CONTENTS

1.0 INTRODUCTION 1-1

INTRODUCTION 1-1

Background 1-1

The Applicant 1-1

Landownership 1-1

Statement of Authority 1-2

THE MAIN WIND FARM DEVELOPMENT SITE 1-2

Main Wind Farm Development Site Location 1-2

Definition of Terms 1-3

OUTLINE OF THE PROPOSED DEVELOPMENT 1-4

WHAT IS ENVIRONMENTAL IMPACT ASSESSMENT (EIA)? 1-9

EIAR Methodology 1-9

EIAR Structure 1-11

Format of the Environmental Impact Assessment Report (EIAR) 1-11

REQUIREMENT FOR EIA 1-13

Requirement for EIA in the context of Strategic Infrastructure Development 1-13

EIA Scoping 1-15

ENVIRONMENTAL IMPACT ASSESSMENT REPORT (EIAR) 1-15

Cumulative Impact 1-15

DIFFICULTIES ENCOUNTERED WITH EIAR COMPILATION 1-16

CONTRIBUTORS – STATEMENT OF AUTHORITY 1-16

VIEWING AND PURCHASING OF THE EIAR 1-26

FIGURES 1-27

TABLES

Table 1-1 Turbine Details 1-5

Table 1-2 How the Design Parameters Were Assessed for Each Topic 1-6

FIGURES

Figure 1-1: Site Location 1-27

Acronyms and Abbreviations

AA/NIS	Appropriate Assessment / Natura Impact Statement
ACP	An Coimisiún Pleanála
ABP	An Bord Pleanála (reference in legacy determinations and case references)
BESS	Battery Energy Storage System
BSc	Bachelor of Science
CRM	Collision Risk Model
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ES	Environmental Statement
EU	European Union
FEI	Further Environmental Information
GCR	Grid Connection Route
IPI	Irish Planning Institute
LVIA	Landscape and Visual Impact Assessment
NIS	Natura Impact Statement
NTS	Non-Technical Summary
SID	Strategic Infrastructure Development
SLR	SLR Consulting Limited
TCC	Temporary Construction Compound
TDR	Turbine Delivery Route

1.0 INTRODUCTION

INTRODUCTION

Background

1.1 SLR Environmental Consulting Ltd. (SLR) has prepared this Environmental Impact Assessment Report (EIAR) on behalf of RWE Renewables (Ireland) Ltd. RWE intends to apply to An Coimisiún Pleanála, (ACP) for a Strategic Infrastructure Development, Section 37E of the Planning and Development Act, 2000 (as amended), for a planning permission to construct a renewable energy development comprising of a 74.1 to 91 Megawatt (MW) wind farm, with 13 no. turbines and associated infrastructure within the town lands of Muingmore (An Mhoing Mhór) and Doolough (Dumha Locha), County Mayo (The "Proposed Development"). The location of the Proposed Development is shown on **Figure 1-1**, with the Proposed Development Site shown on **Figure 2-3.**

1.2 The connection of the Main Wind Farm Development Site to the national grid, the Grid Connection Route (GCR), is being progressed under a separate application but is assessed in this EIAR.

1.3 The development of a 74.1 to 91 MW wind farm in Co. Mayo will be of strategic economic and social importance to the State or the region in which it would be situated and will contribute substantially to the fulfilment of the objectives in the National Planning Framework such as to *promote renewable energy use and generation at appropriate locations within the built and natural environment to meet national objectives towards achieving a low carbon economy by 2050*. It will also play a crucial role in contributing to rural job creation and establishing Community Benefit Funds to be used for the wider economic, environmental, social and cultural well-being of the local communities.

The Applicant

1.4 The applicant for the Proposed Development is RWE Renewables Ireland Limited (The "Applicant"), one of the largest global players in power generation from renewable energies. The Applicant has been active in Ireland since 2016 and is undertaking long-term investments in onshore wind, offshore wind, and new battery storage projects, potentially amounting to billions of Euros in direct foreign investment in the country. The Applicant's objective is to grow organically by developing business from greenfield sites, positioning itself as a long-term energy partner for Ireland during its energy transition to 2030 and beyond. As part of its growth ambitions, the Applicant is actively seeking new opportunities to further expand its portfolio in Ireland. The renewable energy generated from the Proposed Development will contribute towards Ireland's onshore wind energy target of 9 GW by 2030. Already with an operational wind farm, two battery storage facilities, an airborne wind test site and both onshore and offshore wind farms in development, the Applicant's current Irish portfolio is managed by experienced teams in Kilkenny and Dun Laoghaire.

Landownership

1.5 The lands for the Main Wind Farm Development Site are owned by third-party private landowners and Coillte, who have consented to the planning application. In addition, the lands for the Over-run Areas along the TDR, where temporary accommodation works on private lands are required, are owned by third-party private landowners, who have consented to the planning application. Landowner letters of consent are included in Addendum 2 of the Planning Application Form.

Statement of Authority

1.6 This chapter of the EIAR was completed by SLR Consulting. The competent practitioners responsible for the preparation of this chapter comprise:

- This chapter was prepared by Paula McCarthy BSc, MSc, RTPI. Paula is an Associate Planning & Development Surveyor with SLR with over 18 years' professional experience in relation to preparing and submitting planning applications and Environmental Impact Assessment Reports for a broad range of development proposals throughout Ireland.
- Aislinn O'Brien, MCD, MSc, MIPI, MRTPI also contributed to the chapter. Aislinn is a chartered town planner with over 16 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
- Gareth Hughes, BSc, MSc, PISEP, also contributed to the chapter. Gareth has over 15 years' experience who specialises in managing multi-disciplinary Environmental Impact Assessment (EIA) projects.

1.7 Further information in relation to SLR Consulting can be found at www.slrconsulting.com.

The Main Wind Farm Development Site

Main Wind Farm Development Site Location

1.8 The Main Wind Farm Development Site is situated within a coastal region of County Mayo located c. 0.5 km from the village of Gweesalia.

1.9 One off housing surrounds the Main Wind Farm Development Site, with a number of smaller settlements located within 5 km and Bangor Erris located c. 8 km from the Main Wind Farm Development Site. The Main Wind Farm Development Site comprises c. 429 Hectares (ha) of peat lands, and commercial forest plantation.

1.10 The Main Wind Farm Development Site lies north of the intersection of the roads L1205 and L1206. The L1206 passes to the south of the Main Wind Farm Development Site. The L1205 passes to the west leading to the R313 c. 4 km north of the Main Wind Farm Development Site. The R313 provides connectivity to more major road networks.

1.11 The Main Wind Farm Development Site is intersected by the local road L5252 which branches off the L1206. This road runs the length of the Main Wind Farm Development Site from the north-west to the south-east connecting the L1205 and L1206.

1.12 Notably straight and offering good lines of sight, there are three proposed access points into the Main Wind Farm Development Site, off the north and south of the local road L5252. A disused industrial facility which is situated adjacent to the Main Wind Farm Development Site, is also accessible via this road.

1.13 The Main Wind Farm Development Site has the potential for substantial energy yields resulting from the high wind levels experienced in this part of the Country. However, there are constraints within the Main Wind Farm Development Site. These constraints have informed project design and have resulted in several design iterations. They are also addressed in this EIAR through impact assessment and associated mitigation strategies that have been developed.

Definition of Terms

1.14 For the purposes of assessment, the following terms (**Bold**) are utilised throughout the EIAR:

1.15 **Proposed Project:** Refers to the Proposed Development including the GCR.

1.16 **Proposed Development:** Refers to the elements of the Proposed Project for which planning consent is being sought. This encompasses the wind farm and associated infrastructure (including the 33kV collector cables), Habitat Enhancement Area in the north-west quadrant (NWQ), any development associated with the Turbine Delivery Route (TDR), onsite substation, and battery energy storage system (BESS).

1.17 **Proposed Development Site:** The site where the Proposed Development is located, as defined by the Planning Application Boundary

1.18 **Main Wind Farm Development Site**: part of the Proposed Development Site which includes the proposed wind turbines and associated infrastructure.

1.19 The Northern Cluster of the Main Wind Farm Development Site is comprised of a geographical area to the north of the local road, the L5252. Elements of the Proposed Development which will be located in the Northern Cluster comprise.

- 7 no. turbines (turbine nos. 1-7) and their associated access tracks, hardstandings and foundations.
- 1 no. 110kV substation.
- 1 no. temporary construction compound (TCC1).
- 1 no. BESS.
- 2 no. site access points (AP1 and AP2).
- Internal underground 33kV collector cables which connects both clusters to the onsite substation which is located within the Northern Cluster.
- Habitat Enhancement Area in the north-west quadrant (NWQ).

1.20 The Southern Cluster of the Main Wind Farm Development Site is defined by the area to the south of the local road, the L5252. Elements of the Proposed Development which will be located in the Southern Cluster comprise:

- 6 no. turbines (turbine nos. 8-13) and their associated access tracks, hardstandings and foundations.
- 1 no. temporary construction compound (TCC2).
- 1 no. meteorological mast.
- 1 no. site access point (AP3).
- Internal underground 33kV collector cables, connecting to the onsite substation which is located within the Northern Cluster.

1.21 **Turbine Delivery Route (TDR):** Refers to the proposed turbine delivery route from Killybegs Port to the Main Wind Farm Development Site and includes the 3 no. Over-run Areas.

1.22 **Over-run Areas:** Refers to the 3 no. areas (Over-run Areas 1, 2 & 3) along the TDR where temporary accommodation works on private lands are required.

1.23 **Grid Connection Route (GCR):** The designated route for the 110kV Underground Electricity Cable from the Proposed Development onsite substation to the national grid connection point at Bellacorick 110 kV Substation. The GCR will be the subject of a separate planning application.

1.24 **Habitat Enhancement Area in the NWQ**: An area to the north-west of the Main Wind Farm Development Site which will not include any infrastructure related to the Proposed Project other than that to enhance habitat.

1.25 This EIAR includes an assessment of the likely significant effects of the Proposed Development as a whole and in combination with the relevant offsite or secondary developments which will occur as a direct result of the Proposed Development, including connection to the national electricity grid (the 'Proposed Project'). Although the Grid Connection Route (GCR) is assessed in this EIAR, it does not form part of the Proposed Development for which planning permission is sought.

1.26 The Applicant is applying to An Coimisiún Pleanála for consent for the Proposed Development (as defined above).

Permission Period

1.27 The 2006 Wind Energy Development Guidelines state that "Planning Authorities may grant permission for a duration longer than 5 years if it is considered appropriate, for example, to ensure that the permission does not expire before a grid connection is granted." It is, however, the responsibility of the applicants to request such longer durations in appropriate circumstances. This text is also repeated in the 2019 Draft Wind Energy Development Guidelines (2019).

1.28 Planning consent is sought for a 10-year period to facilitate the construction of the Proposed Development.

1.29 Section 7.20 of the 2006 Wind Energy Development Guidelines states the following:

> *'The inclusion of a condition which limits the life span of a wind energy development should be avoided, except in exceptional circumstances.'*

1.30 The Applicant requests an operational period of 35 years which will commence once the Proposed Development is operational. At the end of the operational period, the developer will either decommission the Proposed Development or, subject to a new planning application, seek permission to extend its operation or re-power. The proposed substation, and the GCR (subject to a separate planning application) will continue to exist on a permanent basis.

1.31 The applicant respectfully requests that a 10-year planning permission is granted in addition to a 35-year operational period.

Outline of the Proposed Development

1.32 The Proposed Development will include a 74.1-91 MW wind farm consisting of 13 No. wind turbines within two clusters with an overall ground to blade tip height of between 179-180 m. The wind turbines will have a rotor diameter ranging from 149-163 m and a hub height of ranging from 98.5 m to 105 m.

1.33 Turbines will be delivered to the Main Wind Farm Development Site from Killybegs Port and along a Turbine Delivery Route (TDR), shown on **Figure 2-4: Turbine Delivery Route**.

1.34 **Chapter 2** of this EIAR has a detailed description of the Proposed Project (proposed development for which consent is being sought and the GCR).

Design Flexibility

1.35 The final choice of turbine model will be dictated by the energy production efficiencies of various turbines on the market at the time of the turbine procurement. As a result, the exact specification of turbine is not available at the time of lodging this application and the following elements cannot be confirmed: tip height, rotor diameter and hub height.

1.36 Design flexibility is therefore sought using the parameters as set out in **Table 1-1 Turbine Details** below**.**

Table 1-1 Turbine Details

Turbine Type	Tip Height (m)	Hub Height (m)	Rotor Diameter (m)
Vestas V150	180	105	150
Nordex N163	180	98.5	163
Nordex N149	179	104.5	149

1.37 A pre-planning design flexibility request was submitted to ACP and a design flexibility meeting was held. A presentation was provided by the Applicant which provided information on the unconfirmed details of the Proposed Development.

1.38 A formal record of the meeting was received from ACP on 7th May 2025. The following feedback was provided:

- Each proposed wind turbine will need to be individually assessed within the planning application documentation;
- Within the EIAR all proposed wind turbine options will need to be assessed rather than assessment of a range;
- Any permission would include a condition requiring turbine dimensions to be agreed with the competent authority prior to development commencement; and
- Some chapters of the EIAR may not need to be specific to each turbine type if clear reasoning is provided.

1.39 The EIAR has been prepared on this basis, and it is submitted that the EIAR is compliant with the requirements stated above.

1.40 Where relevant and with reference to more detail provided in the Design Flexibility section below, this EIAR has assessed the full range of parameters including tip height, hub height and rotor diameter.

1.41 **Table 1-2** summarises the likely significant effects of all permutations within the range for each environmental topic. More detail is available in each topic chapter (Chapters 4 – 16 of this EIAR).

1.42 Effects of greater significance are not predicted to arise should any variation within the design parameters in **Table 1-1**. Confidence can therefore be held that development of any permutation within the range of design parameters in **Table 1-1** will give rise to no different effects than assessed in this EIAR.

Table 1-2 How the Design Parameters Were Assessed for Each Topic

Topic	Assessment Parameters
Chapter 4 Population and Human Health	This chapter assesses all of the design permutations of the turbine dimensions, and associated MW output for potential effects on Population, Human Health, Socioeconomics, and Recreation. It also provides detail on the Community Benefit Fund. The different permutations of design parameters will not result in significantly different development outcomes particularly in relation to MW output. At outputs of between 74.1-91 MW, it is marginal in that it will not change the significance of the effect in relation to employment and economic benefit. The assessment of Population and Human Health also provides an overview of the potential effects on local residents and communities, therefore the ultimate choice of specific design of wind turbines does not impact on the findings within it. However, where information is obtained from more detailed technical chapters, for example noise, air, and landscape, and where there are variations in impacts depending on design parameters, those findings are incorporated into the assessment on amenity and/or human health as appropriate.
Chapter 5 Biodiversity	SLR undertook a Collision Risk Model (CRM) for birds incorporating the minimum/maximum spans of each candidate turbine model to produce two CRMs. CRM assessed the tip height with the lowest rotor swept height. The results are presented for impact assessment in the EIAR but there are no material differences in the effects predicted between the two CRM models (which also encompass all other options within the range). This was due to very small differences in lowest rotor swept heights (2 m difference) and tip heights (5 m difference) between the candidate turbine models i.e., the collision risk heights. Therefore, a similar number of birds are predicted to collide with the two different candidate turbine models (and all options within the range). For bat mitigation buffers, SLR has examined the three turbine types and has presented the bat collision risk assessment for the turbine requiring the largest bat mitigation buffers (rotor diameter of 163 m). In the context of bats, the largest turbine dimension will result in the largest buffer, and therefore the largest potential effect regarding felling etc. For the turbine dimensions, a worst-case scenario was adopted with dimensions from the Nordex 163 candidate turbine adopted i.e. a blade length of 81.5 m and a hub height of 98.5 m. This corresponds to a conifer plantation buffer of 105.5 m, and a scrub buffer radius of 90.4 m. This is a worst-case scenario because it assumes the largest bat felling buffer radiuses i.e. all other permutations within the turbine range will require a smaller buffer radius because of their dimensions. The bat mitigation buffers for the turbines with a rotor diameter of 149 m will be smaller than for the turbines with a rotor diameter of 163 m but crucially, will still provide the 50 m separation distance from blade tip to vegetation feature height required by best-practice guidance. This is because the bat buffer diameter reflects the turbine dimensions chosen. Regarding habitat loss, the bat mitigation buffer felling requirement for the 163 m diameter turbine model are higher than the felling requirement for the 149 m diameter model. Impact assessment in relation to habitat loss is presented in relation to the turbine hardstand and foundation requirements. While the habitat loss associated with the felling buffers associated with the 163 m turbine model is less, there are no material differences in the likely significant effects predicted. This is because the amounts of habitat to be lost are of very similar orders of magnitude for the two candidate turbine models assessed (which includes all options within the range).
Chapter 6	The turbine hardstanding and foundation requirements are assumed to be the same for all design permutations with a typical gravity foundation design requiring 1,000 m^3 of concrete in the turbine foundation. The impact assessment therefore

Topic	Assessment Parameters
Land, Soils and Geology	encompasses all design permutations in **Table 1-1** and represents the likely potential footprint / area of ground disturbance covered by the operational infrastructure. There are no material differences in the footprint / area of ground disturbance resulting from operational infrastructure and therefore no difference in the likely significant effects predicted.
Chapter 7 Water (Hydrology and Hydrogeology)	Assessment was undertaken in relation to all design permutations within the range outlined in **Table 1-1** in relation to the potential for change to the water environment (hydrology and hydrogeology). This was based upon the standard turbine hardstanding and foundation requirements which are the same for all design permutations. All three turbine types have been assessed as part of this chapter, and there are no material differences in the likely significant effects predicted.
Chapter 8 Air Quality and Climate	For this topic, all turbine permutations from the dimensions as set out in **Table 1-1** above are assessed. Air quality and climate resilience have been assessed for all turbine dimensions. The difference between the design parameters of the three turbine types is considered to be minimal in terms of air quality and climate resilience. A Carbon Analysis has been carried out and included in Chapter 8 Air and climate of this EIAR accompanying this planning application. The carbon calculations for the Proposed Development are based on the three candidate turbine models which have been assessed against their impact on the national carbon budgets.
Chapter 9 Noise and Vibration	Noise modelling for the three turbine types was carried out and assessed within this chapter. Different turbine types produce different noise levels. The hub height has the potential to affect the noise impact at receptors, which in turn may affect significance of effect. The operational noise produced by a wind turbine varies between type (Vestas V150 will produce different levels of noise for any given wind speed than a Nordex N149 for example) therefore the assessment considers operational noise impacts from the three turbine types discussed in the EIAR as there is a potential that they could be different. Construction noise will not be dependent on the turbine type – the noise associated with the excavation, and fabrication, of foundations (for example) will be the same regardless of what turbine type is installed on top of it. The operational noise modelling for the Proposed Development is based on these three turbine types to form a maximum / minimum scenario. All three turbine types are assessed as part of this chapter, and all design permutations encompassed in **Table 1-1** above have been assessed. Overall, there are no material differences in the likely significant effects predicted.
Chapter 10 Landscape and Visual	All turbine dimensions as set out in **Table 1-1** above have been assessed in the LVIA. The differences between the design parameters of the three turbine types are considered to be minimal and will be barely discernible at surrounding visual receptors. Overall, the magnitude and significance of visual effects at all representative viewpoints outlined in the LVIA will not differ across the proposed turbine ranges.
Chapter 11 Shadow flicker	For this topic, SLR assessed all three turbine models. Volume 3 **Technical Appendix 11-1** details the Modelling Input Data and **Technical Appendices 11-2, 11-3 and 11-4** show potential shadow flicker shutdown times for each scenario. The worst case scenario is defined as "*based on the sun shining during all daylight hours over the course of a year, no obscuring features (such as trees, hedges, other buildings) being present, the face of the rotor always being aligned towards the dwelling, and that the rotor is always turning (i.e. the wind is always blowing between 4m/s and 25m/s, and no account is taken of shut down periods for maintenance).*

Topic	Assessment Parameters
	This methodology yields a theoretical maximum indication of potential shadow flicker incidence, together with the times of day, and dates during the year when potential incidence may occur". The study area is determined by the rotor diameter and the largest rotor diameter of 163 m covers the worst-case results for all design permutations encompassed in **Table 1-1**. The design parameters of the rotor diameter drive the impact of shadow flicker. While the rotor diameter of 163 m or the maximum parameter results in effects on a marginally greater number of properties, all three turbine models (rotor diameters of 163 m, 150 m and 149 m) will be managed through mitigation measures to ensure that shadow flicker effect is not significant at all receptors.
Chapter 12 Cultural Heritage	In this chapter, the range of turbine dimensions was not a concern for effects upon the setting of cultural heritage assets, as there is only a marginal difference in turbine tip height. A settings assessment for the potential effects on cultural and archaeological assets in the study parameters for the Proposed Project was carried out, however the difference in design parameters between each turbine was minimal. The different permutations of design parameters do not affect the significance of the effect in relation to Cultural Heritage. The difference is considered to be imperceptible in terms of impact on the setting of cultural and archaeological assets. Turbine hardstanding and foundation requirements are the same for all design permutations, and as such there are no material difference to the assessment of direct impacts upon archaeological remains within the Main Wind Farm Development Site. In relation to the settings assessment and the assessment of indirect effects, the differences between the design parameters of the three turbine types are considered to be minimal. The marginal differences in dimensions of all turbine types within the range will not alter the predicted significance of indirect effects.
Chapter 13 Material Assets, including Telecommunications / Aviation	Utility providers, including telecommunication companies, and aviation authorities were consulted on the basis of the upper limit of design parameters to be incorporated. None of those contacted raised any concerns with the Proposed Project within the range of parameters, therefore it can be inferred that there will be no difference in impact on services. Ongoing engagement with service providers throughout the design and implementation of the Proposed Project will ensure effective management of any variations between design parameters. As with **Chapter 7**, Turbine hardstanding and foundation requirements are the same for all design permutations and these are not considered to have implications for material assets.
Chapter 14 Traffic and Transport	The worst-case scenario turbine due to blade length is the turbine with the rotor diameter of 163 m which was assessed for all swept path analysis for the Proposed Development and the worst-case scenario of trips (infrastructure delivery, materials) has been assessed based on the worst-case scenario of these infrastructural requirements. The worst case includes larger turbine components including a longer blade length. This assessment covers all design permutations encompassed in **Table 1-1**. The different permutations of design parameters do not affect the significance of the effect in relation to Traffic. This is because the turbine with a smaller rotor diameter (150 m and 149 m) will result in a marginally smaller swept path, however all turbines within the range must still be delivered to the Main Wind Farm Development Site.
Chapter 15 Major accidents and disasters	This chapter assesses the design permutations of the turbine dimensions as set out in **Table 1-1** above. The different permutations do not affect the assessment of significance of effect in relation to major accidents and natural disasters.

Topic	Assessment Parameters
Chapter 16 Interactions of the Foregoing	As set out within each of the technical headings above, the actual variation in impacts depending on final selection of design parameters is considered to be minimal. The purpose of assessment of interactions of effects is to ensure that potential for any additional interactive effects over and above those considered within respective technical assessments is identified. Given the minimal difference that has been identified between effects of design parameters for the technical chapters above, it is not considered that there will be any implications for potential interactions depending on ultimate design parameters selected. There will be no change to the potential impacts or predicted effects irrespective of which turbine dimensions are selected within the design parameters outlined.

What is Environmental Impact Assessment (EIA)?

1.43 EIA is the process of examining the likely significant environmental effects of a proposed project (the Proposed Project as described in this report), from its consideration at design stage, through consultation and preparation of an EIAR, examination of the EIAR by a competent authority on the significant effects of the project on the environment and the integration of the competent authority's reasoned conclusion into the decision.

1.44 Environmental Impact Assessment Directive (EIA Directive) refers to Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU of the European Parliament and of the Council of 16th April 2014 amending.

EIAR Methodology

1.45 The EIAR has been prepared in accordance with the EIA Directive and Annex IV specifically, which requires that the following information be included in an EIAR:

1. *"Description of the project, including in particular:*
   (a) a description of the location of the project;
   (b) a description of the physical characteristics of the whole project, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases;
   (c) a description of the main characteristics of the operational phase of the project (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used;
   (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operation phases.
2. *A description of the reasonable alternatives (for example in terms of project design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.*
3. *A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.*

4. *A description of the factors specified in Article 3(1) likely to be significantly affected by the project: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.*
5. *A description of the likely significant effects of the project on the environment resulting from, inter alia:*

   (a) the construction and existence of the project, including, where relevant, demolition works;

   (b) the use of natural resources, in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources;

   (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances, and the disposal and recovery of waste;

   (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters);

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

   (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change;

   (g) the technologies and the substances used.

   The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project.

6. *A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.*
7. *A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.*
8. *A description of the expected significant adverse effects of the project on the environment deriving from the vulnerability of the project to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council (*) or Council Directive 2009/71/Euratom (**) or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of this Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of*

such events on the environment and details of the preparedness for and proposed response to such emergencies.

9. *A non-technical summary of the information provided under points 1 to 8.*
10. *A reference list detailing the sources used for the descriptions and assessments included in the report".*

EIAR Structure

8.1 The EIA Report consists of four volumes as follows:

- Volume 1 – Non-Technical Summary (NTS);
- Volume 2 – EIAR;
- Volume 3 – Technical Appendices to the EIAR; and
- Volume 4 – Landscape and Photomontages.

8.2 Annex IV (1) of EIA Directive is covered in Chapter 2 in Volume 2 of the EIAR. Annex IV (2) is covered in Chapter 3 in Volume 2 of the EIAR. Annex IV (9) is covered by the NTS, Volume 1 of the EIAR. All other requirements of Annex IV are covered in technical Chapters 4 to 17 which are set out in Volume 2 of the EIAR.

8.3 A Natura Impact Statement (NIS) has also been submitted with the planning application. The planning application is also supported by a Planning Statement and planning drawings.

Format of the Environmental Impact Assessment Report (EIAR)

1.46 This EIAR has been prepared in accordance with Planning and Development Act 2000, the Planning And Development Regulations 2001, as amended, S.I. No. 296/2018 – European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, and the Environmental Protection Agency (EPA) Guidelines (May 2022). The EIAR is sub divided into 17 chapters. As an overview, the chapters include:

Chapter 1: Introduction

1.47 An introduction to the Proposed Project (which has been assessed in this EIA) and a brief explanation of the aims and format of the EIAR. It also identifies the professional and competent experts who have contributed to this EIAR, and the scoping process carried out.

Chapter 2: Description of the Proposed Project

1.48 Chapter 2 provides:

- details of the physical characteristics of the Proposed Project including, where relevant, the land-use requirements during construction and operation as well as other works that are integral to the Proposed Project.
- the main characteristics of the construction, operational and decommissioning phases of the Proposed Project e.g., nature and quantity of materials and natural resources.
- an estimate, by type and quantity, of the expected residues and emissions produced during the construction, operational and decommissioning phases of the Proposed Project.

Chapter 3: Site Selection and Alternatives, EIA Scoping, Consultation and Key Issues

1.49 Chapter 3 provides a description of the reasonable alternatives studied by the Applicant, 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.

Chapters 4 - 17

1.50 Each Chapter provides detailed information on all aspects of the existing (baseline) environment, identifies, describes, and presents and assessment of the likely significant effects of the Proposed Project, that is, the proposed development for which consent is being sought and the GCR, on the environment, recommends mitigation and monitoring measures to reduce or alleviate these impacts and describes the residual impacts and conclusions. They are grouped under the following topics:

- Chapter 4: Population and Human Health.
- Chapter 5: Biodiversity.
- Chapter 6: Land, Soils and Geology.
- Chapter 7: Water (Hydrology and Hydrogeology).
- Chapter 8: Air Quality and Climate.
- Chapter 9: Noise and Vibration.
- Chapter 10: Landscape and Visual.
- Chapter 11: Shadow Flicker.
- Chapter 12: Cultural Heritage.
- Chapter 13: Material Assets including telecommunications and aviation.
- Chapter 14: Traffic and Transport.
- Chapter 15: Major Accidents and Disasters.
- Chapter 16: Interactions of the Foregoing.
- Chapter 17: Schedule of Mitigation Measures.

1.51 The associated references, plates and figures are provided at the end of each chapter. Technical Appendices for each chapter are included in Volume 3 of the EIAR.

1.52 A "*Non-Technical Summary of the Environmental Impact Assessment Report*", incorporating all of the above sections, is provided as a separate and self-contained document. The NTS can be found in Volume 1 of the EIAR.

1.53 It has also been prepared in accordance with:

- Planning and Development Act 2000, as amended, namely 'Part 6 Environmental Assessments';
- Planning and Development Regulations 2001, as amended:
  - Part 10;
  - Article 94 regarding 'Content of an EIAR'; and
  - Schedule 6, Information to be contained in EIAR Paragraph 1 and 2.
- S.I. No. 296/2018 - European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

1.54 The assessment of environmental impacts has been conducted in accordance with the guidance set out in the following:

- Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment Report (EC, 2017);
- Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022); and
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (DoHPLG, 2018).

1.55 There are a number of key stages of the EIA process. They are:

- Screening – the Requirement for EIA;
- Scoping – Determining what information should be contained in an EIAR and what methods should be used to gather and assess that information;
- Impact Assessment – Assessing the Proposed Project with regard to its potential for likely significant effects on the environment;
- Examination by the Competent Authority; and
- Decision by the Competent authority.

Requirement for EIA

1.56 Projects listed in Annex I of the EIA Directive have mandatory EIA requirements. Each Member State decides on a case-by-case basis whether Annex II projects require an EIA. Thresholds have been set for Annex II projects in national legislation, in this case the Planning and Development Regulations 2001 (as amended). Projects which do not meet the threshold may still require an EIA if the project is likely to have significant effects on the environment (sub-threshold projects).

1.57 The Annex I and Annex II projects have been transposed into Schedule 5 (Parts 1 and 2) of the Planning and Development Regulations 2001, as amended.

1.58 The Proposed Project, as described in **Chapter 2** of this EIAR, is considered an EIA development as it falls within the following class of Schedule 7 of the Planning and Development Act 2000. It was acknowledged at an early stage in the consideration of the Proposed Project that given its nature, location and characteristics, an EIA would be required. It was therefore not considered necessary to seek an EIA screening opinion from An Coimisiún Pleanála and an EIAR has been prepared.

Requirement for EIA in the context of Strategic Infrastructure Development

1.59 The Seventh Schedule to the Planning and Development Act 2000, as amended, identifies various classes of infrastructure development which, if considered by ACP to be Strategic Infrastructure Development, requires a planning application to be made directly to it rather than to the relevant local planning authority.

1.60 To qualify as Strategic Infrastructure Development, Section 37A(2) of the Planning and Development Act, 2000, as amended stipulates that a project:

"falls within the scope of one or more of the development classes identified in the Seventh Schedule and any thresholds provided therein:

I. would satisfy one or more of the following criteria:

a. *It is of strategic economic or social importance to the State or the region in which it would be situated;*

b. *It would contribute substantially to the fulfilment of any of the objectives of the National Planning Framework or in any regional spatial and economic strategy in force in respect of the area or areas in which the development would be situated;*

c. *It would have a significant effect on the area of more than one planning authority".*

1.61 The development of a 74.1 to 91 MW wind farm is covered by the following class of development identified under the heading of '*Energy Infrastructure'* in the Seventh Schedule of the Planning and Development Act 2000, as amended:

Energy Infrastructure

1. Development comprising or for the purposes of any of the following (inter alia)

"an installation for the harnessing of wind power for energy production (a wind farm) with more than 25 turbines or having a total output greater than 50 MW."

1.62 In view of the Proposed Development having the capacity *to "produce a total output greater than 50MW"*, it is considered that the Proposed Development exceeds the threshold laid down within the class of development identified in the Seventh Schedule.

1.63 The Proposed Development satisfies the additional three criteria set out in section 37A (2) and therefore is Strategic Infrastructure Development.

1.64 A pre-application request was made to An Coimisiún Pleanála under Section 37B of the Planning and Development Act 2000, as amended, on the 2nd November 2023 (**ABP PC16.318372**) for a determination that an application of this scale would be considered to be Strategic Infrastructure Development. In ACP's closure letter dated 9th December 2025, it was confirmed that

"the proposed development falls within the scope of paragraphs 37A (2) (a) and (b) of the Act. Accordingly, the Commission has decided that the proposed development would be strategic infrastructure within the meaning of section 37A of the Planning and Development Act 2000, as amended. Any application for permission for the proposed development must therefore be made directly to An Bord Pleanála under section 37E of the Act".

1.65 Section 37E (1) of the Planning and Development Act, 2000 as amended also states that:

"an application for permission for development in respect of which a notice has been served under section 37B(4)(a) shall be made to the Board and shall be accompanied by an … environmental impact assessment report in respect of the proposed development'".

EIA Scoping

1.66 Once it is established that an EIA is required, a scoping process is carried out. Scoping is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in the EC guidance[1] as:

[1] Guidance on EIA Screening, European Commission, 2017.

'Determining the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR'.

1.67 Scoping is best carried out by personnel having appropriate expertise and relevant prior experience of the factors involved. Knowledge of the characteristics of the project type and of the sensitivities likely to be present in the receiving environment are particularly useful for scoping. The provision of detail at the scoping stage is the best way to obtain useful and specific responses from consultees. A detailed and extensive EIA scoping consultation exercise was carried out on in respect of the Proposed Project. This consultation was facilitated through preparation of the Scoping Report which was issued to prescribed bodies and other consultees. Full details of this process are provided in **Chapter 3**.

Environmental Impact Assessment Report (EIAR)

1.68 An Environmental Impact Assessment Report (EIAR) is a *"report of the effects, if any, which proposed development, if carried out, would have on the environment and shall include the information specified in Annex IV of the Environmental Impact Assessment Directive"*[2].

1.69 The principal objectives of an Environmental Impact Assessment Report are to:

- Identify and / or predict the likely significant effects of a development.
- Identify what mitigation measures should be incorporated into the development to eliminate or reduce the perceived effects, refer to **Chapter 17: Schedule of Mitigation Measures**.
- Interpret and communicate the above information on the impact of the Proposed Development, in both technical and non-technical terms.
- Assist the Determining Authority in the decision-making process with respect to the associated planning application.
- Undertake and report on cumulative assessment.
- Assessment and reporting of residual effect post application of mitigation measures.
- Proposed monitoring measures to be undertaken before, during and post construction.

Cumulative Impact

1.70 Annex IV (5)(e) of the EIA Directive as amended by Directive 2014/52/EU provides that the EIAR contain:

> "A description of the likely significant effects of the project on the environment resulting from, inter alia:
>
> (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources;"

1.71 Furthermore, Annex IV (5) states that the EIAR shall contain:

[2] Directive 2011/92/EU, Article 5(1)

> "The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project"

1.72 This EIAR has considered the likelihood of the Proposed Project, in its totality of having direct and indirect significant effects, alone or in cumulation with other existing, permitted, and proposed developments in the wider vicinity of the Proposed Project. It identifies, describes and assesses in an appropriate manner, in the 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 Directive;

c) land, soil, water, air and climate and noise;

d) material assets, cultural heritage and the landscape; and

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

1.73 The effects referred to in **Paragraph 1.72** on the factors set out therein 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.

1.74 Details of the list of developments assessed in technical chapters is provided in **Chapter 2: Description of the Proposed Project.**

Difficulties Encountered with EIAR Compilation

1.75 This EIAR was compiled on the basis of published, regional and local data and site-specific field surveys. Please refer to individual topic chapters for difficulties encountered in compiling the required information.

Contributors – Statement of Authority

1.76 The contributors who have assisted in the preparation of this EIAR are identified in **Table 1-3** below.

1.77 Each contributor has been fully briefed about the Proposed Project and the background to it. They have also visited the Proposed Project where necessary and are familiar with the local environment.

Table 1-3- Contributors to the EIAR

EIAR Topic	Company	Name and Qualification
Chapter 1: Introduction	SLR	This chapter was prepared by Paula McCarthy, BSc, MSc. Paula is an Associate Planning & Development Surveyor with SLR with over 18 years' professional experience in relation to preparing and submitting planning applications and Environmental Impact Assessment Reports for a broad range of development proposals throughout Ireland.
		Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. also contributed to the chapter. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
		Gareth Hughes, BSc, MSc, PISEP, also contributed to the chapter. Gareth has over 15 years' experience who specialises in managing multi-disciplinary EIA projects. He has coordinated numerous EIAs from screening stage, through scoping, to the production of Environmental Statements (ES), EIA Reports (EIAR), Further Environmental Information (FEI) and he has coordinated discharge of planning conditions. He is experienced coordinating EIAs for onshore wind farm projects, six of which have gained consent, as well as working on a range of schemes (e.g., Associated Developments for Nuclear New Build, residential developments, wastewater treatment works, overhead and underground power transmission lines, power stations, airports, quarries etc.).
Chapter 2: Description of the Proposed Project	SLR	The chapter was prepared by Gareth Hughes, BSc, MSc, PISEP, is a Principal Consultant EIA, with input from the Applicant. Gareth has over 15 years' experience who specialises in managing multi-disciplinary EIA projects. He has coordinated numerous EIAs from screening stage, through scoping, to the production of Environmental Statements (ES), EIA Reports (EIAR), Further Environmental Information (FEI) and he has coordinated discharge of planning conditions. He is experienced coordinating EIAs for onshore wind farm projects, six of which have gained consent, as well as working on a range of schemes (e.g., Associated Developments for Nuclear New Build, residential developments, wastewater treatment works, overhead and underground power transmission lines, power stations, airports, quarries etc.).
		The chapter has been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
		Darren Keogh is a Civil Engineer with over 22 years' experience working mainly with Clients in the Renewable Energy, Electrical Transmission, Recycling/Waste and Development sectors. He has a wide variety of experience as a designer in these and other sectors and is now principally a Framework/Project Manager on a number of large and varied engineering projects. Darren's design and project management skills are largely through experience on projects such as sub-stations, transmission route assessment, road schemes, surface water schemes, windfarms, demolition contracts, road designs,

EIAR Topic	Company	Name and Qualification
		bridge assessments, design of waste/recycling facilities, and site investigations for a variety of different types of infrastructure.
		Ruairidh Aitken (Meng Civil and Structural Engineering) is an Associate Engineer at SLR Consulting, with six years of experience. He has worked on a range of engineering projects, including wind farm design, track design, renewable energy developments, and earthworks. Ruairidh has taken on the role of lead designer for over 25 wind farm projects at planning stage. His responsibilities include project management, infrastructure and access design, feasibility assessments, site investigations, optioneering tasks, decommissioning bonds for renewables projects, construction environmental management plans (CEMPs), risk registers, route analysis, route condition surveys. Working closely with an expert CAD team, Ruairidh develops comprehensive wind farm models incorporating all associated infrastructure. He utilises Civil 3D, InfraWorks, and Geographic Information Systems (GIS) to support his design
		Lynn is an EIA Co-ordinator with over 16 years' experience in the preparation, contribution to and review of various EIAR chapter, as well as in the EIA co-ordination process as a whole. She has worked in the UK and Ireland on a range of urban and rural projects including in the mixed-use development, mining and quarrying sectors.
Chapter 3: Site selection and alternatives, EIA Scoping, Consultation and Key Issues	SLR	The chapter was prepared by Gareth Hughes, BSc, MSc, PISEP, is a Principal Consultant EIA, with input from the Applicant. Gareth has over 15 years' experience who specialises in managing multi-disciplinary EIA projects. He has coordinated numerous EIAs from screening stage, through scoping, to the production of Environmental Statements (ES), EIA Reports (EIAR), Further Environmental Information (FEI) and he has coordinated discharge of planning conditions. He is experienced coordinating EIAs for onshore wind farm projects, six of which have gained consent, as well as working on a range of schemes (e.g., Associated Developments for Nuclear New Build, residential developments, wastewater treatment works, overhead and underground power transmission lines, power stations, airports, quarries etc.).
		This chapter was also prepared by Paula McCarthy, BSc, MSc, RTPI. Paula is an Associate Planning & Development Surveyor with SLR with over 18 years' professional experience in relation to preparing and submitting planning applications and Environmental Impact Assessment Reports for a broad range of development proposals throughout Ireland.
		The chapter has been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
Chapter 4: Population and Human Health	SLR	This chapter was prepared by Lynn Hassett, Associate EIA Co-ordinator from SLR Consulting. Lynn holds an MSc in Environmental Impact Assessment (2001) and a BSc (Hons) in Applied Ecology (2000). She has over 15 years' experience in the preparation, contribution to and review of various EIAR chapter, as well as in the EIA co-ordination process as a

EIAR Topic	Company	Name and Qualification
		whole. She has worked in the UK and Ireland on a range of urban and rural projects including in the mixed-use development, mining and quarrying sectors.
		Eoin Greevy, BSc, MSc contributed to this chapter. Eoin is a Graduate Planner at SLR Consulting with experience supporting renewable energy and infrastructure projects across Ireland.
		Hugh O'Byrne, BSc contributed to the chapter. Hugh is a Graduate Planner who has currently completed a Master of Regional and Urban Planning in University College Dublin. He is also a student member of the RTPI and IPI.
		This chapter was reviewed by Gareth Hughes, an EIA specialist with 18 years' experience in project management and EIA coordination. This chapter was also reviewed by Aislinn O'Brien. Aislinn is a chartered planner and has 18 years' experience in project management, EIA coordination, planning for large scale infrastructure and renewable energy projects and preparing environmental impact assessment chapters and reports for renewable energy and tourism projects.
Chapter 5: Biodiversity	SLR	Andrew Torsney BSc, MRes, PhD, ACIEEM provided the technical review of the overall project. Additionally, the Annex I habitat condition assessment survey was conducted by Andrew. Andrew has undertaken Appropriate Assessments for a number of national regional and local plans as well as project level assessments. Andrew is a technical specialist in AA processes and has undertaken review processes for competent authorities such as the Department of Public Expenditure and Reform and several County Councils such as Dun Laoghaire Rathdown and Kilkenny. Andrew has also delivered training on the role of county councils in the AA process as well as having authored NIS reports for a variety of project types.
		The chapter was authored by Kathryn Robson BSc Hons, MSc. Kathryn is a senior ecologist at SLR Consulting with 8 years of experience as a professional ecological consultant. Her project experience has primarily been in the renewable energy sector, mainly onshore wind farms, at all stages of the development process, from design to completion. Competent in undertaking most terrestrial ecology surveys, her survey experience has focussed on ornithology and bat surveys. Kathryn holds a MSc in Ecological Management and Conservation Biology and a BSc in Biological Sciences, both from Queen's University Belfast.
		The initial site walkover and survey of the grid route and turbine delivery route was undertaken by Sinéad Clifford BSc (Hons). Sinéad has worked in the environmental sector since 2015 and joined SLR Consulting in 2021. She holds a BSc. in Wildlife Biology from Institute of Technology Tralee, and a Certificate (Distinction) in Ecological Consultancy from Ecology Training UK (formerly Acorn Ecology). Sinéad has strong field skills, and regularly carries out bat, ornithological, botanical and mammalian surveys. In addition, she has extensive experience managing bat surveys for large scale projects, including wind energy developments.
		The collision risk modelling report was written by Jonathon Dunn MA (Cantab.) MSc PhD MCIEEM. Jonathon also undertook the initial site walkover and survey of the grid route and turbine delivery route. Jonathon has worked in the

EIAR Topic	Company	Name and Qualification
		environmental sector since 2014 and joined SLR Consulting in 2021. Prior to working in environmental consultancy, he used to undertake research at Newcastle University on avian ecology and conservation. He holds a PhD in avian ecology from Newcastle University, a MSc in Ecology, Evolution and Conservation from Imperial College London and a MA (Cantab.) in Natural Sciences from the University of Cambridge. Jonathon has extensive experience undertaking and managing bird surveys, along with bat, botanical and mammalian surveys. Jonathon has worked on a wide variety of projects with a focus on wind farms.
		The aquatic ecology and fisheries reports were written by Ross Macklin PhD (in preparation) B.Sc. (Hons) MCIEEM., MIFM, HDip GIS, PDip IPM (Principal ecologist with Triturus Environmental Ltd). Ross is an ecologist with over 16 years' professional experience in Ireland. He specialises in freshwater fisheries ecology, biology, and water quality. He has considerable experience in a wide range of ecological and environmental projects including EIAR, EcIA, AA/NIS, CEMP reporting, as well as biodiversity, water quality monitoring, invasive species, and fisheries management. He also has expert identification skills in macrophytes, freshwater invertebrates, protected aquatic habitats and protected aquatic species including freshwater pearl mussel.
		The habitat survey was undertaken by Alexis Fitzgerald BA MSc ACIEEM (Director of FitzGerald Ecology consultancy). Alexis is a passionate field botanist and vegetation ecologist with over 9 years of professional experience in Ireland. He has extensive expertise in vascular (terrestrial and aquatic) plant, bryophyte and charophyte identification and habitat surveying, including Irish Heritage Council classification (Fossitt, 2000), Annex I habitat classification, Irish Vegetation Classification (IVC), National Parks and Wildlife Service 'Uplands Manual' habitat classification and Flora (Protection) Order, 2015 species identification and conservation.
		Baseline ornithology and bat reports were provided by Woodrow, and the relevant specialisms of the personnel can be found in **Technical Appendix 5-2 and Technical Appendix 5-3**.
Chapter 6: Land, Soils and Geology	SLR	The chapter was prepared by Paul Gordon, BSc, MSc. Paul is a Technical Director with SLR Consulting, with over 25 years' experience in the resources industry. He leads exploration management teams, assesses mining properties, and authors public reports for mining clients. He has also advised governments and government bodies on policy, regulations, and guidelines. Paul is a Professional Geologist, registered with the Institute of Geologists of Ireland.
		Hannah McGillycuddy (MIT) of SLR Consulting also worked on the assessment. Hannah has a BSc in Geology and an MSc in Exploration Field Geology and has 6 years' professional experience in writing land, soils and geology chapters for EIARs in Ireland.
		Alan Huntridge (BSc (Hons), MSc) is a Principal in SLR's Land Quality & Remediation team, with 14 years of experience in the sector. Alan was responsible for the Peat Landslide Hazard Risk Assessment, appended to this chapter.

EIAR Topic	Company	Name and Qualification
		Ruairidh Aitken (Meng Civil and Structural Engineering) is an Associate Civil Engineer at SLR Consulting, based in Edinburgh with six years of experience. He has worked on a range of engineering projects, including wind farm design, track design, renewable energy developments, and earthworks.
		Ruari Watson (BSc (Hons) Civil Engineering) is an Associate Geotechnical Engineer in SLR's Land Quality & Remediation team, based in Scotland. Ruari has over 12 years' experience within the geotechnical engineering sector. This experience has been gained while working for both specialist contractors and consultants, managing ground investigations and undertaking geotechnical assessments.
		Ronan Killeen is a Chartered Engineer with over thirty years professional experience in the geotechnical investigation sector including project management and reporting. He is a Director of Irish Drilling since 2003.
		Damien O' Reilly is an Associate Engineer with over twenty-five years professional experience in the geotechnical investigation sector including project management and PSCS. He is an Associate Director of Irish Drilling since 2025.
Chapter 7: Hydrology and Hydrogeology	SLR	The chapter has been led and reviewed by Dominica Baird BSc (Earth Science), MSc (Hydrogeology), CGeol, EurGeol. Donna is a Technical Director (Hydrogeology) and has over twenty years' experience in environmental consulting, specialising in hydrogeology and water. Dominica's areas of expertise cover hydrogeology, groundwater risk assessment and contaminated land with experience gained in London, Edinburgh, and Dublin. She has worked on various renewable projects, mainly wind farms, as well as cable routes in Ireland and Scotland as lead hydrogeologist and has undertaken field surveys including installation of groundwater monitoring wells, water supply surveys and peat surveys. Dominica has presented findings of hydrogeological assessments at oral hearings and prepared briefs of evidence in arbitration cases. Examples of major projects include EirGrid Laois-Kilkenny Reinforcement Scheme and East-West Interconnector.
		The chapter was prepared by Kristian Divjak BSc (Civil Engineering), MSc (Water Resources) is a civil engineer with over 7 years of experience in flood risk assessments, hydraulics, and drainage design. Throughout his career he has worked on projects in Croatia and Ireland. He has worked on numerous renewable energy projects, flood risk assessments and drainage design. He has inspected various sites for potential wind farm and solar farm developments.
		Michelle Sherry contributed to this chapter and the Water Framework Directive. Michelle is a Project Hydrogeologist and has worked on multiple scale renewables projects and has co-authored several EIAR Water and Land, Soil and Geology chapters and Water Framework Directive assessments for wind farm developments.
		The aquatic ecology and fisheries reports were written by Ross Macklin PhD (in preparation) B.Sc. (Hons) MCIEEM., MIFM, HDip GIS, PDip IPM (Principal ecologist with Triturus Environmental Ltd). Ross is an ecologist with over 16 years' professional experience in Ireland. He specialises in freshwater fisheries ecology, biology and water quality. He has considerable experience in a wide range of ecological and environmental projects including EIAR, EcIA, AA/NIS, Construction and Environmental Management Plan (CEMP) reporting, as well as biodiversity, water quality monitoring,

EIAR Topic	Company	Name and Qualification
		invasive species and fisheries management. He also has expert identification skills in macrophytes, freshwater invertebrates, protected aquatic habitats and protected aquatic species including freshwater pearl mussel.
Chapter 8: Air and Climate	SLR	The Air Quality section of this chapter was prepared by Rachel McHale BSc. (Hons) Geography MIAQM, MIES, has over 19 years of professional experience as an air quality consultant, specialising in mineral and energy developments. Rachel has worked a wide variety of high-profile mineral and renewable energy schemes both nationally and internationally.
		Ryan Guppy also contributed to this chapter. Ryan is a Senior Air Quality Consultant with a BSc. (Hons) Geography, MIAQM, MIES. He has 5 years of professional experience as an air quality consultant, undertaking a wide range of assessment methodologies including those relevant to the minerals dust sector (i.e. Dust Impact Assessment / Dust Monitoring Schemes and Dust Management Plans) for planning and permitting.
		The climate section of this chapter prepared by Luke Moseley, BSc (Hons), PGDip. Luke is a Senior Carbon Consultant at SLR who has been responsible for the management of greenhouse gas and energy data with the creation of GHG inventories across a variety of projects. Prior to SLR, Luke had three years of experience in emission monitoring across a variety of industrial sites including energy from biomass such as the Holbrook biomass plant in Sheffield UK.
		This chapter has been supported and reviewed by Nicola Herschell MSc, MIEMA, CEnv. Nicola is a Technical Director in SLR's Carbon & Energy Management team within the ESG Strategic Advisory technical discipline.
Chapter 9: Noise and Vibration	Bow Acoustics	The noise impact assessment was led by Richard Carter CEng, BEng (Hons), PG Dip Acoustics and Noise Control, MIOA, who is a Director of Bow Acoustics. He has expertise and experience with wind turbine noise and has worked on over 50 wind farms across the UK and Republic of Ireland. For the past 13 years Richard has taken a leading role in wind turbine noise assessments both onshore and offshore.
		The background noise measurements were undertaken by Aldona Binchy MSc. Eng PIEMA, MIAH, AAG Environmental Engineering, a Principal of SLR, with 20 years of experience conducting environmental noise surveys. Aldona completed the Environmental Noise Competency Course with Industrial Noise and Vibration Centre. Aldona has extensive experience of undertaking noise monitoring programmes in accordance with relevant standards and best practice methods.
Chapter 10: Landscape and Visual	Macro Works	This Landscape and Visual Impact Assessment was prepared by Cian Doughan, Associated Director (BSLA, MILI) of Macro Works Ltd, with eight years of experience. The chapter was reviewed by Richard Barker (Masters in Landscape Architecture and MILI) of Macro Works Ltd, who has 18 years of experience in the appraisal of effects from a variety of energy, infrastructure and commercial developments.

EIAR Topic	Company	Name and Qualification
Chapter 11: Shadow Flicker	SLR	The chapter was prepared by Jack Hughes, MSc BSc. Jack is a Project EIA Consultant who has over 2 years of experience in undertaking wind farm design and EIAs and has undertaken numerous shadow flicker assessments in the UK and Ireland.
		Jacob Scoble, BSc. also contributed to the chapter. Jacob is a Senior GIS Analyst with over 7 years of GIS Experience in Consultancy. At SLR Jacob works within the GIS team providing support to other technical disciplines through mapping outputs and data analysis, he has over 3 years of experience working on wind farm projects and other major projects, with around 2 years involvement in Shadow Flicker Analysis.
		The shadow flicker assessment was reviewed by Gareth Hughes, BSc, MSc, PISEP who has over 15 years' experience and who specialises in managing multi-disciplinary EIA projects for onshore wind farm projects. Gareth has undertaken and reviewed multiple shadow flicker assessments for onshore wind farms.
Chapter 12: Cultural Heritage	SLR	The chapter was prepared by Gwynaeth McCullough, MA, MBSCc. Gwynaeth is a Project Archaeology and Heritage Consultant at SLR with over two years of experience, including involvement in number of wind farm schemes, contributing to, or completing assessments of direct and indirect impacts and EIA reports for projects in the UK and Ireland.
		Katja Watson, MSc, PCIfA also contributed to the chapter. Katja has been involved in the archaeology and heritage sector for a number of years, holding an MSc in Cultural Heritage from University of Aberdeen and having joined SLR in 2023. She has contributed to a wide range of planning applications across global projects, including historic environment and archaeological desk-based assessments, Environmental Impact Assessment (EIA) chapters, feasibility studies, and due diligence reports, primarily centred on the renewable energy sector, particularly wind farms, as well as Battery Energy Storage Systems (BESS), solar farms, housing developments, and major infrastructure projects such as cable routes and pipelines.
		The Chapter was reviewed by John Trehy, BA Archaeology & Prehistory. John is a Technical Discipline Manager at SLR and has been an archaeologist for over 25 years with first-hand experience of, both rural and urban rescue archaeology. He previously spent 20 years with tor&co planning and design consultancy where he was heritage team leader. He is experienced in compiling and researching a variety of desktop studies, either to support environmental impact assessments (EIAs) or to provide archaeological supporting information for planning applications.
Chapter 13: Material Assets	SLR	The chapter was prepared by Hugh O'Byrne, BSc. Hugh is a Graduate Planner who is currently completing a Master of Regional and Urban Planning in University College Dublin. He is also a student member of the RTPI and IPI.
		This chapter was reviewed by Lynn Hassett, Associate EIA Co-ordinator from SLR Consulting. Lynn holds an MSc in Environmental Impact Assessment (2001) and a BSc (Hons) in Applied Ecology (2000). She has over 15 years' experience in the preparation, contribution to and review of various EIAR chapter, as well as in the EIA co-ordination process as a

EIAR Topic	Company	Name and Qualification
		whole. She has worked in the UK and Ireland on a range of urban and rural projects including in the mixed-use development, mining and quarrying sectors.
		The chapter was reviewed by Gareth Hughes, BSc, MSc, PISEP who has over 15 years' experience and who specialises in managing multi-disciplinary EIA projects for onshore wind farm projects.
		The chapter has also been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
Chapter 14: Traffic	SLR	The preparation of this chapter has been undertaken under direct supervision of Cerian Philips, BA(Hons), MSc. Cerian has 13 years' experience in the field of transport planning and preparing environmental impacts assessment chapters
		This chapter was prepared by Tom Monk, Senior Transport Planner at SLR Consulting. Tom joined SLR in February 2022 after graduating from Cardiff University with a BSc (Hons) in Urban Planning and Development. Tom has contributed to several EIA Traffic chapters across the UK and Ireland.
		A technical review of this chapter has been undertaken by Ian Cronshaw, BA (Hons), PGDip, MCIHT, who is a Technical Director at SLR Consulting. Ian has 19 years of experience in Transport Planning, including preparation of Transport Assessments and EIA Chapters, including in the renewable energy sector.
Chapter 15: Major accidents and disasters	SLR	The chapter was prepared by Lauren Jones, Senior Consultant at SLR Consulting. Lauren joined SLR in March 2023 after graduating from Lancaster University with a BA in Geography. She has worked on a number of EIAs, producing Major Accidents and Natural Disasters chapters for Medite, Richfield, and Roadstone. Lauren is also a Graduate member of the Institute of Environmental Management and Assessment. This chapter was reviewed by Lynn Hassett, Associate EIA Co-ordinator from SLR Consulting. Lynn holds an MSc in Environmental Impact Assessment (2001) and a BSc (Hons) in Applied Ecology (2000). She has over 15 years' experience in the preparation, contribution to and review of various EIAR chapter, as well as in the EIA co-ordination process as a whole. She has worked in the UK and Ireland on a range of urban and rural projects including in the mixed-use development, mining and quarrying sectors.
		The chapter was reviewed by Gareth Hughes, BSc, MSc, PISEP who has over 15 years' experience and who specialises in managing multi-disciplinary EIA projects for onshore wind farm projects.
		The chapter has also been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
Chapter 16: Interactions	SLR	The chapter was prepared by Eoin Greevy, BSc, MSc. Eoin is a Graduate Planner at SLR Consulting with experience supporting renewable energy and infrastructure projects across Ireland.

EIAR Topic	Company	Name and Qualification
		The chapter was reviewed by Gareth Hughes, BSc, MSc, PISEP who has over 15 years' experience and who specialises in managing multi-disciplinary EIA projects for onshore wind farm projects.
		The chapter has also been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
Chapter 17: Schedule of Mitigation Measures	SLR	The chapter was prepared by Eoin Greevy. Eoin is a Graduate Planner at SLR Consulting with experience supporting renewable energy and infrastructure projects across Ireland.
		The chapter was reviewed by Gareth Hughes, BSc, MSc, PISEP who has over 15 years' experience and who specialises in managing multi-disciplinary EIA projects for onshore wind farm projects.
		The chapter has also been reviewed by Aislinn O'Brien, MSc, MCD, MIPI, MRTPI. Aislinn is a chartered town planner with over 20 years professional planning experience. During this time Aislinn has project managed and coordinated numerous planning applications and EIARs.
EIA Co-ordination	SLR	EIA Co-ordination was carried out by Gareth Hughes, BSc, MSc, PISEP, CIWEM and Aislinn O'Brien, MSc, MCD, MIPI, MRTPI (refer to above in table for further detail on experience).
GIS Co-ordination	SLR	Ayham Rezk, BA. MA. PhD led the GIS coordination for the EIA. Ayham is a Principal GIS Analyst at SLR with over 10 years of experience in the development and implementation of spatial solutions for clients. Ayham provides GIS expertise for multidisciplined projects, supporting the variety of disciplines at SLR with expertise in data capture, management, analysis, and visualisation.
		Joe O'Reilly, MSc, BSc, also undertook GIS coordination. Joe is a Senior GIS Analyst at SLR with over 6 years of experience in the development and implementation of spatial solutions for clients, specialising in the application of GIS at a landscape-scale to inform strategic planning.

Viewing and Purchasing of the EIAR

1.78 The Planning Application and this EIAR is available for download at www.muingmoresid.ie

1.79 Copies of this EIAR including the Non-Technical Summary, Technical Appendices and all planning documents may be inspected free of charge or purchased by any member of the public during normal office hours at the following locations:

- The offices of An Coimisiún Pleanála, 64 Marlborough Street, Dublin 1,
- Mayo County Council Planning Department, Áras An Chontae, The Mall Castlebar Co. Mayo F23 WF90.

Figures

Figure 1-1: Site Location

460000 470000 480000 490000 500000

840000 830000 820000 810000

Broadhaven Bay
Béal an Mhuirthead
Loch na Ceathrún Móire
Blacksod Bay - Cuan an Fhóid Duibh
Achill Island - Acaill
Keel Beach
Wild Nephin National Park
N59

N

LEGEND

Proposed Development Site Boundary

Proposed Turbine Location

0 2.5 5

Kilometres

RWE

SLR

MUINGMORE WIND FARM

INTRODUCTION

SITE LOCATION

FIGURE 1-1

Scale 1:150,000 @ A3

Date MARCH 2026

402.064443.00001.0060.0 Site Location