Connah's Quay Low Carbon Power

Preliminary Environmental Information Report
Volume II, Chapter 2: Assessment Methodology and Consultation

Uniper

The Planning Act 2008
The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017
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Delivering a better world

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2. Assessment Methodology and Consultation

2.1 Overview

2.1.1 This chapter of the Preliminary Environmental Information Report (PEIR) sets out the approach and assessment methods used in the preliminary assessments of impacts and effects. In addition, it explains the approach to and results of early consultation and technical engagement that have informed this PEIR.

2.1.2 No figures support this chapter. This chapter is accompanied by the following appendices in **PEIR Volume IV**:

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

2.2 The Environmental Impact Assessment Process

Environmental Impact Assessment Approach and Scope

2.2.1 This PEIR has been prepared to satisfy the requirements of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) ('the EIA Regulations') (Ref 2-1). In preparing this PEIR, 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 Note Three: 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 Note Ten: Habitats Regulations Assessment relevant to nationally significant infrastructure projects (Ref 2-5);
- Nationally Significant Infrastructure Projects - Advice Note Twelve: transboundary impacts and process (Ref 2-6);
- Nationally Significant Infrastructure Projects - Advice Note Seventeen: cumulative effects assessment relevant to nationally significant infrastructure projects (Ref 2-7);
- Nationally Significant Infrastructure Projects - Advice Note Eighteen: the Water Framework Directive (Ref 2-8); and

- Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects (Ref 2-9).

2.2.2 Reference has also been made to the EIA Scoping Opinion received from the Secretary of State on 20 March 2024[1] (**Appendix 1-B PEIR Volume IV**) and the advice contained within it regarding assessment methodology, topics and presentation of the final Environmental Statement (ES) together with responses received through ongoing consultation and technical engagement.

2.2.3 Section 1.7 of **Chapter 1: Introduction** sets out the structure of this PEIR. In response to the Scoping Opinion, the EIA and this PEIR include assessments of the following environmental topics:

- Chapter 8: Air Quality;
- Chapter 9: Noise and Vibration;
- Chapter 10: Traffic and Transport;
- Chapter 11: Terrestrial and Aquatic Ecology;
- Chapter 12: Marine Ecology;
- Chapter 13: Water Environment and Flood Risk;
- Chapter 14: Geology and Ground Conditions;
- Chapter 15: Landscape and Visual Amenity;
- Chapter 16: Physical Processes;
- Chapter 17: Terrestrial Heritage;
- Chapter 18: Marine Heritage;
- Chapter 19: Socio-Economics, Recreation and Tourism;
- Chapter 20: Climate Change;
- Chapter 21: Human Health;
- Chapter 22: Major Accidents and Disasters;
- Chapter 23: Materials and Waste; and
- Chapter 24: Cumulative and Combined Effects.

2.2.4 **Appendix 2-B: Matters Raised in Scoping Opinion (PEIR Volume IV)** summarises the issues raised in PINS Scoping Opinion and describes how the issues raised are being taken into account during the environmental assessment and design development of the Proposed Development.

Preliminary Environmental Information Report

2.2.5 PEI is defined in Regulation 12(2)(b) of the EIA Regulations as *'information referred to in regulation 14(2) which 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)'.*

[1] 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.

2.2.6 There is no prescribed format as to what PEI should comprise and PINS Advice Note 7 makes clear that it is not expected to replicate or be a draft of the ES, although it can be presented in this way, noting that: *'A good PEI document is one that enables consultees (both specialist and non-specialist) to understand the likely environmental effects of the Proposed Development and helps to inform their consultation responses on the Proposed Development during the pre-application stage.'*

2.2.7 This PEIR presents a description of the Proposed Development and an initial assessment of its likely significant environmental effects on the environment during construction, operation (including maintenance where relevant) and decommissioning, based on the preliminary environmental information available at this time. It also describes measures proposed to avoid or reduce likely significant adverse effects and the alternatives considered.

2.2.8 This PEIR summarises the outcomes to date of the following ongoing EIA activities:

- establishing existing baseline and future baseline conditions and reviewing available data;
- consultation with statutory and non-statutory consultees;
- consideration of relevant local, regional and national planning policies, guidelines and legislation relevant to the EIA;
- consideration of technical standards for the development of significance criteria and specialist assessment methodologies;
- design review;
- review of secondary information, previous environmental studies and publicly available information and databases;
- professional / expert opinion;
- physical surveys and monitoring;
- desk-top studies;
- modelling and calculations; and
- reference to current guidance.

2.2.9 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.

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

2.2.11 Each technical chapter within this PEIR (**Chapters 8 to 23**) follows the same structure for ease of reference, which is:

- Introduction;
- Consultation and Scope of Assessment;
- Assessment Methodology;

- Baseline Conditions and Study Area;
- Development Design and Embedded Mitigation;
- Preliminary Assessment of Likely Impacts and Effects;
- Additional Mitigation and Enhancement Measures; and
- Summary of Likely Significant Residual Effects.

Rochdale Envelope

2.2.12 As explained in **Chapter 4: The Proposed Development**, a number of technical parameters have yet to be finalised for the Proposed Development, to allow the Applicant to maintain a necessary degree of flexibility as the Proposed Development design progresses. This is important as the integration of carbon capture on gas-fired stations is a new application of this technology and the designs and technology offerings available 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.

2.2.13 This involves assessing the maximum (and, where relevant, minimum) parameters for the elements where flexibility needs to be retained, so that a realistic worst-case assessment can be presented within the ES, recognising that the worst-case parameter for one technical assessment may differ from another. The envelope is informed by design parameters set out in **Chapter 4: The Proposed Development**. These parameters may be further refined as the design progresses in order to control the overall scale and nature of the Proposed Development.

2.2.14 As is relevant for each technical discipline, alternative designs have been assessed using the Rochdale Envelope approach, in order to evaluate likely worst-case impacts and report on likely significant effects in this PEIR. Each of the **Chapters 8 to 23** describe the parameters applied in relation to the particular topic. As the Proposed Development design evolves, key elements of the design may be further refined and fixed (e.g. maximum stack heights). However, it is likely that flexibility will need to be maintained for some aspects of the Proposed Development into the development consent order (DCO) application ('the Application').

2.2.15 Where flexibility is to be retained in the Application, the Applicant will seek to manage changes to design parameters so that they remain within the worst-case envelope assessed in this PEIR. Justification for the need to retain flexibility in certain parameters will be outlined in **Chapter 4: The Proposed Development** of the final ES that accompanies the Application.

Approach to Assessment of Likely Significant Effects

Study Areas: Spatial Scope of Assessment

2.2.16 The technical assessment chapters of this PEIR (**Chapters 8 to 23**) describe their spatial (geographic) scope, including the rationale for evaluating 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 receptors. The widest spatial scope considered for the study area, excluding the temporary abnormal indivisible load (AIL) work areas, is 15 km from the Main Site (as set out in the EIA Scoping Report (**Appendix 1-A PEIR Volume IV**)), which relates to the appraisal of potential operational air quality impacts and effects from the Proposed Development on statutory designated ecological sites and cumulative effects from other developments. Justification for the spatial scope considered appropriate is documented in each topic chapter (**Chapters 8 to 23**).

Assessment Years and Assessment Scenarios: Temporal Scope of Assessment

2.2.17 The approach has been to assess the 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

2.2.18 The 'existing baseline' date within this PEIR is 2024[2] since this is the period in which the baseline studies for the EIA are being undertaken. Existing baseline conditions have been defined for each technical assessment topic in **Chapters 8 to 23**, based on desk-based assessment and available survey data, noting that in certain cases (e.g. ecology receptors), many surveys are ongoing during 2024. Where surveys are ongoing or planned, these are described in technical chapters and any relevant assumptions/ limitations in the assessment are explained.

2.2.19 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.

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

[2] Baseline data gathering has been ongoing in 2023/ 2024 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.

- existing baseline (2024); and
- future baseline (No Development) (2026 up to 2031).

Construction Assessment Scenarios

2.2.21 Construction of the Proposed Development could (subject to the necessary consents being granted and an investment decision being made) potentially 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 consent, as standard, construction activities may commence as late as 2031 for the purposes of this PEIR. Longer periods may be specified in the DCO but would need to be justified. Should a longer period be required for the Proposed Development, this would be considered in the ES.

2.2.22 It is currently envisaged that the approach to construction, set out in **Chapter 5: Construction Programme and Management**, could either be:

- phased construction where;
  - the Applicant may construct Train 1[3] over a four year duration from 2026, followed by commissioning and commercial operation of Train 1. On completion, this would then be followed by construction of Train 2 from 2031 over four years to 2035.
  - 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.
  - 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.
- single phase Construction;
  - the Applicant may commence construction later than for phased construction, following the grant of DCO and financial investment decision. The Applicant may construct Train 1 and Train 2 in a single phase, lasting four to five years. It is currently anticipated that this could be from 2030 to 2035.

2.2.23 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).

2.2.24 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 (e.g. due to

[3] **Chapter 1: Introduction** (PEIR Volume II) explains that the Proposed Development comprises up to two CCGT units achieving a net electrical output capacity of up to 1,380 megawatts (MWe). Each CCGT unit, and associated carbon capture plant (CCP) is referred to as a 'Train' in this ES.

improvements in background air quality concentrations). Assessment years are set out in each technical chapter.

Opening/ Commercial Operation Assessment Scenarios

2.2.25 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 around Q3 2030.

2.2.26 Commissioning and commercial operation of Train 2 (phased construction), or Train 1 and 2 (single phase construction) is anticipated from around 2035. **Chapter 5: Construction Programme and Management** provides further information.

Interface with Existing Connah's Quay Power Station

2.2.27 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.

2.2.28 For the purposes of deriving relevant worst-case assessments for this PEIR, it is recognised that the existing Connah's Quay Power Station will not operate at its full installed capacity concurrently with the Proposed Development. This is because the capacity of the existing natural gas pipeline, electrical grid connection and cooling water infrastructure precludes this scenario. Worst-case scenarios are assessed based on what could be possible within the constraints of the available infrastructure, but do not necessarily represent the Applicant's intention for future plans for the existing Connah's Quay Power Station.

2.2.29 A worst-case scenario in the event of phased construction is that Train 1, once constructed, could operate concurrently with two of the existing Connah's Quay Power Station CCGT units, to ensure continuation of and security of supply to the National Grid during construction of Train 2. Following construction and prior to commissioning of Train 2, operation of these two existing Connah's Quay Power Station CCGT units would then cease generation. In this phased construction scenario, Train 1 and two existing Connah's Quay Power Station CCGT units would therefore operate for up to five years from 2030 to 2035 followed by Train 1 and Train 2 (i.e. Proposed Development only) operating from 2035.

2.2.30 In the event of single phase construction, the worst case would be operation of up to four existing Connah's Quay Power Station CCGT units continuing to operate until approximately 2035 when, operationally, these units would be replaced by Train 1 and Train 2.

2.2.31 Although the Applicant is committed to developing both Train 1 and Train 2, in the event that a financial investment decision to not proceed with Train 2 is made, a scenario in which two of the existing Connah's Quay Power Station CCGT units could continue to operate beyond 2035 with Train 1 is also included for the purposes of deriving a worst-case environmental assessment.

2.2.32 **Table 2-1** below summarises the potential constructing and operating scenarios, including interaction with the existing Connah's Quay Power Station.

Table 2-1: Summary of Construction and Operation Scenarios

Year	Phased Construction		No Investment Train 2		Single Phase Construction	
	Generating Station Activities	Construction Activities	Generating Station Activities	Construction Activities	Generating Station Activities	Construction Activities
2026	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	N/A
2027	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	N/A
2028	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	N/A
2029	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	Construction of Train 1	Up to 4 units operating (existing CCGT)	N/A
2030	Up to 2 units operating (existing CCGT)	Commissioning and commercial operation Train 1	Up to 2 units operating (existing CCGT) with Train 1	Commissioning and commercial operation Train 1	Up to 4 units operating (existing CCGT)	Construction of Train 1 and 2
2031	Up to 2 units operating (existing CCGT) with Train 1	Construction of Train 2	Up to 2 units operating (existing CCGT) with Train 1	N/A	Up to 4 units operating (existing CCGT)	Construction of Train 1 and 2
2032	Up to 2 units operating (existing CCGT) with Train 1	Construction of Train 2	Up to 2 units operating (existing CCGT) with Train 1	N/A	Up to 4 units operating (existing CCGT)	Construction of Train 1 and 2
2033	Up to 2 units operating (existing CCGT) with Train 1	Construction of Train 2	Up to 2 units operating (existing CCGT) with Train 1	N/A	Up to 4 units operating (existing CCGT)	Construction of Train 1 and 2
2034	Up to 2 units operating (existing CCGT) with Train 1	Construction of Train 2	Up to 2 units operating (existing CCGT) with Train 1	N/A	Up to 4 units operating (existing CCGT)	Construction and commissioning of Train 1 and 2

Year	Phased Construction		No Investment Train 2		Single Phase Construction	
	Generating Station Activities	Construction Activities	Generating Station Activities	Construction Activities	Generating Station Activities	Construction Activities
2035	Operation of Train 1 and 2.	Commissioning of Train 2	Up to 2 units operating (existing CCGT) with Train 1	N/A	Commerical operation of Train 1 and 2	Construction and Commissioning of Train 1 and 2

2.2.33 In order to provide relevant worst-case assessments in this PEIR, 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. Effects of decommissioning of 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

2.2.34 It is envisaged that the Proposed Development could have an operational life of up to 30 years for each Train. If the operating life were to be extended, the Proposed Development would be upgraded in line with the legislative requirements at that time. On this basis, decommissioning activities are currently anticipated to commence after 2060 (Train 1 phased construction) and after 2065 (Train 2 phased construction or single phase construction).

Development Design, Impact Avoidance and Mitigation

2.2.35 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 had 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**. These include measures needed for legal compliance, as well as measures that implement the requirements of best practice guidance documents (e.g. NetRegs' Guidance for Pollution Prevention (GPP) documents (Ref 2-10)). The initial assessment has been undertaken on the basis of these measures being implemented (i.e. they are 'embedded mitigation').

2.2.36 Implementation of the impact avoidance and minimisation measures relied on in the assessment will be set out in a Schedule of Commitments that accompanies the Application and where relevant, these will be secured in the draft DCO, 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.

2.2.37 Once the likely effects were identified and, where relevant, quantified in this PEIR 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** of the ES accompanying the Application.

Impact Assessment Methodology and Significance Criteria

2.2.38 Impacts are defined as changes arising from the Proposed Development, and consideration of the result of these impacts on environmental receptors enables the identification of associated effects, and their classification (major, moderate, minor and negligible, and adverse, neutral or beneficial). Each effect has been classified both before and after mitigation measures have been applied. Effects after mitigation are referred to as 'residual effects.'

2.2.39 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.

2.2.40 Further details are provided in each technical chapter.

2.2.41 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.

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

2.2.43 In order 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 components, the following terminology is used throughout the PEIR, and will be used in 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; and
  - adverse – detrimental or negative effect to an environmental resource or receptor.
- 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 – more than a slight, very short or localised 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.

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

2.2.45 Each of the technical chapters provides further description and definition of the assessment criteria relevant to each topic. Where possible, this has 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.

2.2.46 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 2-2**. 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 2-2: 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

2.2.47 In the context of the Proposed Development, short-term effects are those associated with the site preparation and construction and/ or decommissioning phases, which cease when construction works are completed. Long term effects are those associated with the completed, operational Proposed Development, which last for the duration of the operational phase. Effects may also be permanent (irreversible) or temporary (reversible) and direct or indirect.

2.2.48 Effects on areas on the scale of the Flintshire county are considered to be at a regional level, whilst effects that cover different parts of the country, or Wales as a whole, are considered to be of a national level. Smaller scale effects are considered to be at a local level.

Cumulative and Combined Effects

2.2.49 As required by the EIA Regulations, consideration is given to the potential for cumulative and combined effects to arise as a result of the Proposed Development.

2.2.50 Cumulative effects are those that accrue over time and space from a number of development activities. The impact of the Proposed Development will be considered in conjunction with the potential impacts from other projects or activities which are reasonably foreseeable in terms of delivery. This includes projects that have been submitted but have not yet been approved or have planning permission or development consent that are located within a geographical scope where environmental impacts could act together to create a more significant overall effect on a receptor and where sufficient environmental information is available.

2.2.51 Combined effects are those resulting from a single development, in this case the 'Proposed Development,' on any one receptor that may collectively cause a greater effect (such as the combined effects of noise and air quality/ dust impacts during construction on local residents).

2.2.52 The approach to assessment of cumulative and combined effects takes into account guidance contained within Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects' (PINS, 2019), which provides advice on the identification and assessment of other planned developments. The approach is set out in **Chapter 24: Cumulative and Combined Effects**.

Inter-related Effects and Interdependencies

2.2.53 It is recognised that different consultees have interests in different aspects of the environment. **Table 2-3** presents where interrelated effects are likely to arise in construction and/or operation and the topic chapter in which information can be found in this PEIR.

Table 2-3: Interdependencies between topics

Chapter	8. Air Quality	9. Noise and Vibration	10. Traffic and Transport	11. Terrestrial and Aquatic Ecology	12. Marine Ecology	13. Water Environment and Flood Risk	14. Geology and Ground Conditions	15. Landscape and Visual Amenity	16: Physical Processes	17: Terrestrial Heritage	18. Marine Heritage	19. Socio-Economics, Recreation and Tourism	20. Climate Change	21. Human Health	22. Major Accidents and Disasters	23. Materials and Waste
8. Air Quality	■		■	■		■							■	■	■	
9. Noise and Vibration		■	■	■	■									■		
10. Traffic and Transport	■	■	■					■		■		■	■	■	■	
11: Terrestrial and Aquatic Ecology	■	■		■		■	■	■	■				■			
12. Marine Ecology		■			■	■			■		■		■			
13. Water Environment & Flood Risk				■	■	■			■		■		■	■	■	
14: Geology and Ground Conditions				■			■		■	■	■				■	■
15. Landscape and Visual Amenity			■	■				■		■				■		
16. Physical Processes				■	■	■	■		■				■			
17.Terrestrial Heritage			■				■	■		■						
18. Marine Heritage					■	■	■				■					
19. Socio-Economics, Recreation and Tourism			■									■	■	■	■	■
20. Climate Change	■		■	■					■			■	■		■	■
21. Human Health	■	■	■					■				■		■	■	
22. Major Accidents and Disasters	■		■			■	■					■	■	■	■	
23. Materials and Waste							■					■	■			■

2.3 Structure of the ES

Overview

2.3.1 The ES will detail the assessment of the effects of the Proposed Development. The mitigation measures required to prevent, reduce or, where possible, offset significant adverse effects will also be described. The concluding chapters will provide a summary of the cumulative and combined effects and likely significant residual environmental effects.

2.3.2 The ES will comprise the following set of documents:

- Volume I: Non-Technical Summary (NTS): this document will provide a summary of the key issues and findings of the EIA in non-technical language;
- Volume II: ES: this will contain the full text of the EIA and will include the following chapters:
  - Chapter 1: Introduction;
  - Chapter 2: Methodology and Consultation;
  - Chapter 3: Description of the Existing Environment;
  - Chapter 4: The Proposed Development;
  - Chapter 5: Construction Management and Programme;
  - Chapter 6: Project Alternatives;
  - Chapter 7: Planning Policy and Need;
  - Chapter 8: Air Quality;
  - Chapter 9: Noise and Vibration;
  - Chapter 10: Traffic and Transport;
  - Chapter 11: Terrestrial and Aquatic Ecology;
  - Chapter 12: Marine Ecology;
  - Chapter 13: Water Environment and Flood Risk;
  - Chapter 14: Geology and Ground Conditions;
  - Chapter 15: Landscape and Visual Amenity;
  - Chapter 16: Physical Processes;
  - Chapter 17: Terrestrial Heritage;
  - Chapter 18: Marine Heritage;
  - Chapter 19: Socio-Economics, Recreation and Tourism;
  - Chapter 20: Climate Change;
  - Chapter 21: Human Health;
  - Chapter 22: Major Accidents and Disasters;
  - Chapter 23: Materials and Waste;
  - Chapter 24: Cumulative and Combined Effects; and

- Volume III: Figures;
- Volume IV: Technical Appendices: these will provide supplementary information of the environmental studies conducted during the EIA including relevant technical reports, background data, surveys, figures and photographs. A Register of Mitigation and Environmental Commitments, Water Framework Directive (WFD) Screening Assessment and Flood Consequences Assessment (FCA) amongst others, will be presented within Volume IV; and
- The Application will include a number of supporting reports and assessments that may be referred to in the ES including:
  - Outline Lighting Strategy;
  - Outline Landscape and Ecological Management Plan including Net Biodiversity Benefits Statement;
  - European Sites Habitats Regulations Stage 1 Screening Report and Stage 2 Assessment to support the Habitats Regulations Assessment decision-making process;
  - Framework Construction Environmental Management Plan (CEMP) to include e.g. Framework Site Waste Management Plan (SWMP) and Soil Resources Plan (SRP); and
  - Framework Construction Traffic Management Plan (CTMP) and Framework Construction Workers' Travel Plan (CWMP).

Structure of ES Technical Chapters

2.3.3 Technical Chapters scoped into the ES will be structured based on the following sub-headings:

Introduction

2.3.4 The Introduction will describe the format of the assessment presented within the chapter.

Consultation and Scope of Assessment

2.3.5 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

2.3.6 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.

2.3.7 '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.

2.3.8 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

2.3.9 Measures that have been integrated into the Proposed Development in order to avoid, reduce 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

2.3.10 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

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

Summary of Likely Significant Residual Effects

2.3.12 Effects of the Proposed Development remaining following the implementation of available mitigation measures are known as 'residual effects'. These will be discussed for each of the potential effects, and their significance level identified.

2.4 Matters Agreed to be Scoped Out

2.4.1 The EIA Scoping Report (**Appendix 1-A PEIR Volume IV)** 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. These topics and, where relevant, the response in the Scoping Opinion (**Appendix 1-B PEIR Volume IV**) are described in this chapter. Where engagement or other actions with respect to the below topics has been requested or are otherwise ongoing/ proposed by the Applicant, these are reported within this chapter and an update will be provided in **Chapter 2**: **Assessment Methodology and Consultation** and **Appendix 2-B: Matters Raised in the Scoping Opinion** of the ES that accompanies the Application.

Shipping and Navigation

2.4.2 PINS has confirmed, via the Scoping Opinion, that it is content that through adhering to best practice methods and established procedures relating to usage of the River Dee, that the Proposed Development is unlikely to result in significant effects relating to shipping and navigation and therefore shipping and navigation can be scoped out. PINS wishes to see agreement to this approach by relevant consultation bodies involved in the procedures for managing use and safety of the River Dee in the ES. Since submission of the of the Scoping Report, it has been proposed that in order to facilitate deliveries for the Proposed Development, deliveries via vessel are required. Three specified ports (Port of Mostyn, Port of Ellesmere and Connah's Quay North) will therefore be used for vessel berthing purposes. As requested by PINS, technical engagement is proposed with relevant bodies to agree the approach, including via statutory consultation on this PEIR, and a future workshop that will be held with the Statutory Harbour Authority (Dee Conservancy for Port of Mostyn and Connah's Quay North; Manchester Ship Canal Company for Port of Ellesmere). The outcome of this workshop (envisaged to be a high-level navigational risk assessment) will be used as evidence for the submission. The matters raised in the Scoping Opinion in relation to shipping and navigation are therefore considered and responses are provided in **Appendix 2-B: Matters Raised in the Scoping Opinion** (**PEIR Volume IV**).

Shipborne Delivery of Abnormal Indivisible Loads

2.4.3 The 'Water preferred policy guidelines for the movement of abnormal indivisible loads' (Ref 2-11) states that it is Government policy to avoid road transport as far as possible by using alternative modes, such as water. A number of AIL movements are expected during the construction programme associated with the delivery of large items of plant and equipment. The exact number and size / weight is not known at this stage and will be based on specific construction methodologies that will be confirmed during detailed design.

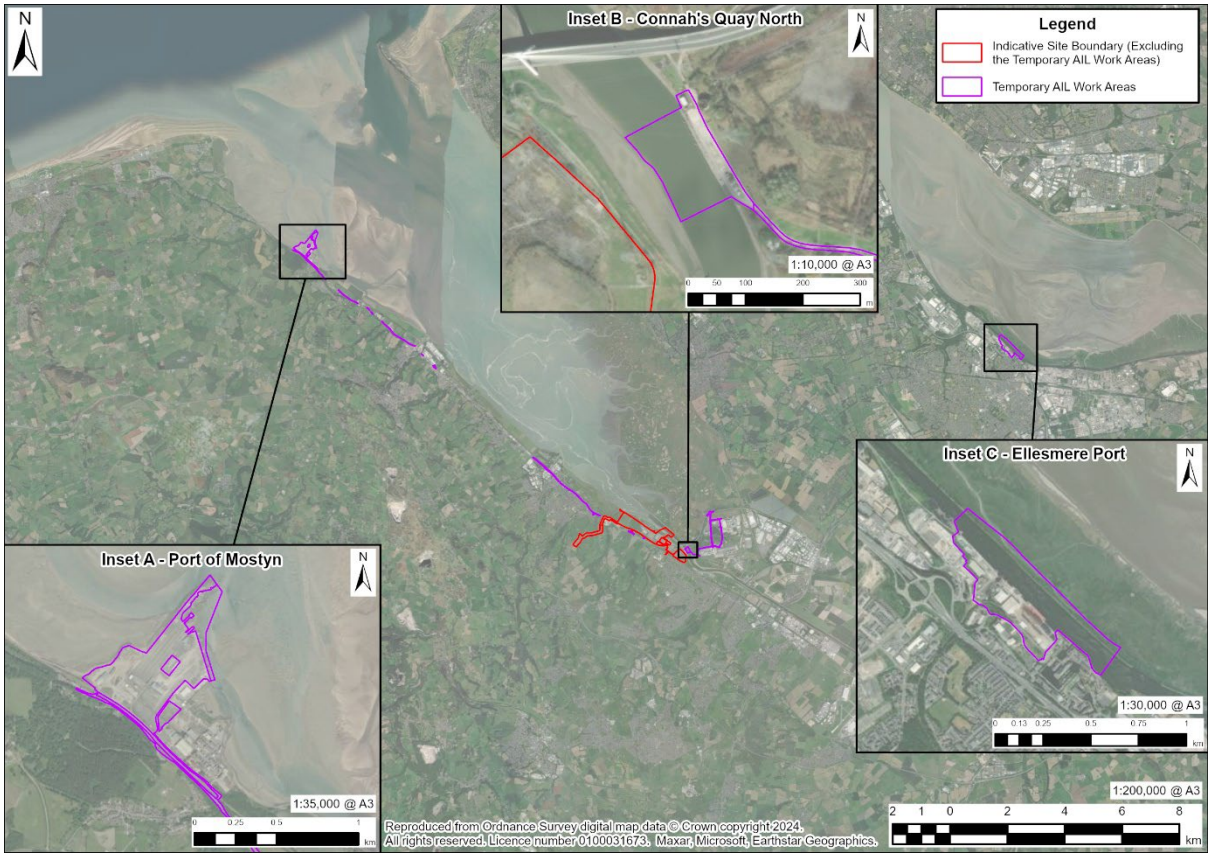
2.4.4 The Applicant is applying a Rochdale Envelope approach considering the maximum dimensions that the road transport network to the Site is likely to be able to accommodate and has identified options for waterborne delivery from the Port of Mostyn[4] (National Grid Reference (NGR) SJ 15616 81085), an existing quay (referred to herein as 'Connah's Quay North') to the north side of Flintshire Bridge (NGR SJ 29102 70617), and the Port of Ellesmere[5] (NGR SJ 40137 77783). The Site illustrated on **Plate 2-1** includes this road network for Port of Mostyn and Connah's Quay North. The Site is subject to ongoing logistics assessment work to evaluate any modifications that may be required to existing infrastructure at the ports, and navigable routes to these ports to allow conveyance of the largest AIL. Powers for such works may be sought in

[4] The Port of Mostyn Group of companies includes its wholly owned subsidiary Mostyn Docks Ltd which is a Statutory Harbour Authority (SHA). Mostyn Docks Ltd is also the Competent Harbour Authority for Pilotage as defined in The Mostyn Docks (Pilotage) Harbour Revision Order (1989). In common with other UK ports, the duties and responsibilities of the Port of Mostyn are also governed by the Harbours Act (1964), and other national Statutory Instruments relating to the operation of ports. Source: https://www.portofmostyn.co.uk/about-the-port/legal-status/

[5] The Peel Ports Group Ltd of companies includes its wholly owned subsidiaries Manchester Ship Canal Company Ltd and Peel Ports Logistics Ltd. Manchester Ship Canal Company Ltd is a SHA and the Competent Harbour Authority for Pilotage on the Manchester Ship Canal and at Port of Ellesmere. Peel Ports Logistics is not an SHA, but operates various facilities within Port of Ellesmere.

the DCO, and where this is the case, the ES will assess the impacts and effects of such works and consult relevant parties as required.

Plate 2-1: Abnormal Indivisible Load (AIL) Routes Under Consideration for shipments arriving at Port of Mostyn, Connah's Quay North, and Port of Ellesmere (Ellesmere Port)



2.4.5 The Port of Mostyn is an existing operational commercial port that lies adjacent to the existing Mostyn navigational channel with access to the Irish Sea. The port includes a riverside quay and roll on roll off (Ro-Ro) terminal with direct access to the A548 Chester Road towards Connah's Quay Power Station and if required, to the national rail network via on-site railway sidings.

2.4.6 Connah's Quay North (formerly known as the 'Corus Jetty') was used from approximately 2010 to 2020 to transport Airbus components from Broughton to the Port of Mostyn for onward international shipment following construction of a mid-way berth. It is understood that Connah's Quay North is not currently in use as it is no longer required for the Airbus components it formerly facilitated transport of. The Applicant is assessing the feasibility of bringing AIL to site using this facility.

2.4.7 The Port of Ellesmere is an existing operational commercial port that lies adjacent to the existing Manchester Shipping Canal with access to the Irish Sea. The port includes a riverside quay and Ro-Ro terminal with direct access to the M53, which itself connects via various A-roads to the A548 towards Connah's Quay Power Station and, if required, to the national rail network via on-site railway sidings.

Construction within Cooling Water Connection Corridor

2.4.8 **Chapter 5: Construction Programme and Management** outlines the construction works that may be associated with upgrading or replacing existing cooling water infrastructure within the Water Connection Corridor. There is the potential for a Jack Up Barge (JUB) to be used to install and remove the cofferdam, if required, the likely extents of which will not obstruct the estuary.

Technical Engagement the Navigational Safety Stakeholders

2.4.9 The Applicant proposes to undertake technical engagement to clarify the responsibilities for the safety of navigation in relation to the shipborne deliveries for the Proposed Development with Natural Resources Wales (NRW)[6] and Port of Mostyn, as it is understood that responsibility for safety of navigation in the Dee Conservancy is split between NRW (conservancy, harbour and local lighthouse authority) and Mostyn Docks Ltd (pilotage authority and statutory harbour authority for the Port of Mostyn. A defined area immediately surrounding the port and western approaches to the estuary (Ref 2-12). It is understood that responsibility for safety of navigation is held by Manchester Ship Canal Company Ltd (statutory harbour authority for Port of Ellesmere); Peel Ports Logistics Ltd, as operator of facilities at Port of Ellesmere itself, will also require engagement (as both are subsidiaries of Peel Ports Group Ltd, a single point of engagement may be possible). Technical engagement will also be undertaken with the Maritime and Coastguard Agency[7] (MCA) and Trinity House[8] ('the Navigational Safety Stakeholders').

2.4.10 Industry good practice will be implemented as embedded mitigation where necessary, including the communication of relevant information to other users of the Dee Estuary via Notices to Mariners (NtM), Radio Navigation Warnings Navigational Telex (NAVTEX) and/or broadcast warnings. All vessels will adhere to the Convention on International Regulations for Preventing Collisions at Sea (COLREGs) and comply with the Safety of Life at Sea (SOLAS) regulations. Where necessary, the use of temporary aids to navigation will be implemented to guide vessels around areas of installation activity.

2.4.11 Any specific control measures in respect of either the cofferdam installation, or shipborne deliveries proposed, will be informed by engagement with the Navigational Safety Stakeholders, as required (with reference to National Policy Statement (NPS) EN-1 (Ref 2-13; paragraph 5.8.18).

Commercial Fisheries

2.4.12 PINS has concluded that *'as a result of the location of the Proposed Development and notably the cofferdam in relation to the fishing activities,*

[6] NRW has duties within the Dee Conservancy, under the Dee Estuary Conservancy Harbour Revision Order 2023 under Section 14 of the Harbours Act
[7] MCA is a statutory consultee and a primary advisor under the Marine and Coastal Access Act 2009 and has an interest in any works undertaken in the marine environment which could impact shipping, navigation and search and rescue obligation. MCA produces and implements British and international maritime law and safety policy, gives guidance on maritime matters and provides seafarers with certification. The MCA is also responsible for the UK's search and rescue obligations through HM Coastguard.
[8] Trinity House is a charity dedicated to safeguarding shipping and seafarers with a statutory duty as a General Lighthouse Authority to deliver reliable, efficient and cost-effective aids to navigation service for the benefit and safety of all mariners.

significant effects are unlikely' and therefore has agreed to scope this matter out (**Appendix 1-B: Scoping Opinion**, **PEIR Volume IV**).

2.4.13 The Dee Estuary supports relatively stable and profitable shellfish and finfish fisheries, managed by the North Western Inshore Fisheries and Conservation Authority (NWIFCA). This predominantly comprises a large cockle *Cerastoderma edule* fishery of high economic importance, and a smaller mussel *Mytilus edulis* fishery (Ref 2-14).

2.4.14 All cockle fisheries within the Dee Estuary are controlled via The Dee Estuary Cockle Fishery Order 2008 (Ref 2-15), the limits of which are located approximately 2 km north-west (downstream) of the Indicative Site Boundary (Excluding the Temporary AIL Work Areas). The Indicative Site Boundary overlaps the limits at Port of Mostyn. The cockle fishery opens from July to December inclusive, with approximately 15 small (<10 m in length) active vessels (Ref 2-16). Out of season, fishers switch target catch to the mussel beds located near West Kirby and Thurstaston (Ref 2-17, Ref 2-18), approximately 12 km downstream of the Indicative Site Boundary (Excluding the Temporary AIL Work Areas; more than 5 km from the Indicative Site Boundary).

2.4.15 In addition, there is low intensity collection of razor fish *Ensis spp.* and bait digging for lug worms *Arenicola marina*, particularly on the North Wirral foreshore (Ref 2-19).

2.4.16 Other fisheries of importance include salmon *Salmo salar* and sea trout *Salmo trutta*, controlled by a Net Limitation Order which applies to estuaries around the coast of Wales (Ref 2-20). There is also a fishery for flounder *Pleuronectes flesus*, mullet species *Chelon labrosus*, cod *Gadus morhua*, and brown shrimp *Crangon crangon* (between May and July) in the region.

2.4.17 The Water Connection Corridor is located where the Dee Estuary narrows into the River Dee. While this is within tidal influence, and therefore part of the estuary, this location is situated approximately 9.4 km upstream from the nearest area of low monthly fishing vessel density, and approximately 14.4 km upstream from the areas of with the highest monthly fishing vessel density (Ref 2-26); in the wider part of the estuary. These distances are respectively approximately 7.6 km and 12.6 km from the Indicative Site Boundary (Excluding the Temporary AIL Work Areas) at closest. This narrow part of the Estuary may be subject to a low level of hand raking for cockle and mussel, but it is not considered to provide significant commercial fishing opportunities.

2.4.18 Though the Indicative Site Boundary overlaps the areas with the highest monthly fishing vessel density at Port of Mostyn, this is consistent with the presence of the operational port (for the offloading of catches) rather than an indication of commercial fishing activity or opportunities. Therefore, as the intention is to use the existing commercial port in accordance with existing practices (subject to consultation), there is considered no risk of impact to commercial fishing operations.

2.4.19 Furthermore, it is not anticipated that any cofferdam proposed to be installed will obstruct migratory fish and other river users from passage up and down stream of the River Dee at low tide (refer to **Chapter 5: Construction Programme and Management**). As such, the Proposed Development is not

considered likely to cause obstruction of navigation route to commercial fishing grounds, direct loss or alteration of fishing grounds, displacement of commercial fishing activities, or adverse effects on migratory fish species that are considered to be species of commercial interest.

Aviation

2.4.20 In their EIA Scoping Opinion (**Appendix 1-B PEIR Volume IV**) PINS concluded that as *'standard practices in terms of notification that will be followed'* aviation can be scoped out of the ES.

2.4.21 Hawarden Airport is located approximately 6.85 km to the south-east of the Indicative Site Boundary (excluding the Temporary AIL Work Areas; approximately 6.3 km to the south-east of the Indicative Site Boundary). The runway is located approximately 7.8 km of the Indicative Site Boundary (excluding the Temporary AIL Work Areas; approximately 7.2 km south-east of the Indicative Site Boundary) and orientated north-east to south-west, with take-off routes running perpendicular to the Indicative Site Boundary (Excluding the Temporary AIL Work Areas).

2.4.22 Liverpool John Lennon Airport is located approximately 4.5 km to the north-east of the Indicative Site Boundary at Port of Ellesmere (approximately 17.3 km to the north-east of the Indicative Site Boundary (Excluding the Temporary AIL Work Areas)). The runway is located approximately 4.6 km to the north-east of the Indicative Site Boundary at Port of Ellesmere (approximately 17.6 km to the north-east of the Indicative Site Boundary (Excluding the Temporary AIL Work Areas)) and oriented east-west.

2.4.23 There are no other airports within 15 km of the Site. The Site is not within any Aerodrome Safeguarding Area for any airport.

2.4.24 Ministry of Defence (MoD) Defence Infrastructure Organisation (DIO) has confirmed that *'the development falls within Low Flying Area 7 (LFA 07), an area within which fixed wing aircraft may operate as low as 250 feet or 76.2 metres above ground level to conduct low level flight training. The addition of structure(s) in this location has the potential to introduce a physical obstruction to low flying aircraft operating in the area'.* DIO has noted that as a minimum, they would require that the tallest structure on the Site be fitted with 25cd visible or infra-red beacons, and for any of the structures at the site over 50 m to be charted. They would require conditions to be added to the draft DCO requiring that the development is fitted with aviation safety lighting and that sufficient data is submitted to enable relevant structures to be accurately charted to allow deconfliction. Suggested wordings for Requirements have been provided and will be taken into consideration by the Applicant.

2.4.25 The Civil Aviation Authority (CAA) has a general interest in charting all known structures of 91.4 m (300 feet) AGL, or higher, as air navigation obstacles. Article 109A of the Air Navigation Order 2000 (Ref 2-21) requires that the owners of obstacles which exceed 150 m AGL fit such obstacles with warning lights.

2.4.26 Together these consultees are referred to in this PEIR as the 'Aviation Safeguarding Stakeholders'.

2.4.27 The indicative maximum heights of proposed structures (based on current preliminary design information) are outlined in **Chapter 4: The Proposed Development**. There would be stacks for both the heat recovery steam generators (HRSG) for the CCGT units, stacks for the CCP absorber units (and there could be up to two absorber stacks for each Train), and blast stacks to enable 'black-start' capability – these stacks could each exceed the 50 m set out by the DIO and the absorber stacks could exceed the 91.4 m AGL set out by the CAA.

2.4.28 The Applicant proposes to consult with the Regulation 11(1)(a) consultation bodies listed in the Scoping Opinion as part of its formal consultation on this PEIR. Such organisations would include: the CAA (the aviation regulator); NATS (formerly National Air Traffic Services; responsible for managing civilian air traffic being routed through the en-route Controlled Airspace (CAS) above the UK) and the MOD DIO (responsible for safeguarding the interests of the MoD).

2.4.29 Potential impacts to aviation traffic associated with Hawarden Airport are considered unlikely as a result of the distance of the facility and runway orientation. It is anticipated that routine aviation operation would not create any conflict with the Proposed Development. With suitable aviation warning lighting on and charting secured through Requirements of the draft DCO, following consultation with relevant aviation safeguarding regulators, it is anticipated that any risks to aviation will be suitably mitigated.

2.4.30 Temporary construction crane(s) can be significant structures (up to approximately 170 m AGL). The Applicant will be required to inform the CAA no less than 40 working days in advance of the erection of any such crane via the Airspace Coordination and Obstacle Management Service (Ref 2-22). The Applicant will comply with any instructions relating to the management of relevant crane(s) that may be issued by the CAA. It is anticipated that such measures will suitably mitigate risks to aviation safety, and that such risks would be considered to be as low as reasonably practicable, for the reasons specified above.

Electronic Interference and Electro-Magnetic Fields

2.4.31 PINS has agreed to scope both electronic interference and electro-magnetic fields (EMF) out of further assessment (**Appendix 1-B: Scoping Opinion**, **PEIR Volume IV**).

2.4.32 The introduction of new structures of significant height and bulk into an environment can cause disruption to the reception of electromagnetic waves. Although this effect relates to both radio and TV signals, TV reception is potentially more affected and, as such, only TV reception has been considered.

2.4.33 The tallest structures associated with the existing Connah's Quay Power Station are the four HRSG stacks at 85 m high; the tallest adjacent building is the HRSG building at 39.4 m high. The tallest existing structure in the existing landscape of the Site is the stack at enfinium's Parc Adfer combined heat and power (CHP) waste to energy (WfE) facility at approximately 85 m in height, approximately 2.33 km north-east of the Indicative Site Boundary (Excluding the Temporary AIL Work Areas).

2.4.34 Relevant information on the indicative maximum heights of proposed structures is presented within **Chapter 4: The Proposed Development**. It is anticipated that the tallest structure(s) associated with the Proposed Development would be the CCP absorber stack(s) at up to 120 m indicative height AGL. With the exception of these, the Proposed Development is not likely to introduce new permanent buildings or structures that are significantly taller than those around it, including, notably, the tallest existing structures at the existing Connah's Quay Power Station and in the surrounding landscape.

2.4.35 The temporary construction crane(s) are anticipated to be around 170 m in height and, therefore, will be higher than the existing structures in the surrounding area. The siting of the crane(s), however, will be temporary during the construction phase.

2.4.36 Although new tall buildings/ structures are proposed, analogue signals have ceased to be transmitted and have been replaced by digital signals since 2012. As such, the Proposed Development's potential to interfere with television, radio (both analogue and digital) and mobile phone reception is considered negligible.

2.4.37 EMF effects are controlled in accordance with the Control of Electromagnetic Fields at Work Regulations 2016 (Ref 2-23), which set out how employers are required to make and implement action plans to comply with the defined exposure limits.

2.4.38 The Electrical Connection Corridor includes the existing National Grid Electricity Transmission (NGET) 400 kV substation. Additionally, the existing 132 kV substation operated by Scottish Power Energy Networks (SPEN) is located approximately 500 m east of the Main Site and adjacent to the Indicative Enhancement Area. Existing 132 kV and 400 kV overhead lines and underground cables are located in the vicinity of these substations.

2.4.39 The nearest residential properties to the Main Site are located on Kelsterton Road, approximately 25 m south of the Main Site. The towns of Connah's Quay and Flint are located within 1 km of the Site.

2.4.40 The existing 400 kV substation operated by NGET and existing 132 kV substation operated by SPEN, including associated transmission/ distribution lines, are expected to remain operational during construction and operation of the Proposed Development. Any additional or replacement transmission cables within the Electrical Connection Corridor are likely to utilise existing cable routes, and routes within the wider Main Site.

2.4.41 Effects from EMF on the local population, where they relate to human health, will be considered and included in brief within **Chapter 18: Human Health**.

Transboundary Effects

2.4.42 Initial consideration has been given to the Nationally Significant Infrastructure Projects - Advice Note Twelve: transboundary impacts and process and specifically Annexes A and B, which set out the criteria and relevant considerations taken into account by the PINS when screening Nationally Significant Infrastructure Projects (NSIP) for likely significant effects on the environment in another European Economic Area (EEA) state.

2.4.43 The nearest EEA state is the Republic of Ireland, approximately 185 km west of the Proposed Development. 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**, **Chapter 11: Terrestrial and Aquatic Ecology** and **Chapter 13: Water Environment and Flood Risk** 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 including within the EIA Scoping Report is provided in **Appendix 2-A** (**PEIR Volume IV**).

2.4.44 PINS, via its Scoping Opinion on behalf of the Secretary of State, 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, PEIR Volume IV**), the 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.

2.5 Consultation

2.5.1 Consultation is integral to the preparation of DCO applications and to the EIA process. The views of consultation bodies and the local community serve to focus the environmental studies and to identify specific issues that require further investigation, as well as to inform aspects of the design of the Proposed Development. Consultation is an ongoing process and the publication of this PEIR forms an important part of that process.

2.5.2 The Planning Act 2008 ('The 2008 Act') (Ref 2-24) requires applicants for development consent to undertake formal (statutory) pre-application consultation on their proposals. There are a number of requirements as to how this consultation should be undertaken that are set out in the Act and related regulations, including:

- Section 42 requires the Applicant to consult with 'prescribed persons' which includes certain consultation bodies such as Natural Resources Wales, the relevant statutory undertakers, relevant local authorities, those with an interest in the land, as well as those who may be affected by the Proposed Development;
- Section 47 requires the Applicant to consult with the local community on the development. Prior to this, the Applicant must agree a Statement of Community Consultation (SoCC) with the relevant local authorities. The SoCC must set out the proposed community consultation and, once agreed with the relevant local authorities, a SoCC notice must be published in local newspapers circulating within the vicinity of the land in question. The consultation must then be undertaken in accordance with the final SoCC;
- Section 48 places a duty on the Applicant to publicise the proposed application in the 'prescribed manner' in a national newspaper - The

London Gazette, local newspapers circulating within the vicinity of the land and certain marine publications; and

- Section 49 places a duty on the Applicant to take account of any relevant responses received to the consultation and publicity that is required by Sections 42, 47 and 48.

2.5.3 As required under Regulation 12 of the EIA Regulations, the SoCC must also set out how the PEIR will be consulted on.

2.5.4 The Applicant is adopting a two-part approach to pre-application consultation on the Proposed Development. An informal, non-statutory consultation was carried out between February to March 2024, as well as this Stage 2 (statutory) consultation, which is planned to run between September – October 2024.

2.5.5 The issues that have been raised through consultation and how these have been considered and addressed within the design evolution of the Proposed Development and the EIA will be set out in the ES.

2.5.6 The pre-application consultation undertaken by the Applicant will be documented within a Consultation Report that will form part of the DCO Application. This will include a separate section on EIA related consultation as recommended within Nationally Significant Infrastructure Projects - Advice Note Fourteen: compiling the consultation report (Ref 2-25).

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Ref 2-11 National Highways (2016). Water Preferred Policy. Available at: WPP guidelines (nationalhighways.co.uk) (Accessed 02.05.24).

Ref 2-12 National Resource Wales (2022). Marine Safety in the Dee Conservancy: A Guide to Safe Navigation. Available at: Marine Safety in the Dee Conservancy (naturalresourceswales.gov.uk) (Accessed 02.05.24).

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