1 INTRODUCTION

1.1 INTRODUCTION

This Chapter of the Environmental Impact Assessment Report (EIAR) introduces the proposed Letter Wind Farm (the Project) and provides details of the Environmental Impact Assessment (EIA), Project Team and the structure of the report. It sets out the broad context and defines the key terms of reference used in the environmental assessment of the Development. The Development is subject to an EIA, under the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU (EIA Directive).

The EIAR has been prepared by Jennings O'Donovan & Partners Limited, on behalf of Letter Wind Farm Ltd., to accompany a planning application for the Development. This EIAR takes into account the Development as a whole, including all relevant ancillary and subsidiary elements of the overall project, and all direct and indirect effects, and cumulative impacts and interactions.

In addition to the identification, description and assessment of the Development, this EIAR identifies, describes and assesses the Project (**Table 1.1**), cumulatively with any other existing and permitted developments, projects that are pending a decision from the planning authority and other known projects which are in the advanced stages of being prepared to be submitted for planning and have the potential for in cumulative effects.

This EIAR includes the conclusions of the competent and qualified experts as to the significance of any environmental effects, to assist the competent authority to comply with Article 8a of the EIA Directive as amended.

The planning application is also accompanied by a Natura Impact Statement (NIS) as required under Article 6(3) of the EU Habitats Directive (92/43/EEC). This is an assessment of the likely or possible significant effects of the Development on sites designated as Natura 2000 conservation areas, also defined in Irish legislation as "European sites".

This chapter is supported by Figures and the following Appendices in Volume IV:

- **Appendix 1.1:** Consultation Responses
- **Appendix 1.2:** Glossary of Common Acronyms

1.2 KEY DEFINED TERMS

To provide clarity in the EIAR, the following defined terms will be used throughout.

Table 1.1: Defined Terms used throughout the EIAR

Term	Definition
The Site	Refers to all land that falls within the Proposed Letter Wind Farm Site Boundary as shown on **Figure 1.1**.
The Redline Boundary	Refers to the Proposed Development Boundary. It is the boundary line of all works to be completed as part of the Project.
The Baseline	Refers to the existing lands and their characteristics.
The Development	Refers to all elements of the proposed development as described in the planning application public notices for Letter Wind Farm, the details of which are set out within **Chapter 2: Project Description**. These elements include the wind turbines, all site infrastructure, the Grid Connection Route within the Redline Boundary.
The Project	Refers to the Development as contained in the Redline Boundary and the works along the Turbine Delivery Route which is outside the Redline Boundary and landholding boundary.
Survey Areas	Refers to areas within which surveys are undertaken. These are specifically defined within each technical section.
Study Areas	Refers to areas which are considered as part of the assessment process. These are specific and defined within each technical section.
The Council	Refers to Leitrim County Council.
The Board	Refers to An Bord Pleanála.
The Developer	Letter Wind Farm Ltd.
EIA Regulations	The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) transpose the requirements of the 2014 EIA Directive into the Planning and Development Regulations 2001 (As Amended).
The EIA Directive	Refers to the EIA Directive 2011/92/EU.
The 2014 EIA Directive	Refers to EIA Directive 2014/52/EU which amends the EIA Directive.
Scoping	This is the process to identify key environmental issues, and to determine which elements of the Development are likely to cause significant environmental impacts and to identify elements that can be removed from the assessment.

Term	Definition
The Onsite Substation and Control Building	Refers to the onsite substation and control building including the compound in which it is located.
Met Mast	Refers to proposed Meteorological Mast to be located on site.
The Replant Lands	Refers to the offsite forestry replanting lands.
The Construction Haul Routes	Refers to the proposed routes from local quarries and suppliers to the Site.
The Turbine Delivery Route	Refers to the proposed turbine delivery route from Killybegs Harbour to the Site.
Grid Connection	Refers to the proposed route of connecting to the national grid.
Wind Farm Internal Cabling	Refers to the electrical cables connecting the turbines to the on-site substation.
Temporary Construction Compound	Refers to the compound to be developed and used by the appointed contractor(s) for the purposes of constructing the wind farm which will be reinstated to the current forestry land use following completion of construction.
Turbine Hardstand	Refers to the hardstand next to the turbine location used by cranes for erection of turbine hub, nacelles and rotor blades.
Turbine Foundation	Refers to turbine concrete base located under ground level and used to support the turbine.
Decommissioning	Refers to the end of the operational life of the wind farm when turbines are dismantled and taken off site for recycling. The turbine foundations and the site roads will be left *in-situ* and allowed to revegetate through natural succession. The underground cabling will be removed while the ducting will remain *in-situ*. The substation building will be left *in-situ*.
Reinstatement	Reinstatement means restoring the habitat in the areas of the Site where infrastructure was developed.

1.3 THE APPLICANT

The Applicant seeking planning permission is Letter Wind Farm Ltd.

Letter Wind Farm Ltd is a consortium of local wind farming professionals with decades of experience in developing wind farm projects across the northwest. The principals of the company have a proven track record of delivering projects and working closely with local

communities and regional planning authorities to design and deliver appropriate developments that assist in supporting Ireland's Climate goals and initiatives.

1.4 THE SITE

The Site, as defined in **Table 1.1**, comprises an area of approx. 45 hectares and is approx. 2.9km west of Drumkeeran, Co. Leitrim and 21km south-east of Sligo Town. The Site is located on lands under the ownership of the Developer, and two third party landowners all of whom have consented to the application and the Development. The Site is located on elevated rolling transitional lands north of Corry Mountain (428m AOD) and northeast of Carrane Hill (458m AOD). A Site Location Map showing the Site Boundary is appended as **Figure 1.1** and a map which comprises all elements of the Project is outlined as **Figure 1.2.**

The Site is located in a rural setting and housing density in the area is low. There are 17 dwellings within a 1.5km radius of the proposed turbines, comprising one off houses and farm holdings (**Figure 1.3**).

A full description of the Development is provided in **Chapter 2: Project Description**.

1.5 SUMMARY OF DEVELOPMENT DESCRIPTION

Permission is being sought by the Developer for the construction of 4 No. Wind Turbines, a meteorological mast, an on-site substation, Turbine Delivery Route and all ancillary works and the construction of an underground grid connection to the existing ESB Corderry 110kV substation, Co. Leitrim.

The Development will consist of the following main components:

- Construction of 4 No. wind turbines with an overall ground to blade tip height ranging from 149.85m to 150m inclusive. The wind turbines will have a rotor diameter ranging from 115.7m to 117m inclusive and a hub height ranging from 91.5m to 92m inclusive.
- Construction of permanent turbine hardstands and turbine foundations.
- Construction of a bottomless bridge culvert across a minor stream on site (EPA River Segment Code: 26_4053).
- Construction of one temporary construction compound with associated temporary site offices, parking areas and security fencing.
- Installation of one (40-year life cycle) meteorological mast with a height of 50m and a 4m lightning pole on top.

- Construction of new internal site access tracks and upgrade of a section of existing internal Site track, to include all associated drainage.
- Improvement of existing site entrance with access via the L4282.
- Development of an internal site drainage network and sediment control systems.
- Construction of 1 no. permanent 20kV electrical substation
- All associated underground electrical and communications cabling connecting the wind turbines to the wind farm substation.
- All works associated with the connection of the wind farm to the national electricity grid, which will be via 20kV underground cable connection approximately 6.4km in length to the existing ESB Corderry 110kV Substation in the townlands of Letter, Greaghnadarragh, Stangaun, Corralustia, Turpaun, Gortnasillagh West, Lugmeeltan, Leckaun, Lisgaveen, Treannadullagh, Drumcashlagh and Corderry
- Ancillary forestry felling to facilitate construction of the development.
- All associated site development works including berms, landscaping, and soil excavation.
- Installation of battery arrays located within container units (2 no. units) and associated electrical plant for electricity storage and grid stabilisation adjacent to the substation building.
- Development of one on-site borrow pit.
- A 10-year planning permission and 40-year operational life from the date of commissioning of the entire wind farm is being sought. This reflects the lifespan of modern-day turbines.

1.6 ENVIRONMENTAL IMPACT ASSESSMENT

1.6.1 Environmental Impact Assessment Requirement and National Legislation

European Union Directive 2011/92/EU ("the EIA Directive") requires that, before consent is given for certain public and private projects, an assessment of the effects on the environment is undertaken by the relevant competent authority. The EIA Directive has been transposed into Irish legislation, for the purposes of this EIA Development, by the Planning and Development Act 2000, as amended ("the Planning Acts") and the Planning and Development Regulations 2001, as amended ("the Planning Regulations").

Section 171A of the Planning and Development Act 2000 (as amended) defines an Environmental Impact Assessment (EIA) as '*a process*—

(a) consisting of—

(i) the preparation of an environmental impact assessment report by the applicant in accordance with this Act and regulations made thereunder,

(ii) the carrying out of consultations in accordance with this Act and regulations made thereunder,

(iii) the examination by the planning authority or the Board, as the case may be, of— (I) the information contained in the environmental impact assessment report, (II) any supplementary information provided, where necessary, by the applicant in accordance with section 172(1D) and (1E), and (III) any relevant information received through the consultations carried out pursuant to subparagraph (ii),

(iv) the reasoned conclusion by the planning authority or the Board, as the case may be, on the significant effects on the environment of the proposed development, taking into account the results of the examination carried out pursuant to subparagraph (iii) and, where appropriate, its own supplementary examination, and

(v) the integration of the reasoned conclusion of the planning authority or the Board, as the case may be, into the decision on the proposed development, and

(b) which includes—

(i) an examination, analysis and evaluation, carried out by the planning authority or the Board, as the case may be, in accordance with this Part and regulations made thereunder, that identifies, describes and assesses, in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of the proposed development on the following: (I) population and human health; (II) biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive; (III) land, soil, water, air and climate; (IV) material assets, cultural heritage and the landscape; (V) the interaction between the factors mentioned in clauses (I) to (IV), and

(ii) as regards the factors mentioned in subparagraph (i)(I) to (V), such examination, analysis and evaluation of the expected direct and indirect significant effects on the environment derived from the vulnerability of the proposed development to risks of major accidents or disasters, or both major accidents and disasters, that are relevant to that development.

Section 172(1)(a)(ii)(I) requires projects of a class specified in Part 2 of Schedule 5 of the Planning Regulations to be subject to an EIA where:

"(I) *such development would exceed any relevant quantity, area or other limit specified in that Part,*".

Part 2 of Schedule 5 of the Planning Regulations includes the following classes of EIA Development:

Class 3(i) *"Installations for the harnessing of wind power for energy production (wind farms) with more than 5 turbines or having a total output greater than 5 megawatts."*

The Development comes within the scope of Class 3(i).

1.6.2 Directive 2014/52/EU

The EIA Directive (2011/92/EU) was amended by the 2014 EIA Directive (2014/52/EU).

On 1st September 2018, the Minister for Housing, Planning and Local Government published updated guidelines for planning authorities and An Bord Pleanála on carrying out Environmental Impact Assessments. The publication of the Guidelines coincides with the coming into operation on 1st September 2018 of the provisions of the European Union (Planning and Development) (EIA) Regulations 2018 (S.I. No. 296 of 2018), which were signed by the Minister on 26th July 2018. These Regulations transpose the requirements of Directive 2014/52/EU, amending previous Directive 2011/52/EU, on the assessment of the effects of certain public and private projects on the environment (the EIA Directive) into planning law.

Accordingly, this EIAR complies with the European Union (Planning and Development) (EIA) Regulations 2018 (S.I. No. 296 of 2018). To the extent relevant and necessary, regard has been given to the existing provisions of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001, (as amended) insofar as they transpose the EIA Directive. Article 5 of the EIA Directive as amended provides where an EIA is required, the developer shall prepare and submit an Environmental Impact Assessment Report (EIAR). The information to be provided by the developer shall include at least:

(a) *a description of the Development comprising information on the site, design, size and other relevant features of the Development*

(b) *a description of the likely significant effects of the Development on the environment*

(c) *a description of the features of the Development and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment*

(d) a description of the reasonable alternatives studied by the developer, which are relevant to the Development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the Development on the environment

(e) a non-technical summary of the information referred to in points (a) to (d) and

(f) any additional information specified in Annex IV relevant to the specific characteristics of a particular Development or type of Development and to the environmental features likely to be affected.

The EIAR provides information on the receiving environment and assesses the likely significant effects of the Project and proposes mitigation measures to avoid or reduce these effects. The function of the EIAR is to provide information to allow the competent authority to reach a reasoned conclusion on the effects of a development and inform subsequent decisions, such as planning. All elements of the Project (including the grid connection and turbine delivery route) have been assessed as part of this EIAR.

1.6.2.1 EIA Definition

Article 1(2)(g) of the EIA Directive as amended defines EIA as a process consisting of:

"(i) the preparation of an environmental impact assessment report by the developer, as referred to in Article 5(1) and (2);

(ii) the carrying out of consultations as referred to in Article 6 and, where relevant, Article 7;

(iii) the examination by the competent authority of the information presented in the environmental impact assessment report and any supplementary information provided, where necessary, by the developer in accordance with Article 5(3), and any relevant information received through the consultations under Articles 6 and 7;

(iv) the reasoned conclusion by the competent authority on the significant effects of the project on the environment, taking into account the results of the examination referred to in point (iii) and, where appropriate, its own supplementary examination; and

(v) the integration of the competent authority's reasoned conclusion into any of the decisions referred to in Article 8a".

1.6.2.2 Factors of the Environment

The EIA Directive, as amended, requires the EIA to identify, describe and assess, in an appropriate manner and in light of each individual case, the direct and indirect significant effects of a project on the following factors:

(a) population and human health

(b) biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives

(c) land, soil, water, air and climate

(d) material assets, cultural heritage and the landscape

(e) the interaction between the factors referred to in points (a) to (d)

The effects referred to above shall include the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project concerned.

The implementations of the EIA Directive as amended in the EIAR can be seen in **Table 1.2**.

Table 1.2: Outline of respective chapters relating to the requirements of the EIA Directive as amended.

The EIA Directive	Chapter	Title
(a) population and human health	4	Population and Human Health
(b) biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives	5 6 7	Terrestrial Ecology Aquatic Ecology Ornithology
(c) land, soil, water, air and climate	2 5 6 7 8 9 10 13	Project Description Terrestrial Ecology Aquatic Ecology Ornithology Soils and Geology Hydrology and Hydrogeology Air and Climate Material Assets & Other Issues
(d) material assets, cultural heritage and the landscape	12 13 14	Landscape and Visual Amenity Material Assets & Other Issues Cultural Heritage
(e) the interaction between the factors referred to in points (a) to (d)	16 17	Major Accidents and Natural Disasters Interactions of the Foregoing

1.6.2.3 Major Accidents and Disasters

The EIA Directive as amended requires the EIAR to consider the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are

relevant to the project concerned. This is discussed in further detail in **Chapter 16: Major Accidents and Natural Disasters**.

A wind farm is not a recognised source of chemical pollution. Should a major accident or natural disaster occur, the potential sources of pollution onsite during both the construction and operational phases are limited. Sources of chemical pollution with the potential to cause significant environmental pollution and associated negative effects on health include bulk storage of hydrocarbons or chemicals and storage of wastes. Spills and leaks can occur if they are not mitigated against which may cause negative effects to human health, if contamination of food or water occurs. The occurrence of such spills and leaks is unlikely as bunding and safe storage practices will be complied with as per best practice. The Site is not regulated under the Control of Major Accident Hazards Involving Dangerous Substances Regulations i.e., SEVESO sites and so there is no potential effect from this source. All SEVESO sites are located 40km or more from the Development.

There is limited potential for significant natural disasters to occur at the Site. Ireland is a geologically stable country with a mild temperate climate. The potential natural disasters that may occur are therefore limited to peat-slide, flooding and fire.

- The Peat Stability Assessment Risk Ranking ranged from '*Low to Negligible risk of instability in relation to the proposed turbine locations and other infrastructure, should all mitigation measures and recommendations be adhered to'*. The risk of peat-slide is further addressed in **Chapter 8: Soils and Geology**.
- There are no recorded localised flood events within the vicinity of the Site. The risk of flooding is addressed in **Appendix 9.1: Strategic Flood Risk Assessment**.
- A 2020 article in Wind Power Engineering Magazine estimated that 1 in 2,000 wind turbines catch fire each year. Overall, the data shows that wind turbine fires are relatively rare. It is therefore considered that the risk of significant fire occurring, affecting the wind farm and causing the wind farm to have significant environmental effects is limited. This is discussed in **Chapter 16: Major Accidents and Natural Disasters**.
- As described earlier, there are no significant sources of pollution in the wind farm with the potential to cause environmental or health effects. Also, the spacing of the turbines and distance of turbines from any properties limits the potential for impacts on human health. This is further discussed in **Chapter 16: Major Accidents and Natural Disasters**.

1.6.2.4 Alternatives to the Development

Article 5(1)(d) of the EIA Directive requires that the EIAR include a description of the reasonable alternatives studied by the developer, which are relevant to the Development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the Development on the environment.

In addition, Annex IV, paragraph 2 provides that the EIAR include "*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.*".

This is addressed in **Chapter 3: Alternatives Considered** of this EIAR.

1.6.2.5 National Guidance

The following documents have been referred to in the preparation of this EIAR:

- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, EPA, May 2022;
- Department of Housing, Planning and Local Government 'Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment' (August 2018).

In addition to the applicable EIA legislation and guidance, all 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. Subject-specific best practice guidance used for each appraisal presented in the EIAR is detailed in the relevant assessment chapter of this EIAR.

1.6.2.6 European Guidance

- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report, European Commission, 2017
- Environmental Assessments of Plans, Programmes and Projects – Rulings of the Court of Justice of the European Union (European Union 2017a)
- Environmental Impact Assessment of Projects – Guidance on Scoping (Directive 2011/92/EU as amended by 2014/52/EU) (European Union 2017b)
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission 1999)

1.6.2.7 Competent Experts and Quality of the EIAR

Article 5(3) of the 2014 EIA Directive states that, in order to ensure the completeness and quality of the EIAR, the Applicant shall ensure (a) the EIAR is prepared by competent experts; (b) the competent authority shall ensure that it has, or has access to, sufficient expertise to examine the EIAR, and (c) where necessary, the competent authority shall seek from the Applicant any supplementary information, in accordance with Annex IV (the information to be contained in the EIAR), which is directly relevant to reaching the reasoned conclusion on the significant effects of the Development on the environment.

Article 94(e) of the Planning and Development Regulations 2001 (as amended) requires the following information to be provided in an EIAR:

"(e) a list of the experts who contributed to the preparation of the report, identifying for each such expert—

(i) the part or parts of the report which he or she is responsible for or to which he or she contributed,

(ii) his or her competence and experience, including relevant qualifications, if any, in relation to such parts, and

(iii) such additional information in relation to his or her expertise that the person or persons preparing the EIAR consider demonstrates the expert's competence in the preparation of the report and ensures its completeness and quality."

The experts involved in the preparation of this EIAR are competent, having regard to the task he or she performed, taking account of the scope of the study for which he or she undertook the work, the person/s possess sufficient training, experience and knowledge appropriate to the nature of the work.

This EIAR has been prepared by Jennings O'Donovan & Partners Limited (JOD), Consulting Engineers, Finisklin Business Park, Sligo, F91 2HH9, on behalf of the Developer. JOD are one of the longest established and most reputable multi-disciplinary engineering consultancies in Ireland. Established in 1950, it has grown to be the largest engineering consultancy in the north-west of Ireland. JOD have been an established presence in the Renewable Energy Wind Farm Sector since 1998. To date, the company has a portfolio of projects extending to over 2,040 MW of power in Ireland and Northern Ireland and is a recognised market leader in the area of Wind Energy development. This portfolio will equate, when completed, to an investment of €3 billion in the Wind Energy Sector. Additionally, JOD has attained certificates in line with industry standards as follows:

- ISO 9001:2015 – Quality Management System

- ISO 14001:2015 – Environmental Management System
- ISO 45001:2018 – Occupational Health and Safety Management System

Possession of these certificates is, in itself, evidence that JOD, have developed, maintained and implemented systems in quality, safety and environmental related matters and are therefore competent experts.

This project has been completed in line with JOD's Integrated Management System which is based on the current versions of ISO 9001 (Quality Management System), ISO 14001 (Environment Management System) and ISO 45001 (Safety Management System). JOD are fully certified and accredited to ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018 for the provision of project management, environmental, civil and structural consulting engineering services.

JOD have developed a Quality Policy Statement, an Environmental Policy Statement and a Safety Health and Welfare Policy Statement. It is a stated objective in our Quality Policy Statement that:
"…Jennings O'Donovan and Partners Limited is committed to complying with the requirements of the quality management system and to continually improve its effectiveness…".

JOD staff are degree qualified in their respective specialist fields and have developed their competence through both experience on the job and through training. Each team member has developed the following:

- Sufficient knowledge of the specific tasks to be undertaken and the risks which may arise
- Sufficient experience and ability to carry out their duties in relation to the project and to take appropriate actions required under the EIA Directive

Specialist consultancies have been employed to complete some of the EIAR Chapters. Each Chapter of the EIAR includes a Statement of Authority regarding the competency of the author and relevant qualifications. Please see **Section 1.9** for more information.

1.7 NEED FOR THE DEVELOPMENT

The proposed Letter Wind Farm will contribute renewable energy in order to assist in the transition of Ireland's energy sector to a low carbon economy. The Project has an estimated Maximum Export Capacity (MEC) of 16.8MW. The exact MEC will be dependent on the

output power of the models available at procurement stage. The Project will play a significant role in providing renewable electricity in the Ireland, accounting for approximately 0.39% of the current installed wind energy capacity (Wind Energy Ireland, 2023). At a strategic level, the need for the Project is supported by International, European, and National environmental and energy commitments and policies.

Under the 2009 Renewable Energy Directive, Ireland committed to produce at least 16% of all energy consumed by 2020 from renewable sources. This was to consist of 40% from renewable electricity, 12% from renewable heat and 10% from the renewable transport sector.

The Irish Government published the Climate Action Plan in June 2019 (DoCCAE, 2019) which sets out actions to ensure Ireland's 2030 renewable energy targets can be achieved. This is in the context of substantial and continuing failure by Ireland in meeting climate targets to date. These targets have recently been updated in the Climate Action Plan 2023 which has increased the target of renewable energy from 70% as included in the 2019 CAP to 80% by 2030. This target is to be achieved partly by the delivery of 8 GW of onshore wind energy.

REPower EU Energy Plan 2022

The European Commission presented the REPowerEU plan on 18 May 2022[1]. The plan is a key pillar in the EU's response to the disruption which has been caused to energy markets and aims to tackle the climate crisis by transforming Europe's energy system. The plan also forms part of the EU's wider response to Russia's invasion of Ukraine, including several sanctions packages.

Within the overarching goals of strengthening Europe's climate ambitions, security and economic growth, the REPowerEU plan responds to the current energy situation in four ways:

- energy savings
- the diversification of energy imports
- the acceleration of Europe's clean energy transition
- smart investment

[1] REPowerEU: A plan to rapidly reduce dependence on Russian fossil fuels and fast forward the green transition; European Commission – Press Release. Available online: https://ec.europa.eu/commission/presscorner/detail/en/IP_22_3131 [Accessed 18/10/2022]

The European Commission has laid down a framework to accelerate the deployment of renewable energy (Council Regulation (EU) 2022/2577 of 22 December 2022). Member States should establish "go-to" areas for renewable energy development. These areas would have lower environmental risks and therefore allow shortened and simplified permitting processes.

This renewable energy Project will aid in the diversification of energy production in Ireland and together with other renewable energy projects and developments, will decrease our reliance on imported fossil fuels by becoming energy self-efficient.

The Climate Action Plan 2023

The Climate Action Plan 2023 aims to evaluate in detail the changes that are required in order "*to halve our emissions by 2030 and reach net zero no later than 2050, as we committed to in the Programme for Government*".

In relation to electricity generation there is a commitment to increase the reliance on renewables to 80%, which includes increasing the target of offshore wind energy by up to 7 GW[2]. The target for onshore wind energy is 9 GW, by 2030.

The European Commission announcement[3] in March 2022 addresses energy security issues emerging from Russia's invasion of Ukraine. The EU intends on significantly accelerating its transition to clean energy and thereby increasing Europe's energy independence.

"*Phasing out our dependence on fossil fuels from Russia can be done well before 2030. To do so, the Commission proposes a REPowerEU plan that will increase the resilience of the EU-wide energy system based on….*
…Reducing faster our dependence on fossil fuels at the level of homes, buildings and the industry, and at the level of the power system by boosting energy efficiency gains, increasing the share of renewable and addressing infrastructure bottlenecks".

The contribution of the Development to the de-carbonisation of the Irish electricity network will contribute positively to an issue of strategic social importance. This is illustrated by the

[2]SSE RENEWABLES HAILS IRELAND'S INCREASED 7GW OFFSHORE WIND AMBITION BY 2030, 29 Jul 2022 [Accessed Online 06/07/2023] https://www.sserenewables.com/news-and-views/2022/07/sse-renewables-hails-ireland-s-increased-7gw-offshore-wind-ambition-by-2030/

[3] Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions [06/07/2023]. REPowerEU: Joint European Action for more affordable, secure and sustainable energy

text of the Irish government's Climate Action Plan 2023 which sets an ambitious 80% target for electricity production from renewable sources by 2030 and highlights the need to remove barriers to the development of renewables, including onshore wind, such as streamlining regulation and encouraging reinforcement of the grid to facilitate greater renewables penetration. The significance of the Climate Action Plan is underlined by the Irish government's declaration of a climate emergency in 2019.

Ireland is facing significant challenges in efforts to meet these targets, alongside its commitment to transition to a low carbon economy by 2050. Ireland did not meet its 2020 target for renewable energy and is falling behind in the longer-term movement away from fossil fuels.

The Renewable Energy Directive (recast) 2018/2001/EU

The Renewable Energy Directive (recast) 2018/2001/EU entered into force in December 2018. It entered into force, as part of the Clean energy for all Europeans package, aimed at keeping the EU a global leader in renewables and, more broadly, helping the EU to meet its emissions reduction commitments under the Paris Agreement. It was transposed into Irish law in September 2020 by the Renewable Energy Regulations 2020. The regulations set the parameters for the establishment of future renewable electricity support schemes, and build on the existing regime, which was created by the European Union (Renewable Energy) Regulations 2014 (as amended) (the "2014 Regulations"). The ambition of increased electricity from renewable sources will be significantly ramped up. The recast directive moves the legal framework to 2030 and sets a new binding renewable energy target for the EU for 2030 of at least 32%, with a clause for a possible upwards revision by 2023 and comprises measures for the different sectors to make it happen. Failure to meet renewable energy targets is subject to fines from the EU.

Wind Energy Ireland (WEI), Ireland's largest renewable energy organisation, in its annual report for 2020 noted that Ireland's wind energy share of electricity demand in 2020 rose to 36.3% compared to 32.5% in 2019. Wind Energy Ireland in its February 2022 Wind Energy report showed that wind energy provided 53 per cent of Ireland's electricity that month. This is the highest share of demand ever achieved by wind in Ireland.

As of May 2022, the total installed capacity of the Republic of Ireland's wind farms is now 4,332.5 MW[4] this is approximately enough to power 2.2 million Irish homes annually.

[4] Wind Energy Ireland (WEI). *Wind Stats.* Available at https://windenergyireland.com/about-wind/the-basics/facts-stats. Accessed on 06/07/23.

The Project is critical to helping Ireland address these challenges as well as addressing the country's over-dependence on unsustainable imported fossil fuels. The need for the Development is driven by the following factors:

- A requirement to diversify Ireland's energy sources, to achieve national renewable energy targets;
- Reduce Ireland's dependency on fossil fuels resulting in lower carbon dioxide (CO_2) emissions;
- Avoid significant fines from the EU (the EU Renewables Directive);
- A legal commitment under the Kyoto protocol from Ireland to limit greenhouse gas emissions;
- Aid in the acceleration of actions towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change (COP26 and COP27);
- A requirement to increase Ireland's national energy security as set out in the Energy White Paper (Ireland's Transition to a Low Carbon Energy Future, 2015-2030[5]);
- Provision of cost-effective power production for Ireland which would deliver local benefits, and
- Increase energy price stability in Ireland by reducing an over-reliance on imported gas and exposure to international market price and supply fluctuations.

The Project will also offer opportunities such as:

- The provision of clean energy whilst minimising environmental impacts, and
- Contributing to renewable energy targets which will continue to drive down the overall cost of energy with benefits to the Irish consumer.

The Project will create additional jobs and will encourage continued investment in the renewable industry in Ireland.

1.7.1 Public Consultation

In January 2024, the projects Community Liaison Officer undertook a brochure drop to dwellings within 1.5km of the proposed wind farm Site. The brochures comprised of details of the project including the development proposal, key design considerations, environmental benefits, community benefits, maps of the Site in the context of the local area, and contact details for the Community Liaison Officer.

[5] Ireland's Transition to a Low Carbon Energy Future, 2015-2030, Department of the Environment. Climate and Communications, 2020. Available at https://www.gov.ie/en/publication/550df-the-white-paper-irelands-transition-to-a-low-carbon-energy-future-2015-2030/. Accessed on 06/07/23.

1.7.1.1 Information to be Included in a Decision to Grant

Article 8a (1) of the 2014 EIA Directive states:

"The decision to grant development consent shall incorporate at least the following information:

(a) the reasoned conclusion referred to in Article 1(2)(g)(iv);

(b) any environmental conditions attached to the decision, a description of any features of the project and/or measures envisaged to avoid, prevent or reduce and, if possible, offset significant adverse effects on the environment as well as, where appropriate, monitoring measures".

To assist the Council with this requirement, the EIAR includes a summary at the end of each chapter of all proposed mitigation and monitoring measures outlined within the technical assessments. A summary document has also been appended to **Chapter 17: Interactions of the Foregoing**.

1.8 EIAR STRUCTURE

This EIAR uses the grouped structure method to describe the existing environment, the potential impacts of the Project thereon and the proposed mitigation measures. Background information relating to the Project, scoping and consultation undertaken and a description of the Project are presented in separate sections. Please note that the Irish Transverse Mercator coordinate system is used in the EIAR document.

The layout of this EIAR is arranged in four volumes, I-IV.

Volume I: This volume includes the opening **Non-Technical Summary (NTS).** It is a condensed and easily comprehensible version of the EIAR document. The NTS is presented in a similar format to the main EIAR document and comprises descriptions of the Development, the receiving environment, impacts, mitigation measures and interactions presented in a grouped format. It is a standalone document.

Volume II: This volume contains the **Environmental Impact Assessment Report (EIAR).** The EIAR is presented using the grouped structure method and describes the existing environment, the potential impacts of the Project thereon and the proposed mitigation measures. Background information relating to the Development, scoping and consultation undertaken and a description of the Project are presented in separate Chapters. The grouped format Chapters describe the impacts of the Project in terms of human beings, biodiversity, soils and geology, hydrology and hydrogeology, air and climate, noise,

landscape and visual, cultural heritage and material assets such as traffic and transportation together with the interaction of the foregoing.

The chapters in this **Volume II: EIAR** are as follows:

- Chapter 1: Introduction
- Chapter 2: Project Description
- Chapter 3: Alternatives Considered
- Chapter 4: Population and Human Health
- Chapter 5: Terrestrial Ecology
- Chapter 6: Aquatic Ecology
- Chapter 7: Ornithology
- Chapter 8: Soils and Geology
- Chapter 9: Hydrology and Hydrogeology
- Chapter 10: Air and Climate
- Chapter 11: Noise
- Chapter 12: Landscape and Visual Amenity
- Chapter 13: Material Assets and Other Issues
- Chapter 14: Cultural Heritage
- Chapter 15: Traffic and Transportation
- Chapter 16: Major Accidents and Natural Disasters
- Chapter 17: Interactions of the Foregoing

Volume III: EIAR Figures

The Figures referred to in each chapter of the EIAR are compiled separately in Volume III. Figures are numbered sequentially for each chapter in which they are principally referred.

Volume IV: Appendices

The Appendices referred to in each chapter of the EIAR are compiled separately in Volume IV. They are also numbered sequentially for each chapter in which they are principally referred.

1.9 EIAR PREPARATION

1.9.1 Project Team

JOD had overall responsibility for the coordination of the EIAR with input from other independent specialist consultants where necessary. The competency of JOD has been outlined in **Section 1.6.2.6**. **Table 1.3** provides details of the contributors of each aspect of

the EIAR. Further details on the qualifications of each lead author can be found in **Section 1.9.2** and in the Statement of Authority in each individual technical assessment chapter.

Table 1.3: EIAR Preparation Details

Consultants	Principal Staff Involved in the Project	EIAR Input
Jennings O'Donovan & Partners Limited	David Kiely (DK) Shauna Conlon (SC) Cavelle Hendry (CH) Aileen Byrne John Banks (JB) Liam Boyle (LB) Kenneth Dunne (KD)	Project Management, Scoping and Consultation, Report Sections, Figures, Planning Drawings • 1: Introduction (SC & DK) • 2: Project Description (SC & DK) • 3: Alternatives Considered (SC & DK) • 4: Population & Human Health (SC, AB & DK) • 10: Air & Climate (SC & DK) • 13: Material Assets (SC & DK) • 15: Traffic & Transportation (CH, JB, KD) • 16 Major Accidents and Natural Disasters (SC & DK) • 17 Interactions of the Foregoing (SC & DK) • Planning Drawings (JB & LB)
Doherty Environmental	Pat Doherty Jamie Wood Katie Neary David Kearns	5: Terrestrial Ecology 6: Aquatic Ecology 7: Ornithology
Whitefords Geoservices Ltd	John Whiteford (Chapter Preparation)	8: Soils and Geology

Consultants	Principal Staff Involved in the Project	EIAR Input
RSK	Sven Klinkenbergh (Chapter Preparation and Lead Author) Jayne Stephens (Chapter Preparation) Lissa Colleen McClung (Chapter Preparation)	9: Hydrology and Hydrogeology
Brendan O'Reilly, Noise & Vibration Consultants Limited	Brendan O'Reilly	11: Noise (Assessment)
Irwin Carr Consulting	Shane Carr	11: Noise (Modelling)
Macro Works	Richard Barker (Chapter Review) Cian Doughan (Chapter Preparation)	Chapter 12: Landscape and Visual Assessment
Through Time Ltd	Martin Fitzpatrick (Chapter Preparation)	14: Cultural Heritage

1.9.2 Project Team Experience

David Kiely B.E., M.Sc., Eur.Ing., C.Eng., FIEI, MICE, F.RConsEI

David Kiely is a Director of JOD who holds a BE in Civil Engineering from University College Dublin and MSc in Environmental Protection from IT Sligo. He is a Fellow of Engineers Ireland, a Chartered Member of the Institution of Civil Engineers (UK) and has over 41 years' experience. He has extensive experience in the preparation of EIARs and EISs for environmental projects including Wind Farms, Solar Farms, Wastewater Projects, and various commercial developments. David has also been involved in the construction of over 60 wind farms since 1997.

Shauna Conlon B.Sc. (Hons)

Shauna is an Environmental Scientist with JOD who holds a First-Class Honours Degree (BSc. Hons) in Environmental Science from the Institute of Technology, Sligo. Since joining JOD, she has developed experience in a range of sectors through various projects with a current focus within the environment and renewable energy sector. Shauna's key capabilities include the preparation of Appropriate Assessments, Environmental Impact Assessments, and Geographic Information Systems.

Aileen Byrne B.Sc. (Hons)

Aileen Byrne is an Environmental Scientist, who holds a Bachelor (Hons) Degree in Geography and Information Technology from the National University of Ireland, Galway, and a Higher Diploma in Environmental Science from the University of Limerick. She forms part of the Environmental team responsible for preparing the EIAR Chapters. Aileen has experience in writing EIARs, Feasibility Studies and in Shadow Flicker analysis.

Pat Doherty BSc., MSc, MCIEEM

Pat Doherty BSc., MSc, MCIEEM, of DEC Ltd is a consultant ecologist with over 20 years' experience in completing ecological impact assessments and environmental impact assessments. Pat has been involved in the completion of assessment reports for proposed developments and land use activities under the EIA Directive and Article 6 of the Habitats Directive since 2003 and 2006 respectively. He has extensive experience completing such reporting for projects located in a variety of environments and has a thorough understanding of the biodiversity issues that may arise from proposed land use activities. Pat was responsible for completing one of the first Appropriate Assessment reports for large scale infrastructure developments in Ireland when he prepared the Appropriate Assessment for the N25 New Ross Bypass in 2006/07. Since then, Pat has completed multiple examinations of both plans and projects in Ireland. He has completed Natura Impact Statements for national scale plans such as Ireland's CAP Strategic Plan and National Seafood Development Plan and regional and county scale plans including County Development Plans, Local Area Plans, Tourism Strategies and Climate Action Plans. Pat has completed multiple Natura Impact Statements for a range of development types that include large scale infrastructure developments in sectors such as transport and energy as well as industrial, commercial and residential developments.

Pat has completed focused certified professional development training in Appropriate Assessment as well as in a range of ecological survey techniques and assessment processes. Training has been completed for National Vegetation Classification (NVC) and Irish Vegetation Classification (IVC) surveying, bryophyte survey for habitat assessment and identification, professional bat survey and assessment training, mammal surveying and specific training for bird and bat survey techniques. Ongoing training has been completed by approved training providers such as CIEEM, British Trust for Ornithology, the Botanic Gardens and the Field Studies Council.

Jamie Wood (BSc, MSc)

Jamie has over 15 years' experience as a consulting ecologist and environmental scientist. He has completed bird survey works for over 500MW of installed wind power as well as assisting Pat Doherty in the coordination of a team of surveyors working on numerous baseline ornithological surveys for proposed wind farm development projects.

Katie Neary (BSc.)

Katie has over five years' experience working in Ireland primarily in the renewable industry. Katie has a strong technical background in ornithology and ecology surveying and in writing Natura Impact Statements (NIS) and sections of Environmental Impact Assessment Reports (EIAR) to accompany planning applications.

Katie's ornithological experience has involved carrying out a diverse catalogue of bird surveys throughout Ireland mainly for renewable energy projects. She has completed a variety of surveys in accordance with different methodologies for multiple wind farm developments. These include vantage point surveys; breeding season and non-breeding season transect surveys; winter hen harrier roost surveys and other species-specific surveys such as wader and wildfowl surveys.

David Kearns (BSc.)

David has over four years' experience working in the renewable industry. David has a background in ornithology and ecology surveying and in writing Natura Impact Statements (NIS) and sections of Environmental Impact Assessment Reports (EIAR) to accompany planning applications whilst working as part of the environmental team in Jennings O'Donovan Consulting Engineers. David gained experience in fish stock protection and surveys when working for Inland Fisheries Ireland.

David's ornithological experience has involved carrying out a diverse catalogue of bird surveys throughout Ireland mainly for renewable energy projects. He has completed a variety of surveys in accordance with different methodologies for multiple wind farm developments. These include vantage point surveys; breeding season and non-breeding season transect surveys; winter hen harrier roost surveys and other species-specific surveys such as wader and wildfowl surveys.

John Whiteford BSc (Hons) Geophys MIOSH MEAGE FGS

John Whiteford BSc (Hons) Geophys MIOSH MEAGE FGS has more than 20 years of experience in the field of earth sciences, geotechnical engineering, and management. His

academic qualifications are a BSc with Honours in Geophysics from Edinburgh University, with memberships of The European Association of Geoscientists and Engineers and The Institute of Safety and Health.

Commencing work with Kirk McClure Morton (Consulting Engineers) in Belfast since then has been engaged in full-time consultancy for the past 15 years and since 1996 trading as Whiteford Geoservices Ltd. The company has a staff of more than 15 professional and technical personnel and has completed in excess 700 contracts for clients within the construction and mineral exploration sectors where they have built up a recognised level of specialist experience, particularly in the field of Wind Energy. Working at home, in Europe and worldwide the company has been involved in more than 80 wind power projects where our services have been sought in relation to foundation design, peat slide risk assessment, geophysics, electrical earthing design and thermal resistivity analysis.

Sven Klinkenbergh – B.Sc. (Environmental Science), P.G.Dip. (Environmental Protection).

Current Role: Principal Environmental Consultant. Associate, Sven joined RSK Ireland after Minerex Environmental (8 years) were acquired by RSK Group in June 2021. Sven's current workflow consists primarily of EIA Hydrology, Hydrogeology, Land, Soils and Geology assessments for a range of projects, a large proportion of which is in renewable energy i.e. wind farms on peatlands. Sven is a qualified project manager and EIA Lead Author with c. 10 years industry experience in the preparation of environmental, geological, hydrological and hydrogeological reports. Sven has also worked on a large number of surface water and groundwater monitoring projects on IPC and similar sites, was team lead for site investigation and soil waste classification projects and has a number of years' experience on construction dewatering projects.

Jayne Stephens - B.Sc. (Environmental Science), PhD (Environmental and Infection Microbiology). Current Role: Environmental Consultant. Experience c. 5 years

Current Role: Environmental Consultant. Experience c. 5 years working in microbiology, water, and environmental disciplines. She graduated with a BSc in Environmental Science from National University of Ireland Galway in 2014, majoring in mammal ecology. Following this, Jayne was the successful Irish applicant to the Tropical Biological Association in Cambridge to complete a field course in tropical biodiversity and conservation in Tanzania. She holds a PhD in environmental microbiology, graduating in 2023. Jayne has worked on a large number of bathing water and surface water monitoring investigations, on project Acclimatize, an EU funded project which aimed to bridge the knowledge gap in relation to

at-risk urban and rural bathing waters in Ireland and Wales. During this project, Jayne was team lead for site investigations and has a number of years' experience on microbial contamination and public involvement projects for better water quality.

Conor Campbell -- B.Sc. (Environmental Science), Current Role: Environmental Consultant. Experience c. 3 years working in ecotoxicology, environmental monitoring, and consultancy.

Conor graduated with a B.Sc. in Environmental Science and Technology in DCU, where he then worked with the Water Institute in EPA and EU Horizon funded projects involving freshwater ecotoxicology, remote sensor development, and passive sampling method development. Conor has also worked as an environmental engineer, designing and undertaking surface and ground water sampling campaigns, landfill leachate and gas monitoring programs, as well as a variety of hydrometric surveys. Conor joined RSK Ireland in early 2023 as a consultant on the EIAR team, specialising in Hydrology and Hydrogeology, and Land, Soils, and Geology.

Lissa Colleen McClung - B.Sc. (Hons.) Environmental Studies, M.Sc. (Hons.) Environmental Science. Current Role: Graduate Project Scientist

Colleen has recently joined RSK Ireland as a Graduate Project Scientist under the Hydrology & Hydrogeology and Land, Soils & Geology Team. After attaining an MSc in Environmental Science, with 1.1 First Class Honours, from Trinity College Dublin in 2021. Since coming on board, Colleen has worked on a variety of projects for urban residential development schemes and renewable energy. As a Project Scientist, Colleen has undertaken technical report writing in many forms, such as: Flood Risk Assessments (Stage 1 and Stage 2) (ROI), Drainage Assessments (NI), Water Framework Directive Assessments, Environmental Impact Assessment Reports (ROI) and Environmental Statements (NI). She has also carried out extensive field work around the country. Key capabilities include preparation of Environmental Impact Assessment Reports and running software such as QGIS, Python and Matlab coding languages.

Brendan O'Reilly MPhil ISEE SFA EAA

Brendan has obtained a Master of Philosophy (MPhil) science degree in noise & vibration from the University of Liverpool, (2000). He was a Member of the International Society of Explosives Engineers (ISEE) for over 20 years, a Member of IMQS and Committee member for over 20 years and a member of French Society of Acoustic (FSA) for a number of years.

Brendan has compiled numerous Environmental Noise Impact Statements (EIS) since 1985 for projects ranging from wind farms/sewage treatment plants to mines/quarries and retail development. He successfully completed noise EIS's for over 100 wind farms throughout Ireland ranging in size from 0.65 MW to over 100 MW and has provided expert evidence in An Bord Pleanála oral hearings on large wind farm proposals (Straboy Energy in Co. Donegal and Doonbeg Wind Farm in Co. Clare).

Large wind farm projects, in which Brendan was the noise consultant, with a successful conclusion included Yellow River in Co. Offaly and Sliabh Bawn in Co. Roscommon. Brendan has also completed compliance monitoring on over 20 wind farms including Sliabh Bawn and acted as expert noise witness provided for Drehid Landfill, Fountain Cross Quarry and extension of the Boliden Tara Mines Tailing Storage Facility (2017) and on behalf of residents in EirGrid North/South overhead line.

Brendan has experience in many projects including Europe's largest Zn/Pb mine dealing with a variety of noise and vibration issues over a 35-year period. Other projects in which Brendan has been involved with include the development of the first continuous noise and vibration monitoring system in Europe for an industrial enterprise including the change from an analogue system to a digital integrated noise and wind monitoring system.

Brendan has experience in the investigation of complaints and specification for ameliorative noise and vibration control measures for numerous companies North and South, Consultancies and Local Authorities.

Brendan has been an expert witness as a vibration specialist in the High Court for Meath County Council relating to road construction (vibratory rollers to rock breaking). As well as this, Brendan has been an expert witness as vibration specialist in Belfast High Court regarding blasting vibration. He is an acknowledged contributor to the Irish EPA Integrated Pollution Control Licensing, 'Guidance Note for Noise in Relation to Scheduled Activities', 1995.

Brendan is also a co-author and project partner (as a senior noise consultant) in 'Environmental Quality Objectives Noise in Quiet Areas administered by the Environmental Protection Agency on behalf of the Dept. of Environment., Heritage and local Government.

Shane Carr BSc (Hons), MIA, CIEH

Shane is a Director in Irwin Carr Consulting, primarily responsible for environmental noise and noise modelling. He has over 22 years' experience working in both the public and private sectors having previously obtained a BSc (Hons) Degree in Environmental Health and a Post-Graduate Diploma in Acoustics. He is a Member of the Institute of Acoustics and a Chartered Member of the Chartered Institute of Environmental Health.

Shane has carried noise assessments for various wind farm development schemes throughout Ireland in line with the ETSU standard, been responsible for designing the assessment schemes to assess the noise impact for major wind farm redevelopments within Ireland as well as assessing the suitability of proposed sites for residential or commercial/industrial development.

He has a broad range of experience in all aspects of noise including environmental noise assessment and control. He has presented expert evidence on a number of occasions for a range of planning issues and environmental noise assessments.

Shane has contributed to numerous EIA in relation to significant developments in both Northern Ireland and the Republic of Ireland and where the Air Quality or Noise element of assessment is deemed key. He has been responsible for co-ordinating and preparation of the assessment for submission to the appropriate authority. This has included significant renewable energy schemes.

Richard Barker MLA. BA Env. PG Dip for. MILI. – Principal Landscape Architect

Richard formerly worked as a Town Planner in New Zealand, London and Dublin before moving into the field of Landscape Architecture. He has spent the last 16 years working as a Landscape Architect in Ireland and has considerable experience in the fields of both Landscape and Visual Impact Assessment (LVIA) and landscape design, covering all stages from project feasibility through to construction. This cross-over of expertise is invaluable in determining and designing the most appropriate and effective form of landscape and visual mitigation for infrastructural development projects.

Richard manages the LVIA department in Macro Works undertaking assessment work on a broad spectrum of projects from wind and solar energy to roads and large-scale industrial and infrastructural development. Richard has personally completed the landscape and visual assessment of over 90 wind farms and 80 solar farms including nine SID projects. Consequently, he has considerable oral hearing expert witness experience. This extends to more than 15 oral hearings over the past 12 years with four of these being for large SID wind farm projects.

Richard has presented a number of conference papers relating to sustainable landscape design and LVIA as well as delivering the inaugural workshop on the landscape and visual effects of wind energy developments on behalf of the Irish Wind Energy Association. He has presented a paper to members of the Irish Landscape Institute on the application of the Guidelines for Landscape and Visual Impact Assessment (2013) using a wind energy case study. Richard has also delivered guest lectures to the University College Dublin professional course in EIA Management in relation to LVIA.

Cian Doughan BSLA. MILI. – Landscape Architect

Cian has an honours graduate of Landscape Architecture from UCD and is a full corporate member of the Irish Landscape Institute. Cian has experience of over seven years working as a Landscape Architect within Ireland with a primary focus on Landscape and Visual Impact Assessment (LVIA) and landscape design. Cian has completed assessments for a wide range of development types across our portfolio, including important water supply projects, as well as a range of wind farm and solar farm applications. Cian has personally completed the landscape and visual assessment of over 20 wind farms and 50 solar farms, including four SID projects.

Martin Fitzpatrick M.A.

Martin Fitzpatrick has worked in Irish archaeology for the past 25 years. He is a graduate of NUIG and completed a Master's Degree specialising in the architecture of 15th/16th century Tower Houses in County Galway. Martin has been involved in all stages of development projects from initial design, compilation of EIAs, archaeological monitoring and resolution during construction. The projects managed ranges from single dwelling houses to impact assessments for large-scale residual landfills, road developments and wind farms. Martin has also been involved in the development of residual landfill facilities for almost twenty years from initial design consultations, impact assessments, EIAs and involvement in ensuring that the archaeological and cultural heritage conditions attached to the developments are completed to the highest professional standards. Martin has previously overseen the completion of impact assessments on wind farms, landfill developments and a 60 km motorway development on the M6.

1.9.3 Chapter Structure

Each technical assessment included in the EIAR has followed the same general format:

- Assessment Methodology and Significance Criteria: A description of the methods used in baseline surveys and in the assessment of the significance of effects

- Baseline Description: A description of the Site's existing baseline, based on the results of surveys, desk information and consultations, and a summary of any information required for the assessment, that could not be obtained, if applicable
- Assessment of Potential Environmental Effects: A description of how the baseline environment could potentially be affected for the Development including a summary of the measures taken during the design of the Development to minimise effects
- Mitigation Measures and Residual Effects - A description of measures recommended that will be implemented to reduce and/or off-set potential negative effects and a summary of the assessed level significance of the effects of the Development and/or the Development after mitigation measures have been implemented
- Cumulative Effects: A description identifying the potential for effects of the Development to combine with those from other existing, pending and/or permitted developments to affect resources
- Statement of Significance of effects

The significance of effects resulting from the Project will be determined through consideration of a combination of the sensitivity of the receiving environment and the predicted level of change from the baseline state. Environmental sensitivity can be categorised by several aspects including factors such as; the transformation of natural landscapes, the protection afforded to, and presence of, European sites, rare or endangered species, land use and fisheries.

Sensitivity of classification of the receiving environment can vary between the different technical areas of assessment e.g., ecology, hydrology, population and human health and visual. In general, this EIAR largely follows the principles and terminology of the 2022 EPA 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' in relation to the identification of significant effects. Where a technical assessment has adopted an alternative to this process, such as following technical guidance bespoke to that topic, such assessment criteria are made clear in that chapter. **Table 1.4** highlights the general framework for the assessment of significance of effects.

Table 1.4: Impact Classification Terminology (EPA Guidelines, 2022)

Impact Characteristic	Term	Description
Quality	Positive	A change which improves the quality of the environment
	Neutral	No effects or effects that are imperceptible within normal bounds of variation or within the margin of forecasting error
	Negative	A change which reduces the quality of the environment
Significance	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	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
	Moderate	An effect that alters the character of the environment in a manner consistent with existing and emerging baseline trends
	Significant	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment
	Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
	Profound	An effect which obliterates sensitive characteristics
Extent & Context	Extent	Describe the size of the area, 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
Probability	Likely	Effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented
	Unlikely	Effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented
Duration and Frequency	Momentary	Effects lasting from seconds to minutes
	Brief	Effects lasting less than a day
	Temporary	Effects lasting less than a year
	Short-term	Effects lasting one to seven years
	Medium-term	Effects lasting seven to fifteen years
	Long-term	Effects lasting fifteen to sixty years
	Permanent	Effect lasting over sixty years
	Reversible	Effects that can be undone, for example through remediation or restoration

Impact Characteristic	Term	Description
	Frequency	Describe how often the effect will occur, (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)
Type	Indirect	Impacts on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway
	Cumulative	The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects.
	'Do Nothing'	The environment as it would be in the future should the subject project not be carried out
	'Worst Case'	The effects arising from a project in the case where mitigation measures substantially fail
	Indeterminable	When the full consequences of a change in the environment cannot be described
	Irreversible	When the character, distinctiveness, diversity, or reproductive capacity of an environment is permanently lost
	Residual	Degree of environmental change that will occur after the proposed mitigation measures have taken effect
	Synergistic	Where the resultant effect is of greater significance than the sum of its constituents

1.9.4 Turbine Parameters used for EIAR Assessments

The proposed range of turbine parameters are assessed within the impact assessment chapters of this EIAR (Chapters 4-17). In this regard the European Commission "Guidance document on wind energy developments and EU nature legislation, (November 2020)[6] notes that:

"The key issue for a competent national authority to authorise a wind energy development project based on an envelope rather than a specific design relates to environmental impact. From an environmental impact perspective, the applicant must ensure that the EIA and the Appropriate Assessment undertaken has considered the worst-case design possible within the different options available in the design envelope."

6 https://ec.europa.eu/environment/nature/natura2000/management/docs/wind_farms_en.pdf, accessed 19/10/2022

Table 1.5 describes for each of the EIAR topics how the turbine range, which is set out in the below bullet points, has been assessed. It should be noted that the Natura Impact Statement (NIS) submitted has similarly assessed the proposed range of turbine parameters. The proposed range of turbine parameters is limited.

- Turbine Tip Height – Maximum height 150 metres, Minimum height 149.85 metres
- Hub Height – Maximum height 92 metres, Minimum height 91.5 metres
- Rotor Diameter - Maximum diameter 117 metres, Minimum diameter 115.7 metres
- Turbine Foundations – Maximum diameter 25m, Minimum diameter 22m

Table 1.5: EIAR Topics and Turbine Ranges Assessed

Chapter	Turbines Considered
Chapter 3 Alternatives Considered	This chapter provides a description of the reasonable alternatives studied by the Developer, and the main reasons for choosing the proposed project (which includes the Turbine Range), taking into account the effects of the proposed project on the environment.
Chapter 4 Population & Human Health	This chapter comprehensively assesses the proposed Project (which includes the turbine range). The relevant Irish guidance for shadow flicker is derived from the 'Wind Energy Development Guidelines for Planning Authorities' (Department of the Environment, Heritage and Local Government (DoEHLG), 2006) and the 'Best Practice Guidelines for the Irish Wind Energy Industry' (Irish Wind Energy Association, 2012). The DoEHLG Guidelines state that at distances greater than 10 rotor diameters from a turbine, the potential for shadow flicker is very low. Taking the above into consideration, JOD examined maps to identify receptors (dwellings) in the local area within a study area, a distance ten times the maximum proposed rotor diameter of the proposed turbines (10 x 117m = 1,170m). A range of turbine parameters was assessed, however, a maximum rotor diameter of 117m was used to calculate this distance which was then rounded up to 1.5km to ensure a conservative assessment. This dimension will give the most significant outcome as smaller rotor diameters will cast less shadow. In order to ensure the full extent of the moving shadow which would

Chapter	Turbines Considered
	be created by the turbine range is considered in the assessment the following scenarios were modelled: • Alternative Scenario 1 – 91.5m hub, 117m rotor diameter, 150m tip height (lowest hub height and largest rotor diameter) • Alternative Scenario 2 – 92m hub, 115.7m rotor diameter, 149.85m tip height (highest hub height and lowest rotor diameter)
Chapter 5 Terrestrial Ecology	This chapter comprehensively assesses all scenarios within the Turbine Range. The potential impacts that could arise from the Development during the construction, operational and decommissioning phases were assessed, and it was found that there will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range.
Chapter 6 Aquatic Ecology	This chapter comprehensively assesses all scenarios within the Turbine Range. The potential impacts that could arise from the Project during the construction, operational and decommissioning phases relate to the potential for increased suspended sediment concentrations associated with site preparation activities and excavations for the infrastructure elements including the turbine foundations, cable trenches and watercourse crossings. There will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range.
Chapter 7 Ornithology - Bird Collision Risk	This chapter comprehensively assesses all scenarios within the Turbine Range. The potential impacts that could arise from the Development during the construction, operational and decommissioning phases relate to the potential for increased collision risk for the Turbine Range.
Chapter 8 Soils & Geology	Turbine Range on Soils and Geology. The potential impacts that could arise from the Project during the construction, operational and decommissioning phases relate to the potential for increased stability issues and suspended sediment concentrations associated with site preparation activities and excavations for the infrastructure elements including the turbine foundations and cable trenches as detailed in **Appendix 2.1: Construction Environmental Management Plan**.

Chapter	Turbines Considered
	There will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range as there is only a 3m range in diameter of the wind Turbine Foundations to cater for all turbines within the Turbine Range. The difference will be negligible in the assessment of potential effects of the Development on the environment. • Turbine Tip Height – Maximum height 150 metres, Minimum height 149.85 metres. • Hub Height – Maximum height 91.5 metres, Minimum height 92 metres. • Rotor Diameter - Maximum diameter 115.7 metres, Minimum diameter 115 metres. Turbine Foundations – Maximum diameter 25 metres, Minimum diameter 22 metres. The potential impacts that could arise from the proposed Project during the construction, operational and decommissioning phases relate to the potential for increased stability issues and suspended sediment concentrations associated with site preparation activities and excavations for the infrastructure elements including the turbine foundations and cable trenches. There will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range.
Chapter 9 Hydrology and Hydrogeology	The potential impacts that could arise from the proposed Project during the construction, operational and decommissioning phases relate to the potential for increased suspended sediment concentrations associated with site preparation activities and excavations for the infrastructure elements including the turbine foundations, cable trenches and the watercourse crossing. There will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range because of the design phase mitigations which will be implemented prior to construction. All works will be outside the 50m buffer where possible. Where this is not possible, additional mitigation measures such as increased use of Sustainable Drainage Systems (SuDS), will

Chapter	Turbines Considered
	be implemented. Temporary stockpile locations will be situated outside of the surface water buffer zones. This will be implemented regardless of the volume of excavated materials created as a result of the Turbine Range.
Chapter 10 Air & Climate	The assessment in this chapter considers an overall power output from the proposed project (16.8MW). The Carbon Calculator accounts for improvement works and the years taken for the Site to return to its original characteristics.
Chapter 11 Noise	This chapter comprehensively assesses all scenarios within the Turbine Range as well as all associated works. The 2006 Guidelines, ETSU-R-97 and the IOA Good Practice Guide recommend the measurement and use of wind speed data, against which background noise measurements are correlated. The IOA Good Practice Guide Supplementary Guidance Note 47 (**Appendix 11.1**) gives the methodology to account for wind shear, calculation to hub height and to standardise 10m height wind speed. For EIA purposes, hypothetical candidate turbine, the Vestas V117-4.2 megawatts (MW) has been selected as it reflects a worst-case scenario for the technical assessment as it generates the highest sound power levels of all turbines within the proposed range.
Chapter 12 Landscape & Visual Amenity	This chapter comprehensively assesses all scenarios within the Turbine Range as well as all associated works on the landscape and visual amenity. To ensure the full extent of the visual effects of the Development on the landscape, which would be created by the Turbine Range, the following scenarios were modelled: • Alternative Scenario 1 – 91.5m hub, 117m rotor diameter, 150m tip height (lowest hub height and largest rotor diameter)

[7] IOA, A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise- Supplementary Guidance Note 4: Wind Shear

Chapter	Turbines Considered
	• Alternative Scenario 2 – 92m hub, 115.7m rotor diameter, 149.85m tip height (highest hub height and lowest rotor diameter) Regardless of whether the difference between the alternative turbine dimensions can be discerned or not, due to the very subtle variations in dimensions, there will be no material difference in the level of visual impact between them.
Chapter 13 Material Assets and Other Issues	This chapter comprehensively assesses the Project (which includes the Turbine Range) on material assets and other issues. This chapter comprehensively assesses the proposed project (which includes the Turbine Range). For the aviation, the tallest tip height (150m) represents the largest obstacle of any turbine within the Turbine Range to air traffic (irrespective of the turbine selected and constructed within the Turbine Range, a turbine with an equal or lesser tip height will still be within that space). In terms of utilities, there will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range.
Chapter 14 Cultural Heritage	This chapter comprehensively assesses all scenarios within the Turbine Range on Cultural Heritage. The potential impacts that could arise from the Project during the construction, operational and decommissioning phases relate to the potential for increased ground disturbance associated with site preparation activities and excavations for the infrastructure elements including the Turbine Foundations. Turbine Foundations will range from 22m in diameter to 25m in diameter. With larger excavations for larger Turbine Foundations, the chances of finding unrecorded, subsurface archaeological features are higher. However, such features may also be found where a smaller Turbine Foundation is used.

Chapter	Turbines Considered
	Therefore, there will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range. The setting impacts described in Chapter 14 will result from the presence of turbines within the wider environs of extant cultural heritage sites. The difference in dimensions within the Turbine Range will not result in a likely increased magnitude of impact on setting that would result in changes to predicted effects.
Chapter 15 Traffic and Transportation	This chapter comprehensively assesses the proposed project (which includes the Turbine Range). There is one element of this assessment for which the turbine dimensions are relevant (A blade length of 57.2m). The transport assessment considered the worst-case scenario in terms of works required to the turbine delivery route based on a 57.2m blade length. Regardless of which turbine is selected and constructed within the Turbine Range the scale and extent of accommodation works required on the public road will remain the same as the same turbine delivery truck and methodology will be applied across the range of rotor diameters and therefore the associated impacts remain the same. It should also be noted there are no additional traffic movements arising irrespective of which turbine is selected and constructed within the Turbine Range.
Chapter 16 Major Accidents and Natural Disasters	There will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range.
Chapter 17 Interactions of the Foregoing	There will be no change to the potential impacts or predicted effects irrespective of which turbine is selected within the Turbine Range.

1.9.5 Significance Criteria

The significance of the potential effects of the Development have been classified by taking into account the sensitivity of receptors and the magnitude of the potential effect on them, combined with the likelihood of an impact occurring as defined in **Table 1.6**.

Table 1.6: Rating of Significant Environmental Impacts (EPA Guidelines, 2022)

Description of Impact Character/Magnitude/Duration/Probability/Consequences					
Magnitude of Significance /Sensitivity		**Negligible**	**Low**	**Medium**	**High**
	Extremely High	Not Significant	Profound/ Very Significant	Profound	Profound
	Very High	Not Significant	Moderate	Significant	Profound/ Very Significant
	High	Not Significant	Slight	Significant/ Moderate	Very Significant
	Medium	Not Significant/ Imperceptible	Slight	Moderate	Significant/ Moderate
	Low	Imperceptible	Slight/ Not Significant	Slight	Slight/ Moderate
	Negligible	Imperceptible	Imperceptible	Imperceptible	Imperceptible

1.9.5.1 Mitigation Measures and Residual Effects

There are three established strategies for impact mitigation - avoidance, reduction and remedy. The efficacy of each is directly dependent on the stage in the design process at which environmental considerations are taken into account, (i.e. impact avoidance can only be considered at the earliest stage, while remedy may be the only option available for projects where avoidance and reduction were not possible).

The EIA co-ordinator has engaged with stakeholders, which has provided the benefit of developing and refining mitigation through an iterative process rather than 'adding on' such measures at the end of the Project. Mitigation measures have been prioritised and embedded into the design phase of the Development to avoid, reduce and offset any significant adverse effects. These are referred to within this EIAR as 'embedded mitigation'.

Relevant mitigation measures are discussed within each technical Chapter of this EIAR. **Chapter 17: Interactions of the Foregoing** provides a summary of mitigation measures for all technical assessments.

1.9.5.2 Cumulative Effects

The potential cumulative impact of the Project has been assessed in line with Annex IV of the EIA Directive as amended which provides that the EIAR must contain a description of the likely significant effects of the project on the environment resulting from 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.

The assessment of the Project in combination with other projects considers the range and nature of existing projects within the cumulative impact study area of the Project, as far as practically possible.

Projects with the potential for cumulative or in combination effects were identified and those which will neither directly or indirectly contribute to cumulative or in combination impacts (outside of 2 km from the Development) were screened out.

A summary of the relevant projects with potential to create cumulative impacts has been included in **Appendix 2.3** and detailed cumulative impact assessments are included in each relevant section of the EIAR.

The geographic extent of the cumulative assessment is considered on a case-by-case basis, in line with the following:

- Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022).
- Guidance on the Preparation of the Environmental Impact Assessment Report (European Union 2017) (Directive 2011/92/EU as amended by 2014/52/EU); and
- Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission 1999).

For the purpose of Cumulative Assessment of Landscape and Visual, all existing and approved wind farms and wind farms pending a decision from the planning authority within 20 km from the outermost turbines of the Project were identified for Cumulative Visual Assessment. This study area is derived from the Wind Energy Development Guidelines (2006).

All existing and approved large-scale projects and large-scale projects pending a decision from a planning authority within 20km of the Site were considered for potential Cumulative Assessment in all other chapters of this EIAR. This measurement was taken from the outermost turbines of the Development. A 20 km distance was considered appropriate due to the size and extent of the proposed wind farm and the nature of the potential effects as detailed throughout the EIAR.

The material for the cumulative assessment was gathered through a search of relevant County Councils' Online Planning Registers, the An Bord Pleanála website and the EIA Portal. Relevant EIA documents, planning application details and planning drawings were reviewed, which served to identify the locations of existing and approved projects and projects pending a decision from a planning authority, their activities and their environmental impacts.

The relevance of the projects was considered on a case-by-case basis in each chapter as necessary depending on the interaction and likelihood of in combination impacts. A full list of projects identified for cumulative assessment is set out in **Appendix 2.3**.

1.9.5.3 Statement of Significance of Effects

The statement of significance outlines the conclusion of each technical assessment in order to provide a final overall conclusion as to the significance of the Development under the terms of the EIA Directive 2011/92/EU (EIA Directive) and the 2014 EIA Directive 2014/52/EU (2014 EIA Directive).

1.10 SCOPING AND CONSULTATION

The scoping and consultation process was carried out in accordance with the EIA Directive and in accordance with the Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, May 2022).

The 2014 EIA Directive Circular (PL 05/2018)[8] notes that:
"It is a requirement of the EIA process to consult with statutory consultees and to take into account any submissions made by these consultees. Such submissions may contain expert specialist opinions on topics to be assessed in the EIA process…".

A scoping exercise was carried out in December 2022 and again in April 2023. **Table 1.7** documents individuals and organisations that have been consulted as part of the EIA process. The purpose of this consultation process was to provide a focus for the EIA by identifying the key issues of relevance. As such, the consultation process informs the various organisations of the Development, thereby providing an opportunity to submit comments and to offer information relevant to the preparation of this EIAR. Responses can be found in **Volume IV**, **Appendix 1.1: Consultation Responses.**

[8] Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment, August 2018. Available online: https://www.opr.ie/wp-content/uploads/2019/08/2018-Environmental-Impact-Assessment-1.pdf [Accessed 19/10/2022]

Table 1.7: Scoping Responses Received on The Project

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Aviation			
Irish Aviation Authority	No response received.	N/A	N/A
Sligo Airport	Scoping response received 24/12/2022 stating the site location and proposed hub height of the actual turbines falls within the approach surfaces of the IFP (Instrument Flight Procedures) for Sligo Airport. Therefore, a preliminary assessment will be necessary.	Agreed to undertake a full assessment of the IFP that service Sligo Airport subject to the grant of planning permission by the relevant planning authority. No implications for the EIA/Design.	**Aviation** discussed in Chapter 13
Ecology			
An Tasice	No response received.	N/A	N/A
Bat Conservation Ireland	No response received.	N/A	N/A
Birdwatch Ireland	No response received.	N/A	N/A
Development Applications Unit	No response received.	N/A	N/A
EPA	Scoping response received 14/11/2023 stating: The development to which you refer does not appear to be an activity that would be licensable by the EPA. I suggest that in this instance, you contact the relevant Planning Authority (Leitrim County Council) or An Bord Pleanála. The Agency does not generally make observations/submissions to Planning Authorities in relation to these types of developments.	N/A	N/A

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Irish Wildlife Trust	Scoping response received 22/12/2022 stating 'Thank you for contacting us. We do not have the staff capacity to respond to this consultation at the moment but we will endeavour to respond if possible.'	N/A	N/A
Local Authority			
Leitrim County Council	Scoping response received 22/05/2023 and includes the following comments: The preparation of the EIAR shall have regard to the guidance document, Guidelines on the information to be contained in Environmental Impact Assessment Reports (Environmental Protection Agency, 2022) in terms of the content and structure of the EIAR and prescribed environmental factors. Moreover, the relevant assessments, conclusions, recommendations and proposed mitigation measures to be presented in the EIAR shall be prepared by suitably qualified specialists within their respective environmental expertise. **<u>Planning Policy Considerations</u>** Any prospective planning application for the proposed development shall be assessed against the policies and objectives contained within the Leitrim County Development Plan 2023-2029. In this regard, the policies and objectives addressed in the following, but not exclusive, sections of the Plan are considered to be of particular relevance. **Section 2.2 – Vision and Strategic Aims** sets out a range of strategic aims and complementary strategic objective for the sustainable development of the county, including "development that addresses climate change in terms of adaptation and mitigation measures including increasing flood resilience, the promotion of sustainable transport options and the development of renewable energy technologies where possible to achieve a successful transition to a low carbon economy". **Section 4 – Economic Development –** sets out the policy framework for the economic development of the county across a number of sectors including tourism, rural-based enterprise and employment, infrastructural and renewable energy.	All items considered during the design process and factored in the EIAR.	**Economic Development** is addressed in Chapter 2: Project Description and Chapter 4: Population and Human Health. **Tourism** is addressed in Chapter 4: Population and Human Health. **Infrastructure and Energy** is addressed in Chapter 1: Introduction, and Chapter 3: Alternatives Considered. **Ecology** addressed in Chapters 5 and 6. **Ornithology** addressed in Chapter 7. **Heritage** addressed in Chapter 14 Cultural Heritage. **Reasonable alternatives** addressed in Chapter 3 Alternatives Considered.

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Section 5 – Tourism contains a number of policies and objectives targeting tourism development within the county including the development of amenity and recreational assets/facilities and harnessing the county's natural and heritage resources in a sustainable manner for tourism activities. The views of prescribed bodies such as Fáilte Ireland are also recommended to be solicited in the preparation of any forthcoming EIAR on this proposed development. **Section 9 – Infrastructure and Energy –** sets out the policy framework aimed at supporting and further developing the physical infrastructure within the county across a number of services such as water supply, wastewater, surface water and flood alleviation infrastructure, telecommunications and energy supply, including infrastructure associated with renewable energy development. **Section 10 – Rural Development –** addresses a number of rural-based economy sectors including agriculture, forestry, extractive industries, and renewable energy. **Section 11 – Heritage & Biodiversity –** addresses the built, cultural and heritage assets of the county and sets out the policy framework for the protection and sustainable management of such assets. This section also references two separate plans, the Leitrim Heritage Plan 2020-2025 and the Leitrim Biodiversity Action Plan 2022-2027, both of which should be referenced in any forthcoming EIAR. This section also addresses and provides policy content in relation to various land cover types within the county such as wetlands, woodlands/forestry areas and peatlands, with the latter highly relevant to the study area of the proposed development. Moreover, Section 11.13 – Landscape provides the policy framework for the conservation of landscape character areas, designated sensitive landscape and protected views and prospects. Related to this section, the applicant shall also have regard to the contents of the following appendices to the Leitrim County Development Plan 2023-2029: Appendix VII – County Leitrim Landscape Assessment; Appendix VIII – County Leitrim Landscape Designations and Appendix IX – County Leitrim Views and Prospects, which inform the policy framework provided in Section 11.13 of the Plan. Any landscape and visual impact assessment (LVIA) of the proposed wind energy development, including cumulative landscape and visual impacts of the proposed development in conjunction with existing and permitted wind energy developments, shall have		**Population and Human Health** addressed in Chapter 4. **Lands, Soils and Geology, and Water** are addressed in Chapters 8 Soils and Geology, and Chapter 9: Hydrology and Hydrogeology. **Air and Climate** is addressed in Chapter 10. **Noise and Vibration** are addressed in Chapter 11. **Landscape and Visual** are addressed in Chapter 12. **Cultural Heritage and Archaeology** are addressed in Chapter 14. **Material Assets** are addressed in Chapter 13.

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	regard to the policy provisions and guidance advice contained within the aforementioned documents. **Section 12 – Climate Action & Renewable Energy –** addresses the various policy instruments associated with this development theme and sets out the various climate action measures, underpinned by a series of policies and objectives, aimed at mitigating and adapting to the effects of climate change. This includes policies and objectives relating to the renewable energy developments as informed by Leitrim County Renewable Energy Strategy and its companion document Landscape and Visual Capacity Study for Wind Farms and Wind Turbines which together form Appendix X of the Plan. Any forthcoming EIAR shall have regard to these documents when assessing the potential environmental impacts of the proposed development, amongst other assessment considerations. The proposed study area is located within Landscape Character Area (LCA) 11 – Corry Mountain which is characterised in the Landscape and Visual Capacity Study for Wind Farms and Wind Turbines (LVCS) as: "…an upland area which overlooks Lough Allen and lowlands from the west. The area features extensive tracts of peat bog, transitional woodland and scrub. Corry Mountain is the highest point reaching 436m AOD. The uplands feature mountain roads which lead to wind farm developments of which there is a concentration of wind turbines which are visible from the surrounding lowlands. Panoramic views from elevated locations are available of the moorland plateaus, the surrounding lowlands and Lough Allen. In the agricultural landscapes on the lower slopes hedgerow enclosure results in more intimate landscapes. Large tracts of commercial forestry are a dominant feature along the moorland hills and at lower elevations". The main findings and recommendations of the LCVS in relation to LCA 11 – Corry Mountain considers the landscape "to have some limited capacity to accommodate wind turbines. The rolling topography and simple landcover of blanket bog and heath are characteristics which indicate that some potential to accommodate wind turbines may exist subject to detailed design and assessment. Views across and from Lough Allen are an important consideration together with the setting of the town of Drumkeeran and recreational walking routes such as the Miner's Way. Some limited areas to the north west of Corry		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Mountain where commercial forestry is present may be considered subject to detailed design, having regard for landscape and visual constraints. In these areas, there is potential for adverse cumulative effects with the nearby wind farms and that associated with Carrane Hill in Sligo". In respect of the Leitrim County Renewable Energy Strategy (RES), the subject study area is within an identified 'Available Area' for commercial wind energy projects (>100ha) – see Figure 6.3 (b) of the RES – however, regard should also be had to the Risk Rating mapping analysis conducted in respect of larger sites (>500ha) as depicted in Figure 6.4 of the RES which is in close proximity to the subject site. Any assessment of the proposal on the receiving environment, including its conformity with renewable energy policy should take cognisance of the RES and its companion document, Landscape and Visual Capacity Study for Wind Farms and Wind Turbines, as well as the policy framework provided in Section 12 of Volume I – Written Statement of the Leitrim County Development Plan 2023-2029. **Section 13 – Development Management Standards** sets out the general Development Management principles and standards that will be applied by the Council to ensure that future development is in accordance with the policies and objectives set out elsewhere in the Plan. Development Management Standards specific to energy, telecommunications and services, including wind energy development, are set out in Section 13.20. The Standards reiterate that when assessing planning applications for wind energy development, the Planning Authority shall have regard to the 'Wind Energy Development Guidelines for Planning Authorities' (DoEHLG, 2006), and any updates to these Guidelines which may be made, and the 'Interim Guidelines for Planning Authorities on Statutory Plans, Renewable Energy and Climate Change' (DoHPCLG, 2017), in addition to the policy and guidance provided in Section 12 of Volume I - Written Statement and Appendix X of the Plan. In addition, the following considerations will be taken into account by the Planning Authority in relation to any planning application for wind energy development: • Impact on the visual amenities of the area. • Impact on the residential amenities of the area.		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	• Scale and layout of the project, any cumulative effects due to other projects and the extent to which the impacts are visible across the local landscape. • Visual impact of the proposal with respect to protected views, scenic routes and designated scenic landscapes. • Impact on nature conservation, water quality, ecology, including an assessment of impacts on collision risk species (birds and bats), soil, hydrology, groundwater, air quality, archaeology, built heritage and public rights of way. • Impact on ground conditions and geology. • Impact on peat stability and robust geotechnical assessment of potential for peat slippage. • Consideration of falling distance plus an additional flashover distance from wind turbines to overhead transmission lines. • Impact of development on the road network in the area. • Impact on human health in relation to: - Noise disturbance (including consistency with the Word Health Organisations 2018 Environmental Noise Guidelines for the European Region). - Shadow flicker (for wind turbine developments, including detailed Shadow Flicker Study). This list is not exhaustive, and the Planning Authority may consider other requirements in relation to traffic and transport assessments, road safety audits/road safety impact assessments, access onto public roads, haul route assessment etc. Section 13 sets out development management standards in relation to such items and other considerations which should be consulted with in the preparation of any EIAR and planning application documentation associated with the proposed development. **Environmental and Ecological Considerations** The EIAR shall take account of all ecological sensitivities and of the likely environmental effects of the proposed development on the receiving environment. All in combination and cumulative effects of the proposed development within the zone of influence of the proposal are to be considered together with the following: **Reasonable Alternative –** a detailed review of all reasonable alternatives considered for the proposed development shall be undertaken and incorporated		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	into the EIAR to demonstrate that the proposed development represents the optimum form and siting for the project. The assessment will also include the main reasons for selecting the chosen option and shall include a comparison of the environmental effects of the reasonable alternatives. **Population and Human Health –** the EIAR shall include an assessment of the likely significant effects of the proposed development on issues such as population, human health, employment and economic activity, residential amenity, community facilities and services, tourism, property values, shadow flicker, noise and health and safety. Suitable mitigation measures shall also be identified in any submitted EIAR. **Biodiversity -** Boleybrack Mountain Special Area of Conservation (SAC) and Lough Gill SAC are located approx. 6.8km and 8.4km respectively from the proposal site. Potential adverse impacts on the conservation objectives for designated habitats arising from the proposed development require careful consideration and analysis based on best available techniques and underpinned by the precautionary principle in formulating any recommendations/conclusions stemming from such analysis. **Ornithology –** Field survey methodologies should be carried out using survey standards recommended by NatureScot (formerly Scottish Natural Heritage (SNH), 2017), which are widely regarded as representing best practice in Ireland and carried out during suitable times of the year. Two full years of bird survey data, as recommended by current NatureScot (2017) guidance, should be undertaken in forming any analysis/assessment of the potential impacts of the proposed development in this regard. **Land, Soils and Geology -** The proposal site is characterised as cut away peatland with turbary, mature forestry and isolated areas of semi-improved grassland. Potential construction and operational impacts of the proposed development on the land, soils and geology of the subject site and wider area should be informed by extensive geotechnical, geological, hydrological and hydrogeological surveys by suitably qualified experts at varying times of the year. The applicant should be aware of a significant peat landslide event which occurred on the 28th June 2020 on Shass Mountain, north east of the study area		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	(see report on this event at: https://www.npws.ie/sites/default/files/publications/pdf/shass-mountain-landslide-report-october- 2020.pdf). Given the immediate location of this event to the subject site, in geological terms at least, and the severity of the impact of this event on the local environment, ecology and infrastructure as well as the remediation cost and impact on human population, significantly robust and extensive geotechnical and hydrogeological investigations should be undertaken and suitably documented in any submitted EIAR. Any recommendations/conclusions in relation to the potential impacts of the proposed development, borne out of the aforementioned extensive surveys and analysis, should be underpinned by the precautionary principle also. **Water –** related to the above environmental theme, comprehensive geological, hydrological and hydrogeological shall be undertaken as part of the EIAR study, including appropriate seasonal monitoring programmes/regimes in respect of surface water and groundwater regimes. The hydrology of the surrounding lands and peatlands needs to be given due consideration in any EIAR of the proposal as well as the potential of proposed drainage schemes to serve the proposed development on the wider receiving environment and cumulatively in conjunction with existing drainage schemes such as those associated with forestry sites in the locality. A robust and comprehensive assessment of the potential impacts of the proposed development on the water quality objectives of adjacent waterbodies shall be undertaken also. **Air and Climate –** the EIAR shall identify, describe and assess the potential significant direct and indirect effects on air quality and climate arising from the construction, operation and decommissioning of the proposed development and cumulatively with other projects. **Noise and Vibration –** the EIAR shall be informed by comprehensive noise and vibration impact assessments for the construction, operational and decommissioning phases of the proposed development utilising a robust representation of sensitive receptors in the vicinity of the subject site to determine the likely significant effects of the proposed development, individually and cumulatively with other projects, such as other wind farms, on the receiving environment. Any such noise impact assessments shall be in accordance with		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	the 2006 Wind Energy Development Guidelines, pending their replacement, and should have regard to the more detailed methodology set out in the 'Good Practice Guide [GPG] to the application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise' (Institute of Acoustics, 2013) with respect to the baseline survey methodology. **Landscape and Visual –** a comprehensive landscape and visual impact assessment LVIA) shall be undertaken by a suitably qualified landscape and visual impact specialist and documented in the EIAR and informed by current landscape policy contained with the Leitrim County Development Plan 2023-2029 and associated documents such as Appendix VII – County Leitrim Landscape Assessment; Appendix VIII – County Leitrim Landscape Designations and Appendix IX – County Leitrim Views and Prospects of the Plan. The EIAR shall contain detailed Zone of Theoretical Visibility (ZTV) maps and detailed photomontages of the proposed development and cumulatively with other wind farms developments, both existing and permitted. The submitted LVIA should be based on upon Guidelines for Landscape and Visual Impact Assessment, Third Edition or GLVIA3 (The Landscape Institute/Institute of Environmental Management and Assessment, UK, 2013), with regard to other LVIA guidance documents such as the Wind Energy Development Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government, 2006) and the Draft Revised Wind Energy Development Guidelines (Department of Planning, Housing and Local Government, 2019) amongst other available guidance. **Cultural Heritage and Archaeology –** the EIAR shall identify the likely significant impacts or effects which may arise from the proposed development on the archaeological, architectural and cultural heritage resource and outline suitable mitigation measures, based on current information, which may be used to avoid, reduce or offset any likely significant adverse effects. Any such assessment should be undertaken by a suitably qualified professional and should address both the wind farm and grid connection elements of the proposed development.		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Material Assets – an assessment of the likely significant effects of the proposed development on assets which are intrinsically of human origin shall be undertaken and documented within the EIAR. Such assets include: • roads, traffic, transport, access, • aviation, • telecommunications, and • utility infrastructure The applicant shall engage/liaise with the relevant authorities and regulatory bodies in relation to such assets to inform the preparation of the EIAR and associated planning application documentation, and detail agreed or suitable mitigation measures with the EIAR where impacts arise on such assets as a result of the proposed development. It is respectfully requested that you take into consideration the comments listed above and liaise with other prescribed bodies and regulatory authorities with the relevant expertise in the above environmental factors in the preparation of the EIAR.		
Sligo County Council	Scoping response received 11/01/2023 stating 'I wish to advise you that the competent authority for issuing a Scoping Opinion in respect of proposed development of a windfarm at Drumkeeran is Leitrim County Council'.	N/A	N/A
Roscommon County Council	Acknowledgement of receipt of Scoping Letter received 10/01/2023.	N/A	N/A
Soils and Water			
Geological Survey Ireland	Scoping response received 08/02/2023 and includes the following comments: • Geoheritage: The audit for Co Leitrim was completed in 2020. Our records show that there are no CGSs in the vicinity of the proposed wind farm. • Groundwater: The Groundwater Data Viewer indicates an aquifer classed as a 'Poor Aquifer - Bedrock which is Generally Unproductive' underlies the proposed wind farm development. The Groundwater Vulnerability map indicates the range of groundwater vulnerabilities within the area covered is variable. We would therefore recommend use of the Groundwater Viewer to identify areas of High to Extreme Vulnerability and 'Rock at or near surface' in your assessments, as any groundwater-surface water interactions that might occur would be greatest in these areas.	All items considered during the design process. During the construction works the water course in the vicinity of the historic landslide will be culverted, in order to protect the river environment from	**Chapter 8: Soils and Geology** **Chapter 9: Hydrology and Hydrogeology** **Chapter 15: Traffic and Transportation**

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	• Geohazards: The Landslide Susceptibility Map indicates there are some areas of Moderately High to High Landside Susceptibility in the wind farm site boundary area. The viewer indicates there is a Shallow Landslide Event in peat within the wind farm site boundary. • Natural Resources (Minerals/Aggregates): We would recommend use of the Aggregate Potential Mapping viewer to identify areas of High to Very High source aggregate potential within the area. In keeping with a sustainable approach, we would recommend use of our data and mapping viewers to identify and ensure that natural resources used in the proposed wind farm development are sustainably sourced from properly recognised and licensed facilities, and that consideration of future resource sterilization is considered.	further contamination by peat and mineral soils. The Peat Stability Hazard Assessment **(Section 8.3.8)** indicates that the Site has a negligible to low risk probability in relation to peat slippage and slope failure under the footprint of the Development.	
Inland Fisheries Ireland	No response received.	N/A	N/A
Irish Peatland Conservation	No response received.	N/A	N/A
Telecommunications			
Broadcasting Authority of Ireland	Scoping response received 01/01/2023 stating the BAI does not perform an in-depth analysis of the effect of wind turbines on FM networks. However, we are not aware of any issues from existing windfarms into existing FM networks. Also, the proposed windfarms are not located close to any existing or planned FM transmission sites.	No implications for the EIA/Design	N/A
Eir	No response received.	N/A	N/A
Enet	Scoping response received 18/04/2023 stating the proposed development will have no impact on Enet's current network.	No implications for the EIA/Design	N/A
ESB Telecoms	No response received.	N/A	N/A
Frequency Planning Section 2RN	Scoping response received 05/01/2023 indicating the site location will have no effect on 2RN's fixed linking network. There is however a risk of interference to broadcast services to viewers to the southeast of the site, from 2RN's site at Truskmore. Requested that a protocol be signed between the developer and 2 should the site go ahead.	Agreed to engage with 2Rn should the development be granted planning permission No implications for the EIA/Design	N/A
RTÉ Sligo	No response received.	N/A	N/A
Ocean FM	No response received.	N/A	N/A
Shannonside	No response received.	N/A	N/A

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Three Ireland	Scoping response received 05/01/2023 stating the turbine positions will not have impact on the Three Ireland Microwave Transmission network.	No implications for the EIA/Design	N/A
Vodafone	No response received.	N/A	N/A
Tetra Ireland	Scoping response received 09/01/2023 stating impacts from the development are not anticipated.	No implications for the EIA/Design	N/A
Virgin Media Television	No response received.	N/A	N/A
Other			
Commission for Communications Regulation	Scoping response received 17/04/23 stating as ComReg does not have a remit regarding planning matters, we have no comment on the letter re. Wind Farm development at Drumkeeran, Co. Leitrim.	No implications for the EIA/Design	N/A
Department of Agriculture, Food and the Marine	No response received.	N/A	N/A
Department of Defence	Scoping response received 23/12/23 and included the following points: I wish to advise at the outset that any determination in relation to a planning consent is solely a matter for the planning authorities and/or ABP, as appropriate. Therefore, the following observations are made on a non-prejudicial basis and are not intended to be used to rely on for a prospective planning application, nor are these observations to be relied on in the event of any commercial transaction pertaining to such lands and they are not to be relied on in the event of any contract exchange pertaining to same. As a matter of practice, the Department of Defence does not provide observations or advice in the scoping process, except where the relevant parties have been directed by a planning authority to seek the Department's views. Nothing in the above shall be taken as a binding response by the Minister for Defence in the event that a planning application is made. The Minister reserves the right to comment on an actual planning application as and when it is submitted in accordance with the provisions of the planning regulatory code.	All items considered during the design process. No implications for the EIA/Design	N/A

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	We would appreciate if you could keep us informed on any progress relating to this proposed development, in particular if this development was to progress to the pre-planning stage.		
Department of Transport, Tourism, and Sport	Scoping response received 18/01/2023 and included the following points: It should be noted that the Department of Transport considers that the proposed grid connection for this proposed development may have effects on the environment and the Regional and Local Road network. Where the developer proposes the placement of any cables (or additional cables) in one or more trenches within the extents of the (regional and local) public road network, it is necessary to consider the following: • Their presence within the public road could significantly restrict the Road Authority in carrying out its function to construct and maintain the public road and will likely add to the costs of those works. • Their installation within the lands associated with the public road may affect the stability of the road. In particular where the road is a "legacy road" (where there is no designed road structure, and the subgrade may be poor or poorly drained) the design needs to take account of all the variable conditions and not be based on a sample of the general conditions. • The possible effect on the remaining available road space (noting that there may be need to accommodate other utilities within the road cross-section in the future). • The necessity to have the power in the cables switched off where the Road Authority considers this necessary in order to carry out its function to construct and maintain the public road. The department considers it important that the examination of the proposal should include consideration of the following: • Examination of options other than the routing of cables along the public road, • Examination of options for connection to the national grid network at a point closer to the wind farm in order to reduce the adverse impact on public roads. • Details of where within the road cross section cables are to be placed so as to minimise the effect on the Roads Authority in its role of construction and maintenance,	All items considered during the design process.	**Chapter 2: Project Description** **Chapter 3: Alternatives Considered** **Chapter 15: Traffic and Transport**

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	• Examination of details of any chambers proposed within the public road cross section so as to minimise the effect on the Roads Authority in its role of construction and maintenance and, • Rationalisation of the number of cables involved (including existing electric or possible future cables) and their diversion into one trench, in order to minimise the impacts on the road network and the environment along the road boundary (hedgerows). The department considers the following should be considered when applying conditions to any approval. 1. A condition requiring the specific approval of the local authority to the detail of the final route of cables through the public road space. If during construction, there is a need to deviate from the detailed design then the approval of the local authority would again be sought. This would assist in minimising the impact on the public road. 2. A condition requiring the developer to comply with all appropriate standards and, inter alia the Guidelines for Managing Openings in Public Roads, 2017 in order to ensure orderly development. 3. A condition requiring that the location of the cables would be recorded as exactly as possible (maybe using BIM type technology) so as to facilitate the further use of road space for utilities and the maintenance/construction of the public road by the Roads authority. This record should be lodged with the local authority and with the ESB Networks for retention on their records. 4. A condition requiring the developer to route cables away from bridge structures and specifically preventing the developer from attaching cables to road bridges. This would allow for the future maintenance of bridges without interruption of the electricity supply along the cables. 5. A condition requiring the developer to notify the Roads Authority of the owner of the cables (Owner) and the controller (Power Controller) of the power transmitted along the cables. In addition, the condition should require Owner and Power Controller to notify the Roads Authority of any change in ownership of the cables or change of Power Controller transmitting power along the cables. In all instances the Owner and Power Controller should be required to maintain an agreed contacts list with the Roads Authority.		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Fáilte Ireland	Scoping response received 19/04/2023 and includes the following points: • Project descriptions are required to describe the location of the project, the physical characteristics of the whole project, the main characteristics of the operational phase of the project and an estimate, by type and quantity, of the expected residues and emissions. The location of the project should include identifying key sensitive receptors (including tourism receptors). In the operational phase of the project any tourism based, or potentially tourism related activity, should be identified. • Detail the key considerations culminating in the selection of the design, the reasoning for these and the environmental effect of these decisions. The developer is expected to consider reasonable alternatives. What is considered reasonable may vary from case to case. • Baseline assessments should identify any tourism sensitivities in the zone of influence of a development. This zone of influence of a development is highly dependent on its **Context, Character, Significance**, and **Sensitivity**, as outlined in the Draft Guidelines. These characteristics apply to both the development and the environment. • Impact assessment should contain the likely significant effects of a development arising from both construction and operation of a development. Advice on describing the effects is contained within the Draft Guidelines and includes the **quality, significance, extent, probability, type** and **duration** of the effect, with particular descriptors for each. Impact assessment should be carried out as per EPA guidelines and the best practice for that prescribed topic. It may be considered appropriate to consider impact on tourism assets under the 'material assets' topic below. • The impact upon tourism can be considered within this section through the sensitivities of Hospitality, Safety and Pace of Life. Changes in population can impact the perception of pace of life or safety in a particular location. Impacts upon these issues in areas which rely heavily on tourism or have a particular sensitive tourism generator should be considered in this section. • The disturbance to ecology must be managed to minimise impact. Biodiversity is also a tourism asset and should be protected as such from other development and should be provided for in proposals where possible. Negative impacts to Soils and Geology, Air and Climate, Water should be avoided.	All items considered during the design process.	Addressed in Chapters 2- 16 - Tourism is addressed specifically in **Chapter 4: Population and Human Health**

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	• A link between tourism and this prescribed environmental factor, beyond the normal development impacts, is rare, however the impact upon tourism of issues of noise and vibration can be significant. Construction for example should consider the sensitivity of the development and ensure mitigation is in place. • The construction programme of developments should work to avoid peak tourism periods in tourism areas and should consider planned or anticipated tourism events and festivals. • Cultural heritage should be strongly considered in nontourism developments and the impact upon tourism considered as a potential impact. • Waste and Waste disposal issues can also impact the perception of an unspoiled environment, effecting tourism, which should be considered. • Tourism could be considered a material asset as its impact upon the economy and the infrastructure in place to support it is a material consideration in assessing economic impact. **Major Accident and Natural Disaster** There is a requirement for developments to describe expected significant effects on the environment of the proposed development's vulnerability to major accidents and/or natural disasters relevant to it. Where appropriate measures should be identified to prevent or mitigate the significant adverse effects of such accidents or disasters, including resulting from climate change, on the environment and detail the preparedness for the proposed response. **Interaction of Effects** Where two or more environmental impacts combine or interact, they should be considered under the prescribed topics. It is best practice to provide a table of interactions within an EIAR or EIAR Screening Report. **Mitigation** Mitigation should follow the hierarchy of minimisation in descending order of preference- Avoid, Reduce, Remedy. Mitigation measures must be measurable and achievable within the bounds of the project.		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Cumulative Impact The cumulative impact is that of the project combined with any known likely project which will interact or compound an environmental impact. Transboundary Impact Transboundary impacts should be included in EIAR. In the case of tourism, especially international travel, the transboundary impacts may not be proximate to the EIAR site.		
Health Service Executive	No response received.	N/A	N/A
Irish Farmers Association	No response received.	N/A	N/A
Irish Water	Scoping response received 09/01/2023 and included the following points: At present, Irish Water does not have the capacity to advise on the scoping of individual projects. However, in general the following aspects of Water Services should be considered in the scope of an EIA where relevant: • Where the development proposal has the potential to impact an Irish Water Drinking Water Source(s), the applicant shall provide details of measures to be taken to ensure that there will be no negative impact to Irish Waters Drinking Water Source(s) during the construction and operational phases of the development. Hydrological / hydrogeological pathways between the applicant's site and receiving waters should be identified as part of the report. • Where the development proposes the backfilling of materials, the applicant is required to include a waste sampling strategy to ensure the material is inert. • Mitigations should be proposed for any potential negative impacts on any water source(s) which may be in proximity and included in the environmental management plan and incident response. • Any and all potential impacts on the nearby reservoir as public water supply water source(s) are assessed, including any impact on hydrogeology and any groundwater/ surface water interactions. • Impacts of the development on the capacity of water services (i.e. do existing water services have the capacity to cater for the new development). This is confirmed by Irish Water in the form of a Confirmation of Feasibility (COF). If a development requires a connection to either a public water	All items considered during the design process. No implications for the EIA/Design	**Soils and Geology** addressed in Chapter 8 **Hydrology and Hydrogeology** Chapter 9

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	supply or sewage collection system, the developer is advised to submit a PreConnection Enquiry (PCE) enquiry to Irish Water to determine the feasibility of connection to the Irish Water network. All pre-connection enquiry forms are available from https://www.water.ie/connections/connection-steps/. • The applicant shall identify any upgrading of water services infrastructure that would be required to accommodate the proposed development. • In relation to a development that would discharge trade effluent – any upstream treatment or attenuation of discharges required prior to discharging to an Irish Water collection network. • In relation to the management of surface water; the potential impact of surface water discharges to combined sewer networks and potential measures to minimise and or / stop surface waters from combined sewers. • Any physical impact on Irish Water assets – reservoir, drinking water source, treatment works, pipes, pumping stations, discharges outfalls etc. including any relocation of assets. • When considering a development proposal, the applicant is advised to determine the location of public water services assets, possible connection points from the applicant's site / lands to the public network and any drinking water abstraction catchments to ensure these are included and fully assessed in any pre-planning proposals. Details, where known, can be obtained by emailing an Ordnance Survey map identifying the proposed location of the applicant's intended development to datarequests@water.ie. • Other indicators or methodologies for identifying infrastructure located within the applicant's lands are the presence of registered wayleave agreements, visible manholes, vent stacks, valve chambers, marker posts etc. within the proposed site. • Any potential impacts on the assimilative capacity of receiving waters in relation to Irish Water discharge outfalls including changes in dispersion / circulation characterises. Hydrological / hydrogeological pathways between the applicant's site and receiving waters should be identified within the report. • Any potential impact on the contributing catchment of water sources either in terms of water abstraction for the development (and resultant potential impact on the capacity of the source) or the potential of the development to		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	influence/ present a risk to the quality of the water abstracted by Irish Water for public supply should be identified within the report. • Where a development proposes to connect to an Irish Water network and \that network either abstracts water from or discharges wastewater to a "protected"/ sensitive area, consideration as to whether the integrity of the site / conservation objectives of the site would be compromised should be identified within the report. • Mitigation measures in relation to any of the above ensuring a zero risk to any Irish Water drinking water sources (Surface and Ground water). *This is not an exhaustive list.* Please note; • Where connection(s) to the public network is required as part of the development proposal, applicants are advised to complete the Pre-Connection Enquiry process and have received a Confirmation of Feasibility letter from Irish Water ahead of any planning application. • Irish Water will not accept new surface water discharges to combined sewer networks.		
Office of Public Works	No response received.	N/A	N/A
SEAI	Scoping response received 22/12/2022 stating queries in regard to wind energy is outside the remit of SEAI.	No implications for the EIA/Design	N/A
Transport Infrastructure Ireland	Scoping response received 13/01/2023 and included the following points: Transport Infrastructure Ireland (TII) will endeavor to consider and respond to planning applications referred to it, given its status and duties as a statutory consultee under the Planning Acts. The approach to be adopted by TII in making such submissions or comments will seek to uphold official policy and guidelines, as outlined in the Section 28 Ministerial Guidelines 'Spatial Planning and National Roads Guidelines for Planning Authorities' (DoECLG, 2012). Regard should also be had to other relevant guidance available at www.TII.ie. The issuing of this correspondence is provided as best practice guidance only and does not prejudice TII's statutory right to make any observations, requests	All items considered during the design process. No implications for the EIA/Design	**Chapter 15: Traffic and Transport**

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	for further information, objections or appeals, following the examination of any valid planning application referred. National Strategic Outcome 2 of the 'National Planning Framework', includes the objective to maintain the strategic capacity and safety of the national road network. In addition, Chapter 7 'Enhanced Regional Accessibility' of the 'National Development Plan 2021 – 2030', sets out the key sectoral priority of maintaining Ireland's existing national road network to a robust and safe standard for users. This requirement is further reflected in the publication of the 'National Investment Framework for Transport in Ireland' and also the existing Statutory Section 28 'Spatial Planning and National Roads Guidelines for Planning Authorities'. With respect to EIAR scoping issues, the recommendations indicated below provide only general guidance for the preparation of an EIAR, which may affect the national road network. The developer/scheme promoter should have regard, inter alia, to the following: • Consultations should be had with the relevant Local Authority/National Roads Design Office with regard to the locations of existing and future national road schemes. • TII would be specifically concerned as to potential significant impacts the development would have on the national road network (and junctions with national roads) in proximity to the proposed development, including the potential haul route. • The developer should assess visual impacts from existing national roads. • The developer should have regard to any EIAR/EIS and all conditions and/or modifications imposed by An Bord Pleanála regarding road schemes in the area. The developer should, in particular, have regard to any potential cumulative impacts. • The developer, in preparing EIAR, should have regard to TII Publications (formerly 'DMRB' and the 'Manual of Contract Documents for Road Works'). • The developer, in preparing EIAR, should have regard to TII's Environmental Assessment and Construction Guidelines, including the 'Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes' (National Roads Authority (NRA), 2006).		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	• The EIAR/EIS should consider the' Environmental Noise Regulations 2006' (SI 140 of 2006) and, in particular, how the development will affect future action plans by the relevant competent authority. The developer may need to consider the incorporation of noise barriers to reduce noise impacts (see 'Guidelines for the Treatment of Noise and Vibration in National Road Schemes' (1st Rev., NRA, 2004)). • It would be important that, where appropriate, subject to meeting the appropriate thresholds and criteria and having regard to best practice, a Traffic and Transport Assessment (TTA) be carried out in accordance with relevant guidelines, noting traffic volumes attending the site and traffic routes to/from the site, with reference to impacts on the national road network and junctions of lower category roads with national roads. In relation to national roads, TII's 'Traffic and Transport Assessment Guidelines' (2014) should be referred to in relation to proposed development, with potential impacts on the national road network. The scheme promoter is also advised to have regard to Section 2.2 of TII's TTA Guidelines, which addresses requirements for sub-threshold TTA. Any improvements required to facilitate development should be identified. It will be the responsibility of the developer to pay for the costs of any improvements to national roads to facilitate the private development proposed, as TII will not be responsible for such costs. • The designers are asked to consult TII Publications to determine whether a Road Safety Audit is required. • In the interests of maintaining the safety and standard of the national road network, the EIAR should identify the methods/techniques proposed for any works traversing/in proximity to the national road network. • TII recommends that that applicant/developer should clearly identify haul routes proposed and fully assess the network to be traversed. Where abnormal 'weight' loads are proposed, separate structure approvals/permits and other licenses may be required in connection with the proposed haul route. All structures on the haul route through all the relevant County Council administrative areas should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal 'weight' load proposed.		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	In addition, the haul route should be assessed to confirm capacity to accommodate abnormal 'length' loads and any temporary works required. The national road network is managed by a combination of Public Private Partnership (PPP) Concessions, Motorway Maintenance and Renewal Contractors (MMaRC) and local road authorities, in association with TII. The applicant/developer should also consult with all PPP Companies, MMaRCs and road authorities over which the haul route traverses, to ascertain any operational requirements, including delivery timetabling, etc. so as to ensure that the strategic function of the national road network is safeguarded. Additionally, any damage caused to the pavement on the existing national road network arising from any temporary works due to the turning movement of abnormal loads (e.g., tearing of the surface course, etc.) shall be rectified in accordance with TII Pavement Standards and details in this regard shall be agreed with the Road Authority prior to the commencement of any development on site. • It is noted that grid connection proposals are indicated as being routed to connect to the Corderry 110kV Substation and as such there are unlikely to be any issues to address in relation to national roads. However, should proposals alter during project development, please note, any grid connection and cable routing proposals should be developed to safeguard proposed road schemes, as TII will not be responsible for costs associated with any future relocation of cable routing, where proposals are catered for in an area of a proposed national road scheme. In that regard, consideration should be given to routing options, use of existing crossings, depth of cable laying, etc. In the context of the existing national roads network, in accordance with the National Planning Framework National Strategic Outcome no. 2 'Enhanced Regional Accessibility', there is a requirement to maintain the strategic capacity and safety of the network. This requirement is further reflected in the National Development Plan, the National Investment Framework for		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Transport in Ireland and also the existing Statutory Section 28 Spatial Planning and National Roads Guidelines for Planning Authorities. There are around 99,000km of roads in Ireland. The national road network, which caters for strategic inter-urban travel, consists of only approx. 5.4% of this. There is a critical requirement to ensure the strategic capacity and safety of the national road network is maintained and significant Government investment already made in the national road network is safeguarded. The provision of cabling along the national road network represents a number of significant implications for TII and road authorities in the management and maintenance of the strategic national road network and TII is of the opinion that grid connection cable routing should reflect the foregoing provisions of official policy and therefore, avoid grid connection routing proposals along national roads. Other consents or licences may be required from the road authority for any trenching or cabling proposals crossing a national road. TII requests referral of all proposals agreed and licensed between the road authority and the applicant which affect the national road network. Cable routing should avoid all impacts to existing TII infrastructure such as traffic counters, weather stations, etc. and works required to such infrastructure shall only be undertaken in consultation with and subject to the agreement of TII. Any costs attributable shall be borne by the applicant/developer. The developer should also be aware that separate approvals may be required for works traversing the national road network. Notwithstanding any of the above, the developer should be aware that this list is non-exhaustive, thus site and development specific issues should be addressed in accordance with best practice.		
The Heritage Council	No response received.	N/A	N/A
The Arts Council	No response received.	N/A	N/A
Údarás na Gaeltachta	No response received.	N/A	N/A

1.11 AVAILABILITY OF INFORMATION

The EIAR may be viewed online on the Leitrim County Council Planning Portal.

A paper copy of the EIAR can be viewed/purchased, during office opening hours at the following addresses:

1. The Offices of Leitrim County Council, Áras an Chontae, St. Georges Terrace, Carrick-on-Shannon, Co. Leitrim, N41 PF67.
2. Jennings O'Donovan & Partners Limited, Consulting Engineers, Finisklin Business Park, Co. Sligo, F91 RHH9.

Paper copies can be provided at the cost of printing, by writing to:
Jennings O'Donovan & Partners Limited at the above address.

Electronic copies are available via email (info@jodireland.com).

1.12 GLOSSARY OF COMMON ACRONYMS

The common acronyms used throughout this EIAR are contained in Volume IV: **Appendix 1.2**.