

East Meath - North Dublin Grid Upgrade Environmental Impact Assessment Report (EIAR): Volume 2

Chapter 1 – Introduction and the Environmental Impact Assessment
Process

EirGrid

March 2024



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1. Introduction and the Environmental Impact Assessment Process

1.1 Introduction

Jacobs has been appointed by EirGrid plc (EirGrid) to prepare this Environmental Impact Assessment Report (EIAR) to accompany an application for statutory approval to An Bord Pleanála (ABP) under Section 182A of Number 30 of 2000 – Planning and Development Act, 2000 (as amended) (hereafter referred to as the Planning and Development Act).

This EIAR has been prepared to facilitate ABP's undertaking of an Environmental Impact Assessment (EIA) for the East Meath – North Dublin Grid Upgrade (hereafter referred to as the Proposed Development). EIA is the process by which the effects on the environment (positive and negative) of a proposed development or project are assessed. Where impacts are significant, relevant design and / or other mitigation measures can be taken to avoid or reduce those impacts. It is ABP that carries out the EIA.

As the Proposed Development meets a threshold specified within Schedule 5, Part 2 of S.I. No. 600/2001 – Planning and Development Regulations, 2001 (as amended) (hereafter referred to as the Planning and Development Regulations), mandatory EIA is required. Refer to Section 1.5.4 for further details.

This Chapter of the EIAR introduces EirGrid, introduces the Proposed Development, summarises the EIA process, describes the methodology used to prepare this EIAR, and outlines the structure of the EIAR.

1.2 Who is EirGrid?

EirGrid is the state-owned Transmission System Operator and is responsible for a safe, secure and reliable supply of electricity, now and in the future.

EirGrid develops, manages and operates Ireland's national high voltage electricity grid (also called the 'Transmission System' (hereafter referred to as the grid)). This brings power from where it is generated to where it is needed throughout Ireland. EirGrid uses the grid to supply power to industry and businesses that use large amounts of electricity. The grid also powers the distribution network owned by the Transmission System Owner (i.e., the Electricity Supply Board (ESB)). This supplies the electricity used every day in homes, businesses, schools, hospitals and farms. EirGrid develops new electricity infrastructure only when it is needed.

S.I. No. 445/2000 - European Communities (Internal Market in Electricity) Regulations, 2000 sets out the role and responsibilities of the Transmission System Operator; in particular, Article 8(1) (a) gives EirGrid, as Transmission System Operator, the exclusive function:

"To operate and ensure the maintenance of and, if necessary, develop a safe, secure, reliable, economical and efficient electricity transmission system, and to explore and develop opportunities for interconnection of its system with other systems, in all cases with a view to ensuring that all reasonable demands for electricity are met and having due regard for the environment."

EirGrid is responsible for the planning and outline design of the Proposed Development and the consent application that this EIAR relates to. The ESB will, as the Developer, be responsible for the development and construction of the Proposed Development, subject to a grant of planning approval by ABP.

1.3 What is the East Meath – North Dublin Grid Upgrade

The Proposed Development will comprise 37.5 kilometres (km) of new 400 kilovolt (kV) underground cable circuit (also referred to as the proposed cable route) between the existing Woodland Substation in the

1.4 Planning

A standalone Planning Report has been prepared as part of this planning application. Please refer to the Planning Report which accompanies this planning application for full details in relation to planning history, planning need, and national, regional and local plans and policies related to the Proposed Development.

1.5 Environmental Impact Assessment Process, Screening, Content and Methodology

1.5.1 Introduction

Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU of the Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (hereafter referred to as the EIA Directive) requires that public and private projects that are likely to have significant effects on the environment be made subject to an assessment prior to development consent being given. As set out in the former Department of Housing, Planning and Local Government (DHPLG) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018) (hereinafter referred to as the 2018 Guidelines) (DHPLG 2018), EIA is a process to be undertaken in respect of applications for specified classes of development listed in the EIA Directive and the transposing Irish legislation before a decision in respect of development consent is made. The process involves the preparation of an EIAR by the applicant, consultations with the public, relevant prescribed bodies and any other affected Member States, and an examination and analysis of the EIAR and other relevant information leading to a reasoned conclusion by the competent authority on the likely significant effects of the proposed development on the environment.

The EIA Directive requires that public and private projects that are likely to have significant effects on the environment be made subject to an assessment prior to development consent being given. The requirements of the EIA Directive are transposed into Irish law through the Planning and Development Act and the Planning and Development Regulations.

Article 5 of and Annex IV to the EIA Directive specify the information to be contained in an EIAR in relation to this Proposed Development. Accordingly, this EIAR contains all of the information prescribed by the relevant provisions of Article 5 of and Annex IV to the EIA Directive.

1.5.2 Relevant Legislation, Policy and Guidelines

This EIAR has been prepared in accordance with, but not limited to, the following legislation and guidance:

- The EIA Directive;
- Planning and Development Act;
- Planning and Development Regulations;
- Environmental Protection Agency (EPA) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (hereafter referred to as the EPA Guidelines) (EPA 2022);
- Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report (hereafter referred to as the European Commission EIAR Guidance) (European Commission 2017);
- Climate Action and Low Carbon Development (Amendment) Act 2021;
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission 1999);

- Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment (European Commission 2013);
- The 2018 Guidelines (DHPLG 2018); and
- Advice Note 17: Cumulative Effects Assessment Relevant to Nationally Significant Infrastructure Projects (The Planning Inspectorate 2019).

Key policy documents that inform the examination of all environmental topic areas include:

- Project Ireland 2040 National Planning Framework (Government of Ireland 2018);
- Project Ireland 2040 National Development Plan 2021 – 2030 (Government of Ireland 2021) (hereafter referred to as the Revised NDP);
- Climate Action Plan 2024 (Government of Ireland 2023);
- Eastern and Midlands Regional Assembly (EMRA) Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 – 2031 (EMRA 2019);
- National Energy and Climate Plan 2021 – 2030 (Department of Communications, Climate Action and the Environment 2021);
- Fingal County Council (FCC) Fingal Development Plan 2023 - 2029 (FCC 2023);
- Meath County Council (MCC) Meath County Development Plan 2021 – 2027 (MCC 2021); and
- Relevant Local Area Plans; Dublin Airport Local Plan 2020 (FCC 2020).

Where necessary, the EIAR chapters refer to any such topic-specific legislation, guidance and policy documents that are specifically relevant to their assessment.

In addition to the applicable EIA legislation and guidance, all relevant provisions of European Union (EU) Directives and National legislation relating to the specialist areas have also been considered as part of the process and are addressed in the relevant assessment chapters. The Proposed Development is supported by an extensive policy framework of International, European, National, Regional and Local policies, planning strategies and plans. Refer to Chapter 2 (Need for the Proposed Development) of this EIAR for further information.

1.5.3 Environmental Impact Assessment Process

EIA is a systematic and an iterative process that examines the potential environmental impacts of a proposed development or project and establishes appropriate design and mitigation measures to avoid, reduce or offset impacts. The assessment of potential environmental impacts arising from the Proposed Development has been conducted in accordance with best practice as detailed in the chapters and associated appendices prepared in respect of each relevant environmental topic.

The EIA process can generally be summarised as follows:

- **Screening** – Determining whether or not an EIA is required for the Proposed Development. This included a review of the Proposed Development and understanding the legislative requirement for EIA under the EIA Directive;
- **Consideration of the EIAR's Scope** – The EIA team considered the characteristics of the Proposed Development and the likely relevant issues which could arise due to its construction and operation;
- **Baseline Data Collection** – Establishment of a robust baseline of the existing environment in the study area of the Proposed Development, including a review of existing available information and undertaking any surveys identified as required;
- **Impact Assessment** – Assessment of the potential environmental impacts of the Proposed Development with and without mitigation measures, and an iterative process of informing design to avoid impacts;

- **Mitigation** – Formulation of mitigation measures to ameliorate the potential impacts of the Proposed Development which cannot be avoided through design;
- **Consultation** – With statutory authorities, stakeholders, the public and other bodies;
- **Decision** – The competent authority, in this case ABP, will decide if the Proposed Development can be authorised, and if so, may specify conditions that must be adhered to;
- **Announcement** – The public is informed of the decision; and
- **Monitoring** – When required, monitoring of the effectiveness of implemented mitigation measures during construction and operation.

1.5.4 Screening and the Legislative Requirement for Environmental Impact Assessment

Screening is the first stage of the EIA process, whereby a decision is made on whether or not an EIA is required. An EIA Screening Report has been prepared for the Proposed Development and is included as a standalone document in the planning application pack.

The EIA Directive specifies the classes of project for which an EIA is required, and the information which must be furnished within an EIAR. In accordance with Article 4(1) of the EIA Directive, all projects listed in Annex I to the EIA Directive are considered as having likely significant effects on the environment and shall be subject to environmental assessment. For projects listed in Annex II to the EIA Directive, the national authorities may determine whether an EIA is needed, either on the basis of thresholds / criteria or on a case-by-case examination.

The obligations, as set out in the EIA Directive, have been implemented into Irish law by the provisions of the Planning and Development Act and the Planning and Development Regulations.

In order to determine whether an EIA is required for the Proposed Development, it is necessary to determine whether it is a project listed in one of the Annexes to the EIA Directive. These Annexes have been transposed into Irish law by the provisions of the Planning and Development Act and the Planning and Development Regulations.

Under Section 182A(2) of the Planning and Development Act, an application under Section 182A which belongs to a class of development identified for the purposes of Section 176 of the Planning and Development Act must be accompanied by an EIAR. For the purposes of Section 176 of the Planning and Development Act, the relevant classes of development that require EIA are set out in Schedule 5 of the Planning and Development Regulations. Under Section 172(1)(a)(ii)(I) of the Planning and Development Act, an EIA must be carried out by ABP in respect of an application for consent for a proposed development where the proposed development would be of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations, and such development would equal or exceed, as the case may be, any relevant quantity, area or other limit specified in that Part. Classes within Schedule 5, Parts 1 and 2, that are most relevant to the Proposed Development were considered and a determination was made against each one.

No classes of development as outlined in Schedule 5, Part 1 of the Planning and Development Regulations were considered applicable or fitting of the Proposed Development.

The relevant class of development in Schedule 5, Part 2 (Paragraph 1) of the Planning and Development Regulations is presented below:

'(a) Projects for the restructuring of rural land holdings, undertaken as part of a wider proposed development, and not as an agricultural activity that must comply with the European Communities (Environmental Impact Assessment) (Agriculture) Regulations 2011, where the length of field boundary to be removed is above 4 kilometres, or where re-contouring is above 5 hectares, or where the area of lands to be restructured by removal of field boundaries is above 50 hectares'.

The Proposed Development is for the purposes of grid infrastructure, and to comply with EirGrid's statutory mandate to ensure a secure and reliable electricity transmission network.

The Proposed Development includes the provision of temporary Passing Bays to facilitate on-road Joint Bay construction, and at locations, off-road alignment of the proposed underground cable and associated infrastructure. These will involve temporary and permanent removal of 4km or more of existing field boundary.

Having regard to the absence of guidelines on how this legislation should be interpreted, and given the fact that the Proposed Development, along its cumulative length (although of very localised extent at any particular location), will result in an exceedance of the 4km length of field boundary to be removed. From a legally cautious perspective, an EIAR has been prepared and EIA is required.

1.5.5 Consideration of the Environmental Impact Assessment Report Scope

As referenced above, the scope of the EIA was developed having regard to the characteristics of the Proposed Development and all likely significant environmental impacts which could arise due to its construction and operation. In addition, during the development of the EIAR, prescribed bodies and relevant non-statutory consultees were consulted to appraise them of the proposed approach to the EIAR and they were afforded the opportunity to provide comment on the approach. Comments received during this pre-application consultation process with prescribed bodies and non-statutory bodies were reviewed and considered in the preparation of this EIAR.

Moreover, as a result of extensive public consultation in respect of the Proposed Development, submissions and observations received from the public and public concerns were considered and, where appropriate, issues raised in those submissions and observations are included in the EIAR. Please refer to Appendix A1.1 in Volume 3 of this EIAR for a summary of the Scoping Consultation responses.

Section 3.3.5 of the EPA Guidelines (EPA 2022) identified the consideration of other assessments (including other projects) as part of the scoping process. Other projects have been considered through the cumulative impact assessment presented in Chapter 20 (Cumulative Impacts and Environmental Interactions) of this EIAR. Other assessments that have been considered as part of this EIAR are:

- Flood Risk Assessment: this is included as Appendix A12.1 in Volume 3 of this EIAR;
- Appropriate Assessment Screening and Natura Impact Statement: these have been produced for the Proposed Development and are included as standalone documents in the planning application pack. A formal conclusion in the matter is the responsibility of ABP as Competent Authority for Appropriate Assessment of this application for statutory consent; and
- Strategic Environmental Assessment (SEA) for EirGrid's Grid Implementation Plan 2023 – 2028. This SEA Scoping Report (EirGrid 2023) outlines information on the Grid Implementation Plan, including the need for the Grid Implementation Plan, its geographical area and overall objectives. The SEA Scoping Report is required to facilitate statutory consultation to ensure that the approach proposed for the SEA is appropriate. The results of consultation of the assessment within the SEA Scoping Report has helped to inform the scope of this EIAR by identifying key issues to be addressed and further grid projects that could be considered through the cumulative impact assessment in this EIAR (refer to Chapter 20 (Cumulative Impacts and Environmental Interactions)).

1.5.6 Contents of the Environmental Impact Assessment Report

As set out in the European Commission EIAR Guidance (European Commission 2017), *"the EIAR is the document prepared by the developer [of a project] that presents the output of the assessment. It contains information regarding:*

- *the Project,*
- *the likely significant effect of the Project,*
- *the Baseline scenario,*
- *the proposed Alternatives,*
- *the features and Measures to mitigate adverse significant effects,*
- *as well as a Non-Technical Summary and,*
- *any additional information specified in Annex IV of the EIA Directive."*

Article 5 of and Annex IV to the EIA Directive specify the information to be contained in an EIAR in relation to this Proposed Development. For clarity on the information to be contained in the EIAR, the relevant section of the legislation is reproduced in Table 1.1.

Table 1.1: Annex IV of the EIA Directive

Annex IV – Information Referred to in Article 5(1) (Information for the EIAR)	Relevant Chapter(s) of this EIAR
<p>1. Description of the project, including in particular:</p> <p>(a) A description of the location of the project;</p> <p>(b) A description of the physical characteristics of the whole project, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;</p> <p>(c) A description of the main characteristics of the operational phase of the project (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; and</p> <p>(d) An estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operation phases</p>	<p>Item (a) to Item(d) - Chapter 4 (Description of the Proposed Project).</p> <p>Item (d) – Chapter 7 (Air Quality), Chapter 9 (Noise and Vibration), Chapter 11 (Soils, Geology and Hydrogeology), Chapter 12 (Hydrology) and Chapter 16 (Waste).</p>
<p>2. A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.</p>	<p>Chapter 3 (Consideration of Reasonable Alternatives).</p>
<p>3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge</p>	<p>The baseline scenario is outlined in all environmental assessment chapters (Chapter 5 to Chapter 19). Appendix A1.2 in Volume 3 of the EIAR includes a breakdown of the likely evolution of the baseline where this can be determined with reasonable effort on the basis of available environmental information.</p>
<p>4. A description of the factors specified in Article 3(1) likely to be significantly affected by the project: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydro morphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.</p>	<p>The following EIAR chapters address the factors listed:</p> <ul style="list-style-type: none"> • Chapter 5 (Population) contains the population assessment; • Chapter 6 (Human Health) contains the human health assessment; • Chapter 7 (Air Quality) contains the air assessment; • Chapter 8 (Climate) contains the climate assessment; • Chapter 10 (Biodiversity) contains the biodiversity assessment; • Chapter 11 (Soils, Geology and Hydrogeology) contains the land and soil assessment; • Chapter 12 (Hydrology) contains the water assessment; • Chapter 13 (Archaeology, Architectural and Cultural Heritage) contains the cultural

Annex IV – Information Referred to in Article 5(1) (Information for the EIAR)	Relevant Chapter(s) of this EIAR
	<p>heritage (including architectural and archaeological aspects) assessment;</p> <ul style="list-style-type: none"> • Chapter 17 (Material Assets) contains the material assets assessment; and • Chapter 18 (Landscape and Visual) contains the landscape assessment.
<p>5. A description of the likely significant effects of the project on the environment resulting from, inter alia:</p> <p>(a) The construction and existence of the project, including, where relevant, demolition works;</p> <p>(b) The use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;</p> <p>(c) The emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;</p> <p>(d) The risks to human health, cultural heritage or the environment (for example due to accidents or disasters);</p> <p>(e) The cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;</p> <p>(f) The impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;</p> <p>(g) The technologies and the substances used.</p> <p>The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project.</p>	<p>All environmental assessment chapters of the EIAR (Chapter 5 to Chapter 19) outline the "likely significant effects of the project on the environment" and cover any "indirect, secondary,..... short-term, medium-term and long-term, permanent and temporary, positive and negative effects" of the project.</p> <p>Chapter 20 (Cumulative Impact and Environmental Interactions) covers the potential "cumulative" impacts of the Proposed Development with other projects.</p>
<p>6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.</p>	<p>All environmental assessment chapters of the EIAR (Chapter 5 to Chapter 19).</p>
<p>7. A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.</p>	<p>All environmental assessment chapters of the EIAR (Chapter 5 to Chapter 19).</p> <p>An overall summary of measures outlined in Chapter 5 to Chapter 19 is contained in Chapter 21 (Summary of Mitigation and Monitoring Measures).</p>
<p>8. A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council (*)6 or Council Directive 2009/71/Euratom (**)7 or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.</p>	<p>Chapter 19 (Risk of Major Accidents and / or Disasters) assesses the potential for significant adverse effects of the Proposed Development deriving from its potential vulnerability to the risk of major accidents and / or disasters.</p>
<p>9. A non-technical summary of the information provided under points 1 to 8.</p>	<p>A Non-Technical Summary is included as Volume 1 of the EIAR.</p>

Annex IV – Information Referred to in Article 5(1) (Information for the EIAR)	Relevant Chapter(s) of this EIAR
<i>10 A reference list detailing the sources used for the descriptions and assessments included in the report.</i>	A list of references used to inform the development of the EIAR is included at the end of each EIAR chapter (Chapter 1 to Chapter 22).

1.5.7 Environmental Impact Assessment Report Structure

The EIAR for the Proposed Development is presented in five volumes, as follows:

- **Volume 1 – Non-Technical Summary:** This summarises the findings of the EIAR in a clear, accessible format that uses non-technical language and supporting graphics. The Non-Technical Summary describes the Proposed Development, summarises the baseline environment, potential impacts and mitigation measures, and relevant topics of the EIAR in a manner that can be easily understood by the general public;
- **Volume 2 – Main Report:** This includes introductory chapters in addition to ‘assessment’ chapters for each environmental topic in accordance with Annex IV of the EIA Directive. The front-end chapters provide the relevant Proposed Development context while the assessment chapters provide a description of the relevant environmental aspects, and likely significant impacts, with cumulative impacts from other developments in combination with the predicted impacts of the Proposed Development, and summary chapters provided thereafter;
- **Volume 3 – Appendices:** This provides the technical reports and information that support and are cross-referenced within Volume 2;
- **Volume 4 – Figures:** This provides drawings, maps and graphics that support, and are referenced within, Volume 2; and
- **Volume 5 – Supporting Documentation** – This provides published technical reports about the development phases for the Proposed Development, prior to the final route selection assessed in this EIAR.

The overall structure of the EIAR, with a further breakdown of the structure of this Volume (Volume 2) is provided in Table 1.2.

Table 1.2: EIAR Structure

EIAR Chapter	Description
Volume 1: Non-Technical Summary	
NTS	Summary of the EIAR in non-technical language.
Volume 2: Main Text	
Chapter 1	Introduction and the Environmental Impact Assessment Process
Chapter 2	Need for the Proposed Development
Chapter 3	Consideration of Reasonable Alternatives
Chapter 4	Proposed Development Description
Chapter 5	Population
Chapter 6	Human Health
Chapter 7	Air Quality
Chapter 8	Climate
Chapter 9	Noise and Vibration
Chapter 10	Biodiversity
Chapter 11	Soils, Geology and Hydrogeology
Chapter 12	Hydrology
Chapter 13	Archaeology, Architectural Heritage, and Cultural Heritage
Chapter 14	Traffic and Transport
Chapter 15	Agronomy and Equine
Chapter 16	Waste
Chapter 17	Material Assets
Chapter 18	Landscape and Visual
Chapter 19	Risk of Major Accidents and / or Disasters
Chapter 20	Cumulative Impacts and Environmental Interactions
Chapter 21	Summary of Mitigation and Monitoring Measures
Chapter 22	Summary of Significant Residual Impacts
Volume 3: Appendices	
Appendices	Technical reference information supporting the EIAR chapters, such as calculations and detailed background data.
Volume 4: Figures	
Figures	Graphics and plans supporting the EIAR chapters, illustrating the Proposed Development and environmental information.
Volume 5: Supporting Documents	
Supporting Documents	Supporting technical documents for the overall Proposed Development.

While the EIAR has been prepared in compliance with the EIA Directive and the Planning and Development Regulations, it has also been written to make it accessible to a wider, non-specialist audience. Where technical terminology is used, an explanation is provided in the text, and / or in the glossary of terms which is provided at the beginning of Volume 2 of the EIAR.

The structure of the chapters in Volume 2 (Main Report) of this EIAR aligns with both the European Commission EIAR Guidance (European Commission 2017) and the EPA Guidelines (EPA 2022), and includes the following headings:

- **Introduction:** Provides an overview of the aims and objectives of the specific chapter in assessing the Proposed Development and outlines the scope of the assessment;
- **Methodology:** Describes the forecasting methods, evidence and assessment criteria used to identify and assess the significant impacts on the environment. The assessment criteria used

generally follows the European Commission EIAR Guidance and the EPA Guidelines, but any topic-specific divergences from this criteria are explained in the relevant Chapter;

- **Baseline Environment:** The baseline refers to the current state of environmental characteristics. It involves the collection and analysis of information on the condition, sensitivity and significance of relevant environmental topics which are likely to be significantly impacted by the Proposed Development;
- **Potential Impacts:** Reporting in the EIAR is structured to ensure that criteria and standards of significance, sensitivity and magnitude used as part of the assessment are identified and documented and that the level of certainty of data is recorded. An explanation is provided for the assessment criteria that have been applied within each environmental topic area, including reference to the appropriate published guidance;
- **Mitigation and Monitoring Measures:** This section sets out measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse impacts on the environment and, where appropriate, identifies any proposed mitigation and monitoring arrangements; and
- **Residual Impacts:** Any impacts that are predicted to remain after all mitigation measures have been implemented are referred to as 'residual impacts'. These are the remaining environmental impacts of the Proposed Development that could not be reasonably avoided.

1.5.8 Assessment Criteria

The assessments evaluate the Construction and Operational Phases of the Proposed Development, with the likelihood, extent, magnitude, duration and significance of potential impacts described. The interactions in impacts between different environmental aspects and the potential for cumulative impacts to arise are also considered. For all environmental topics, the significance of any residual impacts remaining are assessed and presented.

The assessment criteria used generally follow the European Commission EIAR Guidance (European Commission 2017) and the EPA Guidelines (EPA 2022), as reproduced in Table 1.3, unless otherwise stated and described within the relevant EIAR chapter.

Table 1.3: Description of Effects from the EPA Guidelines (EPA 2022)

Assessment Criteria	
Quality of Effects	
It is important to inform the non-specialist reader whether an effect is positive, negative or neutral.	Positive Effects A change which improves the quality of the environment (for example, by increasing species diversity, or improving the reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
	Neutral Effects No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error.
	Negative / Adverse Effects A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem, or damaging health or property or by causing nuisance).
Significance of Effects	
'Significance' is a concept that can have different meanings for different topics – in the absence of specific definitions for different topics the following definitions may be useful.	Imperceptible An effect capable of measurement but without significant consequences.
	Not Significant An effect which causes noticeable changes in the character of the environment but without significant consequences.
	Slight Effects An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
	Moderate Effects An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.
	Significant Effects An effect which, by its character, magnitude, duration or intensity, alters a sensitive aspect of the environment.
	Very Significant Effects An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
	Profound Effects An effect which obliterates sensitive characteristics.
Extent and Context of Effects	
Context can affect the perception of significance. It is important to establish if the effect is unique or, perhaps, commonly or increasingly experienced.	Extent Describe the size of the area, the number of sites and the proportion of a population affected by an effect.
	Context Describe whether the extent, duration or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?).
Probability of Effects	
Descriptions of effects should establish how likely it is that the predicted effects will occur so that the CA can take a view of the balance of risk over advantage when making a decision.	Likely Effects The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented.
	Unlikely Effects The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Describing the Duration and Frequency of Effects	
'Duration' is a concept that can have different meanings for different topics – in the absence of specific	Momentary Effects Effects lasting from seconds to minutes.
	Brief Effects Effects lasting less than a day.

Assessment Criteria	
definitions for different topics the following definitions may be useful.	Temporary Effects Effects lasting less than a year.
	Short-term Effects Effects lasting one to seven years.
	Medium-term Effects Effects lasting seven to fifteen years.
	Long-term Effects Effects lasting fifteen to sixty years.
	Permanent Effects Effects lasting over sixty years.
	Reversible Effects Effects that can be undone, for example through remediation or Restoration.
	Frequency of Effects Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).

1.5.9 Assessment Approach

This assessment is based on the Proposed Development design and construction methodology proposals described in the EIAR. Where, as part of the detailed design process, the design and construction proposals will be further developed post-consent (if granted), such developments will be in accordance with the parameters set out in this EIAR. In those instances, the assessment has adopted a precautionary approach and identified whether the significance of any impact is predicted to change within the prescribed parameters.

This approach is a resilient method that provides conservatism within assessments in this EIAR while also facilitating the progression of the Proposed Development through the detailed design stage, including refinement, following inter alia the appointment of contractors and discharging of planning conditions requiring the agreement of matters of detail (e.g., the final location of Joint Bays, design of crossings etc.).

The detailed design and construction methodology for the Proposed Development will be subject to confirmatory surveys and investigations to ensure that both will not result in any greater environmental impact than that being reported in this EIAR and being assessed by ABP. If the confirmatory assessments identify unanticipated impacts that are greater than those set out in this EIAR, mitigation will be implemented where required to ensure no significance residual impacts arise.

1.5.10 Details of Competent Experts

The Project Team has engaged an environmental team led by Jacobs to undertake the preparation of this EIAR for the Proposed Development, in collaboration with the Jacobs-led Engineering Design Team. The responsible competent expert(s) and details of their expertise are provided in Table 1.4.

Table 1.4: Details of Competent Experts

EIAR Chapter	Responsible Competent Expert – Competency Details
<p>Chapter 1 (Introduction and the Environmental Impact Assessment Process)</p>	<p><u>Gregor Simpson, MEng CEng MICE MAPM, Jacobs</u> Gregor is a Senior Associate Director with Jacobs and an experienced project manager with over 20 years of professional experience in the management and delivery of major infrastructure projects at all stages of the project lifecycle in Ireland, the UK and the Middle East. Gregor holds a master’s degree in civil engineering from the University of Glasgow and is a Chartered Engineer and Member of the Institution of Civil Engineers. Gregor has substantial experience in all aspects of project delivery and management of major infrastructure projects including Clyde Metro, A82 Tarbet to Inverarnan, Khor Fakkan Western Bypass D&B, Mafraq to Ghweifat PPP scheme, M3 Clonee to Kells PPP and N8 Cashel to Mitchelstown. Gregor was previously involved in the planning stages for the A82 Tarbet to Inverarnan including route option assessment, option development, preliminary design, Statutory Orders and environmental assessment. He was project manager with overall responsibility for coordinating the services relating to the preparation of the Statutory Orders and Environmental Impact Assessment Report.</p> <p><u>Andy Scott, BSc, CSci, MEnvSc, Jacobs</u> Andy is a Project Manager and Principal Environmental Consultant working in Ireland and the UK for Jacobs. Andy holds an Honours degree in Geography from University of Sheffield and is a Chartered Scientist. He has over 15 years’ professional experience in the delivery and management of multi-disciplinary environmental projects in the infrastructure and commercial sectors. Andy has excellent experience in all aspects of project delivery and management which has captured feasibility, planning, design, procurement and construction phases. Andy has previously been involved in the planning stages of the N2, N21, Foynes to Limerick Road and Cork City Water Supply Scheme as part of the Environmental Team. Andy’s Environmental specialism relates to soils, geology and hydrology and this includes management of land contamination.</p> <p><u>Katie Randall-Stratton BSc, MSc, MIEMA, CEnv, Jacobs</u> Katie is a Principal Environmental Impact Assessment (EIA) Consultant with Jacobs and has 18 years’ experience in a broad environment field. She holds a Bachelor of Science degree in Environmental Science from the University of Southampton as well as a Master of Science in Environmental Assessment and Management from Oxford Brookes University. Katie has been a Chartered Environmentalist and full member of the Institute of Environmental Management and Assessment (IEMA) for seven years. She has expertise in EIA and environmental consenting and compliance and has worked on a range of sectors including energy, rail, road, river and coastal defences. Linear infrastructure projects have included Bramford to Twinstead Reinforcement, Central Tunnels, and Cross Solent Gas Pipeline.</p> <p><u>Stephanie McGlynn BSc MSc C.WEM CEnv MCIWEM, Jacobs</u> Stephanie is a Principal Environmental Scientist with Jacobs Engineering Ireland and has over 8 years of professional experience in the environmental sector. She holds a BSc degree in Environmental Science and Health from Dublin City University and a MSc degree in Applied Environmental Science from University College Dublin. She is a Chartered Environmentalist (CEnv) with the Society of the Environment and is a Chartered Water and Environmental Manager (C.WEM) with the Chartered Institute of Water and Environmental Management (CIWEM). Stephanie has worked on a range of both public and private sector environmental impact assessments of varying scales. Stephanie has coordinated the delivery of a number of Strategic Infrastructure Development projects including BusConnects Dublin and the Greater Dublin Drainage Project. Stephanie has also completed Risk of Major Accident and / or Disasters assessments for Strategic Infrastructure Development projects including for BusConnects Dublin and the Greater Dublin Drainage Project, and cumulative impact assessment for Strategic Infrastructure Development projects including the Greater Dublin Drainage Project, MetroLink and the Kildare Meath Grid Upgrade Project.</p>

EIAR Chapter	Responsible Competent Expert – Competency Details
<p>Chapter 2 (Need for the Proposed Development)</p>	<p><u>Gregor Simpson</u> See above</p> <p><u>Andy Scott</u> See above</p> <p><u>Katie Randall-Stratton</u> See above</p> <p><u>Stephanie McGlynn</u> See above</p>
<p>Chapter 3 (Consideration of Reasonable Alternatives)</p>	<p><u>Gregor Simpson</u> See above</p> <p><u>Andy Scott</u> See above</p> <p><u>Katie Randall-Stratton</u> See above</p> <p><u>Stephanie McGlynn</u> See above</p>
<p>Chapter 4 (Proposed Development Description)</p>	<p><u>Gregor Simpson</u> See above</p> <p><u>Andy Scott</u> See above</p> <p><u>Katie Randall-Stratton</u> See above</p> <p><u>Stephanie McGlynn</u> See above</p>

EIAR Chapter	Responsible Competent Expert – Competency Details
	<p><u>Nigel Edwards BSc, MICE, Jacobs</u></p> <p>Nigel is a chartered civil engineer with the Institution of Civil Engineers (ICE), with over 35 years' experience working on major linear infrastructure projects mainly within the water industry and for the last 14 years in the high voltage transmission and distribution industry. Nigel holds a BSc degree in Civil Engineering. During those 35 years, Nigel has worked as a designer on these projects from inception, through feasibility, outline design and planning and detailed design. He has contributed to numerous planning applications for schemes. For the last 5 years he has been involved in the outline design and planning applications for various transmission and distribution projects in Ireland on behalf of EirGrid.</p>
Chapter 5 (Population)	<p><u>Robert Fadden BA MSc MEnvSc CEnv, Jacobs</u></p> <p>Robert is a Principal Environmental Consultant at Jacobs with over 9 years' experience as an Environmental Consultant. He holds a BA in Geography and Politics and a MSc in Environmental Policy and Planning, both from University College Dublin (UCD). Robert is a Member of the Institution of Environmental Sciences and is a Chartered Environmentalist (CEnv). Robert has managed and coordinated the preparation of Environmental Impact Assessment Reports / Statements as well as Population / Social Impact Assessments for a range of different infrastructure projects in a number of different geographies, including Ireland, the UK and Australia, including BusConnects Dublin (Ireland), Kildare-Meath Grid Upgrade (Ireland), Clifden Flood Relief Scheme (Ireland), Water Supply Project (Ireland), Western Harbour Tunnel & Beaches Link Project (Australia), Southampton to London Pipeline (SLP) Project (UK), The Wylfa Newydd Project (UK), and the A9/A82 Longman Junction Improvement Scheme (UK).</p>
Chapter 6 (Human Health)	<p><u>Jenny Wade MSc C.Env MIEMA, Jacobs</u></p> <p>Jenny Wade is an Associate Director with Jacobs. She holds a Master's degree in Environmental Management from Imperial College, London and is currently completing a Master's in Public Health part-time through Cardiff University. Jenny has over 18 years' relevant experience in environmental impact assessment and strategic environmental assessment.</p> <p><u>Dr. Miriam Olivier, CEnv MEnvSci, Jacobs</u></p> <p>Dr Miriam Oliver is a full member of the Institute of Environmental Management and Assessment (IEMA) and Chartered Environmentalist (CEnv) with a specialism in health assessment and is holds an MEnvSci Environmental Geoscience, a PhD, and has seven years' experience in EIA practice. Both Jenny Wade and Dr Miriam Oliver have significant experience in preparing population and health assessments for linear infrastructure schemes, including BusConnects Dublin Core Bus Corridors, A12 Chelmsford to A120 Development Consent Order (DCO) scheme and M60 Junction 18 Simister Island Junction DCO scheme.</p>
Chapter 7 (Air Quality)	<p><u>Gary Wilson (MSc, BSc Hons, MIAQM), Jacobs</u></p> <p>Gary is a Principal Air Quality Consultant at Jacobs, with 18 years' experience and has completed national and international air quality impact assessments. Gary holds a BSc in Meteorology and a MSc in Environmental Technology. Gary has undertaken a considerable number of projects that have included air quality assessment aspects in order to assess the potential air quality impacts, including various rail, pipeline and water infrastructure projects in the UK and Ireland such as Southampton to London pipeline, Strategic Pipeline Alliance, HS2 and Western Rail Link to Heathrow.</p>
Chapter 8 (Climate)	<p><u>Kevin Turpin BSc, PhD MIAQM MEnvSc, Jacobs</u></p> <p>Kevin is a Technical Director with over 25 years' environmental consultancy experience. Kevin holds a BSc in Environmental Management and a PhD in Emissions Modelling for Environmental Impact Assessment. Kevin is an air quality and emissions specialist and project leader with a core expertise in assessing transportation impacts (principally road, rail and shipping). As well as being an air quality specialist with experience including attending planning examination hearings, he is also a specialist in the assessment of climate impacts. He has produced Climate Chapters, Carbon Impact Assessments and Carbon Management Plans for the purpose of EIA. In addition, he was the technical lead for the development of a bespoke carbon tool for Kirklees Council. Kevin has either led or been a specialist reviewer on several carbon related projects including the Clifden Flood Defence</p>

EIAR Chapter	Responsible Competent Expert – Competency Details
	Scheme (EIAR), WYCA Mass Transit Scheme, Halifax Corridor Improvement Scheme. He has also assisted in estimating carbon inventories for international projects such as the Dubai State of the Environment Report.
Chapter 9 (Noise and Vibration)	<p><u>Chris Conroy MA (Hons), MSc, MIOA, Jacobs</u></p> <p>Chris Conroy is a Principal Acoustician at Jacobs and has over 14 years of professional experience in the environmental sector. He holds an MA in Geography and History from The University of Dundee and an MSc in Geographical Information Systems (GIS) from The University of Ulster. He holds a Diploma in Acoustics and Noise Control and is a Member of the Institute of Acoustics (MIOA). Chris has experience in Environmental Impact Assessments, Appropriate Assessments and planning applications. He has undertaken the noise and vibration assessments on several EirGrid schemes including the Maynooth Substation Upgrade and the Kildare-Meath Upgrade. He has presented evidence as an expert witness at Oral Hearing.</p>
Chapter 10 (Biodiversity)	<p><u>Dr. Susie Coyle BSc (Hons) MCIEEM MIFM MRSB CBiol, Jacobs</u></p> <p>Dr Susie Coyle is a Senior Associate Director in Jacobs. She holds a Bachelor of Science (Hons) degree in Aquatic Bioscience from the University of Glasgow and a Doctor of Philosophy degree in the inheritance of body armour and risk taking behaviour in a freshwater fish from the University of Glasgow. She is a Chartered Biologist with the Royal Society of Biology, a full member of the Chartered Institute of Ecology and Environmental Management and a full member of the Institute of Fisheries Management.</p> <p>Susie has 17 years' consultancy experience managing ecological survey and assessment contracts as part of Environmental Impact Assessment Directive and Habitats Directive assessment processes. One of her primary roles is checking and reviewing Preliminary Impact Appraisal Reports, Environmental Impact Assessment Reports, Appropriate Assessment Screening Reports and Natura Impact Statements. She also coordinates the delivery of all ecological components of projects in Ireland and the UK. She has undertaken ecological surveys for multiple species to inform impact assessment. She has inputted to biodiversity chapters of Environmental Impact Assessment Reports, Appropriate Assessment Screening Reports and Natura Impact Statements for a range of projects. Susie has extensive field survey skills and technical knowledge and have held several personal licenses for freshwater pearl mussel and great crested newt and is or has have been a named agent on protected species licences for bats, kingfisher, badger, otter and red squirrel.</p> <p><u>Tom Moore BA (Hons) MSc MCIEEM, Jacobs</u></p> <p>Tom Moore is an Associate Director in Jacobs. He holds a BA (Hons) degree in Development Studies from the University of East Anglia and an MSc in Forest Ecology and Management from Edinburgh University. He has 15+ years' professional experience working within ecological consultancy and is a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). His main areas of expertise include Ecological Impact Assessments (EclA), Biodiversity Net Gain (BNG) assessments, and undertaking screening and appropriate assessments as part of the Habitat Regulations Assessment (HRA) process. Tom is also experienced in undertaking and coordinating habitat and protected species surveys, habitat creation and mitigation design. He has also previously held survey licences for great crested newt, dormouse, and bats in the UK and has helped author mitigation licences for badger, bat, great crested newt, otter and water vole.</p> <p><u>Duncan Smith BSc (Hons) MSc CEnv, Jacobs</u></p> <p>Duncan Smith is a Principal Ecologist and Chartered Environmentalist (CEnv). He has a BSc (Hons) in Zoology from the University of Leeds, a MSc in Environmental Technology with Ecological Management from Imperial College, and a MSc in Marine Environmental Protection from Bangor University. He has 29 years professional ecological experience specialising in botanical surveying, habitat management and site evaluation for Ecological Impact Assessment, including EirGrid's CP0966 EIAR and the Ecological Impact Assessment for the Oxford Flood Alleviation Scheme.</p>

EIAR Chapter	Responsible Competent Expert – Competency Details
	<p>During his career he has worked in the private, public, and voluntary sectors, including eighteen years in the private sector, seven years for UK Statutory Nature Conservation Bodies in England and Wales and two years in the voluntary sector.</p>
<p>Chapter 11 (Soils, Geology and Hydrogeology)</p>	<p><u>Ewan Pringle BSc MSc FGS CGeol, Jacobs</u> Ewan is an Associate Director of Land Quality with Jacobs and has 19 years' experience of environmental consultancy experience. He holds an honours degree in Geology from Aberdeen University as well as a Master of Science in Environmental Geochemistry from Leeds University. He is a Chartered Geologist with the Geological Society of London. Ewan has extensive experience of input of Environmental Impact Assessment for linear infrastructure schemes in the Republic of Ireland and the UK, including the Dublin Metrolink, N2 road schemes, A9 road scheme and Longman Junction upgrade.</p> <p><u>Vanina Saint-Martin BSc, MSc, FGeolSoc, Jacobs</u> Vanina is a Director of Hydrogeology with Jacobs and has over 23 years' experience in hydrogeological matters. She holds an honours degree in Geography from Bordeaux University (France) as well as a Master of Hydrogeology from Birmingham University. She is a Fellow of the Geological Society. Vanina worked on a large variety of projects including groundwater resources, hydrogeological-hydrological assessments, mining and quarrying issues, contaminated land and groundwater risk assessment, environmental impact assessments, landfills HRAs, groundwater flooding and groundwater dependent ecological assessments. Vanina has been acting as Technical Lead on a number of projects and environmental studies, with a strong focus on large scale infrastructure projects. Vanina has acted as expert witness at Oral Hearings.</p>
<p>Chapter 12 (Hydrology)</p>	<p><u>Rebecca Westlake BSc (hons), MSc, LLM, PhD, CSci, CMarSci, MIMarEST, Jacobs</u> Rebecca is a Subject Matter Expert (SME) for the Water Science and Hydromorphology Team at Jacobs. She holds an honours degree in physical geography from Plymouth University, an MSc in coastal and marine resource management, an LLM in environmental law and practice, and a PhD in geomorphology. Rebecca is chartered with Institute of Marine Engineering, Science and Technology, and has approximately 25 years' relevant experience in water science and environmental assessment. Rebecca is highly experienced in many aspects of legislation and regulation, in addition to specific technical specialism in Water Framework Directive, and all stages of the EIA process, including Development Consent Orders. Rebecca is a technical lead for water chapters for major infrastructure projects including Development Consent Orders for roads, rail and water sectors, often undertakes peer reviewer roles.</p> <p><u>Mark Johnson BSc (hons), MSc - Jacobs</u> Mark Johnson is a Senior Environmental Scientist within the Water Science and Hydromorphology Team at Jacobs. He holds an honours BSc in Geology from The University of Aberdeen and an MSc in Integrated Petroleum Geoscience from the same institute. Mark is a member of the is Chartered Institution of Water and Environmental Management and is working towards full Chartership. Mark has 10 years of professional experience; five of which are in water science and environmental assessment. Mark is experienced in aspects of Water EIA, regulation and compliance assessment, in addition to specific technical specialism in Water Framework Directive, all stages of the EIA process, geomorphology and surface water quality. Mark has originated and coordinated multiple surface water EIAR chapters for various project types including pipelines, road, rail and utilities.</p>
<p>Chapter 13 (Archaeology, Architectural Heritage, and Cultural Heritage)</p>	<p><u>Abby Cooper BA (Hons) MSc, MCIfA, Jacobs</u> Abby Cooper is a Principal Archaeologist with Jacobs and has over 9 years of professional experience in the historic environment sector. She holds a BA (Hons) in Archaeology and History from the University of Leicester and an MSc in Human Osteoarcheology from the University of Edinburgh. She is a Member of the Chartered Institute for Archaeologists (CIfA). Abby has experience inputting to various stages of Environmental Impact Assessment on a range of projects, including high-profile infrastructure schemes and small commercial sites, across the UK and Ireland.</p>

EIAR Chapter	Responsible Competent Expert – Competency Details
<p>Chapter 14 (Traffic and Transport)</p>	<p><u>Colin Wyllie BEng (Hons), MCIHT, MSoRSA, Jacobs</u> Colin Wyllie is an Associate Director in Jacobs Transport Planning team, based in Glasgow. He has an honours degree in Civil and Transportation Engineering from Napier University, Edinburgh and is an accredited Road Safety Auditor and a member of the Chartered Institution of Highways and Transportation (CIHT) and a member of the Society of Road Safety Auditors (SoRSA). He is a highly experienced transport planner, traffic engineer and road safety auditor with 25 years of experience on a wide range of projects. Colin has led the technical input on several Environmental Impact Assessments for energy and infrastructure developments in the UK and Ireland including the Cork Line Level Crossings where he presented expert witness evidence at the Oral Hearing. Colin is the technical lead for the traffic and transport chapter for the EIAR.</p> <p><u>David Marshall BSc (hons), MSc, MTPS, Jacobs</u> David Marshall is a Senior Transport Planner with Jacobs, based in Glasgow, and has over 10 years' experience. He holds an honours degree in Geography from the University of Glasgow as well as a Master of Science in Geospatial and Mapping Sciences from the University of Glasgow. He is a member of the Transport Planning Society (MTPS). David has been the traffic and transport technical lead and/or lead author on several EIAs for large infrastructure schemes including Anglian Water's Strategic Pipeline Alliance, Musselburgh Flood Prevention Scheme, and Grangemouth Flood Prevention Scheme. David is the lead author for the traffic and transport chapter of the EIAR.</p>
<p>Chapter 15 (Agronomy and Equine)</p>	<p><u>Con Curtin, B.AgrSc., Curtin Agricultural Consultants Ltd</u> Con is a Director of Curtin Agricultural Consultants Ltd and has over 30 years' experience as an Agricultural Consultant. He holds an honours degree in Agricultural Science from University College Dublin as well as a Level 6 Land Drainage Certificate from Teagasc. He is a member of the Agricultural Consultants Association and an approved advisor on the Farm Advisory Service register maintained by the Department of Agriculture, Food and the Marine. Con has carried out agricultural impact assessments for more than 15 major national road projects, for the North South Interconnector (Meath to Tyrone) electricity transmission project and the Kildare to Meath 400 kV grid upgrade project. He has presented expert witness evidence at more than 10 Oral Hearings. Con is the agronomist for the Proposed Development.</p>
<p>Chapter 16 (Waste)</p>	<p><u>Hannah Cullen BA MSc C.WEM CEnv MCIWEM, Jacobs</u> Hannah Cullen is a Principal Environmental Scientist with Jacobs Engineering Ireland and has over 10 years of professional experience in the environmental sector. She holds a BA in Geology from Trinity College Dublin and an MSc in Environmental Science from University College Dublin. She is a Chartered Environmentalist (CEnv) with the Society of the Environment and is a Chartered Water and Environmental Manager (C.WEM) with the Chartered Institute of Water and Environmental Management (CIWEM). Hannah has experience in Environmental Impact Assessment, environmental monitoring, environmental auditing, and environmental site constraints assessment and due diligence work. She has worked on a range of both public and private sector Environmental Impact Assessment Reports of varying scales over the past six years.</p>
<p>Chapter 17 (Material Assets)</p>	<p><u>Hannah Cullen</u> See above</p>
<p>Chapter 18 (Landscape and Visual)</p>	<p><u>Rory Curtis BEng BA GDip LA MILL, Macro Works Ltd</u> Rory is a Landscape Architect at Macro Works Ltd., a specialist Landscape and Visual Impact Assessment (LVIA) company affiliated with the Irish Landscape Institute and has over 9 years of experience in the industry. Rory's experience extends to numerous electrical infrastructure developments including transmission lines and substations as well as the assessment of over 150 wind energy developments and 120 solar energy developments. Rory has been responsible for the for six Strategic Infrastructure Developments.</p>
<p>Chapter 19 (Risk of Major Accidents and / or Disasters)</p>	<p><u>Gregor Simpson</u> See above</p>

EIAR Chapter	Responsible Competent Expert – Competency Details
	<p><u>Nigel Edwards</u> See above</p> <p><u>Stephanie McGlynn</u> See above</p>
<p>Chapter 20 (Cumulative Impacts and Environmental Interactions)</p>	<p><u>Stephanie McGlynn</u> See above</p>
<p>Chapter 21 (Summary of Mitigation and Monitoring Measures)</p>	<p><u>Katie Randall-Stratton</u> See above</p> <p><u>Stephanie McGlynn</u> See above</p>
<p>Chapter 22 (Summary of Significant Residual Impacts)</p>	<p><u>Katie Randall-Stratton</u> See above</p> <p><u>Stephanie McGlynn</u> See above</p>

1.6 Consultation

Public participation has been an integral part of the iterative development of the Proposed Development from the outset.

A 12 week public consultation from 7 September 2022 to the 30 November 2022 was carried out during Step 4 (Where exactly we should build) of the EirGrid Framework to inform the selection of the Emerging Best Performing Option, and subsequently, the Best Performing Option (refer to Chapter 3 (Consideration of Reasonable Alternatives) in this EIAR for full details of the EirGrid Framework).

These consultations were undertaken to inform the public and stakeholders of the development of the Proposed Development from an early stage and to seek feedback and participation throughout its development. The Step 1 to Step 5 Summary of Engagement Report, which details consultation undertaken as part of the development of the Proposed Development, is included in Volume 5 (Supporting Documents) of this EIAR. The Project Team has undertaken a comprehensive consultation and engagement process with stakeholders, landowners and members of the public throughout the development of the Proposed Development.

The primary objective of the non-statutory public consultation process was and is to provide opportunities for members of the public and interested stakeholders to contribute to the planning and design of the Proposed Development and to inform the development process. Public participation in the planning and design of the Proposed Development was encouraged from an early stage through on-the-ground engagement and information and media campaigns.

The early involvement of the public and stakeholders ensured the views of various groups, individuals and stakeholders were taken into consideration throughout the development of the Proposed Development and in the preparation of this EIAR.

The non-statutory consultation process assisted in:

- The establishment of a robust environmental baseline for the Proposed Development and its surroundings;
- The identification, early in the process, of specific concerns and issues relating to the Proposed Development so that they could be appropriately accounted for in the design and assessment scope; and
- Ensuring the appropriate involvement of the public and stakeholders in the assessment and design process.

More specific information relating to the pre-application phases of consultation, issues which emerged and the manner in which they informed the development of the EIAR for the Proposed Development are outlined in the sections which follow.

1.6.1 Pre-Application Consultation

1.6.1.1 An Bord Pleanála

The planning application for the Proposed Development is being made directly to ABP. Two pre-application consultation meetings took place with ABP on 8 September 2023 and 28 November 2023 and a summary of the items raised in these meetings is provided in Table 1.5.

Table 1.5: Pre-Application Consultation Dates and Summary of Discussion

Consultation Meeting Date	Summary of Consultation
8 September 2023	Key topics discussed included: <ul style="list-style-type: none"> • Structure of the EIAR and the environmental topics to be considered; • Cumulative impact assessment and the consideration that should be given projects interacting with the Proposed Development; • Watercourse crossing methods; • Construction Environmental Management Plan; • Potential road closures, diversions, work and impact to landowner access; • Planning drawings and details to include.
28 November 2023	Key topics discussed included: <ul style="list-style-type: none"> • Consultation with Inland Fisheries Ireland (IFI) in relation to watercourse crossings; • Agree methodology with Transport Infrastructure Ireland (TII) and Iarnród Éireann in regards any motorway and rail crossings; • Construction traffic safety; • Cumulative impact assessment; and • Biodiversity and habitat management.

Following the pre-application consultation, a letter was received from ABP on 16 January 2024 confirming that the Proposed Development falls within the scope of Section 182A of the Planning and Development Act, as outlined in Section 1.5.4, and is classified as Strategic Infrastructure Development.

The key items raised in the pre-application consultation meetings with ABP have helped to inform the preferred design for the Proposed Development and have been considered when undertaking the assessments described in this EIAR.

1.6.1.2 Local Authorities

In addition to the pre-application consultation with ABP, meetings were held with officials from Fingal County Council and Meath County Council. The dates of the meetings and the details of the discussions held are summarised in Table 1.6.

Table 1.6: Pre-Application Meetings with Local Authorities

Local Authority	Dates	Departments Consulted	Summary of Consultation
Fingal County Council	10 January 2023, 29 March 2023, 20 June 2023, 20 July 2023, 26 October 2023, 16 November 2023	Planning Department and Roads Department	Key topics discussed included: <ul style="list-style-type: none"> • Traffic disruptions; • Road network; • Protection of hedgerows; and • Engagement with other stakeholders.
Meath County Council	10 November 2022, 30 March 2023, 19 July 2023, 26 October 2023, 15 November 2023	Planning Department and Roads Department	Key topics discussed included: <ul style="list-style-type: none"> • Traffic disruptions; • Road network; • Floodplains; • Removal of hedgerows; • M3 Motorway Junction crossing; and • Engagement with other stakeholders.

The various meetings with the local authorities have helped to inform the preferred design for the Proposed Development and the items raised during these meetings have been considered when undertaking the assessments described in this EIAR. Local insight provided by the local authorities has helped to strengthen the environmental assessments in this EIAR.

1.6.2 Consultation on the Environmental Impact Assessment Process

In addition to the extensive non-statutory public consultation on the Proposed Development, as outlined in Section 1.6, the Project Team undertook consultation on the EIAR with certain prescribed bodies and relevant non-statutory stakeholders, upon request. Consultation meetings were also conducted with the National Parks and Wildlife Service (NPWS), Inland Fisheries Ireland (IFI) and the National Monuments Service (NMS), and these consultations informed the development of the relevant impact assessment chapters in Volume 2 of this EIAR.

The dates of the meetings and the details of the discussions held are summarised in Table 1.7. The discussions in each of these meetings helped to inform the development of the Proposed Development and the contents of the EIAR.

Table 1.7: Pre-Application Consultation Meetings with Prescribed Bodies

Prescribed Body	Date	Summary of Consultation
NMS	13 December 2023	Discussion on the inclusion of mitigation measures, potential archaeological remains on / near watercourses, code of best practice, pre-consent non-invasive archaeological investigations and the recently passed Historic and Archaeological Heritage and Miscellaneous Provisions Act 2023.
NPWS	9 January 2024	Discussion on 'habitat restoration' and the use of commercial seeds, sourcing seeds and mitigation measures, dealing with badger setts, Tolka River and the matching of species to re-construction works.
IFI	9 January 2024	Discussion on habitats located downstream, seasonal restrictions, River Tolka, open cut trenching crossing methods of water bodies and IFI presence during construction.

As part of the scoping stage for the EIAR, relevant stakeholders were contacted in November 2023 and were provided with an electronic copy of the EIA Scoping Memo for the Proposed Development. The stakeholders were invited to review the EIA Scoping Memo and make a submission related to its content or additional information or topics which they considered relevant to the development of the EIAR. A non-statutory consultation period of four weeks was provided for comment. However, responses were accepted post this consultation period. A total of seven responses were received during the non-statutory scoping consultation process. A summary of the content of those responses and how the issues raised have been addressed in the EIAR, where applicable, is provided in Appendix A1.1 in Volume 3 of this EIAR.

1.6.3 Consultation with Landowners

The routing principles have sought to avoid agricultural land as far as possible, noting approximately 30% of the total cable length will be off-road (within agricultural land) to avoid location-specific constraints. Extensive discussions have been held between the EirGrid Agricultural Liaison Officers and all of the potentially affected landowners and their feedback has been incorporated in the design. This allowed landowner input into the potential routing and provided more information on ground conditions, environmental constraints, and farming practices that were considered in the routing process. The proposed cable route has tried to maximise the distance from all residential properties in line with the routing principles. The EirGrid Agricultural Liaison Officers will continue to discuss the Proposed Development going forward with the affected landowners.

The Step 4B – Route Options and Evaluation Report was published in September 2023 (included in Volume 5 (Supporting Documents) of this EIAR), and outlines how, at Step 4B, the Best Performing Option (Option A (Red)) was re-examined to refine the route and to provide more certainty on specific locations (refer to Chapter 3 (Consideration of Alternatives) in Volume 2 of this EIAR for further detail on the refinement of the Proposed Development). For example, the section of the proposed cable route between the M1 Motorway and Belcamp Substation was modified to an updated off-road corridor along agricultural land based on consultations with affected landowners. Another example was the route near the M3 Motorway crossing, for which EirGrid worked

closely with landowners to minimise the land take and ensure that the Proposed Development did not compromise on their future planned developments.

1.7 Difficulties Encountered During the Preparation of the EIAR

Any limitations and assumptions have been noted within the relevant chapters in Volume 2 of this EIAR. However, the environmental assessment remains robust and is based on a precautionary approach.

1.8 References

Department of Communications, Climate Action and the Environment (2021). National Energy and Climate Plan 2021 – 2030

DHPLG (2018). Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (August 2018)

EirGrid (2023). Strategic Environmental Assessment for EirGrid Grid Implementation Plan 2023 – 2028 - Scoping Report

EMRA (2019). Eastern and Midlands Regional Assembly (EMRA) Regional Spatial and Economic Strategy for the Eastern and Midland Region 2019 – 2031

EPA (2022). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports

European Commission (2013). Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment

European Commission (2017). Environmental Impact Assessment of Projects – Guidance on the Preparation of the Environmental Impact Assessment Report

FCC (2020). Dublin Airport Local Plan 2020

FCC (2023). Fingal Development Plan 2023 – 2029

Government of Ireland (2018). Project Ireland 2040 National Planning Framework

Government of Ireland (2021). Project Ireland 2040 National Development Plan 2021 – 2030

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