1 INTRODUCTION

1.1 INTRODUCTION

The EIAR has been prepared by Jennings O'Donovan & Partners Limited, on behalf of EDF Renewables Ireland Ltd, to accompany a planning application for the Proposed Development. This chapter of the Environmental Impact Assessment Report (EIAR) introduces Kellystown Wind Farm (the 'Proposed Development') see **Chapter 2: Description of The Proposed Development** for the full details.

This EIAR has been updated in response to the Request for Further Information (RFI) issued by Louth County Council (LCC) on 6th February 2025 in respect of the proposed development which this EIAR relates i.e. Kellystown Wind Farm, Co. Louth (Reg. Ref. LCC 2460294). Changes to EIAR are shown in Orange. Where text has been removed it is shown as ~~strikethrough.~~

It should be noted, that following a review of the proposed development based on the Request for Further Information, it has been determined that site entrance 4 is not required for the construction, operation and decommissioning of the proposed development, as all works can be accommodated via the proposed site entrances 1-3. Therefore, it is proposed to omit entrance 4 from the proposed development. The authors of all EIAR Chapters have reviewed this revision, and no implications for the assessment have been identified.

The key changes in response to items raised in Further Information Request correspond to updates to the following chapters are outlined in **Table 1.0 EIAR Changes summary**

Table 1.0 - EIAR Changes summary

Kellystown EIAR Chapter	RFI Items	EIAR Changes
Chapter 1 – Introduction	Minor Changes	• Outline approach to EIAR RFI Update • Summary of updates in each chapter in Table 1.0 EIAR Changes summary • Section 1.12 Scoping and consultation - haul route Consultation
Chapter 2 - Description of The Proposed Development	Minor Changes	• Appendix 2.1 - Management Plan 3 - Surface Water Management Plan • Appendix 2.3: TLI Technical Notes • Removal of reference to site entrance No.4 • Table 2.6a: Temporary areas of Works on Haul Route in Third Party Lands • Section 2.6.3 Site Access • Section 2.6.11.5 Underground grid connection cable at M1, Junction 10 Roundabout • Section 2.6.14 Onsite Drainage • Table 2.11a: Grid Connection - Anticipated Construction Programme.

Chapter 3 - Alternatives	Minor Changes	• Appendix 3.1.c 38kV Grid Connection Screening of Chapel Lane Alternative • Appendix 3.1 Alternative Grid Route Connection - RFI Upate – Final
Chapter 4 - Policy	Minor Changes	Updated to include the following policy considerations post the submission (December 2024). • Climate Action Plan 2025 • Revised National Planning Framework
Chapter 5 – Human Health and Population	Update to account for RFI Items *Entrances and Shadow Flicker*	• Reference to RSA • Reference update in relation to the Shadow Flicker Chapter
Chapter 6 – Biodiversity	Minor Changes	change to a reference to entrance use, Inclusion of Dundalk SPA
Chapter 7 – Bats	Update to account for RFI Item *Bats*	Mitigation Measure
Chapter 8 - Ornithology	Minor Changes	RFI Introduction text No changes required to the chapter
Chapter 9 - Aquatic Ecology	Update to account for RFI Item *Storm Water Management / Flooding 1*	Section 50 reference included
Chapter 10 - Soils and Geology	Update to account for RFI Item *Storm Water Management / Flooding 2*	Inclusion of Supplementary Ground Investigation Soakaway Testing results (Appendix 10.2)
Chapter 11 - Hydrology and Hydrogeology	Update to account for RFI Item *Storm Water Management / Flooding*	• Documentary evidence of OPW Section 50 consent for the three proposed watercourse crossings is included in Appendix B of the Flood Risk Assessment. • New flow estimation and pipe sizing calculations have been included in Annex H of the of the Surface Water Management Plan (EIA Technical Appendix 9.2). • New drawing DWG_63 for Site Entrance 3 Drainage is located at Annex G of the of the Surface Water Management Plan (EIA Technical Appendix 9.2). • The permanent drainage plan (Annex A of the Surface Water Management Plan (EIA Technical Appendix 9.2) has been updated to reflect the addition of new clean water drainage pipes where tracks are to cross existing field boundaries / drains and natural surface water flow routes / depressions to allow provision for clean water to pass through and under track structures separate to drainage provided for track runoff. • New flow estimation and pipe sizing calculations have been included in Annex I of the of the Surface Water Management Plan (EIA Technical Appendix 9.2). • Permeability tests per BRE 365 have been undertaken. New infiltration test summaries are included at Section 2.2.3 of the Surface Water Management Plan (EIA Technical Appendix 9.2) • Re-sizing of Basin 5 to suit observed infiltration rates. The change is reflected on drawing DNG_3 at Annex A of the Surface Water Management Plan

		• Re-configuration of Basin 15 to discharge to an adjacent field boundary drain at a greenfield (Qbar) rate. The change is reflected on drawing DNG_10 at Annex A of the Surface Water Management Plan • Re-configuration of Basin 18 to discharge to an adjacent field boundary / roadside verge drain at a greenfield (Qbar) rate. The change is reflected on drawing DNG_10 at Annex A of the Surface Water Management Plan • Re-configuration of drainage from subcatchment 6 to drain to a new attenuation basin (Basin 6) to discharge at a greenfield (Qbar) rate overland at a level spreader. The change is reflected on drawing DNG_7 at Annex A of the Surface Water Management Plan Annex A • New and updated supporting calculations demonstrating basin sizing for C5 (amended), C6 (new), C15 (amended), and C18 (amended) are included at Appendix E of the Surface Water Management Plan (EIA Technical Appendix 9.2).
Chapter 12 - Landscape and Visual Amenity	Update to account for RFI Items *The Heritage Council and Archaeological Impact Assessment*	• Reference to the findings of World Heritage Assessment of Bru na Boinne Appendix 15.4 and Monasterboice. • Updates to Photomontage Booklet 2 VP23
Chapter 13 - Noise and Vibration	Update to account for RFI Items *Noise and Vibration effects from blasting at Gallstown Quarry.*	• Section 13.4.3.2 Predictions • Section 13.4.4 Operational Noise Effects from BESS and Substation • Section 13.4.6.2 Cumulative Operational noise (Wind Turbine and BESS noise on Residential Receptors) • Section 13.4.6.4 Quarry Blast Impacts on the Wind Turbines • New Technical Appendix 13.5: Kellystown Wind Farm Planning Support: FI Request Related to Vibration Effects from Blasting
Chapter 14 - Material Assets	Update to account for RFI Items *TII and 38Kv Grid Connection*	• TLI Grid Route survey and updated referenced • Appendix 14.2: Technical Note 3 – TLI Group

Chapter 15 - Cultural Heritage	Update to account for RFI Items *The Heritage Council and Archaeological Impact Assessment*	• Reference to the Geophysics and test trenching
		  • Appendix 15.2 Archaeological Geophysical Survey
		  • Appendix 15.3 Archaeological Testing Programme
		  • Appendix 15.4 Heritage Impact Assessment (Brú na Bóinne)
		  • Appendix 15.4a Heritage Impact Assessment Photomontage
		•

Chapter 16 - Traffic and Transport	Update to account for RFI Items *The Heritage Council and Archaeological Impact Assessment*	• Reference to revised Entrances • Haul Route Consultation • Construction Traffic Management Plan • Appendix 16.3a: Swept Path Analysis N162 undertaken by Collett: • Appendix 16.3b: Swept Path Analysis N163 undertaken by Collett
Chapter 17 - Shadow Flicker	Update to account for RFI Item	Inclusion of office buildings in Kilsaran/Gallstown Quarry

	Shadow Flicker	
Chapter 18 - Air and Climate	/	RFI Introduction text No changes required to the chapter
Chapter 19 - Major Accidents & Natural Disasters	Minor Changes	Updated to account for • the foundation/vibration RFI item, • entrance sightlines • reference to the Construction Traffic Management Plan.
Chapter 20 - Interactions of the Foregoing	Minor Changes	

In addition, this Chapter introduces the Environmental Impact Assessment (EIA) Project team and the overall structure of the EIAR. It sets out the broad context and defines the key terms of reference used in the environmental assessment of the Proposed Development. The Proposed Development is subject to an EIA, under Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU (together, the 'EIA Directive') and the Planning and Development Act 2000 (as amended) (the 'PDA').

In addition to the identification, description and assessment of the Proposed Development, this EIAR identifies, describes and assesses the overall Project, as described in **Table 1.1** and **Chapter 2: Description of The Proposed Development**, as a whole, and all likely significant direct and indirect effects, the cumulative impacts and their interactions, including all relevant ancillary and subsidiary elements. This EIAR also includes the conclusions of the competent and qualified experts as to the significance of any such environmental effects, to assist the competent authority in conducting its EIA.

The potential for significant or adverse effects resulting from the Proposed Development, both individually and in combination with other activities, plans and developments, on European Site(s) as designated under the EU Habitats Directive and the conservation objectives for their qualifying species and habitats have been screened and assessed. This application is accompanied by an Appropriate Assessment Screening Report and Natura Impact Statement (NIS) which are intended to assist the competent authority in carrying out the Appropriate Assessment required in accordance with Article 6(3) of the EU Habitats Directive (92/43/EC).

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

- **Appendix 1.1**: Author Qualifications
- **Appendix 1.2:** Consultation Responses

- **Appendix 1.3**: Glossary of Common Acronyms
- **Appendix 1.4**: Community Report
- **Appendix 1.5:** Design Flexibility Opinion from Louth County Council

1.2 KEY DEFINED TERMS

In order 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
Wind Farm Site	Refers to all lands that fall within the civil design footprint of the Proposed Kellystown Wind Farm excluding the Grid Connection and third-party lands on the Turbine Delivery Route. The Wind Farm Site boundary as shown in Figure 1.1.
Redline Boundary	Refers to the Proposed Development Redline Boundary, being the Redline Boundary identifying the land that is subject to this planning application. It is the boundary line of all works to be completed as part of the Proposed Development and is shown on the planning drawings accompanying this EIAR as shown in Figure 1.2.
The Baseline	Refers to the relevant aspects of the current state of the existing environment in the area where the Project is proposed to be located and the surrounding areas.
Proposed Development	Refers to all elements described in the form and public notices for Kellystown Wind Farm, the details of which are set out within **Chapter 2: Description of the Proposed Development**. These elements include the wind turbines, all site infrastructure (Access Roads, Onsite Substation and Control Building, Battery Energy Storage System (BESS), Temporary Construction Compounds, Permanent Meteorological Mast, Permanent Spoil Storage, tree felling; including the works required within the Redline Boundary for the Grid Connection Route and Turbine Delivery Route).
The Project	Refers to all elements of the Kellystown Wind Farm project as a whole, including the Proposed Development and all additional works outside the Redline Boundary which are functionally and technically interdependent with the Proposed Development but will be subject to separate consent applications. Additional works

Term	Definition
	include temporary street furniture removal, hedge trimming and laydown of temporary road surface. These additional works are described in full in **Section 2.6.5** of **Chapter 2: Description of the Proposed Development**.
The Application	Refers to this EIAR and all supporting planning documentation which will be submitted to Louth County Council.
Survey Areas	Refers to areas within or over which surveys are undertaken. These are specifically defined within each technical section/chapter of this EIAR.
Study Areas	Refers to the geographic areas which are identified by the relevant topic expert as areas in which the Proposed Development has the potential to give rise to significant environmental effects. These are topic-specific and defined within each technical section/chapter of this EIAR.
The Council	Refers to Louth County Council.
The Developer	EDF Renewables Ireland Limited
The Applicant	EDF Renewables Ireland Limited
EIA Regulations	The PDA 2000: 'Refers to the Planning and Development Act 2000, as amended' The Planning Regulations 2001: 'Refers to the Planning and Development Regulations 2001, as amended'
The EIA Directive	Refers to Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by Directive 2014/52/EU'.
Scoping	The process to identify key environmental issues, and to determine which elements of the Project are likely to cause significant environmental impacts and to identify elements that can be removed from the assessment.
Onsite Substation and Control Building	Refers to the onsite substation comprising the control building and other associated electrical infrastructure including Battery Energy Storage System (BESS) and the compound in which it is located.

Term	Definition
Battery Energy Storage System (BESS)	Refers to the battery storage units situated in the onsite substation compound.
Permanent Met Mast	Refers to a proposed Permanent Meteorological Mast to be located within the Redline Boundary.
Temporary Met Mast	Refers to a proposed Temporary Meteorological Mast which is subject to a separate planning application subsequent to this planning application, the location of the Temporary Meteorological Mast will be situated outside the Redline Boundary but adjacent to the Wind Farm Site.
Access Roads	Refers to the internal road structure to facilitate the construction, operation and decommissioning of the proposed Development.
Construction Haul Routes	Refers to the proposed routes from any local quarries and suppliers to the Wind Farm Site.
Turbine Delivery Route	Refers to the proposed turbine delivery route from Galway Port to the Wind Farm Site.
Grid Connection	Refers to the proposed route of connecting the Onsite Substation to Drybridge 110kV Substation.
Wind Farm Internal Cabling	Refers to the electrical cables connecting the turbines to the Onsite Substation.
Temporary Construction Compounds	Refers to the compounds to be developed and used by the appointed contractor(s) for the purposes of constructing the Proposed Development which will be removed following completion of construction.
Turbine Hardstand	Refers to a small, fixed area next to each 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 hub.
Decommissioning	Refers to the end of the operational life of the wind farm when turbines are dismantled and taken off site for reuse, recycling, or disposal, as appropriate. The Turbine Foundations will remain in-situ and will be covered with soil and reseeded as appropriate. The Turbine Hardstands will also be reinstated, and the Access Tracks

Term	Definition
	will be left in-situ. The Wind Farm Internal Cabling will be removed, while the ducting will remain in-situ. The Onsite Substation and Control building will be left in-situ. This proposed approach will be subject to the agreement with The Council prior to commencing decommissioning.
Reinstatement	Reinstatement means restoring the habitat in the areas of the site where infrastructure was developed.

1.3 THE APPLICANT

The Applicant and Developer for the Proposed Development is EDF Renewables Ireland Limited.

EDF Renewables Ireland is part of one of the world's largest electricity companies and their investment and innovation in renewable energy projects is reducing costs for consumers and bringing significant benefits to communities.

EDF Renewables Ireland's team has a wealth of experience in bringing complex development projects to fruition, across onshore and offshore wind, solar PV and battery storage technology, and is supported by more than 400 colleagues in the UK.

In 2020 EDF acquired 50% of Codling Wind Park, a major offshore wind farm which will be located off the coast of Wicklow and have also entered into a 50:50 partnership to develop the Emerald and Western Star floating offshore wind farms, to be located off the coasts of Cork and Clare, respectively. Together, these three projects could power over two million homes across Ireland.

In 2023 EDF energised three of Ireland's first grid-scale solar farms and have announced plans for five onshore wind farms across Ireland. In total EDF will have an Irish onshore development pipeline of almost 1GW.

In the UK, EDF Renewables has an operating portfolio of 36 wind farms and two battery storage units (together totalling more than 1.5GW) and a development pipeline of 14GW across wind, solar and battery storage. EDF Renewables operates in more than 20 countries around the world.

1.4 THE SITE

The Wind Farm Site extends to an area of 64.5 hectares which is private third-party owned land. The principal land use within the site area is comprised of pasture farmland, forestry incorporating a mosaic of wetland and scrubland habitats. The site is located 8.3km north of Drogheda, 23.6km South of Dundalk and 50km North of Dublin. The Site elevations range from 90m above ordnance datum (AOD) in the northern portion of the site to 120m AOD towards the north-west side of the Wind Farm Site. A Site Location Map showing the Wind Farm Site Boundary is shown in **Figure 1.1** and the Redline Boundary outlined in **Figure 1.2.**

The Wind Farm Site is located in a rural setting and housing density in the area is low predominantly comprising one-off houses and farm holdings. There are 374 dwellings within a 2km radius of the proposed turbines (**Figure 1.3**). The nearest town is Dunleer, located c. 3.1km north of the Developable Area. The villages of Clogherhead and Termonfeckin are located approximately 6km to the east.

1.5 SUMMARY OF PROJECT DESCRIPTION

Planning permission is being sought by the Developer for the construction of 5 wind turbines, a Permanent Met Mast, 38kV on-site substation and all ancillary works and the construction of an underground Grid Connection to Drybridge 110kV Substation, in the townlands of Ballymakenny, Brownstown, Carntown, Carstown, Cartanstown, Castletown, Drumshallon, Gallstown, Groom, Kearneystown, Keeverstown, Killineer, Mell, Newtown Monasterboice, Piperstown, Stonehouse, Swinestown, Tullyallen, Tullyard and Tullyeskar, Co. Louth.

The Proposed Development will consist of the provision of the following:

- The construction of 5 no. wind turbines with the following parameters:
  - a) Total tip height range of 179.5m – 180m,
  - b) Rotor diameter range of 149m – 163m,
  - c) Hub height range of 98m to 105m,
- Construction of turbine foundations, crane hardstand areas and assembly areas;
- All associated wind farm underground electrical and communications cabling connecting the turbines and meteorological mast to the proposed onsite electrical substation including cabling. in the public road corridor in the townlands of Gallstown and Kearneystown;

- Construction of 1 no. permanent 38kV electrical substation compound including a single-storey control building with welfare facilities, all associated electrical plant and equipment, security fencing, gates, all associated underground cabling, wastewater holding tank, and all ancillary structures and works in the townland of Piperstown.
- A Battery Energy Storage System within the 38kV electrical substation compound;
- All works associated with the connection of the proposed wind farm to the national electricity grid which includes 5 no. of water crossings (3 no. bridges and 2 no. culverts). The provision of joint bays and associated communication chambers along the underground electrical cabling route via underground 38kV electrical cabling predominantly within the public road corridor, from the onsite substation in the townland of Piperstown to the existing Drybridge 110 kV Substation located in the townland of Tullyallen;
- Reinstatement of all road and track surfaces above cabling trench along existing roads and tracks in public lands;
- Provision of new site access tracks and upgrade of existing site tracks/roads to facilitate access to all onsite infrastructure this includes 3 no. water crossings, passing bays and all associated drainage;
- The provision of 2 no. new permanent site entrances for construction and operational access from the local road L6274 in the townlands of Kearneystown and Gallstown;
- The permanent realignment of 1 no. existing entrance for construction and operational access to the 38kV electrical substation compound from the local road L2275 in the townland of Piperstown;
- Use of 1 no. existing site entrance for construction, operational access to the permanent met mast on a private road off local road L2275 in the townland of Drumshallon.
- The construction of 1 no. new temporary track in the townland of Castletown at the R162 / L-6274-0 Junction to facilitate the delivery of the turbine components during construction. This track will be temporarily re-installed as required during the operational phase;
- 3 no. temporary construction compounds with associated temporary offices, staff facilities parking and security fencing in the townlands of Gallstown, Piperstown and Stonehouse;
- 1 no. permanent meteorological mast of c.36m in height, and associated foundation and hard-standing area in the townland of Drumshallon;
- The provision of 2 no. permanent spoil storage areas;
- Tree felling to facilitate the construction and operation of the proposed development;
- Operational stage site signage;

- All ancillary apparatus and site development works above and below ground, including soft and hard landscaping and drainage infrastructure.

A 10-year planning permission and 35-year operational life from the date of commissioning of the entire wind farm is being sought. However, part of the substation and all of the grid connection will be handed over to ESB networks to own and operate. As part of the national grid infrastructure, their life can extend beyond the life of the wind farm. Accordingly, permission is sought for the grid connection and substation in perpetuity.

The EIAR assesses The Project which includes the Proposed Development as outlined above. In addition, the Project includes temporary modifications to the existing public road infrastructure to facilitate delivery of abnormal loads and turbine delivery. These works will be carried out at the following locations: Galway Docks, Monivea Rd, Junction Galway, Junction on the R339, N6, Lucan Roundabout, N4 joining the M50, M50, Hill of Rath Roundabout and Rosehall Roundabout.

Only one Turbine Delivery Route and one Grid Connection Route will form part of this planning application details of which are outlined above in **Section 1.5**. Alternative routes have been assessed as part of the EIAR in **Chapter 3: Alternatives Considered** and **Appendix 3.1**, these do not form part of the planning application.

1.6 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) and are presented on **Figure 1.4**. In this regard, the European Commission "*Guidance document on wind energy developments and EU nature legislation*, (November 2020)[1] 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."*

1 Guidance document on wind energy developments and EU nature legislation - Publications Office of the EU (europa.eu) , [Accessed 8 October 2024].

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 to a variation of 0.5m in tip height, 14m in rotor diameter and 7m in hub height.

1.6.1 Assessment of Turbine Parameter Range within the EIAR

In accordance with section 32I and 32H of the Planning and Development Act 2000 (as amended), the Applicant obtained an opinion on design flexibility from the Council (**Appendix 1.5**). This opinion sets out the details of the Proposed Development that can be confirmed after the Application has been determined. The Application includes information in respect of these design parameters, on the basis of which the Application may be decided by the competent authority.

The design flexibility requirement arises due to the inherent lengthy timescales associated with developing a wind farm project. It can be a number of years between planning submission and commencement of construction due to various factors including planning determination timescales, timing of support scheme auctions, and grid availability.

During this time, wind turbine technology is continuously evolving. There is a degree of uncertainty as to which make/model of wind turbine will be available to the project at the time of construction. Therefore, it is difficult to establish exact turbine dimensions at the pre-planning stage.

The final wind turbine type will be chosen at the pre-construction stage, following a competitive tender process with eligible turbine suppliers. The dimensions of the chosen turbine will fall within the range specified below. The final turbine dimensions will be confirmed with the Council at least 2 weeks prior to the erection of the turbines at the site. The Council has confirmed it is satisfied that it is appropriate that the proposed application be made and decided before the hub height, tip height and rotor diameter within the proposed range have been confirmed (32I(1)(b) PDA).

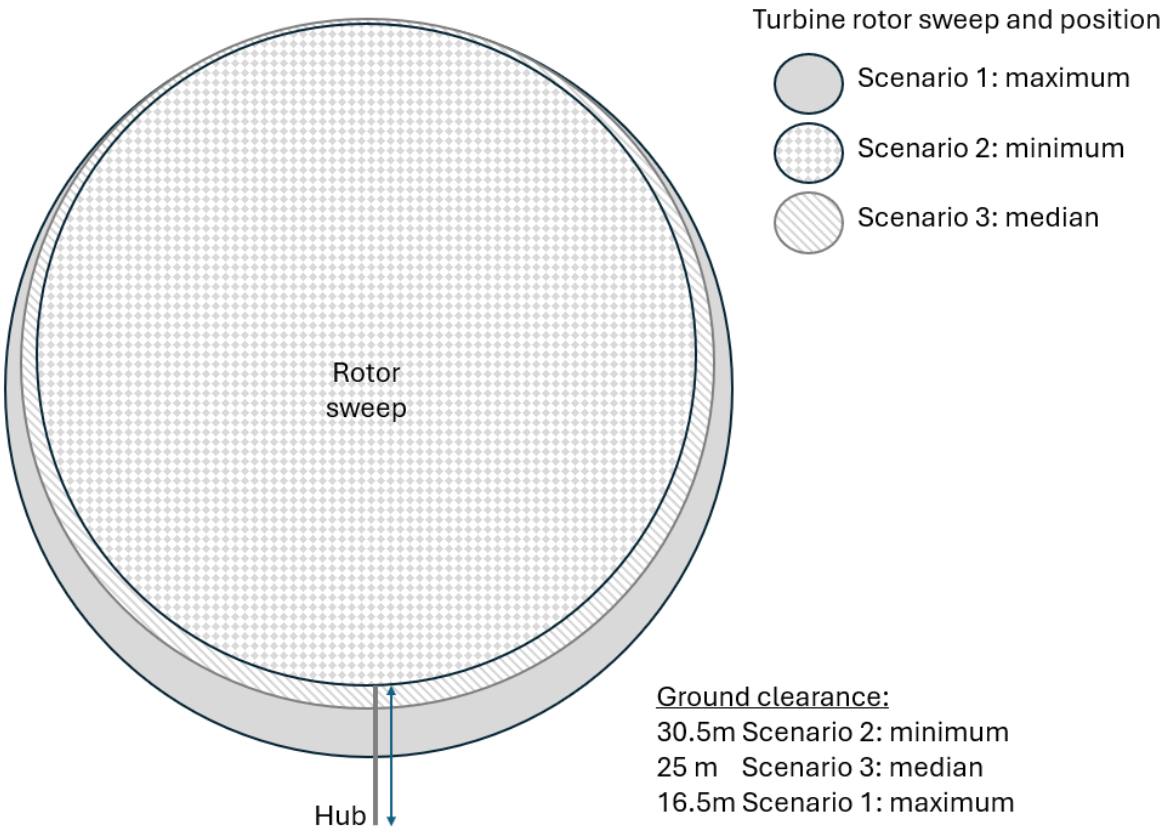
Notwithstanding certain details have not yet been confirmed, the environmental impacts across the range of relevant parameters for each such detail has been fully considered and documented in this EIAR.

The candidate turbine parameters used in the EIAR are outlined in **Table 1.2**. There are three possible turbine dimension scenarios, these are classed as maximum, minimum median on the basis of the rotor diameter.

Table 1.2: Candidate Turbine Parameters to be Assessed

Turbine Parameter	Scenario 1: Maximum	Scenario 2: Minimum	Scenario 3: Median
Tip Height (m)	179.5	179.5	180
Rotor Diameter (m)	163	149	155
Hub Height (m)	98	105	102.5
Foundation Diameter (m)	27.2	27.2	27.2
Hardstand Dimensions (m^2)	3,700	3,700	3,700

Illustration: Comparison of candidate turbine rotor sweep and position



1.6.2 Assessment of Turbine Parameter Range within the EIAR

The assessment of the wind turbine parameters will be complete and of sufficiently high quality, in accordance with Annex IV of the EIA Directive.

The proposed range of turbine parameters are assessed within the impact assessment chapters of this EIAR (Chapters 4-17) and are presented on **Figure 1.4**. In this regard, the European Commission "*Guidance document on wind energy developments and EU nature legislation*, (November 2020)[2] 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 1envelope."*

The proposed range of turbine parameters is limited to three scenarios. This EIAR has assessed these scenario(s) which has allowed for an assessment of all permutations within the range. **Table 1.3** explains the assessment approach that has been taken in relation to each EIAR topic in order to ensure that the potential impact of all design permutations within the approved range has been comprehensively assessed. The proposed foundation and hardstand sizes have been identified based on a precautionary approach. The foundation size and hardstand size will be the same for all three turbine scenarios.

For the purposes of this EIAR, various types and sizes of wind turbines, within the proposed ranges outlined above, have been selected and considered in the relevant sections of the EIAR. The installed wind turbine may not be either of the three candidate turbines but will be within the range of minimum and maximum parameters set out in **Table 1.2**. The selection of specific design scenario (s) for each chapter has allowed an assessment of all permutations within the range.

The turbine parameters are shown clearly on the suite of planning drawings, including elevations (**Planning Drawing No. 6918-PL-500**), in accordance with the requirements of the Planning and Development Regulations 2001 (as amended).

2 https://op.europa.eu/en/publication-detail/-/publication/2b08de80-5ad4-11eb-b59f-01aa75ed71a1, [Accessed 12th August 2024].

Table 1.3: How the Design Parameters were Assessed for Each Topic in the EIAR Assessments

EIAR Chapter	Assessment Parameters Detail	Assessment of Range of Turbine Parameters
Chapter 5: Population and Human Health	Scenario 1: Maximum	This Chapter assesses the potential impact that the proposed turbine parameters have on have Population and Human Health. Scenario 1: Maximum has the largest rotor diameter 163m. The impact of the difference in the tip height of 0.5m of Scenario 1: Maximum (179.5m) when compared to Scenario 3: Median (180m), is considered inconsequential on most of the Population and Human Health factors. For other Population and Human Health factors such as Air quality and Water Contamination the potential effects are related to Proposed Development footprint which remains the same across all three scenarios.
Chapter 6: Biodiversity	Scenario 1: Maximum	This Chapter assesses the maximum scenario for potential effects on Biodiversity (terrestrial mammals and habitat). The maximum scenario accounts for the largest rotor sweep and therefore the smallest above ground level clearance (16.5m). Of the three scenarios, the maximum scenario represents the maximum area of above ground disturbance to terrestrial mammals and habitat that will be caused by the operational infrastructure.
Chapter 7: Bat Ecology	Scenario 1: Maximum	This Chapter assesses the maximum scenario for potential effects on Bat Ecology. The maximum scenario accounts for the largest rotor sweep, encompassing a larger sweep volume (than scenarios 2 and 3) The maximum scenario has the smallest above ground level clearance (16.5m), allowing for the assessment of low flying bat; bats regularly fly below 20m above ground level. Of the three scenarios, the maximum scenario represents both the maximum area of above ground disturbance that will be caused by the operational infrastructure and encompasses the lower level flight patterns of bats.
Chapter 8: Ornithology	Scenario 1: Maximum	For the purpose of modelling turbine rotor collision for different bird species (Collision Risk Model), Scenario 1: Maximum is considered the Highest Risk Turbine: as it has the largest rotor diameter 163m which allows the minimum ground clearance of the three scenarios (16.5m). A difference in the hub height (179.5m) of 0.5m when compared to Scenario 3: Median (180m), is considered inconsequential in terms of impact on the Collision Risk Model results. Of the three scenarios, the maximum scenario represents both the maximum area of above ground disturbance that will

EIAR Chapter	Assessment Parameters Detail	Assessment of Range of Turbine Parameters
		be caused by the operational infrastructure and encompasses the lower level flight patterns of birds.
Chapter 9: Aquatic Ecology	Not dependant on turbine parameters	This Chapter assesses the potential effects of Proposed Development footprint on Aquatic Ecology. The difference in the turbine parameters as shown in Table 1.2, between the three scenarios have no influence on the Aquatic Ecology assessment. As the footprint of the turbine foundation are the same across all scenarios, the potential impact on water sources and pathways and water based ecology is not affected by the turbine parameters and will be the same across all three scenarios.
Chapter 10: Soils and Geology	Not dependant on turbine parameters	This Chapter assesses the potential effects of Proposed Development footprint on Soils and Geology. The difference in the turbine parameters as shown in Table 1.2, between the three scenarios have no influence on the Soils and Geology assessment. As the footprint of the turbine foundation are the same across all scenarios, the potential impact on bedrocks geology, soils and subsoils will be the same across all three scenarios.
Chapter 11: Hydrology and Hydrogeology	Not dependant on turbine parameters	This Chapter assesses the potential effects of Proposed Development footprint on hydrology and hydrogeology. The difference in the turbine parameters as shown in Table 1.2, between the three scenarios have no influence on the hydrology and hydrogeology assessment. As the footprint of the turbine foundations are the same across all scenarios, the potential impact on hydrology and hydrogeology (which encompasses surface watercourses and downstream effects, ground water, the surface water catchments draining and underlying aquifer catchments) will be the same across all three scenarios.
Chapter 12: Landscape and Visual Amenity	Scenario 1: Maximum Scenario 2: Minimum Scenario 3: Median	This Chapter assesses the visual effects of the proposed turbines on Landscape. All three scenarios are assessed for the Landscape and Visual Assessment. Comparative photomontages for the three scenarios at short and mid-distance views of the Proposed Development, showed that the variation in turbine dimensions proved difficult to discern across the three scenarios even with considerable scrutiny.

EIAR Chapter	Assessment Parameters Detail	Assessment of Range of Turbine Parameters
		Scenario 3:(Median) on the basis of the greatest overall turbine height is the turbine presented in all photomontages. The comparative assessment (across all three scenarios at proximate/mid-distance views) will be included in the Photomontage Booklet.
Chapter 13: Noise and Vibration	Scenario 1: Maximum Scenario 2: Minimum Scenario 3: Median	This Chapter assesses the noise effects of the proposed turbines on sensitive receptors. All three scenarios are assessed. Scenario 1: Maximum, with the largest rotor diameter (163m) and power output is deemed to have the maximum impact for noise levels. Additional modelling was undertaken using turbine models representative of Scenario 2: Minimum and Scenario 3: Median to assess the range of turbine dimensions. All candidate turbines modelled are considered to be representative of the type of turbine that could be installed at the Site. It is considered that all design permutations encompassed in Table 1.2 have been assessed.
Chapter 14: Material Assets	Scenario 1: Maximum	This Chapter assesses the maximum potential impact that the Proposed Development footprint has on Land use (Agriculture, Forestry), Quarries nd underground Utilities (gas, water and wastewater). The difference in the turbine parameters as shown in Table 1.2, between the three scenarios non influence any aspects of materials asset assessment. This Chapter also assesses the maximum potential impact that the proposed turbine parameters have on Telecommunications and Air Navigation. Scenario 1: Maximum has the largest rotor diameter 163m. The difference in the hub height (179.5m) of 0.5m of Scenario 1: Maximum when compared to Scenario 3: Median (180m), is considered inconsequential in terms of impact on the Telecommunications and Air Navigation. Therefore, the maximum scenario represents the maximum area of above ground disturbance to Telecommunications and Air Navigation that will be caused by the operational infrastructure.
Chapter 15: Cultural Heritage	Scenario 3: Median	The Chapter assesses the maximum potential development footprint for potential effects on cultural heritage. The difference in the turbine parameters as shown in Table 1.2, between the three scenarios have no influence on cultural heritage from the perspective of ground/ below ground disturbance.

EIAR Chapter	Assessment Parameters Detail	Assessment of Range of Turbine Parameters
		From the perspective of visual impact on cultural heritage, the photomontages created in Chapter 12: Landscape & Visual are used to assess the visual impact on cultural heritage. As outlined in the Chapter 12: Landscape & Visual Amenity section of this table, comparative photomontages for the three scenarios at short and mid-distance views of the Proposed Development were undertaken however Scenario 3:(Median) on the basis of the greatest overall turbine height is the turbine presented in all photomontages. Scenario 3 is considered the most representative turbine in terms of visual impact on cultural heritage.
Chapter 16: Traffic and Transport	Scenario 1: Maximum	This Chapter assesses the potential effects of Proposed Development on Traffic and Transport. The difference in the turbine parameters as shown in Table 1.2, between the three scenarios have no influence on the Proposed Development footprint, as the material supply, excavation and transport will remain the same across all three scenarios and will not result in different environmental impacts. With regards to turbine component transport, Scenario 1: Maximum is the scenario which gives rise to the longest turbine blade and this therefore this is assessed for the turbine component transport. The difference in the blade length across the 3 scenarios is less than 7m (ranges from approximately 73.7m to 80.1m). This difference is expected to be inconsequential in terms of the environmental effects of turbine transport.
Chapter 17: Shadow Flicker	Scenario 1: Maximum Scenario 2: Minimum Scenario 3: Median	Three scenarios will be assessed for the Shadow Flicker Assessment, as part of the EIAR. Scenario 1: Maximum is the scenario that gives rise to the greatest modelled levels of shadow flicker. A Comparative Shadow Flicker Assessment is included as an Appendix to **Chapter 17: Shadow Flicker** which presents the modelling results of Scenario 2: Minimum and Scenario 3: Median, all of which are assessed within the EIAR.
Chapter 18: Air and Climate	Scenario 1: Maximum Scenario 2: Minimum	This Chapter assesses the air quality and climate effects of the proposed turbines. For determination of greenhouse gas emissions, a turbine with a larger rotor diameter generally has a greater turbine capacity (MW). Using the wind turbine carbon calculator, the turbine capacity (MW) has a direct effect on the calculated carbon losses and the carbon savings, both increasing with increasing capacity. As a result, there are very minor differences between the impacts of each scenario. However, to quantify the impacts across the difference scenarios, Scenario 1: Maximum, with the

EIAR Chapter	Assessment Parameters Detail	Assessment of Range of Turbine Parameters
		largest rotor diameter (163m) and Scenario 2: Minimum, with the smallest rotor diameter (149m) were assessed.
Chapter 19: Major Accidents	Scenario 3: Median	This chapter assesses the effects on the environment arising from the vulnerability of the proposed Development to risks of major accidents and/or natural disasters. Risks of major accidents and/or natural disasters due to weather, flooding, peat stability and landslides, traffic and contamination will vary with the Proposed Development footprint. No impact variability is anticipated with differences in the turbine dimensions For the Industrial Accidents and Loss of Critical Infrastructure, the environmental impact due to the variation in the difference in the tip height across the three scenarios; 0.5m (179.5-180m), is expected to be inconsequential. Scenario 3: Median was considered as this has the largest tip height (180 m).

1.7 ENVIRONMENTAL IMPACT ASSESSMENT

1.7.1 Legislative Context of Environmental Impact Assessment

This EIAR complies with the EIA Directive as amended by Directive 2014/52/EU, the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations (as amended).

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 planning legislation, through the EIA 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 equal or exceed, as the case may be, 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 an 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."*

Class 10(dd) *"All private roads which would exceed 2000 metres in length"*

Class 15 *"Any project listed in this Part which does not exceed a quantity, area or other limit specified in this Part in respect of the relevant class of development, but which would be likely to have significant effects on the environment, having regard to the criteria set out in Schedule 7".*

It is considered that the Proposed Development comes within the scope of Class 3(i) and Class 10(dd) and that it is appropriate to carry out EIA of the Proposed Development.

1.7.2 EIA Directive

Article 5 of the EIA Directive provides that, where an EIA is required, the developer shall prepare and submit an EIAR previously referred to as an Environmental Impact Statement (EIS). The information to be provided by the developer shall include at least:

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

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

(c) a description of the features of the project 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 project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project 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 project or type of project and to the environmental features likely to be affected

In addition, Annex IV of the EIA Directive provides further detail on the information to be included in an EIAR. These requirements are transposed under Article 94 and Schedule 6 of the Planning and Development Regulations 2001 (as amended), with which this EIAR complies.

JOD was appointed as the environmental consultant on the Proposed Development and commissioned to prepare this EIAR in accordance with the requirements of the EIA Directive and the PDA.

The EIAR describes the receiving environment and assesses the likely significant effects of the Proposed Development on the receiving environment and proposes mitigation measures to avoid or reduce these effects as well as appropriate monitoring to ensure the efficacy of such mitigation measures. The function of the EIAR is to provide information to allow the competent authority to conduct the EIA of the Proposed Development. All elements of the Project (including the Grid Connection and Turbine Delivery Route) have been assessed as part of this EIAR.

1.7.2.1 Factors of the Environment

The EIA Directive 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 on the factors set out 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.

Table 1.4: Outline of respective chapters relating to the requirements of the EIA Directive

Revised EIA Directive	Chapter	Title
(a) population and human health	5	Population and Human Health
(b) biodiversity, with particular attention to species and habitats protected under the Habitats and Birds Directives	6 7 8 9	Biodiversity Bat Ecology Ornithology Aquatic Ecology
(c) land, soil, water, air and climate	6 9 10 11 14 18	Biodiversity Aquatic Ecology Soils and Geology Hydrology and Hydrogeology Material Assets Air and Climate
(d) material assets, cultural heritage and the landscape	12 14 15 16 17	Landscape and Visual Amenity Material Assets Cultural Heritage Traffic and Transport Shadow Flicker
(e) the interaction between the factors referred to in points (a) to (d)	20	Interactions of the Foregoing, Cumulative Effects and Summary of Mitigation Measures

1.7.2.2 Alternatives to the Development

Article 5(1) of the EIA Directive sets out the information to be contained in an EIAR, , and includes a requirement that the EIAR includes a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.

The obligation to address alternatives to the project is required under the EIA Directive. The EIA Directive provides that the information to be provided by the developer shall include at least, inter alia:

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

This is elaborated upon under Annex IV (2) of the Revised EIA Directive as follows:

"*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*".

The requirements of the EIA Directive in relation to alternatives are considered in **Chapter 3: Alternatives Considered** of this EIAR.

1.7.2.3 National Guidance

The Environmental Protection Agency (EPA) published its 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' in May 2022, which is intended to guide practitioners preparing an EIAR.

In preparing this EIAR regard has also been taken of the provisions of the 'Guidelines for Planning Authorities and An Bord Pleanála on Carrying out Environmental Impact Assessment', published by the Department of Housing, Planning and Local Government (DHPLG) in August 2018.

In preparing this EIAR, regard has also been given to the Department of Housing, Planning and Local Government (2018) Circular PL. 05/2018 -Transposition into Planning Law of Directive 2014/52/EU.

1.7.2.4 European Guidance

The European Commission also published a number of guidance documents in December 2017 in relation to Environmental Impact Assessment of Projects (Directive 2011/92/EU as amended by 2014/52/EU) including 'Guidance on Screening', 'Guidance on Scoping' and 'Guidance on the preparation of the Environmental Impact Assessment Report'. This EIAR has prepared in accordance with these guidelines.

1.7.2.5 Competent Experts and Quality of the EIAR

Article 5(3) of the EIA Directive states that, in order to ensure the completeness and quality of the EIAR, (a) the developer shall ensure 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 developer any supplementary information, in accordance with Annex IV (the information to be contained in the EIAR), which is directly relevant to reaching a reasoned conclusion on the significant effects of the project on the environment.

The EIA Directive Consultation states that:

> *"It is not proposed to define the terms 'competent experts' or 'sufficient expertise' in legislation given the broad and diverse range of EIA topics and the different areas of specialist expertise.*
>
> *It is proposed that the competency of experts preparing an EIAR should be a matter for each competent authority, having regard to the diverse range of EIA topics and areas of specialist expertise.*
>
> *Guidance will address the issue of 'expertise' in both the preparation and assessment of EIARs.*
>
> *It would be good practice for the EIAR to state who prepared each element of the EIAR and list the qualifications and experience of each such person to assist the competent authority satisfy itself as to the competency of the experts who prepared the EIAR. The level of expertise required for each element of the EIAR would depend on the nature and importance of that element vis-à-vis the size, nature and location of the project and the receiving environment and the likely significant impact on that environment*".
>
> Note there is a legal requirement under article 94(e)(Planning and Development Regulations 2001 (as amended): "
> *(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 EIAR project team comprises a multidisciplinary team of experts with extensive experience in the assessment of wind energy developments and in their relevant area of expertise. The qualifications and experience of the staff from each company involved in the preparation of this EIAR are summarised in **Appendix 1.1 Author Qualifications and Experience**. Each chapter of this EIAR has been prepared by a competent expert in the subject matter.

This EIAR has been prepared by Jennings O'Donovan & Partners Limited (JOD), Consulting Engineers, Finisklin Business Park, Sligo, F91 RHH9, on behalf of the Applicant.

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 project involvement 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

ISO certification demonstrates 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 (IMS) 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 has 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 this EIAR 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.

1.8 NEED FOR THE PROJECT

The extent of the challenge to reduce greenhouse gas emissions in line with our International and EU obligations is well understood by Government and is reflected in the National Policy Position on Climate Action and Low Carbon Development (2014) and the Climate Action and Low Carbon Development Acts 2015 to 2021.

Both the policy position and legal framework are key elements of the effort to progress the national low carbon transition agenda.

In 2015 the National Policy Statement on climate change made a commitment to transform Ireland into a Low Carbon Economy by the year 2050.

The Government quantified this as:

- An aggregate reduction in CO_2 emissions of at least 80% (compared to 1990 levels) by 2050 across the electricity generation, built environment and transport sectors; and

- In parallel, an approach to carbon neutrality in the agriculture and land-use sector, including forestry, which does not compromise capacity for sustainable food production.

- **The Climate Action Plan 2024**

The Climate Action Plan 2024 sets out a detailed sectoral roadmap designed to deliver a 51% reduction in greenhouse gas (GHG) emissions by 2030. This requires significant reductions from all sectors. The Plan 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, the Plan sets an 80% target for electricity production from renewable sources by 2030, with an onshore wind energy target of 9GW in order to contribute to this.

These commitments highlight 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 contribution of the Development to the de-carbonisation of the Irish electricity network will contribute positively to an issue of strategic social importance and. The significance of the Climate Action Plan 2024 is underlined by the Irish government's declaration of a Climate Emergency in 2019.

- **The Renewable Energy Directives 2018 and 2023**

The first Renewable Energy Directive (2009/28/EC) (RED I) provided the framework for the promotion of energy from renewable resources across the EU. The second Renewable Energy Directive 2018/2001/EU (RED II) entered into force in December 2018 and was transposed into Irish law in September 2020 by S.I. No. 365/2020 - European Union (Renewable Energy) Regulations 2020. In 2023, the European Union (EU) adopted an amendment of the Renewable Energy Directive (EU/2023/2413), which is referred to as "RED III".

The regulations set the parameters for the establishment of future Renewable Electricity Support Schemes (RESS), and build on the existing regime, which was created by the European Union (Renewable Energy) Regulations 2014 (as amended) (the "2014 Regulations").

The RED III sets an 80% target for electricity production from renewable sources by 2030. 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.

RED III raises the share of renewable energy in the European Union's overall energy consumption to 42.5% by 2030, with an additional 2.5% indicative top-up to allow the target of 45% to be achieved.

- **White Paper on Energy Policy in Ireland 2015 – 2030**

A Government White Paper entitled '*Ireland's Transition to a Low Carbon Energy Future 2015-2030'* was published in December 2015 by the Department of Communications, Energy and Natural Resources[3]. This Paper provides a complete energy update and a framework to guide policy up to 2030. The Paper builds upon the White Paper published in 2007 and takes into account the changes that have taken place in the energy sector since 2007.

The policy framework sets out a vision for a low carbon future that maintains Ireland's competitiveness and ensures a supply of affordable energy.

The Proposed Development is critical to helping Ireland meet the targets and commitments set by international, EU and national frameworks outlined above, as well as addressing the country's over-dependence on unsustainable imported fossil fuels. The need for the Proposed Development is driven by the following factors:

- A requirement to diversify Ireland's energy sources, to achieve International, EU, and national renewable energy targets;
- A desire to avoid significant fines from the EU (the EU Renewables Directive);
- A legal commitment under the Kyoto protocol from Ireland to limit greenhouse gas emissions;
- A requirement to increase Ireland's national energy security as set out in the Energy White Paper;
- Provision of cost-effective power production for Ireland which would deliver local benefits;

3 https://www.gov.ie/pdf/?file=https://assets.gov.ie/77389/e5aa9f25-da81-43eb-804d-57309615681e.pdf#page=null [Accessed 8th October 2024]

- 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 create additional jobs and will encourage continued investment in the renewable industry in Ireland. Wind Energy Ireland (WEI), Ireland's largest renewable energy organisation, in its annual Wind Energy Report for 2023 noted that Ireland's wind energy share of electricity demand in 2023 was 35% compared to 34% in 2022. The Proposed Development will help achieve the 80% of electricity generated from the renewable energy target set by Red III.

The total installed capacity of the Republic of Ireland's wind farms is now 4,375 MW[4]; this is approximately enough to power 2.2 million Irish homes annually.

Chapter 4: Planning Policy of the EIAR relates to the Planning Policy Context and presents a full description of the international and national renewable energy policy context for the Development. **Chapter 18: Air and Climate** addresses Climate Change, including Ireland's current status with regard to meeting greenhouse gas emission reduction targets.

1.9 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. The grouped format sections describe the impacts of the Project in terms of human beings, flora and fauna, soils and geology, hydrology and hydrogeology, air and climate, noise and vibration, landscape and visual, cultural heritage and material assets such as traffic and transportation, together with the interaction of the foregoing. Please note that the Irish Transverse Mercator (ITM) 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 Project, the receiving environment, impacts, mitigation measures and interactions presented in a grouped format. It is a standalone document.

[4]https://windenergyireland.com/images/files/20221026windenergyirelandoireachtasmembersbriefing.pdf [Accessed 8th October 2024].

Volume II: This volume contains the main **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 Project, scoping and consultation undertaken and a description of the Project are presented in separate Chapters.

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

- Chapter 1: Introduction
- Chapter 2: Description of the Proposed Development
- Chapter 3: Alternatives Considered
- Chapter 4: Planning Policy
- Chapter 5: Population and Human Health
- Chapter 6: Biodiversity
- Chapter 7: Bat Ecology
- Chapter 8: Ornithology
- Chapter 9: Aquatic Ecology
- Chapter 10: Soils and Geology
- Chapter 11: Hydrology and Hydrogeology
- Chapter 12: Landscape and Visual Amenity
- Chapter 13: Noise
- Chapter 14: Material Assets
- Chapter 15: Cultural Heritage
- Chapter 16: Traffic and Transport
- Chapter 17: Shadow Flicker
- Chapter 18: Air and Climate
- Chapter 19: Major Accidents
- Chapter 20: Interactions of the Foregoing

Volume III: EIAR Figures and Drawings

The Figures and Drawings 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.

1.10 INFORMATION TO BE INCLUDED IN A DECISION TO GRANT

Article 8a (1) of the 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 Planning Authority with this requirement, the EIAR includes at the end of each chapter a summary of all proposed mitigation and monitoring measures outlined within the technical assessments.

1.11 EIAR PREPARATION

1.11.1 EIAR Project Team

JOD had overall responsibility for the coordination of the EIAR with input from other independent specialist consultants where necessary as required by the EIA Directive and Regulations. Recital (33) of EIA Directive states the following in relation to the persons responsible for preparing the environmental impact assessment reports:

> *"Experts involved in the preparation of environmental impact assessment reports should be qualified and competent. Sufficient expertise, in the relevant field of the project concerned, is required for the purpose of its examination by the competent authorities in order to ensure that the information provided by the developer is complete and of a high level of quality."*

In compliance with this requirement, and in line with emerging best practice, including with the 2018 EIA Guidelines for Planning Authorities, **Table 1.5** provides the names of the professionals who have prepared each element of the EIAR. It also lists their qualifications and relevant experience, demonstrating that the EIAR has been prepared by competent experts. Further details on the qualifications of each lead author can be found in **Appendix 1.1** and in the Statement of Authority in each individual technical assessment chapter.

Table 1.5: EIAR Preparation Details

Consultants	Principal Staff Involved in the Project	EIAR Input
Jennings O'Donovan & Partners Limited	David Kiely (DK) Ryan Mitchell (RM) Sarah Moore (SME) Breena Coyle (BC) John Doogan (JD) Aileen Byrne (AB) Angelika Thiel (AT) Darren Timlin (DT) Kathlyn Feeny (KF)	Project Management, Scoping and Consultation, EIAR Chapters • 1: Introduction (RM & KF) • 2: Project Description (RM) • 3: Alternatives Considered (RM & SME) • 4: Policy (DT & RM) • 5: Population & Human Health (AT) • 14: Material Assets (AL, RM) • 15: Traffic & Transport (JD & DK) • 17: Shadow Flicker (AB & SME,) • 18: Air & Climate (DT, RM & SME) • 19 Major Accidents and Natural Disasters (RM & SME) • 20: Interactions of the Foregoing (RM &DT) DK, BC and SME will review EIA chapters
Biosphere Environmental Services	Brian Madden	Scoping responses and Consultation, EIAR Chapter 6: 6: Biodiversity
Woodrow (Apem group)	Maeve Maher-McWilliams Patrick Power Frederico Hintze	Scoping responses and Consultation, EIAR Chapter 7: Bat Ecology

Consultants	Principal Staff Involved in the Project	EIAR Input
	Oisín O Sullivan Kevin O'Reilly Meadhbh Costigan Róisín O Connell Louise Gannon Bruno Mels	
Woodrow (Apem group)	Mathew Rea	Scoping responses and Consultation, EIAR Chapter 8: Ornithology
Apem Ltd	Gráinne Keogh Bláithín Ní Ainín Michael Dobson Harvey Walsh	Scoping responses and Consultation, EIAR Chapter 9: Aquatic Ecology
Whitefords Geoservices Ltd	John Whiteford	Scoping responses and Consultation, EIAR Chapter 10: Soils & Geology
McCloy Consulting Ltd	Iain Muirr Kyle Somerville Duncan Hartwick Paul Singleton	Scoping responses and Consultation, EIAR Chapter 11: Hydrology and Hydrogeology
Macro Works Ltd	Mark Salisbury	Scoping responses and Consultation, EIAR Chapter 12: Landscape and Visual Impact
TNEI group	Gemma Clark Jim Singleton	Scoping responses and Consultation, EIAR Chapter 13: Noise
John Cronin & Associates	Kate Robb	Scoping responses and Consultation, EIAR Chapter 15: Cultural Heritage

Consultants	Principal Staff Involved in the Project	EIAR Input
WSP	Chetana Ramanna Mirsina Aghdam Peter Corrigan	Scoping responses and Consultation, EIAR Appendix 14.1 Ground Vibration and Air Overpressure Blast Report
O'Dwyer & Jones Design Partnership	Declan O'Dwyer	Scoping responses and Consultation, EIAR Appendix 14.1 Aviation Analysis Report
Veon Ltd	Joe Codd Martin Murphy	Scoping responses and Consultation, EIAR Appendix 2.2 Forestry Report
TLI Group Ltd	Cecilia Kirwan	Scoping responses and Consultation, EIAR Appendix 2.3 TLI Technical Notes EIAR Appendix 2.3 TLI Technical Notes
Headland Archaeology	Fraser McFarlane	EIAR Appendix 15.4 Heritage Impact Assessment - Brú na Bóinne World Heritage Property
Collett	Jake Halsted	Appendix 16.3a Swept Path Analysis
CST GROUP	Stuart Summerfield	Appendix 15.4 Road Safety Audit Report
Gavin & Doherty Geosolutions	Benjamin Van Der Merwe Anastasios Batilas Tim O'Shea	Technical Appendix 13.5: Kellystown Wind Farm Planning Support: FI Request Related to Vibration Effects from Blasting
Archaeological Consultancy Services Unit	Donald Murphy MA MIAI	Appendix 15.3 Archaeological Testing Programme

1.11.2 Chapter Structure

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

- Assessment Methodology and Significance Criteria: A description of the methods used in baseline surveys, limitations and 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. It also includes an outline of the likely evolution of the baseline without the development 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.
- Assessment of Potential Environmental Effects: A description of how the baseline environment could potentially be affected by the Project including a summary of the measures taken during the design of the Project to minimise effects.
- Mitigation Measures and Residual Effects - A description of measures recommended that will be implemented to prevent, avoid, reduce and/or offset potential negative effects and a summary of the assessed level significance of the effects of the Development and/or the Project after mitigation measures have been implemented.
- Cumulative Effects: An assessment of the potential cumulative effects of the Project in combination with other existing, approved or proposed plans and projects
- 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., biodiversity, hydrology and hydrogeology, population and human health and landscape and visual impact. 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[5] in relation to the identification of significant effects. Where a technical assessment has adopted an alternative to this

[5] https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf [Accessed 8th October 2024]

process, such as following technical guidance bespoke to that topic, such assessment criteria are made clear in that chapter. **Table 1.6** highlights the general framework for the assessment of significance of effects.

Table 1.6: 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 significantly 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

Impact Characteristic	Term	Description
	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
	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

1.11.3 Significance Criteria

The significance of the potential effects of the Proposed Development have been classified by comparing the character of the predicted effect to the sensitivity of the receiving environment as defined in **Table 1.7**.

Table 1.7: Rating of Significant Environmental of Effect (EPA Guidelines, 2022)

Description of Effect (Character/Magnitude/Duration/Probability/Consequences)					
		Negligible	Low	Medium	High

Existing Environment (Significance /Sensitivity)	**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

1.11.3.1 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 to fully designed projects).

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 Project 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 20: Interactions of the Foregoing – Appendix 20.1 Schedule of Mitigation Measures** provides a summary of mitigation measures for all technical assessments.

1.11.3.2 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. For the purposes of this EIAR, a radius of 20km for larger scaled projects for the cumulative impact assessment. This study area is derived from the Wind Energy Development Guidelines (2006)[6] and Draft Wind Energy Guidelines 2019[7].

All of the relevant projects with potential to create cumulative impacts have been included in **Chapter 2: Description of the Proposed Development** in **Section 2.4.4** 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).

All existing and approved large-scale projects and large-scale projects in the public domain pre planning or pending a decision from a planning authority within 20km of the Development 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 20km 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 for a period of ten years (the last check was carried out 6th November 2024). Relevant EIA documents, planning application details and planning drawings were reviewed, which

[6] Wind Energy Development Guidelines (2006) https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/ [Accessed 8th October 2024]
[7] Draft Wind Energy Development Guidelines (2019) https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/ [Accessed 8th October 2024]

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.

1.11.3.3 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 likely significant effects of the Project under the terms of the EIA Directive and Planning Development Act 2000 and Planning Regulations 2001.

1.12 SCOPING AND CONSULTATION

The scoping and consultation process was carried out in accordance with the EIA Directive, Planning Development Act 2000, Planning Regulations 2001 and in accordance with the Guidelines on the information to be contained in Environmental Impact Assessment Reports (EPA, 2022).

The EIA Directive Circular 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 July 2023. **Table 1.8b** 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 Project, 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 1.2 Consultation Responses.**

A subsequent scoping exercise was carried out in July 2025 to fulfil the following Further Information Request from Louth County council:

Haul Route/Traffic Management

Please note, the applicant shall be requested to submitted documentary evidence that they have engaged with other Roads Authorities to which the large infrastructure will travel

through, from Galway to the development site; in particular TII who is the statutory authority for National Roads and Motorways.

In a subsequent scoping exercise all relevant road authorities along the Turbine Delivery Route and Grid Connection were contacted. This scoping exercise included an explanatory letter **Appendix 1.2** with the following attachments:

- Appendix I – Updated Grid Connection Planning Pack
- Appendix II – Updated Swept Path Analysis Report

Responses are outlined in **Table 1.8a: Further Information Request - Scoping Responses Received on The Project.**

Table 1.8a: Further Information Request - Scoping Responses Received on The Project

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Galway City Council **Request sent 8th July 2025**	Response received 8th July 2025 Buíochas as do ríomhphost. Tabhair ar aire, le do thoil, nach mbítear ag coinneáil súile ar an mbosca isteach seo taobh amuigh de ghnáthuaireanta oifige. Leanfaidh Aonad Meán Cumarsáide Chomhairle Cathrach na Gaillimhe ag freagair agus ag gníomhú i gcásanna éigeandála a tharlaíonn taobh amuigh d'uaireanta oifige agus deirí seachtaine. Áirítear anseo ócáidí tromchúiseacha aimsire, olléigeandálaí agus baol sláinte, sábháilteachta, beatha agus maoine. Tabhair ar aire, más mian leat teagmháil a déanamh le Comhairle Cathrach na Gaillimhe i gcás práinne taobh amuigh de ghnáthuaireanta oifige, is féidir sin a dhéanamh trí ghlaoch ar 091 536400. -- Thank you for your email. Please note that this email inbox is not monitored outside normal working hours. Galway City Council Communications Unit will continue to respond and act in the case of emergencies occurring out-of-hours and over weekends. These include serious weather events, major emergencies and threats to health, safety, life and property. Please note that if you wish to contact Galway City Council in the case of an emergency outside normal working hours, you may do so by calling 091 536400.	na.	na.
Galway County Council **Request sent 8th July 2025**	No response received.	na.	na.
Roscommon County Council	No response received.	na.	na.

Request sent 8th July 2025			
Offaly County Council **Request sent 8th July 2025**	No response received.	na.	na.
Meath County Council **Request sent 8th July 2025**	Response Received: 8th July 2025 *See below quarantine notification.* *The files you have sent exceed the 10mb threshold.* *If you reduce the file size and/or send in separate emails it should clear ok.* *Kind regards,* Response 17th July 2025 *I cannot reduce the file size under 10mb threshold can I send a we transfer as an alternative?* Response received: 17th July 2025 *Can you forward a ShareFile link to the below when you get the chance please.* Response received: 17th July 2025 *It was noted that the application, Planning Reference number 2460766 was submitted to Louth County Council. Therefore, you will have to contact Louth County Council Planning Authority.* Kind regards, Amanda	na.	na.
Westmeath County Council **Request sent 8th July 2025**	No response received.	na.	na.
Kildare County Council **Request sent 9th July 2025**	No response received.	na.	na.
Fingal County Council **Request sent 9th July 2025**	Response received: 9th July 2025	na.	na.

	I would like to acknowledge receipt of your email and the attachments therein. *Please see below the link to the Application Form for an Abnormal Load Permit. When completed please return it to: AbnormalLoads@fingal.ie for processing.* *https://www.fingal.ie/sites/default/files/2024-11/abnormal-load-application-form-2024-2025.pdf* *Regards*		
Transport Infrastructure Ireland **Request sent 9th July 2025**	No response received.	na.	na.
Celtic Roads Group **Request sent 9th July 2025**	Response received: 11th July 2025 *Further to our discussion this afternoon, we wish to acknowledge receipt of your correspondence regarding the proposed Kellystown Wind Farm in County Louth and the associated haulage route for turbine components via the M1, part of which falls under our jurisdiction.* *We note your submission of the following documents for our review:* • *Appendix I – Grid Connection Planning Pack* • *Appendix II – Swept Path Analysis Report* • *These documents detail the proposed turbine delivery route, interaction points with road infrastructure within our jurisdiction, and grid connection plans. We appreciate your proactive engagement in accordance with the requirements set out by the planning authority's Request for Further Information (RFI).* *Your request for our review and confirmation of engagement is duly noted. The above documents pertain solely to SPAs for the turbine blades. CRGD would also need confirmation of the haulage route, load type, number and configuration of other loads as these may be abnormal indivisible loads of significant weight, width, height or*	**Implications for the Construction Traffic Management Plan**	All items raised and addressed **Chapter 16 Traffic and Transport** **Appendix 16.3 Construction Traffic Management Plan**

	length. The M1 Toll Plaza and Mary McAleese Boyne cable-stayed Bridge is also within CRGD jurisdiction. In addition, the 38kV route by which the development makes a grid connection appears to be Option B from ESB Drybridge, along the N51 to J10 roundabout, out the R168 before taking a directional drill under the M1 Motorway involves significant excavation works under/over our Project Road which would require further technical scrutiny and the consent/approval from TII and CRGD. *Having had a preliminary review and given the type of interface (involving transit on our Project Road) an Access Agreement would need to be agreed and signed by the Consignment Owner / Developer ["COD"] of the Wind Farm and Celtic Roads Group (Dundalk) DAC ["CRGD"] before CRGD would be in position to design, execute any modifications, permit any excavation or HDD, however temporary including the provision of traffic management or other attendances.* *In time, and if/when planning permission is obtained, CRGD shall require COD to enter into an Access Agreement with CRGW which shall, amongst various items, deal with;* • *Engineering assessment, recommendations and pre-post inspections* • *Insurances and indemnities during the transits* • *Remedial repairs or any modifications, temporary or permanent, to our existing asset resulting from these (or future) transits.* • *Impact on toll revenue resulting from the transits or related event.* • *Communications, scheduling and other interfaces* • *Fees & attendances by CRGD, our operator, our engineering & legal consultants. Payment of CRGW invoices etc.* • *Quality, H&S, Environment, Works proposals, method statements, risk assessments and other related documentation* *Before engaging our technical and legal consultants, CRGD require your undertaking to meet our reasonable coordination, legal, technical costs etc in facilitating our involvement with your Project*		

	and the transits – CRGD apply 25% margin on any costs involved. Given the transits shall likely require physical modification and Works to our asset, this will likely involve resources involved in the design, review, execution and management of Works. Please note that any changes to our Project Road, including any traffic management or road closures etc requires approval of TII and we should advise at this preliminary point that the PPP process of implementing change is process/time heavy. *The earlier you can clarify all transit items and loads the better. CRGD may require further details on these and the SPAs in CAD format. An outline programme with potential dates would also be helpful.* *We enclose our letter LT-CRGM1-LP-2529 which outlines the above and we've copied our TII representatives in relation to this engagement.* *We will examine the enclosed materials and revert with any queries or further requirements as necessary. Should clarification or additional information be needed during our review, we will contact you using the details provided.* *Thank you for your cooperation.*		
A consultation meeting with National Monuments Service (including the World Heritage Unit) was held on 24 April 2025 to agree assessment approaches in response to a Request for Further Information issued by Louth County Council (06/02/2025).	*Introductions* *Paula Galvin (PG) - outlines the purpose of the meeting* ***HIA*** ***Ross Walters (RW)** confirms that the proposed HIA methodology and additional proposed viewpoints for additional photomontages provided in advance of the meeting are acceptable, no further comments.* ***Fraser McFarlane (FMF)** raises a query regarding vegetation in some proposed VP's for the HIA. Given the way the vegetation has grown over the years there is some screening. Questions if in those situations where there are theoretical sightlines but in reality they are obscured, wire line views are acceptable instead of photomontages?* ***RW** notes this is acceptable*		**All items raised have been addressed in Chapter 15: Cultural Heritage** Archaeological site investigations (geophysical survey and test-trenching) was not carried out at this time as a response to Further Information request by Louth County Council. However, Any potential impact on the unknown sub-surface Cultural Heritage resource has been addressed, including in the mitigation measures to be carried out post-

	FMF** outlines that the cumulative assessment was based on the Slane Bypass and proposes two approaches. Firstly, approved projects that haven't been constructed and existing windfarms will be considered as part of the baseline. Secondly, similar to what was done on the Slane bypass, looking at relatively large-scale developments since 1993 & understanding what would happen when Kellystown wind farm is added.* ***RW** notes this is acceptable, nothing to add.* ***FMF** queries point of Contact and Site Visit* ***RW** confirms himself as main contact for Brú na Bóinne, and will attend a site visit and arrange with OPW* ***PG** queries if RW could review the HIA before RFI Submission* ***RW** agrees to review the draft before submission but won't be able to comment outside of the panning process.* ***Kate Robb (KR)** clarifies that the HIA will be a standalone appendix to the EIAR, findings will be included in the RF update of the EIAR chapter as appropriate* ***Monasterboice ***KR** clarifies that the impact on Monasterboice has been assessed from a cultural heritage perspective including views from the steps of the round tower. Theres no identified impact in terms of setting to Monasterboice.* ***Jonathan Stirland (JS)** reviewed the visual impact assessment and looking for more information on the potential impacts. There are a number of protected views located to the south and west. More concerned about the potential impacts of views into and through Monasterboice from the direction of the development, which is not covered sufficiently in the two reports.* *Notes that the impact is identified as negligible although the proposed development is only 3.8km away from the site.* *Monasterboice setting is in a low-lying area but there is high ground looking onto Monasterboice from the south and west, more detail is needed for these views, and more detail is needed on the overall setting of Monasterboice. Satisfied that the wind turbines cannot be seen from the site of Monasterboice but requires more detail in the context of the wider landscape.* ***Underwater Archaeological Impact Assessment*** ***KR** clarifies that no streams or drains impacted. The grid connection will be horizontally drilled under watercourses. There's provision at*		planning and in advance of construction (see **sections 15.4** and **15.5**). A Heritage Impact Assessment on the World Heritage property of *Brú na Bóinne* was also carried out as part of a Further Information request by Louth County Council, the findings of which have been considered in **section 15.4**. Additional VPs with wireframe and photomontage outputs were also commissioned to further assess the magnitude of change to the landscape setting of Monasterboice. This was undertaken as a response to the Request for Further Information by Louth County Council and an assessment of same is provided in **section 15.4**.

	mitigation stage for site monitoring for turbine delivery routes for turning points. It's therefore considered that an underwater archaeological impact assessment is not necessary ***JC** noted, will consult with a representative from the underwater unit* ***Surveys*** ***JC** clarifies that a geophysical survey and test trenching are required because of the potential for the site for subsurface archaeology as there are many sites of potential in proximity* ***KR** confirms that ACSU have been commissioned to undertake geophysical survey and test trenching on the site within all the red line boundary. Once geophysical survey completed the findings will inform the test trenching plan.* ***JC** notes that FI item requires "intensive" test trenching as there are concerns about the underlying geology effecting the results of the geophysical survey* ***KR** acknowledges this and notes that the indicative program for test trenching should allow for intensive test trenching* ***Helena Hennigan (HH)** queries timeline to obtain a license for test trenching* ***JC** confirms that licenses are usually issued within 14 days but can take up to 4 weeks* ***KR** confirms that findings from the survey reports will be included in the impact assessment and findings will be included in the EIAR chapter as appropriate.* ***Other*** ***JS** queries if cabling is proposed entirely within the existing road network* ***KR** confirms* Minutes of the meeting are outlined in **Appendix 1.2 Consultation Responses.**		

Table 1.8b: Scoping Responses Received on The Project

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Louth County Council	Scoping response received 15th August 2023.	A formal scoping request could	na

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	I have been advised to inform you that if below is a formal scoping request under S176CA of the Planning Act it needs to be sent to the Planning Section and not Tourism, in Louth County Council. *It may be sent by post to: Planning Section, Louth County Council, Crowe Street, Dundalk or to* *planninggroup@louthcoco.ie*	not be completed at the time as the redline boundary was not defined, this was a key requirement by LCC.	
Meath County Council	Scoping response received 28th July 2023. *The Planning Department acknowledges receipt of your email, and a response will issue in due course*	na	na
Aviation			
Irish Aviation Authority	Scoping response received 25th August 2023. *The development appears to be approximately 38km North of Dublin Airport, as such, it is recommended that the developer engage directly with daa Dublin Airport and the Air Navigation Service Provider Airnav Ireland to make them aware of the proposal and ensure appropriate screening from an aviation safety perspective.* *It is likely that the following general observations would be proffered by the Authority during a formal planning process:* *In the event of planning consent being granted, the applicant should be conditioned to contact the Irish Aviation Authority to:* *(1) agree an aeronautical obstacle warning light scheme for the wind farm development,* *(2) provide as-constructed coordinates in WGS84 format together with ground and blade tip height elevations at each wind turbine location and* *(3) notify the Authority of intention to commence crane operations with at least 30 days prior notification of their erection.*	All items considered during the design process.	All items raised and addressed within Chapter 14 Material Assets
Dublin Airport	No response received.	na	na
Ecology			
An Taisce	No response received.	na	na
Bat Conservation Ireland	No response received.	na	na

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
Birdwatch Ireland	No response received.	na	na
Inland Fisheries Ireland	Scoping response received 15th September 2023. *There are two river catchments located in the wind farm site footprint, namely the Termonfeckin River and the Slieveboy River. These rivers support stocks of brown trout and sea trout among other species in their lower reaches.* *The WFD Ecological status of the watercourses are as follows:* *Termonfeckin_010 Poor and At Risk of not achieving good status.* *Slieveboy_010 Moderate with the Risk status to be reviewed.* *All the waters referred to have, in the context of the proposed development, the potential to convey deleterious matter from the works such as silt, concrete, fuel, lubricating fuels and oils from construction plant and equipment downstream unless proper safeguards are in place.* *Silt can clog salmonid spawning beds, and juvenile salmonids are particularly sensitive to siltation of gill structures. Similarly, plant and macroinvertebrate communities can be blanketed over, and this can lead to loss or degradation of valuable habitat. It is important to incorporate best practices into construction methods and strategies to minimise discharges of silt/suspended solids to waters.* *Uncured concrete can kill fish and macroinvertebrates by altering the pH of the water. Pre-cast concrete should be used whenever possible, to eliminate the risk to all forms of aquatic life. When cast-in-place concrete is required, all work must be done in the dry and effectively isolated from any water that may enter the drainage network for a period sufficient to cure the concrete. Concrete delivery vehicles should be precluded from washing out at locations which would result in a discharge to surface waters. Specific controlled and environmentally safe vehicle washout areas must be provided. If cement is stored on site during construction work, it should be held in a dry secure area when not in use.* *All oils and fuels should be stored in secure bunded areas and particular care, and attention should be taken during refuelling and maintenance operations on plant and equipment. Bunding should be designed to recommended standards. All plant and equipment should carry oil fuel spill kits. Where temporary diesel or petrol driven pumps are required, they should be sited within portable temporary bunded units. Where site works involve the discharge of drainage water to receiving rivers and streams, temporary oil interceptor facilities should be installed and maintained.*	All items considered during the design process and construction methodology.	Items raised have been addressed within Chapter 6 Biodiversity and Chapter 9 Aquatic Ecology

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Permanent or temporary watercourse crossings on site have the potential to have a negative impact on fisheries habitats. All crossings should be designed to replicate existing conditions to ensure no alteration to hydraulic characteristics, which can hinder the passage of fish and other aquatic fauna. The underground grid connection is likely to involve river/streams along the route. While the route is not included in the scoping document IFI would like to take the opportunity to point out that our preferred method is by way of trenchless crossings, which avoids impacting on the fisheries resource and as a result works do not have to confined to the July-September period for instream works. Open cut or trench type crossings will generally be limited to the period July to September. IFI guidelines include requirements for both trenchless and open cut crossings. The guidance document Guidelines on protection of fisheries during construction works in and adjacent to waters can be accessed on our website www.fisheriresireland.ie. *In the event of the project proceeding, it is the responsibility of the developer and the contractors to ensure that works will not give rise to a discharge of deleterious or polluting matter to waters.* *At all times the precautionary principle should be applied throughout for the entire development.* *Particular attention should be paid to the various environmental directives including the Water Framework Directive, the Habitat and Birds Directives, the Fisheries Acts in particular, and the Local Government (Water Pollution) Acts. Other environmental legislation should be considered as appropriate.*		
Irish Wildlife Trust	No response received.	na	na
Irish Peatland Conservation Council	No response received.	na	na
Irish Raptor Study Group	No response received.	na	na
NPWS	No response received.	na	na
Soils and Water			
Geological Survey of Ireland	Scoping response received 9th August 2023. **Geoheritage**	All items considered during the design process.	Items raised have been addressed within Chapter 10 Soils and Geology and Chapter 11 Hydrology and Hydrogeology

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	A national inventory of geoheritage sites known as County Geological Sites (CGSs) is managed by the Geoheritage Programme of Geological Survey Ireland. CGSs, as adopted under the National Heritage Plan, include sites that are of national importance which have been selected as the very best examples for NHA (Natural Heritage Areas) designation. NHA designation will be completed in partnership with the National Parks and Wildlife Service (NPWS). CGSs are now routinely included in County Development Plans and in the GIS of planning departments, to ensure the recognition and appropriate protection of geological heritage within the planning system. CGSs can be viewed online under the Geological Heritage tab on the online Map Viewer The audit for Co. Waterford was carried out in 2011. The full report details can be found at here. Our records show that there are no CGSs in the vicinity of the proposed wind farm and turbine delivery route. **Groundwater** Geological Survey Ireland's Groundwater and Geothermal Unit, provides advice, data and maps relating to groundwater distribution, quality and use, which is especially relevant for safe and secure drinking water supplies and healthy ecosystems. Proposed developments need to consider any potential impact on specific groundwater abstractions and on groundwater resources in general. We recommend using the groundwater maps on our Map viewer which should include wells; drinking water source protection areas; the national map suite - aquifer, groundwater vulnerability, groundwater recharge and subsoil permeability maps. For areas underlain by limestone, please refer to the karst specific data layers (karst features, tracer test database; turlough water levels (gwlevel.ie). Background information is also provided in the Groundwater Body Descriptions. Please read all disclaimers carefully when using Geological Survey Ireland data. The Groundwater Data Viewer indicates a 'Locally Important Aquifer - Bedrock which is Moderately Productive only in Local Zones ', underlies the proposed wind farm. The Groundwater Vulnerability map indicates the area covered is variable. We would therefore recommend use of the Groundwater Viewer to		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	identify areas of High to Extreme Vulnerability and 'Rock at or near surface' in your EIAR to assess potential impacts to groundwater. Authorities, and there is now national coverage of GWPS mapping. A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater. The Groundwater Protection Response overview and link to the main report is here: https://www.gsi.ie/en-ie/publications/Pages/Waterford-Groundwater-Protection-Scheme-Reports.aspx. **Geological Mapping** Geological Survey Ireland maintains online datasets of bedrock and subsoils geological mapping that are reliable and accessible. We would encourage you to use these data which can be found here, in your future assessments. **Geohazards** Geohazards can cause widespread damage to landscapes, wildlife, human property and human life. In Ireland, landslides, flooding and coastal erosion are the most prevalent of these hazards. We recommend that geohazards be taken into consideration, especially when developing areas where these risks are prevalent, and we encourage the use of our data when doing so. Landslides are common in areas of peat, rock near surface and in fine to coarse range materials (such as glacial tills), areas which are found within the proposed wind farm area. The Landslide Susceptibility map indicates variable landslide susceptibility within the wind farm boundary area, including areas of 'Moderately High' to 'High' susceptibility. Geological Survey Ireland has information available on landslides in Ireland via the National Landslide Database and Landslide Susceptibility Map both of which are available for viewing on our dedicated Map Viewer. Associated guidance documentation relating to the National Landslide Susceptibility Map is also available. **Natural Resources (Minerals/Aggregates)** Geological Survey Ireland provides data, maps, interpretations and advice on matters related to minerals, their use and their development in our Minerals		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	section of the website. The Active Quarries, Mineral Localities and the Aggregate Potential maps are available on our Map Viewer. 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. **Geochemistry of soils, surface waters and sediments** Geological Survey Ireland provides baseline geochemistry data for Ireland as part of the Tellus programme. Baseline geochemistry data can be used to assess the chemical status of soil and water at a regional scale and to support the assessment of existing or potential impacts of human activity on environmental chemical quality. Tellus is a national-scale mapping programme which provides multi-element data for shallow soil, stream sediment and stream water in Ireland. At present, mapping consists of the border, western and midland regions. Data is available at https://www.gsi.ie/en-ie/data-and-maps/Pages/Geochemistry.aspx. This page also hosts Geochemical Mapping of Agricultural and Grazing Land Soil of Europe (GEMAS) and lithogeochemistry (rock geochemistry) from southeast Ireland datasets. Geological Survey Ireland and partners are undertaking applied geochemistry projects to provide data for agriculture (Terra Soil), waste soil characterisation (Geochemically Appropriate Levels for Soil Recovery Facilities) and mineral exploration (Mineral Prospectivity Mapping). **Other Comments** Should development go ahead, all other factors considered, Geological Survey Ireland would much appreciate a copy of reports detailing any site investigations carried out. Should any significant bedrock cuttings be created, we would ask that they will be designed to remain visible as rock exposure rather than covered with soil and vegetated, in accordance with safety guidelines and engineering constraints. In areas where natural exposures are few, or deeply weathered, this measure would permit on-going improvement of geological knowledge of the subsurface and could be included as additional sites of the geoheritage dataset, if appropriate. Alternatively, we ask that a		

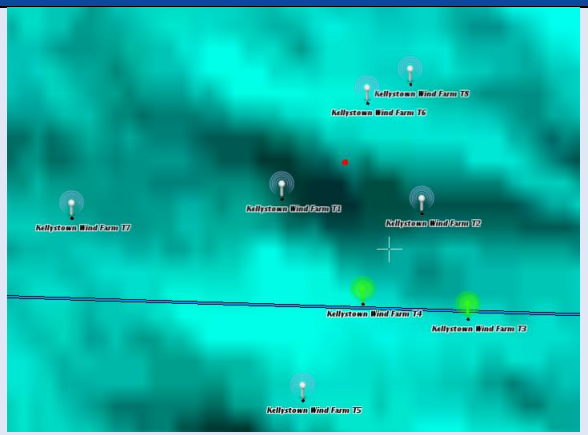
Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	digital photographic record of significant new excavations could be provided. Potential visits from Geological Survey Ireland to personally document exposures could also be arranged. The data would be added to Geological Survey Ireland's national database of site investigation boreholes, implemented to provide a better service to the civil engineering sector. Data can be sent to the Geological Mapping Unit, at mailto:GeologicalMappingInfo@gsi.ie, 01-678 2795.		
The International Association of Hydrogeologists (IAH) Irish Group	No response received.	na	na
Archaeology			
The Heritage Council	No response received.	na	na
Telecommunications			
ENET	No response received.	na	na
2rn	Scoping response received the 2nd of August 2023 *The proposed windfarm site will have no impact on 2rn's fixed linking. There is however a risk of interference to broadcast services to viewers receiving from our sites at Drogheda and Clermont Carn. We would therefore ask that a protocol be signed between 2rn and the developers should the site go ahead.*	No	Telecommunications addressed within Chapter 14 Material Assets
Coimisiún na Meán	Scoping response received 27th July 2023. *Coimisiún na Meán 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	Telecommunications addressed within Chapter 14 Material Assets
Eir Limited	Scoping response received 24th August 2023. *We have no transmission links within the proposed area, and it has no risk to the network.*	No	Telecommunications addressed within Chapter 14 Material Assets

<table>
<tr><th>Consultee Organisation</th><th>Response Received</th><th>Implications for the EIA/Design</th><th>EIAR Chapter/Section where comments have been addressed</th></tr>
<tr><td>RTÉ</td><td>Scoping response received 2nd August 2023.

The proposed windfarm site will have no impact on 2rn's fixed linking.
There is however a risk of interference to broadcast services to viewers receiving from our sites at Drogheda and Clermont Carn.
We would therefore ask that a protocol be signed between 2rn and the developers should the site go ahead.</td><td>No</td><td>Telecommunications addressed within Chapter 14 Material Assets</td></tr>
<tr><td>Tetra Ireland Communications</td><td>Scoping response received 14th August 2023.

We anticipate no impact from the development as proposed, can you ensure the development is also reviewed by eir.</td><td>No</td><td>Telecommunications addressed within Chapter 14 Material Assets</td></tr>
<tr><td>ESB Telecoms</td><td>No response received.</td><td>na</td><td>na</td></tr>
<tr><td>Virgin Media Television</td><td>No response received.</td><td>na</td><td>na</td></tr>
<tr><td>Vodafone</td><td>Scoping response received 31st July 2023.

I have reviewed the proposed turbine locations in the Kellystown Wind Farm development and I can confirm that based on coordinates that you have provided in the table below it is highly likely that turbine #4 and possibly turbine#3 will cause interference to an existing link on the Vodafone network.
Table 5.1: Indicative Turbine Coordinates at Design Iteration 1 stage
<table><tr><th>Turbine No.</th><th>ITM Easting [m]</th><th>ITM Northing [m]</th></tr><tr><td>T01</td><td>707981</td><td>783632</td></tr><tr><td>T02</td><td>708560</td><td>783584</td></tr><tr><td>T03</td><td>708762</td><td>783153</td></tr><tr><td>T04</td><td>708325</td><td>783205</td></tr><tr><td>T05</td><td>708087</td><td>782802</td></tr><tr><td>T06</td><td>708325</td><td>784037</td></tr><tr><td>T07</td><td>707113</td><td>783533</td></tr><tr><td>T08</td><td>708501</td><td>784120</td></tr></table></td><td>All items considered during the design process.</td><td>Items raised have been addressed within Chapter 14 Material Assets</td></tr>
</table>

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
			
Other			
Health Service Executive	Scoping response received 11th August 2023. ***Public Consultation*** *The full EIAR should demonstrate that the public have been consulted about the proposed development and that the efforts to consult the public are inclusive, to ensure participation from all sections of society potentially affected by the proposed development.* *Sensitive receptors and other stakeholders should be identified to ensure all necessary and appropriate mitigation measures are put in place to avoid any complaints about the wind farm development during construction, operation and decommissioning.* *The Environmental Impact Assessment Report (EIAR) should clearly demonstrate the link between public consultations and how those consultations have influenced the decision-making process in the EIA.* *Population and Human Health* *The scoping report indicates that the potential positive and negative impacts of the development on human health will also be considered (pg 21 of the Scoping Report).* *The EHS recommends that potentials impacts on human health are assessed in each of the three phases of the proposed development, construction, operations and decommissioning.*	All items considered during the design process.	Items raised have been addressed within Chapter 5 Population and Human Health, Chapter 10 Soils and Geology, Chapter 11 Hydrology and Hydrogeology, Chapter 13 Noise, Chapter 17 Shadow Flicker, Chapter 18 Air and Climate, Chapter 19 Major Accidents and Chapter 20 Interactions of the Foregoing

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Air Quality *In the context of air quality the scoping report indicates that air quality issues are most relevant during the construction phase of the proposed development. Potential effects stem from dust and vehicle exhaust emissions. (pg 52 of the Scoping Report)* *Due to the nature of the proposed construction works, generation of airborne dust has the potential to have significant impacts on sensitive receptors. A Construction Environmental Management Plan (CEMP) should be included in the EIAR, which details dust control mitigation measures. Measures should include:* • *Sweeping of hard road surfaces* • *Provision of a water bowser on site, regular spraying of haul roads* • *Wheel washing facilities at site exit* • *Restrict speed on site.* • *Provide covers to all delivery trucks to minimise dust generation.* • *Inspect and clean public roads in the vicinity if necessary.* • *Material stockpiling provided with adequate protection from the wind.* • *Dust monitoring at the site boundary.* • *Truck inspection and maintenance plan* • *Details of a road maintenance agreement between the wind farm operator and the Local* *Roads Authority to clarify responsibility for the upkeep and repair of access roads during the construction phase of the project.* *The EIAR should provide details of the baseline air quality in the area of the proposed development and assess the potential effects on sensitive receptors close to the site of construction and along haul routes. The potential impact of using low emission vehicles and machinery should be considered to not only reduce particulate and other air pollutants but also mitigate greenhouse gas emissions from the proposed development during all phases.* *Climate Change and Opportunity for Health Gain* *The scoping report refers to the susceptibility of the proposed development to the effects of climate change and the contribution of the proposed development to the meeting of targets set out in the Government's Climate Action Plan.* *The EIAR should clearly illustrate how the development contributes to obligations under the Climate Action and Low Carbon Development Act 2015 and amendment of 2021 and the most recent Climate Action Plan 2023.*		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Under Mitigation of Green House Gas emissions, the HSE recommends that the EIAR assess the effects of the proposed development at every phase, construction, operation and decommissioning. The construction phase is likely to generate the most emissions and the EIAR should demonstrate how the construction phase will aim to minimise green-house gas emissions. Minimisation of greenhouse gas emissions should extend to 'green procurement'. *Under Adaptation the EIAR should assess adaptation from the two angles of disaster risk reduction and opportunities for health gain. Reference is made in the scoping report to how flood risk is covered in the Hydrology and Hydrogeology Chapter. The EIAR should assess all potential risks from a changing climate including but not limited to severe weather events such as floods, windstorms and dry spells (which may include the risk of forest fires).* *The EIAR should further assess the potential health gains the proposed development offers. For example, does the development intend to create recreational space for the local population providing health and well-being benefits? Will the development enable locals and staff to engage in active travel thereby impacting positively on cardiovascular health?* ***Land, Soils and Geology*** *The scoping report refers to an assessment of land, soils and geology and within that, reference is made to the consideration of ground stability issues.* *A detailed assessment of the current ground stability of the site for the proposed wind farm and all proposed mitigation measures should be detailed in the EIAR. The assessment should include:* *the impact construction work may have on the future stability of ground conditions, taking into consideration extreme weather events, site drainage and the potential for soil erosion.* *Information should be provided on the make and model of the turbines and on construction details for the turbine foundations, including the depth and volume of concrete required. An accurate assessment of the potential impacts of the foundations on water quality and peat stability cannot be undertaken without this information.* *Reference is made to a peat slide which occurred near Ballybofey in Co. Donegal on November 13th, 2020, which may have been linked to construction activity at Meenbog Wind Farm. Potential impacts on water supply associated*		

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	with contamination following a peat slide include sedimentation and alteration of pH levels. *The Environmental Health Service recommends that a detailed Peat Stability/Geotechnical Assessment should be undertaken to assess the suitability of the soil for the proposed development. The EIAR should include provision for a peat stability monitoring programme to identify early signs of potential bog slides ('pre-failure indicators' see the Scottish Government's 'Peat Landslide Hazard and Risk Assessments: Best Practice Guide for Proposed Electricity Developments 2017)* *https://www.gov.scot/binaries/content/documents/govscot/publications/advice-and-guidance/2017/04/peat-landslide-hazard-risk-assessments-best-practice-guide-proposed-electricity/documents/00517176-pdf/00517176-pdf/govscot%3Adocument/00517176.pdf* ***Hydrology and Hydrogeology*** *This section of the scoping report assesses the potential for significant effects on surface water and groundwater, the potential risk of flooding and drainage requirements as a result of the development (pg. 61 of the Scoping Report).* *The scoping report indicates that surface waters on the site are ultimately used for drinking water purposes. The scoping report states that the site is not located within a groundwater public supply source of drinking water.* *The Environmental Health Service recommends that the EIAR assess the potential impact of the development on surface and ground water quantity and quality. In the context of climate change dry spells/drought should be included as an extreme weather event that contributes to potential vulnerability. Linking to this aspect of adaptation in climate action the EIAR should assess the potential effect of dry spells on the availability of water for drinking water purposes and adapt, through for example, harvesting of rainwater. In the context of flood risk the assessment should examine historical data on flooding events but also model the level of potential flooding events in the context of a climate in Ireland that is warming and potentially wetter including periods of extreme precipitation.* *The EHS recommends particular attention is paid to the Battery Energy Storage System (BESS) and put forward mitigation measures that minimise the potential of soil and water pollution.* *A Construction Environmental Management Plan (CEMP) should detail actions to be taken that will mitigate the potential impact on surface and ground waters*		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	during the construction phase and decommissioning phase of the proposed development. ***Noise & Vibration*** *The scoping report indicates that all noise sensitive receptors within 2km of the nearest turbine will be assessed for potential impact. The focus here is on operational noise with noise during construction and decommissioning being regarded as temporary and unlikely to result in significant effects given the distance to nearest receptors.* *The potential impacts for noise and vibration from all phases of the proposed development on all noise sensitive locations must be clearly identified in the EIAR. The EIAR must also consider the appropriateness and effectiveness of all proposed mitigation measures to minimise noise and vibration. A Construction Environmental Management Plan (CEMP) detailing mitigation measures to limit effect on noise sensitive receptors should be included in the EIAR and include mitigation along haul routes.* ***Shadow Flicker*** *The scoping report defines the study area of shadow flicker as all houses with 10 rotor diameters of a turbine (1,600m with a rotor diameter of 160m), but expanded out to cover a distance of 2km.* *It is recommended that a shadow flicker assessment is undertaken to identify any houses/dwellings and sensitive receptors which may be impacted by shadow flicker. The assessment must include all proposed mitigation measures. Dwellings should include all occupied properties and any existing or proposed properties for which planning consent has been granted for construction or refurbishment.* *It is recommended that turbine selection will be based on the most advanced available technology that permits shut down during times when residents are exposed to shadow flicker. As a result, no dwelling should be exposed to shadow flicker.* ***Ancillary Facilities*** *The EIAR should include details of the on-site infrastructure covering items such as site office, fuel storage depot, sanitary accommodation and canteen, First Aid facilities, disposal of wastewater and the provision of a potable water supply.*		

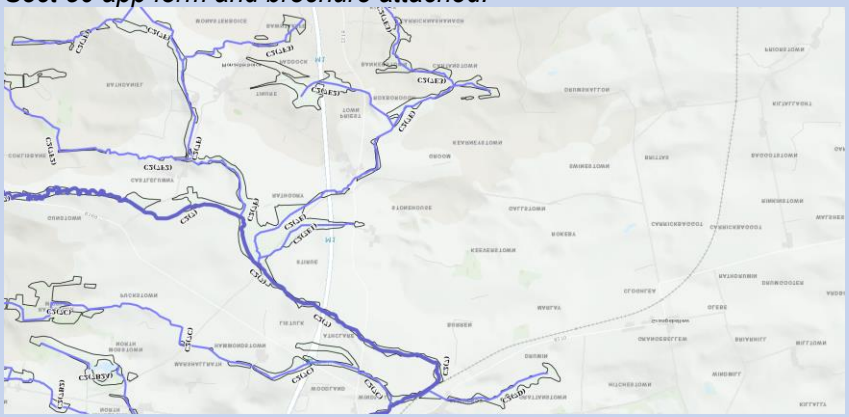
Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Cumulative Impacts *All existing or proposed wind farm developments in the vicinity should be clearly identified in the EIAR.* *The impact on sensitive receptors of the proposed development combined with any other wind farm developments in the vicinity should be considered. The EIAR should include a detailed assessment of any likely significant cumulative impacts of the proposed renewable energy development.*		
Environmental Protection Agency	No response received.	na	na
Department of Agriculture, Food and the Marine	No response received.	na	na
Irish Water	No response received.	na	na
The Local Authority Waters	No response received.	na	na
Department of Transport	Scoping response received 5th May 2022 *The Department of Transport have no observations to make at this point in time.*	No	na
Department of Defence	Scoping response received 23rd August 2023 *Based on the information supplied and having consulted with our Air Corps colleagues, The Department of Defence would like to make the following observations:* *The Minister for Defence is responsible for the regulation of military aviation, whereas the Irish Aviation Authority (IAA) is responsible for the safety regulation of civil aviation including aerodromes. The IAA does not have remit for military aviation or installations. Safeguarding of military flight operations and installations is intended to protect both current and future aircraft operations and to take account of the security requirements associated with some of those operations.* *The Department of Defence opposes the erection of wind farms or other obstacles which will affect the ability of the Irish Air Corps to train and operate in a safe and economic manner. Based on the information provided by Jennings O'Donovan, the proposed windfarm lies within 3NM of the M1/N1 identified as a critical route which could affect Air Corps' ability to access regional areas.*	All items considered during the design process.	Items raised have been addressed within Chapter 14 Material Assets

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	If this proposed development was to go to the planning stage, the Department of Defence would be obligated to raise the above concern and advise the planning authorities accordingly. *Any IAC requirements including obstacle lighting are separate to Irish Aviation Authority (IAA) requirements.*		
Forest Service (DAFM)	No response received.	na	na
Coillte	No response received.	na	na
Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media	Scoping response received 28th July 2023 *Planning matters in general fall within the remit of the Department of Housing, Local Government and Heritage. Please note that following the coming into force of the Planning and Development, Heritage and Broadcasting (Amendment) Act 2021 (Act 11 of 2021) all Heritage functions previously held by the Department of Culture, Heritage and the Gaeltacht are now held by that Department.* *The* ***Development Applications Unit*** *may be contacted at Manager.DAU@housing.gov.ie (copied above).* ***Gaeltacht Areas*** *The Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media is a notice party under section 28(1) of the Planning and Development Regulations 2001 in relation to any planning application in an area where the proposed development could – in the view of the local Planning Authority – have a material impact on the linguistic and cultural heritage of the Gaeltacht, including the promotion of Irish as the community language. Such developments must be brought to the attention of the Department. Relevant documentation in relation to such planning applications should be submitted to pleanailteanga@tcagsm.gov.ie (copied above).*	No	na
Údarás na Gaeltachta	No response received.	na	na
The Arts Council	No response received.	na	na
Transport Infrastructure Ireland (TII)	Scoping response received 28th August 2023 *Transport Infrastructure Ireland (TII) wishes to advise that it is not in a position to engage directly with planning applicants concerning proposed developments. TII will endeavour to consider and respond to planning*	All items considered during the design process.	Items raised have been addressed within Chapter 16 Traffic and Transport.

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	applications that are 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 national road policy in the 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 for further information, objections or appeals following the examination of any valid planning application referred.* *Concerning 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 about locations of existing and future national road schemes,* *TII would be specifically concerned with the potential significant impacts the development would have on the national road network (and junctions with national roads) in the proximity of the proposed development,* *The developer should assess the visual impacts of existing national roads,* *The developer should have regard to any Environmental Impact Statement and all conditions and/or modifications imposed by An Bord Pleanála regarding road schemes in the area. The developer should in particular have regard for any potential cumulative impacts,* *The developer, in conducting an Environmental Impact Assessment, should have regard to TII publications (formerly DMRB and the manual of contract documents for road works),* *The developer, in conducting an Environmental Impact Assessment, 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, 2006),* *The EIAR should consider the Environmental Noise Regulations 2006 (SI 140 of 2006) and, in particular, how the development will affect future action plans*		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	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., National Roads Authority, 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 concerning impacts on the national road network and junctions of lower category roads with 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 Section2.2 of the NRA/TII TTA Guidelines which addresses requirements for sub-threshold TTA,* *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,* *In relation to haul route identification, the applicant/developer should clearly identify the haul routes proposed and fully assess the network to be traversed. Separate structure approvals/permits and other licences may be required in connection with the proposed haul route, including where temporary modification to the road network may be required. Consultation with relevant PPP companies and MMaRC contractors may also be required. All structures on the haul route should be checked by the applicant/developer to confirm their capacity to accommodate any abnormal load proposed, including abnormal weight load,* *In relation to cabling and potential connection routing, the scheme promoter should note locations of existing and future national road schemes and develop proposals to safeguard proposed road schemes. In the context of existing national roads, alternatives to the provision of cabling along the national road network, such as alternative routing or the laying of cabling in private lands, should be considered in the interests of safeguarding the investment in and the potential for future upgrade works to the national road network. The cable routing should avoid all impacts to existing TII infrastructure such as traffic counters, weather stations, etc. and works required to such infrastructure shall*		

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	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 and motorway 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.*		
OPW	Scoping response received 29th August 2023 *The proposed site is located in lands that benefit from the Glyde & Dee Drainage District. There may be a risk of flooding at this location. The Local Authority and the developers should satisfy themselves that there is adequate level of protection against flooding at this location.* *Please see the attached Drainage Map and Past Flood Event Local Area Summary Report relevant to this application.* *Drainage Map* *Blue: Arterial Drainage Channels* *Green: Arterial Drainage - Benefiting Land* *Black: Extent of benefited lands* *Past Flood Event Local Area Summary Report:* *This report details all flood events within 2.5 kilometres of the map centre.* *Benefiting land:* *The definition of Benefiting land is: A dataset prepared by the Office of Public Works identifying land that might benefit from the Drainage District Channels and indicating areas of land subject to flooding or poor drainage.* *Maintainable channels.* *The channels in question are OPW maintainable channels; it is required that a 10-metre wide strip be retained adjacent to the channels to permit access to OPW for maintenance. Ideally, the strip should not be fenced, paved or landscaped in a manner that would prevent access by OPW maintenance plant.*	All items considered during the design process.	Items raised have been addressed within Chapter 11 Hydrology and Hydrogeology.

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	Further to this, please also note, that for the Construction, Replacement or Alteration of any Bridge or Culvert over any Channel which appears on a 6-inch to 1-mile map, Prior Section 50 consent must by sought under Section 50 of the Arterial Drainage Act 1945. *Please see link in relation to Section 50 Applications: https://www.gov.ie/en/policy-information/292d9-section-50-consents-consent-requirements-constructionalteration-of-watercourse-infrastructure/* *When making a decision regarding the above application your office should refer to the "Planning System and Flood Risk Management Guidelines for Planning Authorities November 2009"* Additional response received 18th January 2024 *My main concern is that the proposed development may be adjacent to OPW maintainable channels see below.* *Also any bridge/culverts will require Section 50 consent from the OPW in advance.* *Polygon areas indicate benefitting lands, areas at flood risk.* *Sect 50 app form and brochure attached.* 		
Department of Housing, Local Government and Heritage	Scoping response received 22nd February 2024	All items considered	Items raised have been addressed within Chapter 15 Cultural Heritage

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	It is noted that the proposed development is large in scale and located within the proximity of a number of Recorded Monuments, which are subject to statutory protection in the Record of Monuments and Places, *established under section 12 of the National Monuments (Amendment) Act 1994.* *Given the extent and location of the proposed development it could also impact on previously unrecorded subsurface archaeological remains.* *In line with national policy, see Section 3.6 of Framework and Principles for the Protection of the Archaeological Heritage 1999, the Department recommends that an Archaeological Impact Assessment (AIA) be carried out that includes the results of an archaeological geophysical survey and archaeological test excavations, as described below, this should be prepared to assess the impact on the archaeological heritage. This assessment should be submitted with any future planning application. This will enable the Planning Authority and this office to prepare an informed archaeological recommendation before a planning decision is taken.* *Archaeological Impact Assessment;* *1. The applicant is required to engage the services of a suitably qualified archaeologist to carry out an archaeological impact assessment (AIA) of the development site, in relation any Recorded Monument. No subsurface work should be undertaken until an archaeological assessment has been completed and commented on by this office.* *2. The archaeologist should carry out any relevant documentary research and inspect the development site. This assessment shall also define a buffer area or area contiguous with the any recorded monuments which will preserve the setting and visual amenity of the site. No sub-surface work should be undertaken in the absence of the archaeologist without his/her express consent including ground investigations works.* *3. A geophysical survey and a programme of test excavations should be carried out at locations chosen by the archaeologist (licensed under the National Monuments Acts 1930-2004), having consulted the site drawings and the National Monuments Service of this Department. The results of which should be included within the archaeological impact assessment (AIA)* *4. Having completed the work, the archaeologist should submit a written report*	during the design process.	

Consultee Organisation	Response Received	Implications for the EIA/Design	EIAR Chapter/Section where comments have been addressed
	stating their recommendations to the National Monuments Service. Where archaeological material/features are shown to be present, preservation in situ, preservation by record (excavation) or monitoring may be required. *Reason: To ensure the continued preservation (either in situ or by record) of places, caves, sites, features or other objects of archaeological interest.*		

1.13 AVAILABILITY OF INFORMATION

A copy of the EIAR may be viewed online on the Louth County Council planning portal website.

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

1. The Offices of Louth County Council, County Hall, Millennium Centre, Dundalk.
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.

Please note that the updated EIAR submitted on the 6th August 2025 is available as an online copy on the planning portal.

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

1.14 GLOSSARY OF COMMON ACRONYMS

The common acronyms used throughout this EIAR are contained in Volume IV: **Appendix 1.3**.