-1**. Where there are deviations away from this matrix (due to the technical guidance for a specific assessment topic), this is highlighted within the relevant technical chapter and the reason for the variation explained.

Table 2-1: Classification of Effects

Magnitude of Impact	Sensitivity / Value			
	High	Medium	Low	Very Low / Negligible
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low / Negligible	Minor	Negligible	Negligible	Negligible

2.4.12 When addressing the duration of an effect, the following terminology has been used:

- short term: The Proposed Development's activities that are predicted to last only for a limited period (e.g., from minutes, to hours, and no more than three months in total); and whose associated effect will cease on completion of the activity;
- medium term: Impacts from the Proposed Development's activities that will last more than three months, and whose effects may continue after the completion of the activity, but will in total be less than two years; and
- long term: Impacts from the Proposed Development's activities whose effects will last longer than two years. These impacts are often considered permanent.

Cumulative and Combined Effects

2.4.13 As required by the EIA Regulations, consideration has been given to the potential for cumulative (inter-project effects) and combined effects (intra-project effects) to arise as a result of the Proposed Development.

2.4.14 The approach to assessment of cumulative and combined effects takes into account guidance contained within PINS 'Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment' (Ref 2-7), which provides advice on the identification and assessment of other planned developments. The approach to and assessment of cumulative and combined effects is set out in **Chapter 24: Cumulative and Combined Effects** (**EN010166/APP/6.2.24**).

2.4.15 Inter-project effects occur as a result of a number of developments, which individually might not be significant, but when considered together could create a significant cumulative effect on a shared receptor and will include developments separate from and related to the Proposed Development. Consequently, the impact of the Proposed Development has been considered in conjunction with the potential impacts from other projects or activities which are reasonably foreseeable in terms of delivery, aligned to the tiered approach set out PINS Advice on Cumulative Effects Assessment (Ref 2-7).

2.4.16 Combined effects occur where a single receptor is affected by more than one source of effect arising from different aspects of the Proposed Development (such as the combined effects of noise and air quality / dust impacts during construction on local residents).

2.5 Structure of ES Technical Chapters

2.5.1 Each technical chapter of the ES follows the same structure for ease of reference:

Introduction

2.5.2 The Introduction will describe the format of the assessment presented within the chapter and provides a summary of the relevant legislation, policy and guidance of relevance to the assessment.

Consultation and Scope of Assessment

2.5.3 The Consultation and Scope of Assessment section of the technical chapters will provide an overview of consultation undertaken to date and scope of the technical assessment.

Baseline Conditions and Study Area

2.5.4 In order to assess the potential impacts and effects of the Proposed Development, it is necessary to consider the environmental conditions that currently exist on site and in the surrounding area, for comparison. These are known as the 'existing baseline conditions'. Baseline conditions are established using the results of site surveys and investigations or desk-based data searches, or a combination of these, as appropriate.

2.5.5 'Future baseline conditions', which are the likely future conditions in the study area in the absence of the Proposed Development, will also be considered and described.

2.5.6 For the purposes of assessment, each chapter will identify a reasonable 'worst-case scenario' with regards these future baseline scenarios.

Development Design and Embedded Mitigation

2.5.7 Measures that have been integrated into the Proposed Development in order to avoid, reduce, mitigate or compensate for adverse environmental effects, and/or to reduce the likelihood and/or magnitude of adverse environmental effects, will be described. Such measures may include refinement of the design and layout of the Proposed Development to avoid impacts on sensitive receptors, implementation of the CEMP, and adherence to relevant legislation, guidance and industry standard practice. The assessment of impacts and effects will take account of these measures already being in place.

Assessment of Likely Impacts and Effects

2.5.8 This section will identify the likely impacts resulting from the Proposed Development and will follow the general methodology set out in the 'Impact Assessment Methodology and Significance Criteria' section of this chapter. The specific assessment methodology will be described within the technical chapters and / or corresponding appendices.

Additional Mitigation and Enhancement Measures

2.5.9 The Additional Mitigation and Enhancement Measures section will consider the standard mitigation hierarchy (i.e. avoidance, reduction, mitigation and compensation), in addition to reducing the likelihood and/or magnitude, in describing the measures that will be implemented by the undertaker to reduce any significant adverse effects identified by the assessment and to enhance beneficial effects during construction, operation (including maintenance), and decommissioning of the Proposed Development.

Summary of Likely Significant Residual Effects

2.5.10 Effects of the Proposed Development remaining following the implementation of available mitigation measures are known as 'residual effects'. These will be presented and their significance level identified.

2.6 Matters Agreed Scoped Out

2.6.1 The EIA Scoping Report (**Appendix 1-A: EIA Scoping Report** (**EN010166/APP/6.4**)) concluded that a number of topics did not need to be considered as part of the EIA accompanying the Application for the Proposed Development and could be scoped out. As agreed by PINS in **Appendix 1-B: EIA Scoping Opinion** (**EN010166/APP/6.4**), the following topics have been scoped out of the EIA:

- Commercial Fisheries;
- Aviation; and
- Electronic Interference and Electro-Magnetic Fields.

2.6.2 Mitigation measures have been embedded in design and would be employed during the construction works to ensure any impacts associated with these environmental factors would be minimised. Where these measures relate to design, they are detailed in **Chapter 4: The Proposed Development**

(**EN010166/APP/6.2.4**), and where they relate to construction are detailed in the **Framework CEMP** (**EN010166/APP/6.5**).

2.6.3 PINS identified in **Appendix 1-B: EIA Scoping Opinion (EN010166/APP/6.4)** that further engagement was required to confirm that marine navigation did not need to be considered further in the EIA. Following engagement with the Dee Conservancy and the Dee Estuary Harbor Master the Applicant has prepared a Navigational Risk Assessment to detail the navigational risks associated with the deliveries to Port of Mostyn, Ellesmere Port and Connah's Quay North Jetty. The Navigational Risk Assessment is included in the Application as **Navigational Risk Assessment** (**EN010166/APP/6.15**).

2.7 Transboundary Effects

2.7.1 Consideration has been given to the Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process (Ref 2-6) and specifically Annexes 1 and 2, which set out the criteria and relevant considerations taken into account by PINS when screening Nationally Significant Infrastructure Projects (NSIP) for likely significant effects on the environment in another European Economic Area (EEA) state.

2.7.2 The nearest EEA state is the Republic of Ireland, approximately 185 km west of the Order limits. Taking into account the potential pollution impact pathways through air, land and water, and the effects predicted to arise from the Proposed Development, set out in **Chapter 8: Air Quality** (**EN010166/APP/6.2.8**), **Chapter 11: Terrestrial and Aquatic Ecology** (**EN010166/APP/6.2.11**) and **Chapter 13: Water Environment and Flood Risk** (**EN010166/APP/6.2.13**) within their respective spatial scopes, the likelihood of significant effects on the environment of another EEA state is considered negligible. Therefore, significant transboundary effects associated with the Proposed Development are not anticipated. A copy of the Applicant's transboundary screening matrix is included as **Appendix 2-A: Transboundary Screening Matrix** (**EN010166/APP/6.3**).

2.7.3 PINS, via its Scoping Opinion on behalf of the SoS, has undertaken an initial transboundary screening exercise for the Proposed Development under Regulation 32 of the EIA Regulations. As set out in the Scoping Opinion (**Appendix 1-B: EIA Scoping Report** (**ES Volume IV** (**EN010166/APP/6.4**)), the PINS screening exercise concluded, on the basis of the information provided by the Applicant at EIA Scoping stage, that the Proposed Development is not likely to have a significant effect either alone or cumulatively on the environment in any EEA state.

References

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Ref 2-12 DESNZ, 2023; National Policy Statement for Natural Gas Electricity Generating Infrastructure (EN-2) [online]. Available at: https://assets.publishing.service.gov.uk/media/655dc15a544aea000dfb3239/nps-natural-gas-electricitygenerating-infrastructure-en2.pdf (Accessed 26/02/24).

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Ref 2-14 DESNZ, 2023; National Policy Statement for Electricity Networks Infrastructure (EN-5) [online]. Available at: https://assets.publishing.service.gov.uk/media/655dc25e046ed400148b9dca/nps-electricity-networks-infrastructure-en5.pdf (Accessed 26/02/24).

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Ref 2-16 British Standards Institute (BSI) (2014). BS 5228-2:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites. Part 2: Vibration.